# Advantage Online Shopping (AOS) User Guide

**December 2020**


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# Table of Contents

**Before You Begin ..... 5**
Who is the Target Audience? ..... 5
What is the Purpose of the User Guide? ..... 5
How is the User Guide Organized? ..... 5
**Section 1. AOS Architecture and Environments ..... 6**
What is AOS? ..... 6
How does it work? ..... 6
AOS Architecture Diagram ..... 7
What are the different environments? ..... 9
Public Environments ..... 9
What are the different on premise environments? ..... 9
What is the DevOps Story? ..... 9
**Section 2. AOS Front End: Web, Mobile, Local ..... 11**
Products ..... 11
Search ..... 13
Cart (Order and Payment) ..... 13
Account ..... 16
Contact Us ..... 17
Help ..... 17
Special Features on the Mobile App ..... 19
Camera ..... 21
GPS ..... 22
Fingerprint authentication ..... 22
**Section 3. AOS Back End Details and APIs ..... 23**
Services ..... 23
Flexibility ..... 23
Database ..... 24
Back-end Configuration ..... 24
APIs ..... 24
REST APIs ..... 24
SOAP APIs ..... 24
**Section 4. AOS Management Console ..... 25**
What problems does it solve? ..... 25
Products ..... 29
Edit an existing product ..... 29
Add a product ..... 30
Remove a product ..... 33
Special Offers ..... 33
Popular Items ..... 33
Configuration ..... 34
How to Use Configuration Values ..... 35
How to Use Tips ..... 35


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Configuration Item Details ....36
Global Buttons ....53
Users Management ....54
Add a new user ....55
Reset password ....55
Remove an existing user ....55
**Section 5. How to Get AOS ....56**
Access the Public versions ....56
Download the Mobile app (iOS or Android native app) ....57
Install the Local Windows version ....58
Install the Containerized Version of AOS from GitHub ....61
Install the AOS Nimbus Server Version ....63
Download the Management Console ....64
Access the APIs ....65
**Section 6. Troubleshooting & FAQs ....66**
Installation ....66
Running the AOS Demo App (Windows) ....66
Running the AOS Management Console ....66


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# Before You Begin

Before you start reading this *User Guide* or using Advantage Online Shopping (AOS), it is a good idea to read this short section to discover who this document is for and how it is organized

## Who is the Target Audience?

This *User Guide* is primarily for a presales reps who perform Micro Focus product demonstrations. It can also be used by Technical Enablement Specialists who use AOS for enablement.

## What is the Purpose of the User Guide?

Many ADM presales reps are already familiar with AOS, but we need presales in other business units to become aware of its existence.

This *User Guide* shows presales reps from all business units (ADM, EPS, ITOM, etc.) what AOS is, how to install it, and how to use AOS to demonstrate the Micro Focus products they sell.

The *User Guide* is written in plain English to ensure it is easy to read and understand.

## How is the User Guide Organized?

This *User Guide* is organized by section, where each section covers an aspect of AOS that presales reps need to understand:

1. **Architecture and Environments:** Provides an overview of the architecture and identifies the different AOS environments.
2. **AOS Front-End UI:** Describes the user interface and main features for local, public, and mobile app versions.
3. **AOS Back-End Details and APIs:** Describes the components of the back end and the available APIs.
4. **Management Console:** Describes the benefits of the AOS Management Console, its features, and how to use it.
5. **How to Get AOS:** Provides step-by-step instructions getting different versions of AOS.
6. **Troubleshooting & FAQs:** Provides assistance with issues that might arise while using AOS. Also lists frequently asked questions … and their answers!

**NOTE:** Details related to the use of individual Micro Focus products is beyond the scope of this document. That information is found in the Level 300 through Level 380 Training Curriculum.


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# Section 1. AOS Architecture and Environments

This section introduces you to AOS, describes its architecture, and explains its environments.

## What is AOS?

AOS stands for Advanced Online Shopping. It is a fully functional e-commerce platform, from front to back, that provides a one-stop shop for showcasing Micro Focus solutions, such as ADM, ITOM, and Security.

## How does it work?

Whenever you demo an app, it's essential to keep your environment as similar as possible to the customer's environment. With this goal in mind, we designed AOS to support the most common technologies that our Micro Focus customers are using: Android, angular, AWS services, iOS, Java, PostgreSQL, Java, .NET, React, and more.

**There are a variety of ways to access AOS:**

- From your browser as a website. The public production site is: www.advantageonlineshopping.com
- On your own machine as a local Windows application requiring no Internet connection
- As a mobile app (iOS and Android) on your mobile device.
- As a Docker application. You can easily install and configure it on Windows.
- Without any UI by using APIs.

Additionally, AOS has its own stand-alone Management Console that lets you make changes to the contents and behavior of AOS.

Next, we will look at a diagram showing the AOS architecture.


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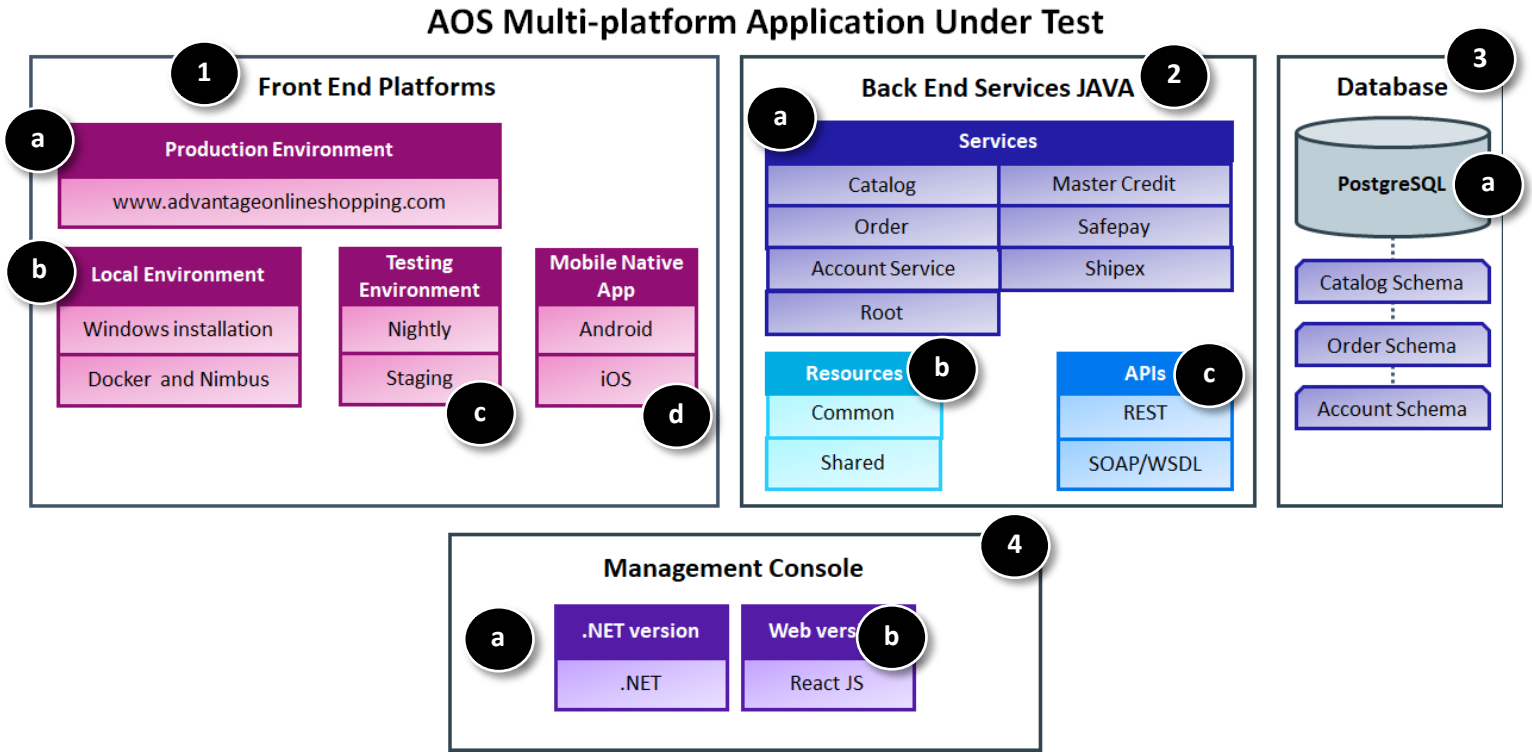
# AOS Architecture Diagram

Here is look at how the APS components fit together.




1. **Front-End Platforms**
   The front end lets you interact with a UI that acts like an e-commerce site so you can find products, put them in a shopping cart, specify quantity, fill out billing and shipping details, and enter payment information. The front end also lets you create an account and manage their orders.
   a. **Production environment.** Let's you run AOS from the browser.
   b. **Local environment.** Let's you run an instance of AOS on your own machine.
   c. **Testing environment:** Lets you run AOS from the browser by using an environment that is not production-quality, but is good for testing.
   d. **Mobile Native App:** Lets you run AOS on your mobile device (Android or iOS).
   **NOTE:** AOS in the production, local, and testing environment is written in Angular JS. The AOS Mobile Native app is written in Kotlin and Objective C.

2. **Back-End Services JAVA**
   a. **Services.** There are 7 services that act as requests for information:
      - **Catalog:** Defines all the AOS computer products and their attributes: colors, prices, sizes, types (speakers, tablets, laptops, mice, headphones). The Catalog also contains the demo app configuration parameters that enable the team to make changes in the app very easily (to deliberately make problems they can resolve during a demo).
      - **Order management:** Handles everything that happens with the shopping cart and costumers orders – history, add, edit, and delete items.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- **Account Service:** Manages the users, their basic attributes, and how they log into the site. A lot happens with this service, as it is for communication and authentication.
- **MasterCredit:** Mimics payment by credit card when you check out. You can use imaginary 16-digit credit card number, expiration date, and CVS. A request is sent to master-credit service; it performs basic check. The next two services communicate with the database that contains client's previous orders.
- **Safepay:** Mimics PayPal. Allows user to enter any valid user name and password.
- **ShipEx:** Service that returns shipping costs based on address. It is a standalone item. We are working to evolve this and use the latest technology. It opens an API, gets requests from the front end, or programmatically and returns shipping information.
- **Root:** All our front-end schemes, written with angular and java script. In charge of UI, communication from browser to back-end. Basic tasks happen on browser, more advanced happen with requests communicating with back end.

**b. Resources.** These are additional backend resources:

- **Common:** A service with static files that other files use.
- **Shared resources:** Similar to **Common**. These are static configuration files that services use when necessary.

c. **APIs.** These provide a way for users to access AOS features without a UI. We provide two types of APIs:

- REST
- SOAP/WSPL

**NOTE:** For details about the APIs, see: **Section 3. AOS Backend: APIs**

**3. Database**

a. **PostgreSQL database.** This is where catalog, order, and account data is stored.

**4. Management Console**

a. **.NET Management Console.** Allows a user to make changes to the contents and behavior of AOS to better demonstrate or test other Micro Focus tools.

b. **Web Management Console.** Web-based version of the Management Console. It is currently under development.


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# What are the different environments?

We provide both public and on premise environments for AOS.

### Public Environments

These are the three public AOS environments.

- **Production:** This environment has all the functionality of an e-commerce platform where you can search for a product, choose options for the product, add it to your cart, entering billing and shipping information, make a purchase by credit card or SafePay (similar to PayPal), and manage your account. **NOTE:** Of course, with AOS, you never actually pay for the product.

  The production environment is the final released version of the product. It is most stable and secure environment, with regular backups. Presales can depend on this site because everything always works. It is our in-house product and is accessible from a browser via this URL: www.advantageonlineshopping.com. **NOTE:** The Mobile app also uses this environment.

- **Staging:** This environment is typically used for testing. It changes each time developers make a change to AOS. It is not 100 percent stable. You need an IP address to run a script against it.

- **Nightly:** This environment updates itself each night after the staging environment has run. All changes made during the day appear there. This site is on AWS and is mainly a tool for front-end developers. To access this environment, you need an IP address so you can run a script against it. During an Enablement Activity, such as training or a demo, it is better to run the script against this environment, rather than the Production environment. However, we cannot guarantee availability of the Nightly environment.

### What are the different on premise environments?

There are several on premise environments. All of them provide your own local instance of AOS (not on the cloud).

- **Docker:** We provide two Dockerized solutions, each of which has three containers**: AOS main**, **Account service**, and **PostgreSQL**:
  - **All-in one environment:** All three containers run on one host.
  - **Multi-container environment:** Machine cluster where each container runs on a different machine.
- **Windows:** We provide an easy-to-install web application that runs locally on your own machine.

# What is the DevOps Story?

Developers can run scripts against all AOS local and public environments. These multiple environments emphasize the DevOps story we tell our customers – that our tools can be used by developers and operators alike for continuous integration, moving ideas from user stories to production:

**How does the AOS development team use these environments?**

1. Someone opens an AOS user story in Octane regarding a bug or enhancement.
2. The developer performs the necessary task.
3. The developer pushes the updated code to GitHub, the code repository and version manager.
4. Next, the LeanFT or UFT test scripts automatically run. The scripts ensure that functions are not impaired by the new change or enhancement. If the tests pass, the new version is pushed to the staging environment.


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5. Each night, code is pushed to the nightly environment. Micro Focus tools monitor the change or enhancement.
6. When the release is ready, the changed code is pushed to the in Production environment.

*Now let's look at AOS in all its forms!*


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# Section 2. AOS Front End: Web, Mobile, Local

AOS is available on multiple platforms: local (Windows, Docker, and Nimbus), public Web (www.advantageonlineshopping.com), and as a mobile app. Multiple platforms provide flexibility for users.

**IMPORTANT!** In this section, our screenshots are from www.advantageonlineshopping.com. However, the AOS user interface looks very similar on all platforms.

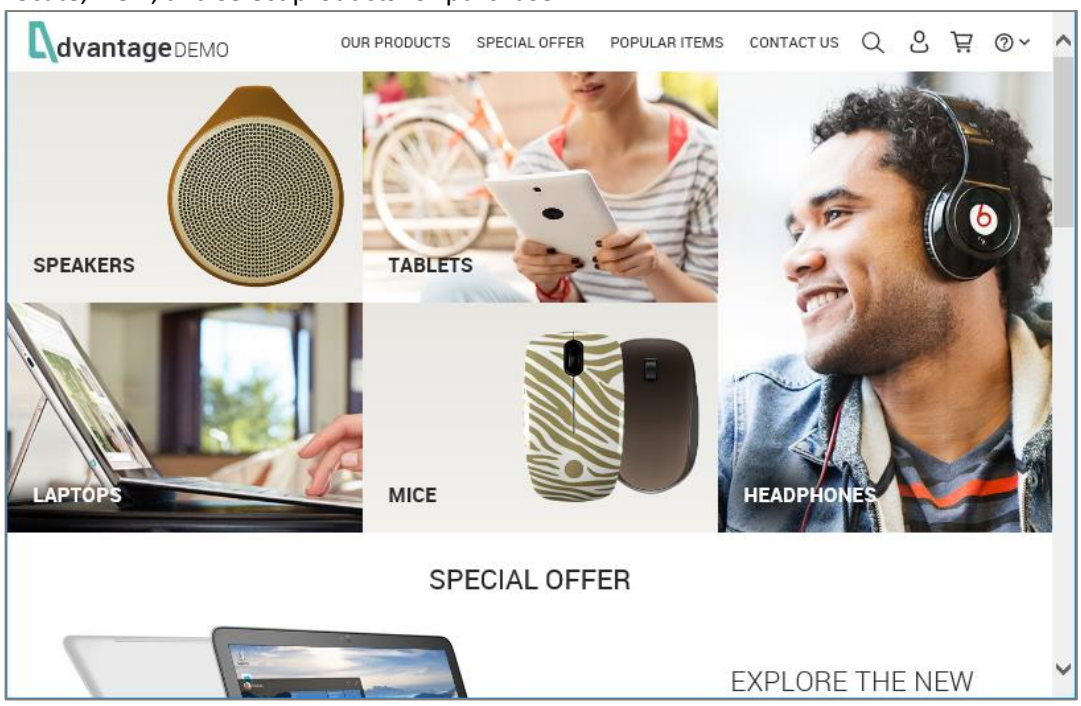
AOS is a SPA (single-page application) consisting of these areas (accessible from the menu at the top of the screen):

- Products
- Search
- Cart
- Account
- Contact Us
- Help (About and Versions)
- Special Offer
- Popular Items

Let's look at the important areas.

## Products

Locate, view, and select products for purchase.




- Products are grouped by categories: Speakers, Tablets, Laptops, and Mice. **NOTE:** You can modify the actual products in AOS using the Management Console. For details, see **Section 4. AOS Management Console**.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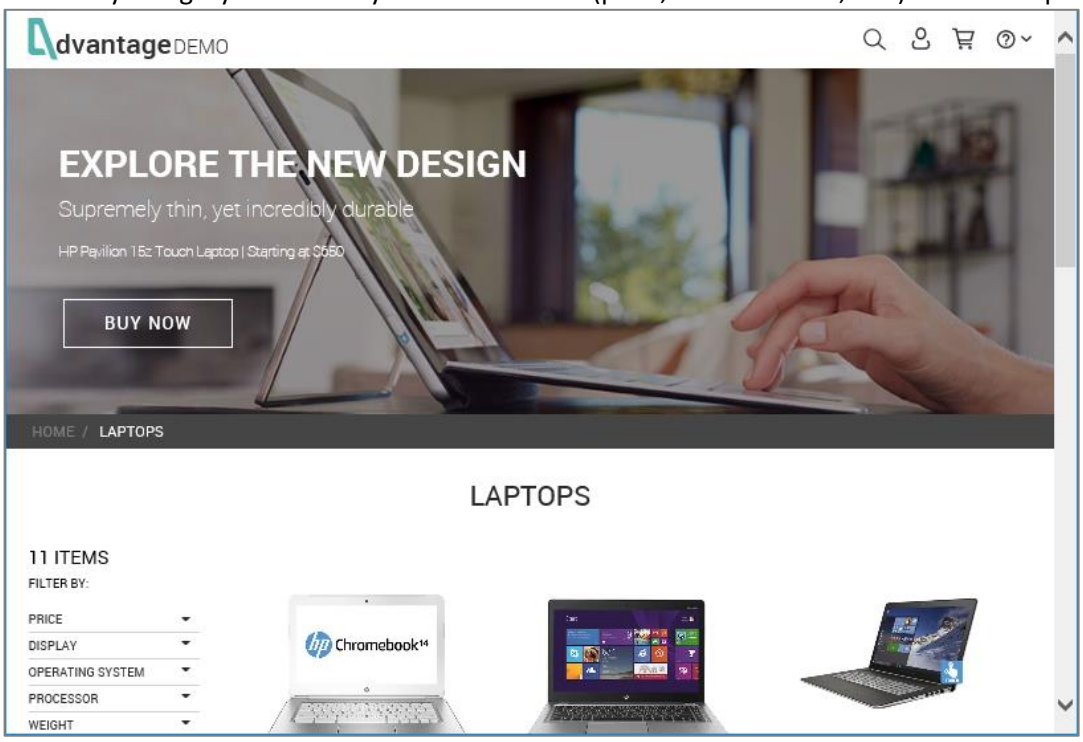
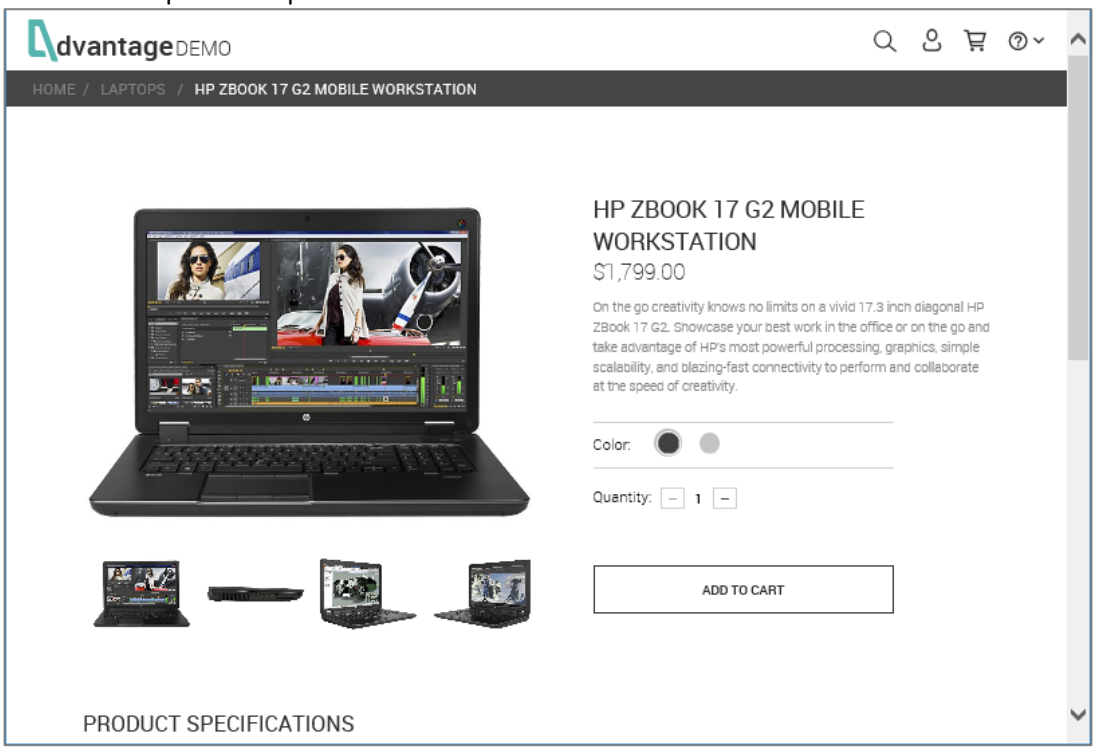
- Select any category and filter by different criteria (price, manufacturer, etc.) to locate a product.




- Find out when a product is sold-out or if there are special offers.
- Select a product, pick its color (or other characteristic), and select a quantity. **NOTE:** With AOS, the quantity ordered for a particular product cannot exceed the number of items in stock.





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## Search

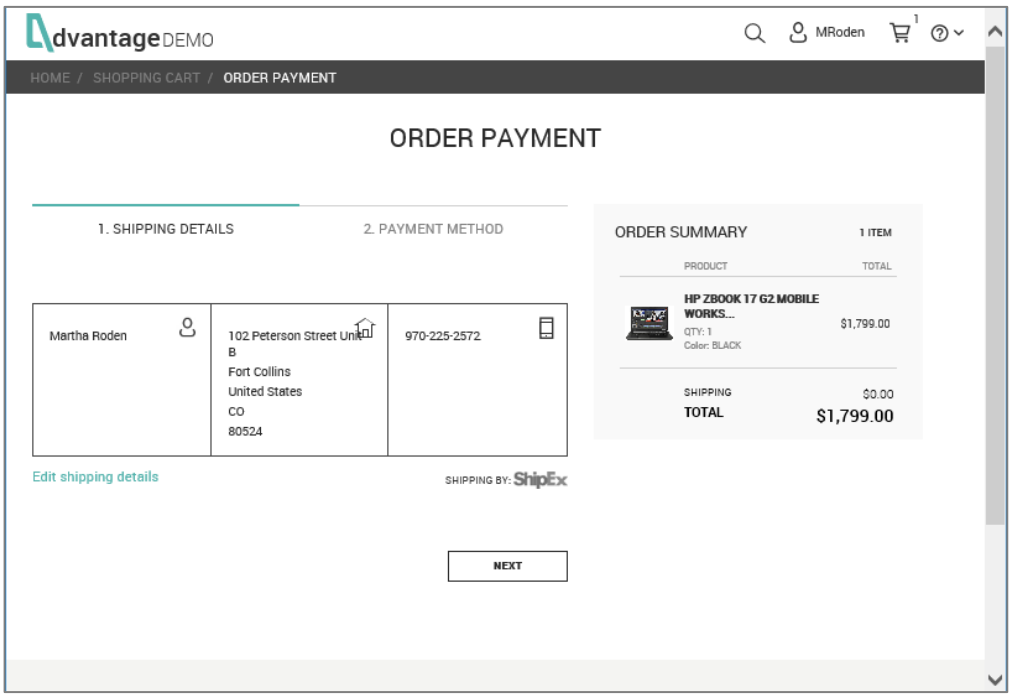
Click the **Search** icon to search for products.

- Enter partial or complete text for searching and then lists all products containing that text.
- Specify the additional search criteria by category.

## Cart (Order and Payment)

This part of AOS allows you to make purchases.

- Click **Add to Cart > Check Out**.





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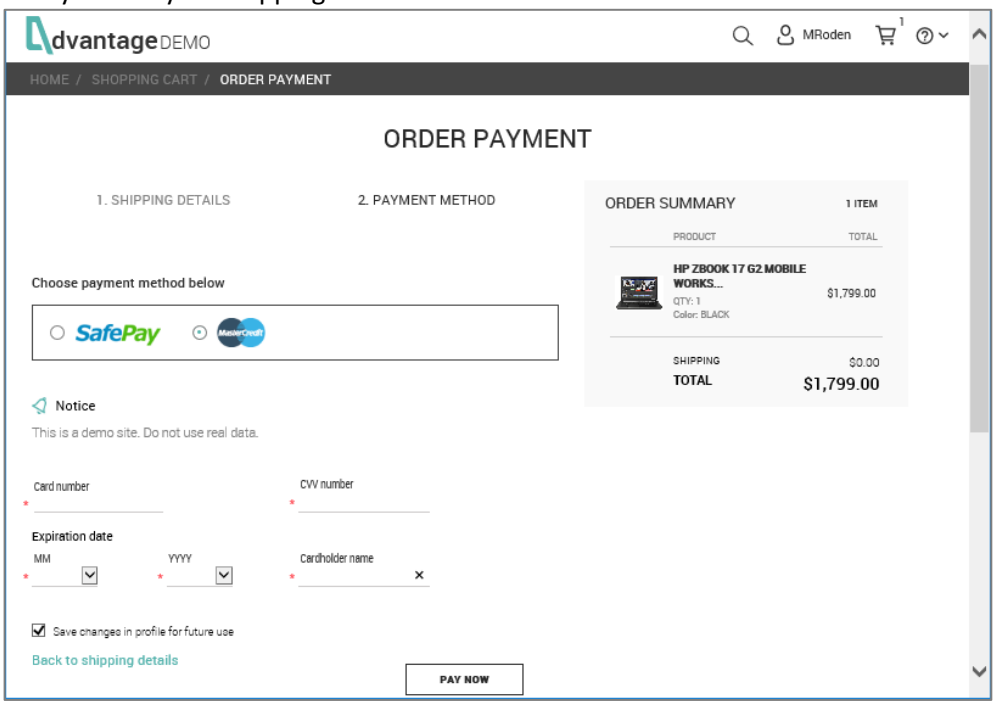
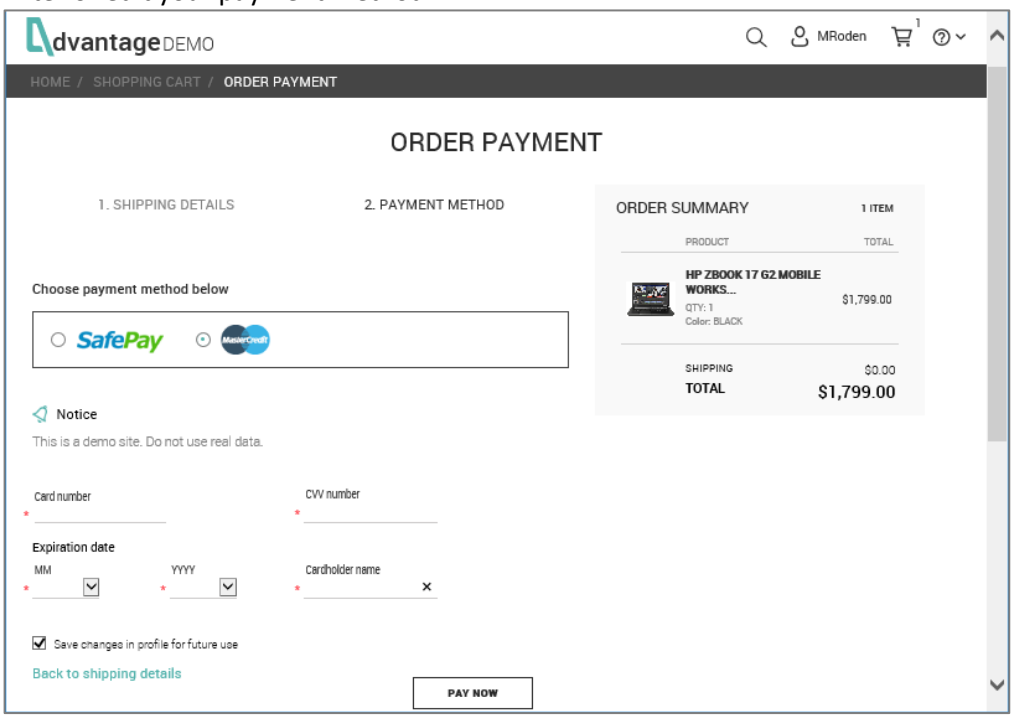
- Verify or edit your shipping details.




- Enter or edit your payment method.




  - **SafePay** (similar to PayPal) – enter any user name or password.
  - **Credit Card** – enter a name, card number (any 12 digits), and security code (any 3 digits).
  - Click **Pay Now** to make the purchase. **NOTE:** Don't worry; you will not actually be billed.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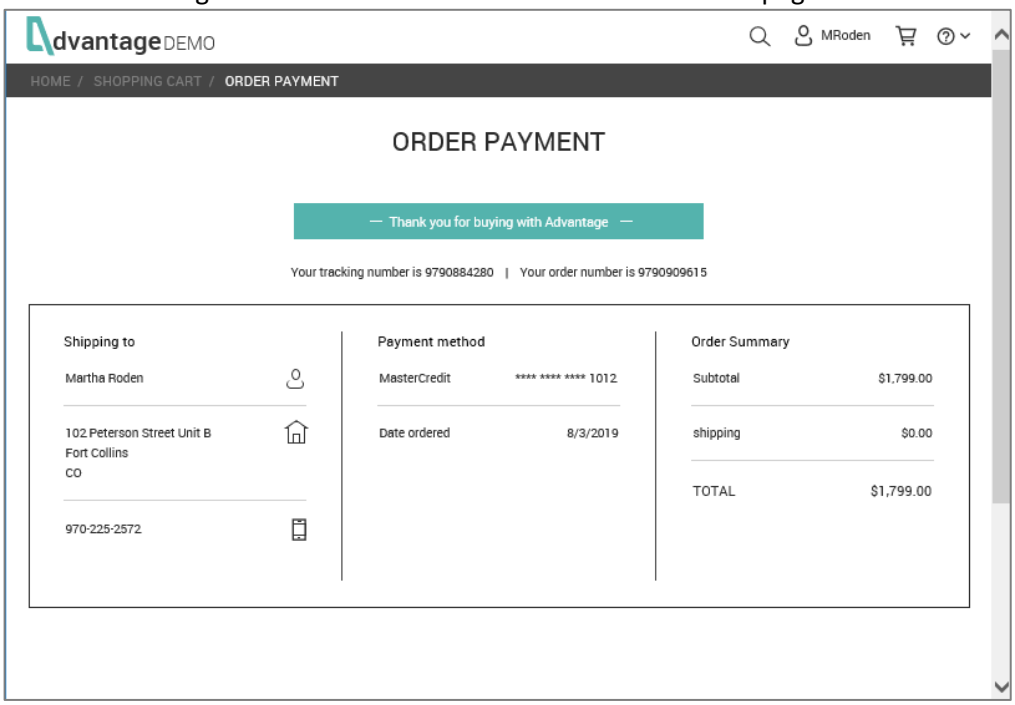
- View the tracking number and order number on the **Thank You** page.





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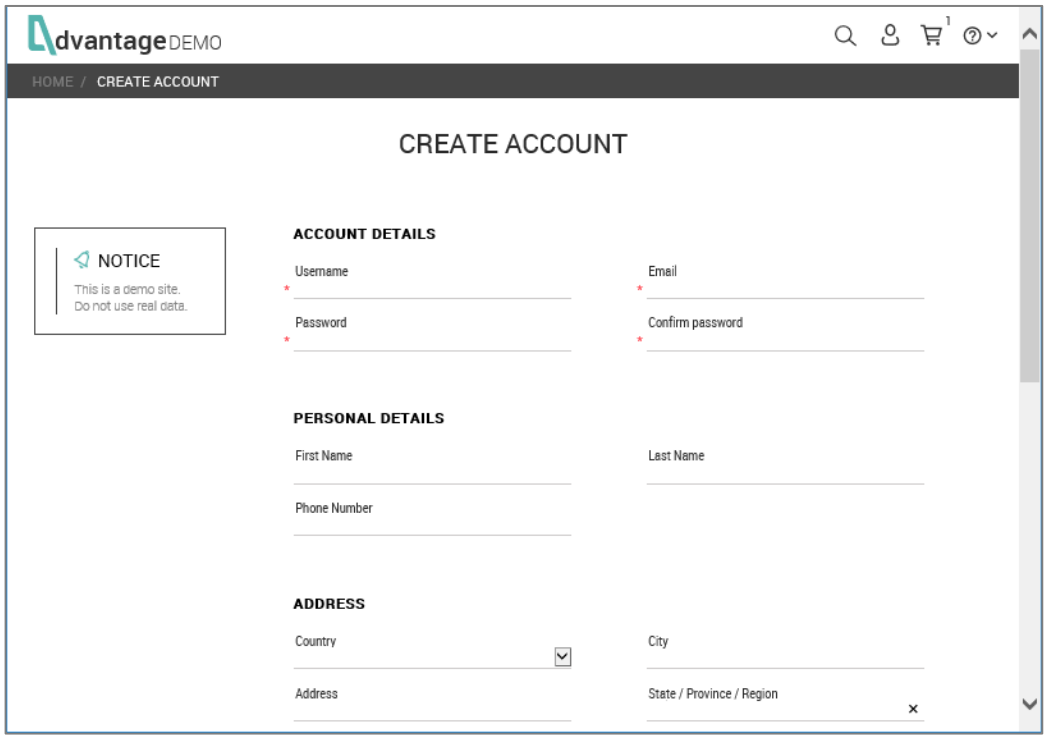
# Account

Click the **Account** icon to manage your accounts.




- Create an account by entering: **Name**, **Address**, **Country**, **Receive special offers**. **NOTE**: If account already exists, create a different one.
- Look at details of the account: shipping, my orders (history of purchases).
- Sign out. **NOTE:** You can also delete your account.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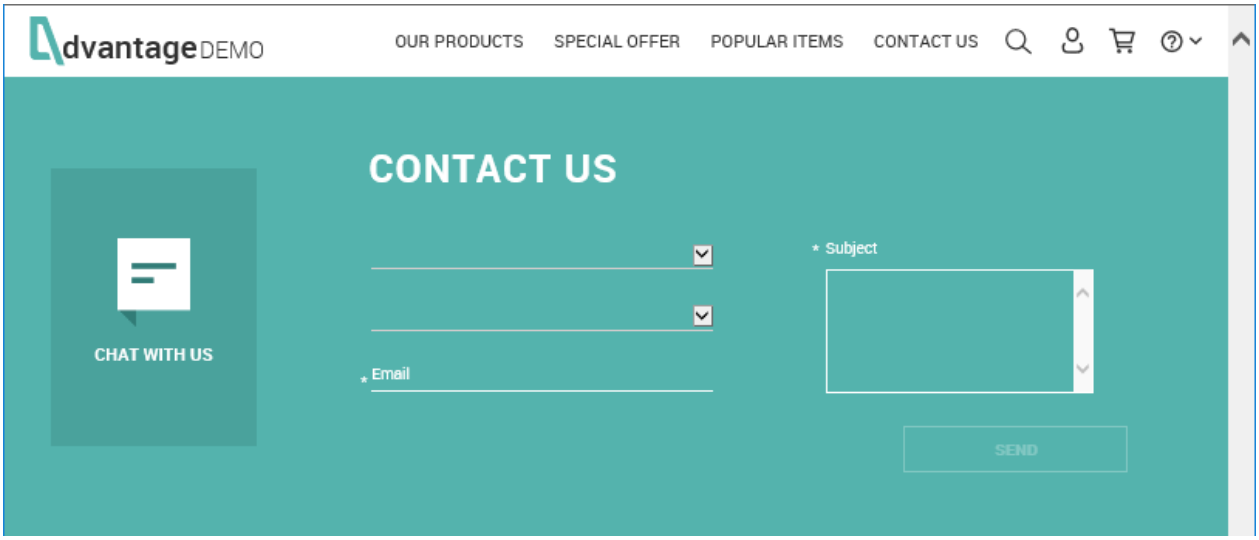
## Contact Us

This page provides a form that some testing tools require for their demos.

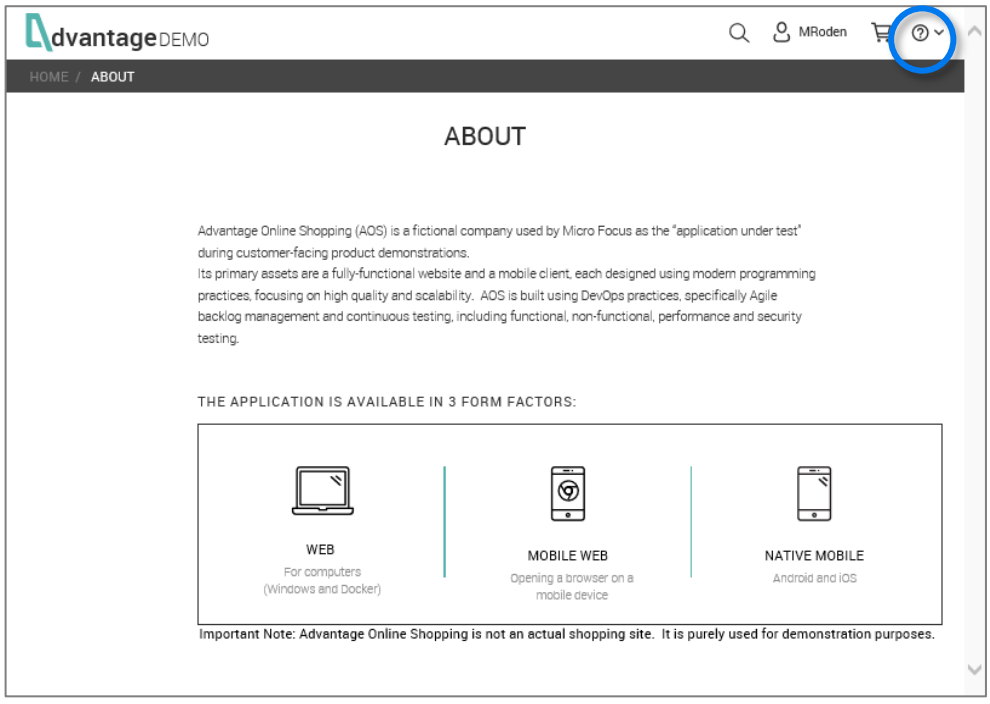



- Once you click **OK**, this message displays: "Thank you for contacting AOS Support."
- No actual email is sent to anyone.

## Help

The Help button provides a small drop-down menu.

**Help > About:** Provides general information about AOS.





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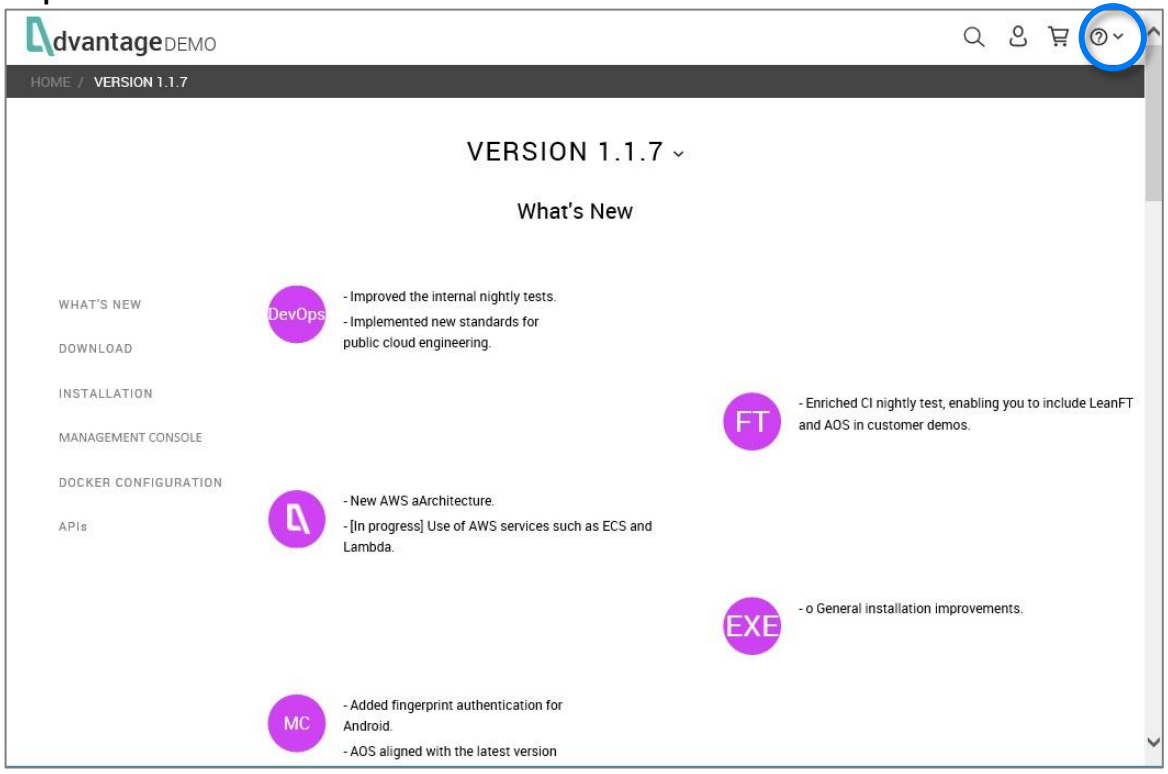
**Help > AOS Versions:** Get AOS software and find out what's new.




We explain how to download or install AOS in **Section 6. How to Get AOS****.**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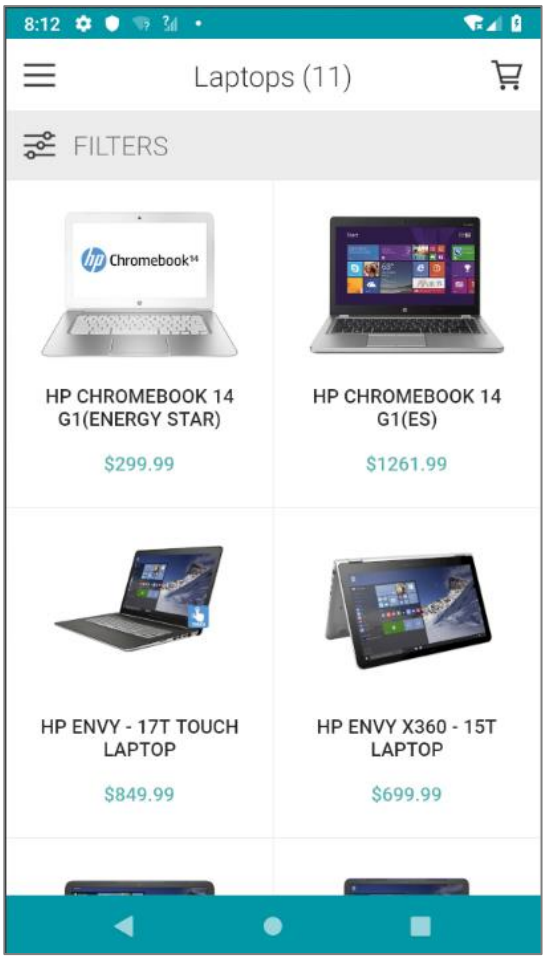
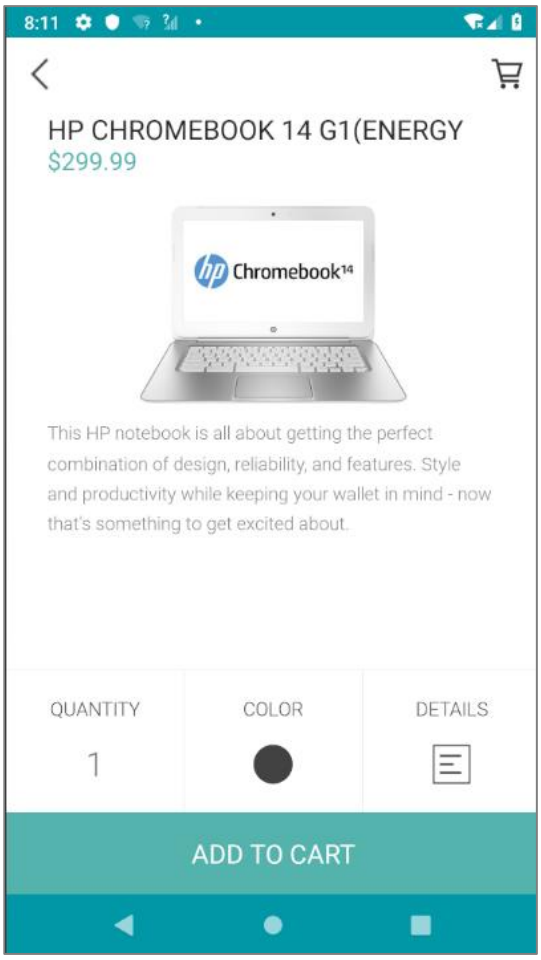
# Special Features on the Mobile App

The AOS Mobile App has ALL the features that are included in the Web and local versions; for example, browse, select, and order products.

Here are some example screenshots so you can see what the Mobile App UI looks like.

| Category page: Laptops | Selected product page: HP Chromebook |
|---|---|
|  |  |





More example screenshots follow.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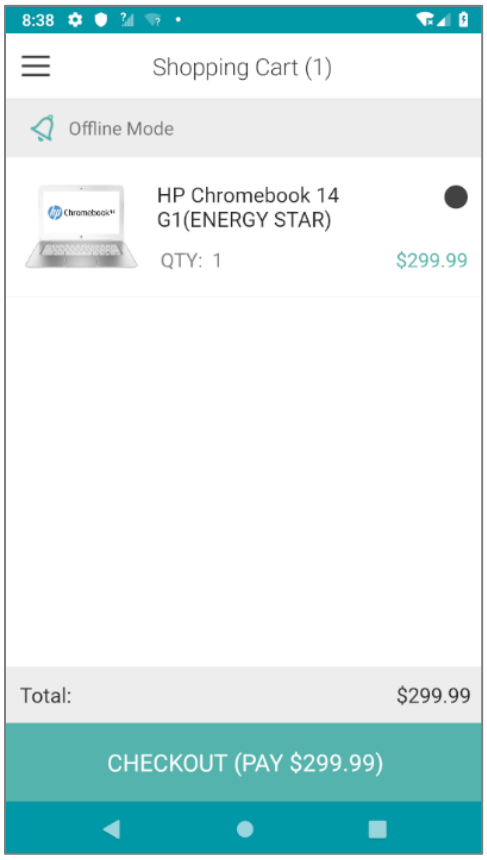
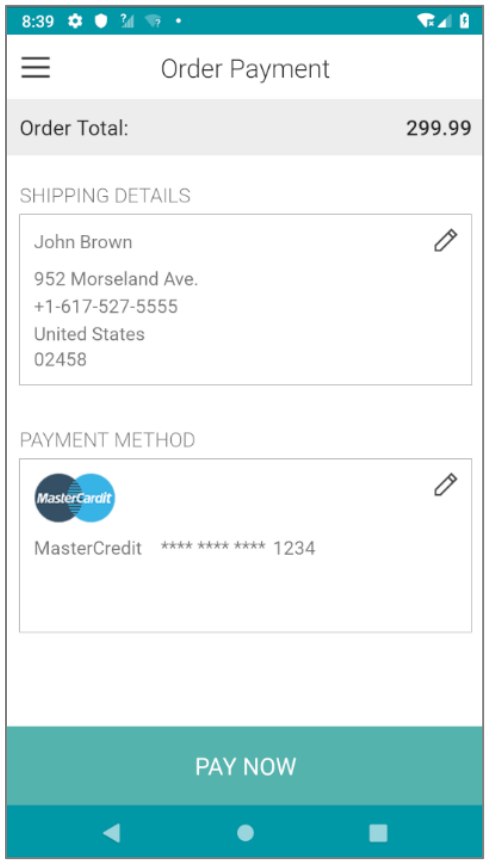
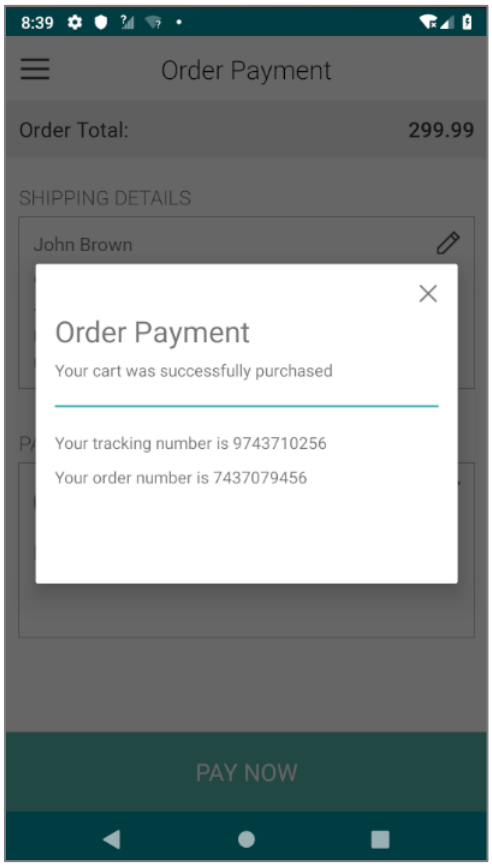
| Order page: Step 1 (Shopping Cart) | Order page: Step 2 (Payment Method) | Order page: Step 3 ( Validation) |
|---|---|---|
|  |  |  |







The Mobile App also has additional features that can be very useful when demoing other Micro Focus products. These features include:

- Camera
- GPS
- Fingerprint authentication

The following pages describe the features.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## Camera

The camera feature lets your take a photo and upload it to any of the products listed in AOS. This is an easy way to add product photos to the AOS catalog. **NOTE:** Make sure you are logged into the AOS Demo App.

**From the AOS Demo App:**

1. Open the AOS Demo App.
1. Login to any user.
2. Go in to any product.
3. Scroll to last image — a picture of a camera.
4. Press the picture and the phone's camera will open.
5. Take a photo and press **OK**.

**NOTE:** If you are logged into a particular server, your photo will be seen by anyone else running AOS on the same server.


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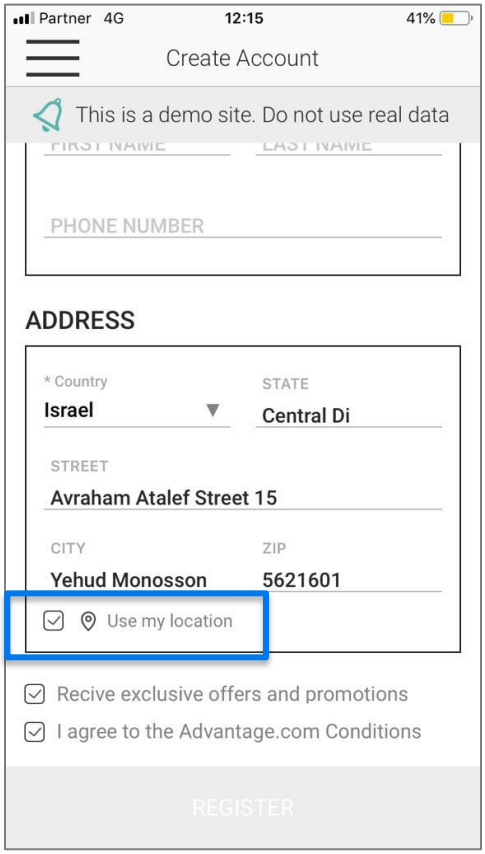
## GPS

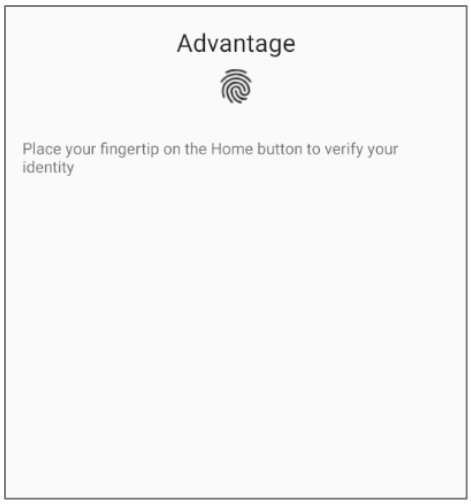
The GPS feature lets you use your current geographical location as your address.




1. Create a user when you register yourself to the AOS app.
2. Select **Use my location** instead of entering your full address. This option uses the GPS feature to extract your current location and fill in the address field.

## Fingerprint authentication

Fingerprint authentication provides an alternative form of logging in to AOS.




1. After you register, you can choose to log in with a finger print.
2. This means you no longer have to enter your name and password when you log in. Just use fingerprint authentication.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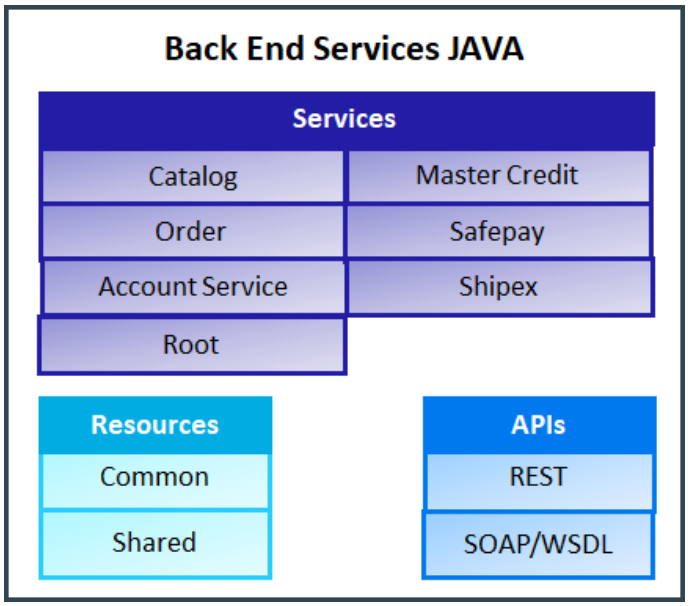
# Section 3. AOS Back End Details and APIs

Each AOS environment (local, staging, nightly, and production), has its own back end that can be configured differently using the AOS Management Console.

- The staging, nightly, and production environments are all on Amazon Web servers.
- Using these environments for testing and debugging helps to isolate problems.

## Services

As you learned earlier, the AOS back end consists of the components shown in this diagram.




The back end is composed of seven standalone services and two resource components. Each of the seven services is a standalone service that can be deployed to a different container.

- Each service has its own properties file used during build time to configure key elements in the service.
- The back end resides *locally* on your own machine or in a Nimbus environment. For details about Nimbus, see: http://www.nimbusproject.org/doc/nimbus/platform/
- The back end uses Java as its runtime environment and was recently updated to Java 11.

## Flexibility

The front end, Android, iOS, and Management Console, can each run with any of the back-end environments. This gives you a lot of flexibility. **NOTE:** Make sure the back-end and front-end versions are the same.

For example you can present Mobile Center working with a test script on Android, where AOS is running with the production environment as its back end. Then you can change to a local back-end environment at runtime and show different Mobile Center abilities.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## Database

Three services communicate with the PostgreSQL database: **accountService**, **catalog**, and **order**. These services can be viewed as the "controller layer" of the MVC (Model-View-Controller) architectural pattern.

The database is composed of three schemes that correspond to the three services communicating with the database: account schema, catalog schema, and order schema. We use PostgreSQL to simulate a large-scale database for our customers.

The database is completely separate and can be deployed to a different container or server.

## Back-end Configuration

The back end can be configured easily using the AOS Management Console. The source code is not public; however, the account service is made public on a GitHub it repository https://github.com/aosapp/account-service where you can see the basic architecture of our services.

AOS is continually developing and growing as we accept requests from all Micro Focus groups for additional adjustments and clarifications. We are happy to oblige whenever possible!

## APIs

We provide REST and SOAP APIs for any developer who wants to send requests to AOS without using the Web interface. The APIs allow you to perform every AOS function programmatically without ever going through the AOS website. Each API is a service, named according to the function it performs.

### REST APIs

- **Catalog:** Catalog controller
- **Order:** Order controller
- **Common-1.1.7-SNAPSHOT:** Master Credit controller
- **SafePay:** Safe Pay controller

### SOAP APIs

- **Account service:** Account controller
- **Shipex:** Shipping controller

**NOTE:** You can access the APIs from local and public environments. The APIs are listed in a well-organized manner in these locations:

- https://www.advantageonlineshopping.com/api/docs/
- http://www.advantageonlineshopping.com/accountservice/accountservice.wsdl
- http://www.advantageonlineshopping.com/ShipEx/shipex.wsdl


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# Section 4. AOS Management Console

The AOS Management Console (also known as the "Management Console") is a desktop application for making changes to the behavior and contents of AOS. Its friendly interface lets you make these changes with only a few clicks. It also lets you create a variety of issues for other Micro Focus tools to discover, which can be very helpful during demos.

**NOTE:** The Management Console is part of the Advantage Online Shopping Application, as well as a stand-alone .NET tool.

## What problems does it solve?

To provide a one-stop-shop to demonstrate all the Micro Focus solutions, the AOS administrator uses the Management Console to make changes to the contents of the system, as well as to create specific problems that can be discovered during demos, such as performance issues, security vulnerabilities, and latencies. These problems can be quite useful when demonstrating Micro Focus tools that discover and address those issues.

The Management Console contains all features that are not related to e-commerce activities, such as:

- **Configuration management**: Impact the behavior of AOS.
- **Documentation:** Manage AOS documentation.
- **Product management:** Add, delete, and modify products (including product photos).
- **User management:** Add, modify, or delete users.

**IMPORTANT!** To keep up with the latest market trends, the Management Console will eventually become part of the Web UI.

**Before You Begin:** Make sure to refer to Section 6. How to Get AOS to learn how to download and install the AOS Demo App and AOS Management Console, as well as how to start up and stop the AOS Services.


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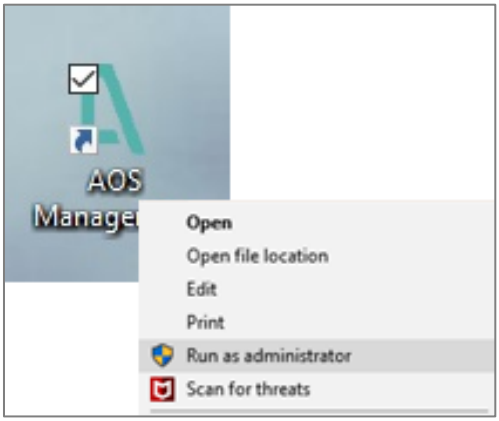
The Management Console comes as a stand-alone .NET app or as part of the Windows Client.

**IMPORTANT!** If you plan to make changes to the local instance of AOS, you must first Start AOS Services; otherwise, you will be unable to impact the local instance of AOS.

- Right-click **Start AOS Services**.
- Select **Run as administrator** to initiate a local Tomcat server and register AOS as a Windows service. This makes the backend and its API and services, available to any requests.

1. To start the Management Console, do ONE of the following:
   - Click the **AOS Management Console (.NET)** shortcut on the Desktop.

   *-OR-*
   - Right-click the **AOS Management Console (.NET)** shortcut on the Desktop and select **Run as admin** from the pop-up menu.





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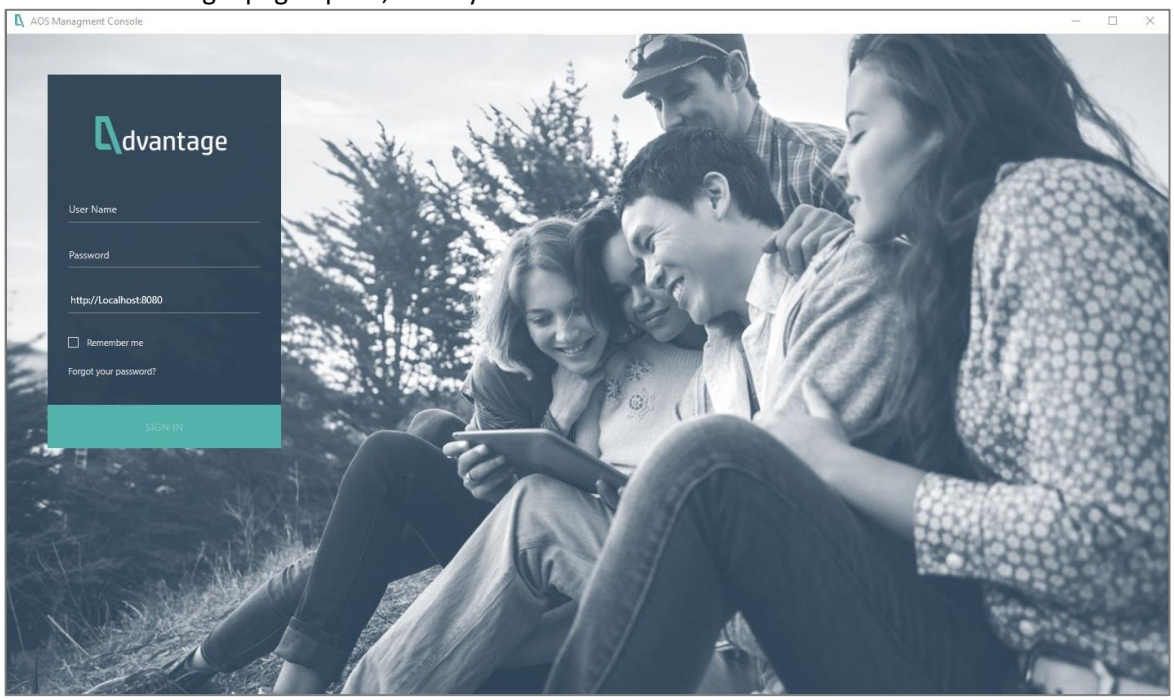
2. When the Login page opens, enter your credentials:




   a. User Name: **admin**
   b. Password: a**dm1n**
   c. Environment. There are four to choose from:
      - **Staging IP:** http://18.212.178.84
        This URL may change. For details, please contact: adm_demo_app_development@microfocus.com
      - **Nightly IP:** http://54.157.232.206
        This URL may change. For details, please contact: adm_demo_app_development@microfocus.com
      - **Production IP:** http://www.advantageonlineshopping.com

        **IMPORTANT!** This environment is very limited; you cannot change anything in it!
      - **Local Environment:** http://localhost:8080
        This is your own computer environment; it is NOT Staging, Nightly, or Production.
        **NOTE:** Before you enter this URL, make sure you already started up the AOS Services. For details, see: **Section 5. How to Get AOS****.**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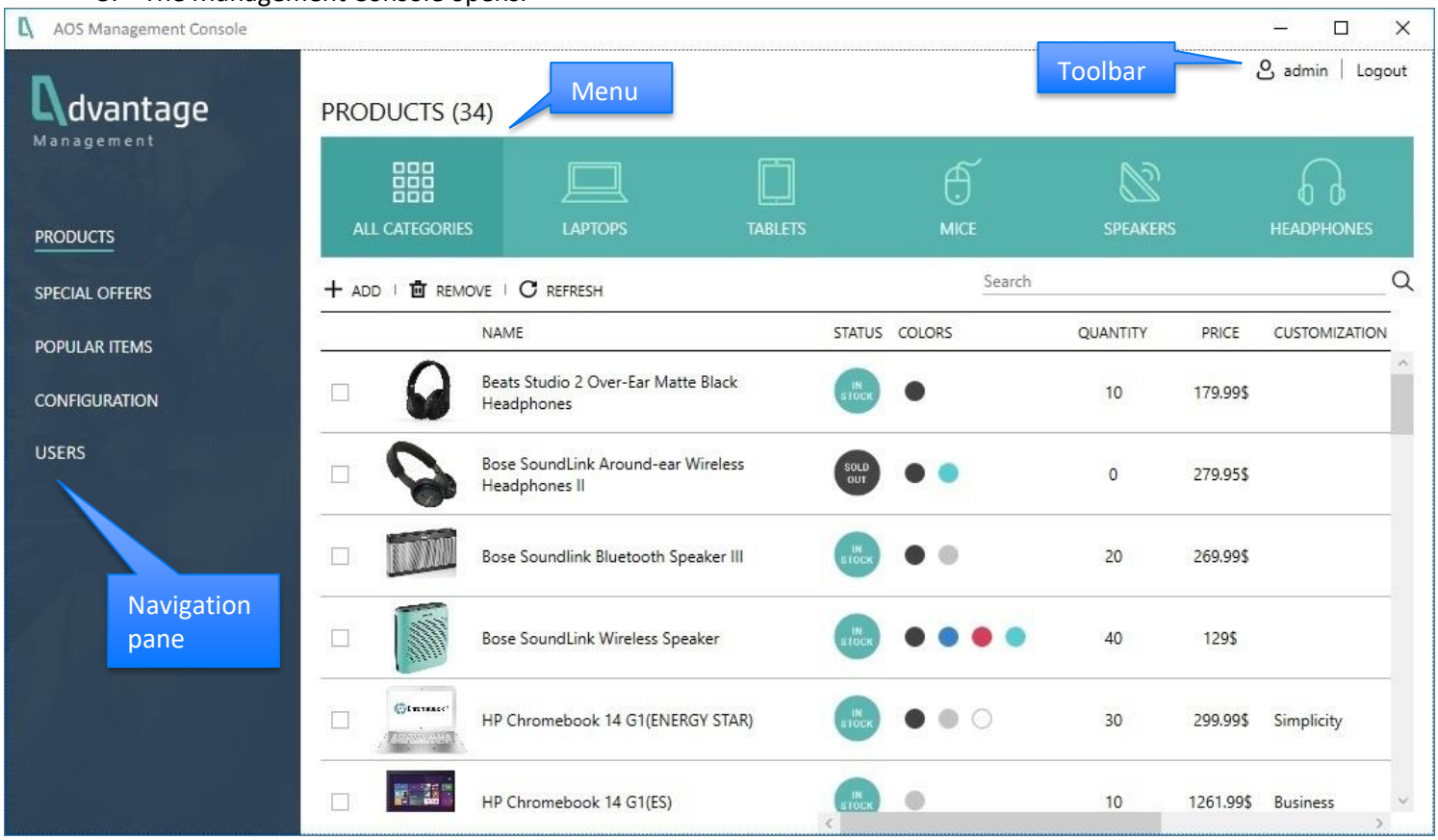
3. The Management Console opens.




By default, you are on the **Products** page.

- The **navigation pane** is on the left.
- The **menu** is across the top. This menu is context-sensitive and changes as you select different items from the navigation pane.

The **toolbar** consists of icons in the upper-right corner that are always available.

*We will now examine the different items on the navigation pane.*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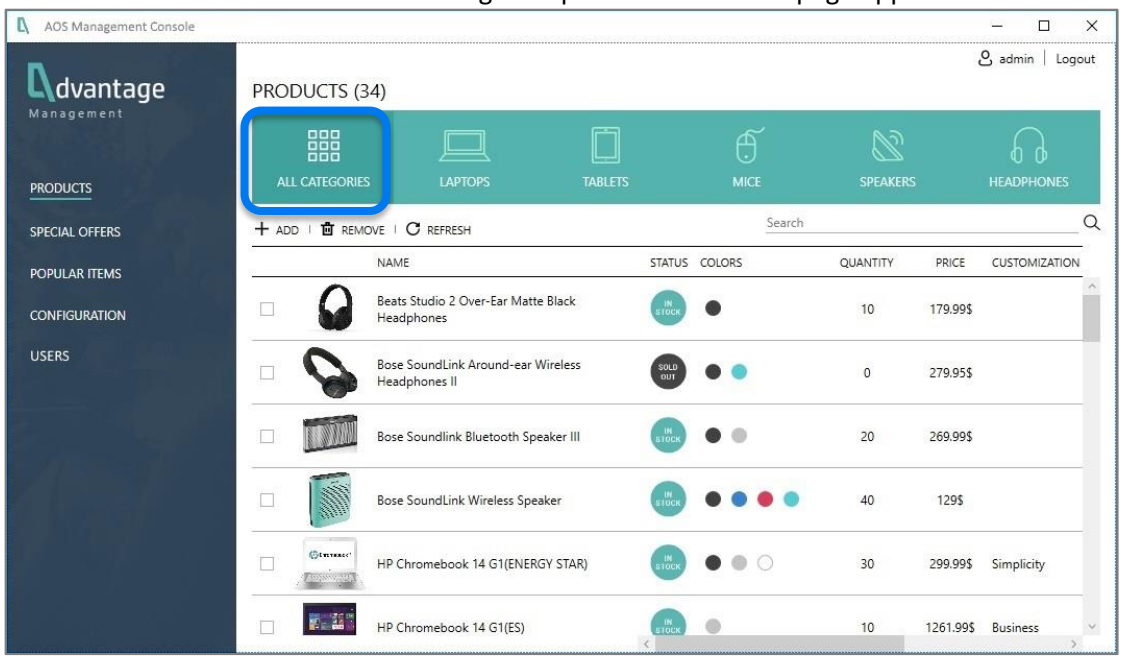
# Products

The Products page is where you add or change the products in AOS.

1. Select **Products** from the navigation pane. The Products page appears.

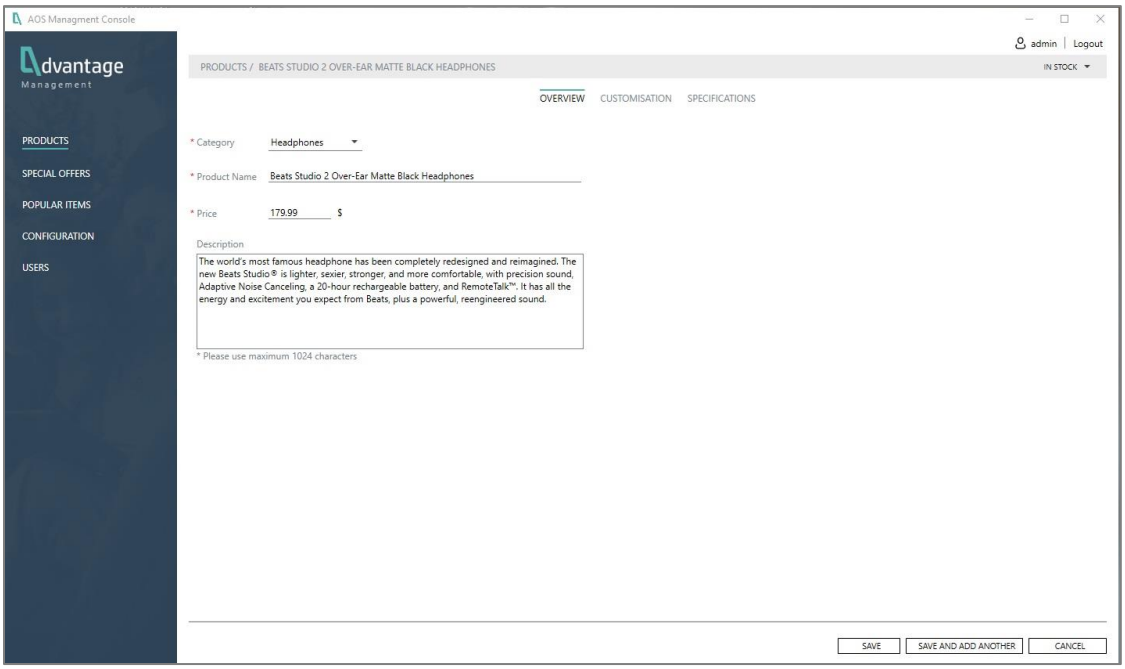



The menu across the top provides different categories of products. In this example, we are looking at **All Categories**. However, if you selected a different category, such as **Laptops**, you see only laptop products.

From here you can add or remove products, as well as changed their characteristics, such as: name, price, description, pictures, colors, quantities, images, not in stock, or in stock.

## Edit an existing product

1. To edit an existing product, click the name of the product.
2. The selected product page opens with the **Overview** tab selected.




You can now edit information in the **Overview**, **Customization**, and **Specification** tabs, in the same way you would if you added a new product. For details, see the relevant instructions under **Add a product**.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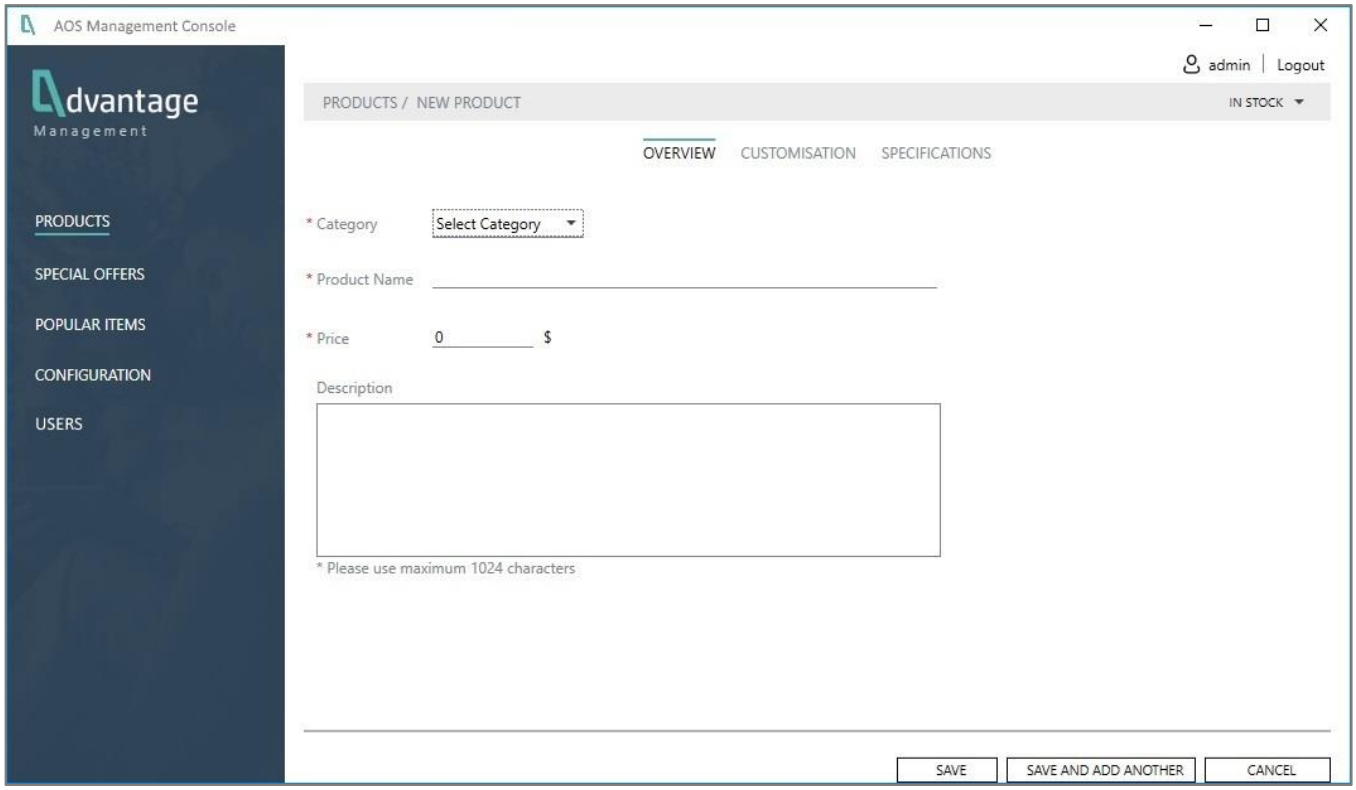
## Add a product

1. To add a new product, click **Add**: + ADD
2. The New Product page opens with the **Overview** tab selected.




3. Fill in the following fields.
   - **Category:** Select a category from a drop-down list.
   - **Product Name:** Type the name of the product.
   - **Price:** Enter the price with both dollars and cents, separated by a decimal point. For example, **100.00**
   - **Description:** Enter a description consisting of no more than 1024 characters, including blank spaces.
     **NOTE:** We recommend typing the description first in a tool like Word so you can count characters, check grammar and punctuation, and check spelling. Then copy and paste your words into the field.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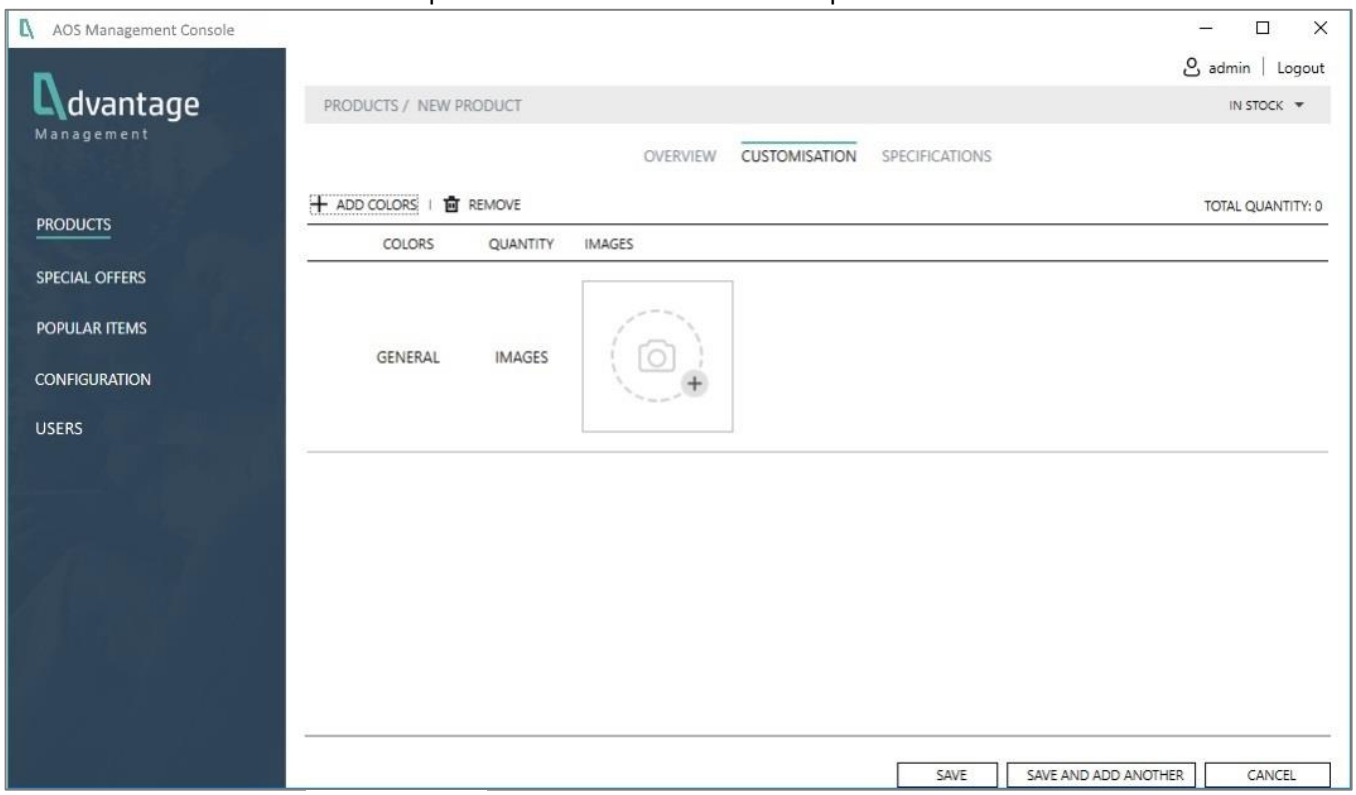
4. Go to the **Customization** tab to provide color information for the product.




a. Click **Add Colors**: + ADD COLORS and put checkmarks next to the colors on the pop-up window. These are those color choices for customers.

b. Click **Apply**.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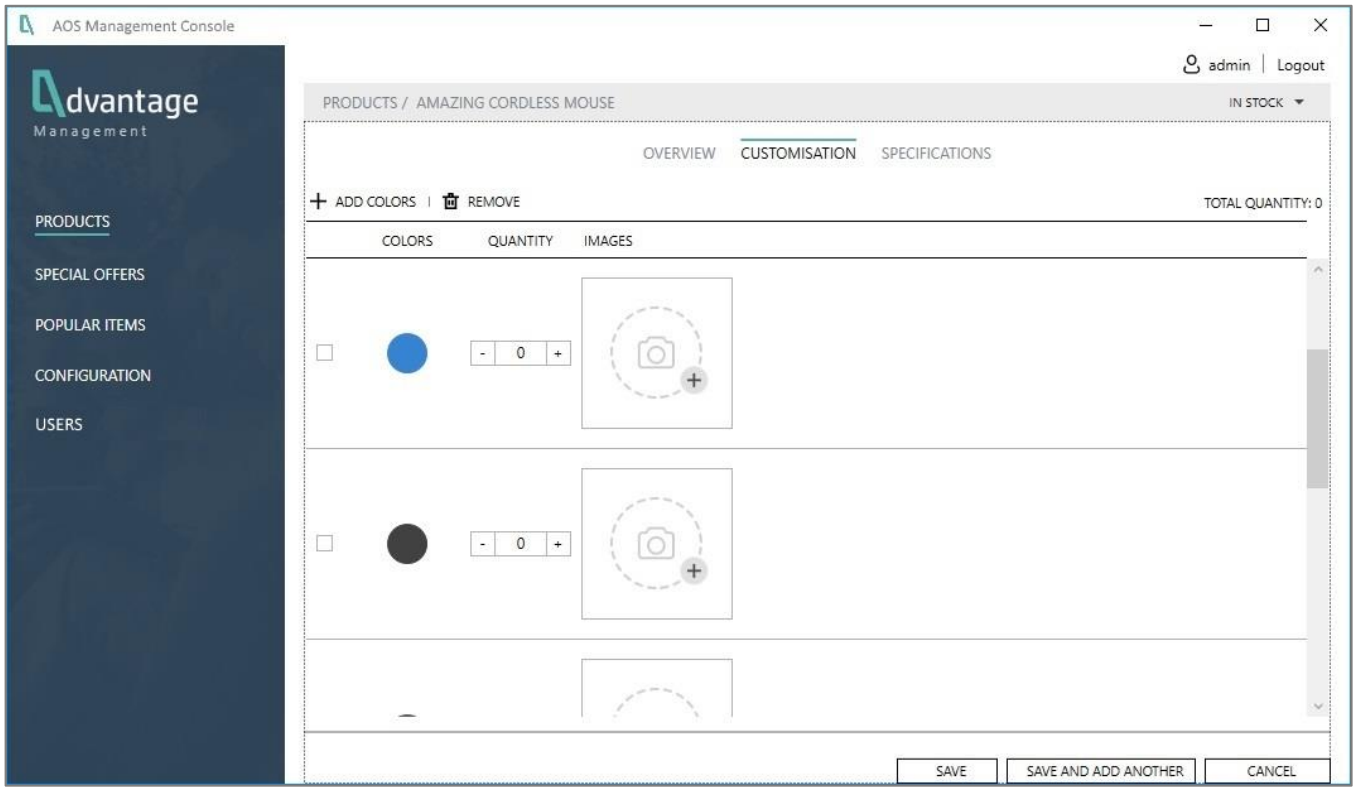
5. Colors are now visible under the **Colors** column.




a. Next, go to the **Quantity** column and fill in the maximum number of items in a given color from which a customer can choose. Do this for each color.
b. Go to the **Images** column and put a checkmark next to the item for which you want to add an image.

   - Click **Add Image**: **NOTE:** You must add at least ONE image for a new product.
   - The **Select image for this color** window opens so you can navigate through your file system, select the appropriate image, and press **Open**.
   - The image now appears under the **Images** column. Repeat for the other colors.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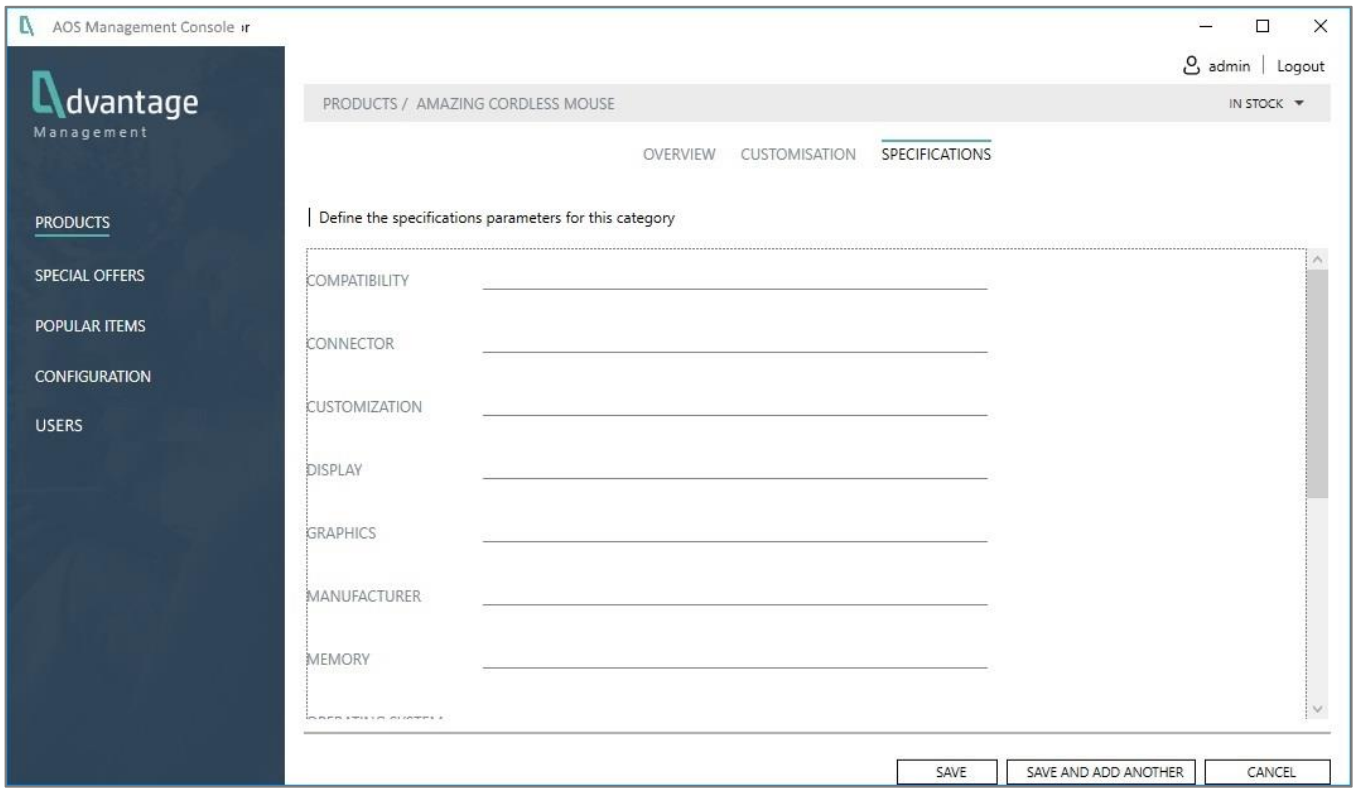
6. Select the **Specifications** tab.




   a. Enter information for each parameter. Each parameter can be 250 characters or less in length.
   **NOTE:** You must specify at least ONE parameter for a product.
   b. If necessary, revisit the **Overview** and **Customization** tabs to make sure your information is correct.
   c. Press **Save** to save your work and close the page –OR- press **Save and Add Another** to save your work and them repeat the process of adding another item (page does not close).

### Remove a product

1. To remove an existing product, click **Products** from the navigation pane.
2. Put a checkmark next to each product you want to remove.
3. Click **Remove**: REMOVE

## Special Offers

The Special Offers page is where you define any special offers. **NOTE:** This page currently is not working.

## Popular Items

The Special offers page is where you define which items are “popular.” **NOTE:** This page is currently not working.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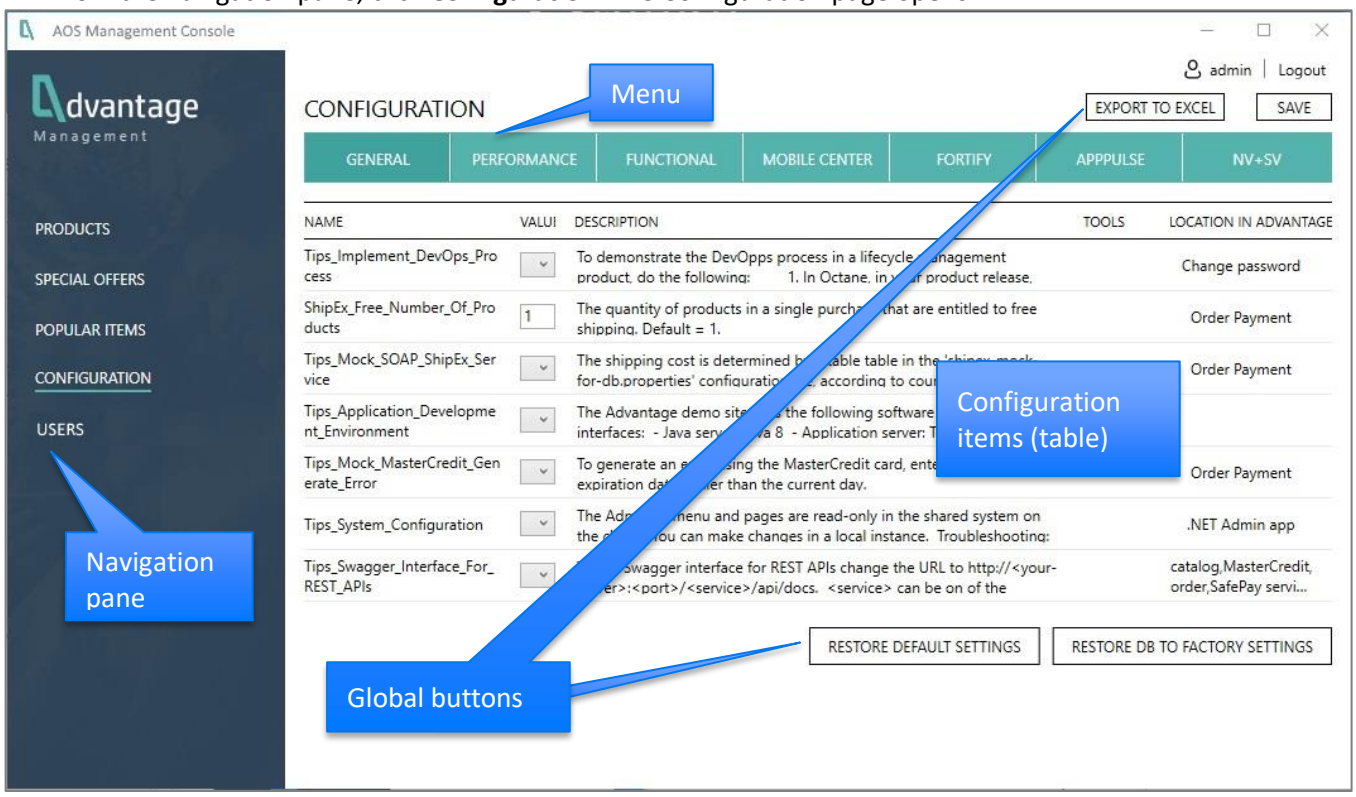
# Configuration

The Configuration page is where you change behaviors in the AOS application. You can adjust settings, trigger events, or provide tips for giving demos that illustrate how certain products resolve different problems.

1. From the navigation pane, click **Configuration**. The Configuration page opens.




2. This page consists of the following areas:
   a. **Global buttons:** Certain buttons are always available at the top-right corner and bottom-right corner of the page: **Export to Excel**, **Save**, **Restore Default Settings**, and **Restore DB to Factory Settings**. For complete descriptions of these buttons, see **Global Buttons**.
   b. **Menu:** The Configuration menu across the top of the page lets you view specific types of configuration settings. These settings are usually associated with certain products or features.
   c. **Configuration Items:** These items appear in tabular format in the main section of the page. The table of information includes these columns. For a listing of all items, see **Configuration Item Details**.
      - **Name:** Name of the configuration item. If the name begins with "**Tip**," the item is actually a demo tip with a useful description of its use. For more details, see **Description**.
      - **Value:** This is either a flag or an alphanumeric value.
        - **Flag (Yes/No):** This lets you turn things on and off, depending on what you might want to demonstrate with your product. For example, "Show slow pages" determines whether the NV reports show problems and errors. You might want to use this flag to demonstrate the capabilities of NV.
        - **Numeric or text value**: Lets you specify a value that impacts behavior. For example, enter the number of seconds of delay.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- **Description:** Description of the configuration item. If this description applies to a demo tip, it explains what to do to showcase a particular feature of a tool you are demonstrating. For example, the **Tips_SQL_injection** tip explains that a common security breach with **SQL_injection** lets someone erase data from database. The tip describes what to do if you want to make the AOS code "vulnerable" to **SQL_injection** when demonstrating your product. This would be useful if you were demonstrating Fortify and want to look for security breaches. For details, see **How to Use Tips**.

d. **Global buttons:** Buttons that are always available, regardless of what item is selected on the menu. For details, see **Global Buttons**.

### How to Use Configuration Values

To find configuration values that might be relevant to your demo, do the following:

1. Select the type of feature you want to showcase in your demo by choosing the type of configuration from the menu across the top of the page. For example, **Performance**.
2. Next, search for the tool you are demoing in the **Tool** column. For example, **LoadRunner and StormRunner**.
3. Go to the **Name** column and look for a particular configuration item, for example: **Add_to_cart_time_delay**. This defines the number of seconds to add as a delay in response time when a logged in user add an item to the cart. The default = **0** (no delay).
4. Then, suppose you are demonstrating LoadRunner and want to demonstrate what happens when the number of users on the system is high. You might want to set the delay time to several seconds.

### How to Use Tips

To find tips that might be relevant to your demo, do the following:

1. Select the type of feature you want to showcase in your demo by choosing the type of configuration from the menu across the top of the page. For example, **Performance**.
2. Next, search for the tool you are demoing in the **Tool** column. For example, **LoadRunner**.
3. Go to the **Name** column and look for configuration items that begin with "**Tips_**". Read the different tips to decide what you might want to showcase during your demo.
4. For example, suppose you are demonstrating LoadRunner and want to demonstrate a performance feature. You would click **Performance** from the menu and look in the **Tools** column for **LoadRunner**. You would then find a tip called **Tips_WebSocket_example**. The tip indicates you could can demonstrate WebSocket features by using the **CHAT** widget located on **Contact Us** page of the web application.


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## Configuration Item Details

This section explains each item in the table, broken down by **Configuration** types.

### General

Here is a list of all General configuration items with explanations.

| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Tips_Implement_DevOps_Process | Tip | To demonstrate the DevOps process in a lifecycle management product, do the following:<br>1. In Octane, in your product release, add a user story to change an invalid user name or password text.<br>2. Demonstrate that you can view this new user story in your IDE.<br>3. Implement the user story by changing the **MESSAGE_USER_LOGIN_FAILED** error message in the following file:<br>**\adm-demo-app\accountservice\src\main\java\com\advantage\accountsoap\model\Account.java**<br>For example, change it from "**Invalid user name or password**" to "**Incorrect user name or password; please try again**".<br>4. Demonstrate the DevOps process and show that you can now see the new error message on both the Desktop and Mobile app. | | Change password |
| ShipEx_Free_Number_Of_Products | 1 | The quantity of products in a single purchase that are entitled to free shipping.<br>▪ Default = **1**. | | Order Payment page |


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| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Tips_Mock_SOAP_ShipEx_Service | Tip | The shipping cost is determined by a table in the **shipex-mock-for-db.properties** configuration file, according to country.<br>▪ Shipping costs to countries not defined in the table are determined based on the value for **Other**.<br>▪ Free shipping can be provided when the number of items ordered is equal to or less than the value of the **ShipEx_Free_Number_Of_Product**' configuration parameter (default = **1**). | | Order Payment page |
| Tips_Application_Development_Environment | Tip | The AOS Demo app uses the following software versions and interfaces:<br>▪ **Java server:** Java 8<br>▪ **Application server:** Tomcat 8<br>▪ **Web UI:** Angular 1.47<br>▪ **Management Console:** Standalone .NET<br>▪ **Database:** PostgreSQL 9.4<br>▪ **Schema Management:** Liquibase 3.4<br>▪ **Catalog, Order Services:** REST API<br>▪ **User Management:** WSDL | | |
| Tips_Mock_MasterCredit_Generate_Error | Tip | To generate an error using the MasterCredit card, enter a MasterCredit expiration date earlier than the current day. | | Order Payment |
| Tips_System_Configuration | Tip | The Management Console menu and pages are read-only in the shared system on the cloud. However, you can make changes in a local instance.<br>If you are unable to make changes in a local instance, here is a Troubleshooting Tip:<br>1. Navigate to the **DemoApp.properties** file.<br>2. Make sure the **Allow user configuration** value is set to **Yes**. This is the default setting.<br>3. Verify that you can configure the relevant field from the Management Console as needed. | | .NET Admin app |


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| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Tips_Swagger_Interface_For_REST_APIs | Tip | Use the Swagger interface for REST APIs as follows:<br>Change the URL to **http://<your-server>:<port>/<service>/api/docs**<br>**<service>** can be one of the following (case sensitive):<br>▪ catalog<br>▪ order<br>▪ MasterCredit<br>For example:<br>**http://www.advantageonlineshopping.com:80/catalog/api/docs** | | Back-end services:<br>▪ Catalog<br>▪ MasterCredit<br>▪ Order<br>▪ SafePay |


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**Performance**

Here is a list of all Performance configuration items with explanations.

| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| DB_call_delay | 0 | Defines the number of seconds to delay the retrieval of countries during user registration.<br>▪ Default = **0** (no delay).<br>▪ Possible values = Any positive integer | LoadRunner StormRunner | DB_call_delay |
| Generate_memory_leak | 0 | Defines the amount of memory leak in Megabytes while retrieving the order history. The memory leak is visible in both the UI and the API.<br>▪ Default = **0** (no leak at all).<br>▪ Possible values = Positive Integer (number, multiplied by 1000)<br>For example: **1 = 1000 megabyte memory leak** | LoadRunner StormRunner | Generate_memory_leak |
| Postgres_Locks | Tip | To exhaust PostgresSQL locks, do the following:<br>1. Go to the **CONTACT US** page.<br>2. Type **database** for the **Subject** and click **SEND**. | Ops B | Postgres_Locks |
| Max_concurrent_users | 0 | Defines the maximum number of concurrent users allowed. Any additional users are rejected with an error code **500**.<br>▪ Default = **0** (no concurrent sessions allowed)<br>▪ Possible values = Any positive integer | LoadRunner StormRunner NV | Max_concurrent_users |
| Add_to_cart_time_delay | 30 | Defines the number of seconds to add as a delay in response time when a logged in user adds an item to cart.<br>▪ Default = **0** (no delay) | LoadRunner StormRunner | Add_to_cart_time_delay |
| SLA_add_delay_time | 0 | Defines the number of seconds to add as a delay in response time when trying to log in.<br>▪ Default = **0** (no delay).<br>**NOTE:** If you modify this value, also modify the **SLA_add_delay_sessions** parameter. | LoadRunner StormRunner | SLA_add_delay_time |
| SLA_add_delay_sessions | 0 | Defines the number of concurrent user sessions at which a delay is added to the login response. This is enabled only | LoadRunner StormRunner | SLA_add_delay_sessions |


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| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| | | when **SLA_add_delay_time** is set to a number greater than 0.<br>▪ Default = **20**<br>▪ Valid values = **0** to **n**<br>The system starts adding a delay when the number of sessions is greater than the defined value. It stops the delay when the number of sessions is decreased to less than the defined value.<br>**NOTE:** If you modify this value, also modify the **SLA_add_delay_time** parameter. | | |
| Show_slow_pages | No | Determines whether the Network Virtualization report shows problems and these errors: HTTP Codes **4xx** and **5xx**, loading unused libraries, timeout, downloading big images, etc. | NV<br>StormRunner | Show_slow_pages |
| Tips_Scripting | Tip | The demo app IP addresses are not fixed. In any scripts you create for a demo, make sure to use a parameter for the application IP address. | LoadRunner<br>StormRunner | Tips_Scripting |
| Tips_WebSocket_example | Tip | To demonstrate WebSocket features, use the **CHAT** widget located on **Contact Us** page of the web application (**http://www.advantageonlineshopping.com/**). | LoadRunner | Tips_WebSocket_example |
| Tips_How_To_Use_Product_Video | Tip | ADM performance tools support HTML5 video streaming via: native browsers, plugins such as Adobe Flash, or standalone software. To demonstrate this feature:<br>1. Browse to one of the following products;<br>▪ **HP ROAR WIRELESS SPEAKER** (Product ID = 22)<br>▪ **BEATS STUDIO 2 OVER-EAR MATTE BLACK HEADPHONES** (Product ID =xd 15)<br>▪ **HP ELITEPAD 1000 G2 TABLET** (Product ID = 16)<br>2. View the demo video. | LoadRunner | Tips_How_To_Use_Product_Video |


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| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Tips_correlation_example | Tip | To demonstrate correlation, make sure to include a login step in your flow. The correlation is implemented with the session ID. | LoadRunner | Tips_correlation_example |
| Tips_async_example | Tip | ADM performance tools support asynchronous communication. To demonstrate this feature:<br>1. Browse to any of the products in the **HEADPHONES** category.<br>2. Record the comments (Web only). | LoadRunner | Tips_async_example |
| Tips_DFE | Tip | To show DFE in snapshot (display only), do the following:<br>1. Send a login request and response in Base-64 encoded, instead of in plain text. | LoadRunner | Tips_DFE |
| Tips_validation_example | Tip | To demonstrate validation:<br>1. Perform a flow where you buy the contents of the cart.<br>2. Go to the **My Orders** page and look for the order by its order number (shows positive validation).<br>3. Delete the order.<br>4. Look for the order by its number again (shows negative validation). | LoadRunner | Tips_validation_example |
| DB_call_delay | 0 | Defines the number of seconds to delay the retrieval of countries during user registration.<br>▪ Default = **0** (no delay)<br>▪ Possible values = Any positive integer | LoadRunner<br>StormRunner | DB_call_delay |


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**Functional**

Here is a list of all Functional configuration items with explanations.

| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Email_in_login | No | Determines whether a mandatory **Email Address** field is added to the login screen.<br>Use this parameter to demonstrate that in BPT, a single component can be modified without updating other tests.<br>▪ Default = **No**<br>▪ **Yes** = Add the **Email Address** field | BPT | Login page |
| Add_product_to_incorrect_category | No | Defines whether to move a **Headphones** item (Product ID =13) from the **Headphones** category to the **Speakers** category.<br>Use this parameter to demonstrate an error in GUI or API testing.<br>▪ Default = **No** (category is not changed)<br>▪ **Yes** = Modify the product category | LeanFT<br>UFT | Speakers page |
| User_alternate_WSDL | No | Determines whether to modify the field names on the user registration page. For example:<br>▪ CHANGE: **Preferred payment method** TO: **Favorite payment**<br>▪ CHANGE: **Phone** TO: **Mobile phone**<br>Use this parameter to demonstrate API testing.<br>▪ Default = **No**<br>▪ **Yes** = Use the second WSDL request to register a new user | UFT | CREATE ACCOUNT page |
| Sum_added_to_cart | 0 | Defines a sum to be added to each cart calculation. The sum is updated in both the Web and Mobile UI (no API). A user must be logged in to enable this change.<br>▪ Default = **0** (no sum added) | LeanFT<br>UFT | Order Payment page |


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| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Typos_on_order_payment | No | Determines whether spelling errors appear in the UI.<br>▪ **Default** = No<br>▪ **Yes** = The following spelling errors are shown:<br>– **SHIPING DETAILS**<br>– **Ciity**<br>– **Recipeint Details** (Web only)<br>– **ORDERR SUMMARY** (Web only) | Sprinter | Web: ORDER PAYMENT page<br><br>Mobile app: SHIPPING DETAILS page |
| Misplace_pictures_on_Android | No | Determines whether pictures are placed differently on the Home page when viewed on an Android device. Use this parameter to demonstrate how the application may function differently on different mobile operating systems.<br>▪ Default = **No**<br>▪ **Yes** = Pictures are placed differently on Android devices | LeanFT<br>MobileCenter<br>UFT | Home page |
| Price_diffs_UI_vs_API | No | Creates a difference in the prices shown in the UI and the prices used in the API.<br>Default = **No**<br>**Yes** = Price is doubled in the UI only (desktop and mobile), across the entire app. | LeanFT<br>UFT | Entire site |
| Tips_Scripting | Tip | The demo app IP addresses are not fixed. In any scripts you create for a demo, make sure to use a parameter for the application IP address. | LeanFT<br>UFT | |


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| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Tips_Support_Different_Types_Of_Controls | Tip | Use the following UI elements to demonstrate various functional testing features:<br>▪ **String:** On the **CREATE ACCOUNT** or **ACCOUNT DETAILS** page, update the **Personal Details** fields.<br>▪ **Radio button**: On the **ORDER PAYMENT** page, select a payment method.<br>▪ **Date value:** On the **ORDER PAYMENT** page, select the **MasterCredit** option and then enter an expiration date.<br>▪ **List box:** On the **CREATE ACCOUNT** page, select a country from the **Country** drop-down list.<br>▪ **Multiple selection:** Browse products by category and filter the products shown by using the options on the left. | BPT<br>MobileCenter<br>LeanFT<br>UFT | Entire site |
| Tips_regular_expression | Tip | The button text always begins with **Pay** to allow you to demonstrate regular expressions in object identification. | LeanFT<br>UFT | Pay button in Cart Summary |
| Tips_REST_API_Params_In_Request_URL | Tip | Send the REST API request and parameters in request URL. For example: **http://www.advantageonlineshopping.com/catalog/api/v1/products/1** | UFT | Back-end services:<br>▪ Catalog<br>▪ MasterCredit<br>▪ Order<br>▪ SafePay |


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| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Tips_REST_API_Params_In_Request_Body | Tip | Send the REST API parameters in the request body. For example: **http://www.advantageonlineshopping.com/MasterCredit/api/v1/payments/payment, body: { "MCCVVNumber": 666, "MCCardNumber": 6543210987654321, "MCCustomerName": "King David", "MCCustomerPhone": "+12025551969", "MCExpirationDate": "032017", "MCRecevingAmount.Value": 2011.03, "MCRecevingCard.AccountNumber": 112987298763, "MCRecevingCard.Currency": "USD", "MCTransactionDate": "02092016", "MCTransactionType": "PAYMENT" }.** | UFT | Back-end services:<br>▪ Catalog<br>▪ MasterCredit<br>▪ order<br>▪ SafePay |


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| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Tips_SQL_injection_vulnerability | Tip | A functional test finds the following defect:<br>1. The user creates a user with any **username**, but the created name is actually duplicated, as displayed at the top-right side of the site.<br>2. The user opens a defect, fixes the code, and commits the change.<br>3. This triggers a Fortify scan (assuming you added the Fortify scan trigger in the code change) that will find an SQL injection vulnerability.<br>4. To achieve this, you must edit this file: **ccountservice\src\main\java\com\advantage\accountsoap\dao\impl\DefaultAccountRepository**<br>Make the following changes:<br>▪ Uncomment the code located between the **SQL injection vulnerability** tags.<br>▪ Comment out the code located between the **Code without SQL injection vulnerability** tags.<br>▪ **NOTE:** There are 2 locations in the code where you need to make these changes. | Fortify<br>LeanFT<br>UFT | Create Account page |


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**Mobile Center**

Here is a list of all Mobile Center configuration items with explanations.

| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Misplace_pictures_on_Android | No | Determines whether pictures are placed differently on the Home page when viewed on an Android device. Use this parameter to demonstrate how the application may function differently on different mobile operating systems.<br>▪ Default = **No**<br>▪ **Yes** = Pictures are placed differently on Android devices | LeanFT<br>MobileCenter<br>UFT | Home page |
| Tips_Fill_User_Location_From_GPS | Tip | To use your GPS location instead of the default values, turn on the **Use my location** option on the following pages:<br>▪ **CREATE ACCOUNT:** for the user account details.<br>▪ **ORDER PAYMENT:** for the shipping details. | MobileCenter | Create Account<br>Order Payment > Shipping details |


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| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Tips_Support_Different_Types_Of_Controls | Tip | Use the following UI elements to demonstrate various functional testing features:<br>▪ **String:** On the **CREATE ACCOUNT** or **ACCOUNT DETAILS** page, update the **Personal Details** fields.<br>▪ **Radio button:** On the **ORDER PAYMENT** page, select a payment method.<br>▪ **Date value:** On the **ORDER PAYMENT** page, select the **MasterCredit** option and then enter an expiration date.<br>▪ **List box:** On the **CREATE ACCOUNT** page, select a country from the **Country** drop-down list.<br>▪ **Multiple selection:** Browse products by category and filter the products shown by using the options on the left. | BPT<br>MobileCenter<br>LeanFT<br>UFT | Entire site |
| Use_Camera_Capability | Tip | Add an option to enable the user to take a picture with the camera. This picture will be added to the current product page.<br>▪ In offline mode, the picture is retained for the current session only.<br>▪ When using Mobile Center, if **Camera Sensor** is enabled, this picture will be replaced with the picture the user previously uploaded to Mobile Center. | MobileCenter | Mobile app: Product page |


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**Fortify**

Here is a list of all Fortify configuration items with explanations.

| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Allow_Error_in_Login | No | Determines whether invalid passwords are allowed. These would trigger an error in a test, indicating a security gap in the product.<br>▪ Default = **No**<br>▪ **Yes** = Invalid passwords are allowed, such as an empty password, or **'1'='1'** | Fortify | Login page |
| Tips_SQL_injection_vulnerability | Tip | A functional test finds the following defect:<br>1. The user creates a user with any **username**, but the created name is actually duplicated, as displayed at the top-right side of the site.<br>2. The user opens a defect, fixes the code, and commits the change.<br>3. This triggers a Fortify scan (assuming you added the Fortify scan trigger in the code change) that will find an SQL injection vulnerability.<br>4. To achieve this, you must edit this file: **ccountservice\src\main\java\com\advantage\accountsoap\dao\impl\DefaultAccountRepository**<br>Make the following changes:<br>▪ Uncomment the code located between the **SQL injection vulnerability** tags.<br>▪ Comment out the code located between the **Code without SQL injection vulnerability** tags.<br>**NOTE:** There are two locations in the code where you need to make these changes. | Fortify<br>LeanFT<br>UFT | Create Account page |


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**AppPulse**

Here is a list of all AppPulse configuration items with explanations.

| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| AppPulse_user | AppPulse:AppPulse1 | The username and password for an AppPulse user triggers the relevant AppPulse features. | AppPulse | Entire site |
| Tips_Mock_SafePay_Generate_Error_409 | Tip | To generate an error using SafePay, enter a username and a password that are identical (case sensitive). | AppPulse | Web: Order Payment page<br><br>Mobile app: Payment Method (SafePay) |
| Mobile_crash | Tip | To generate a crash, log in as an AppPulse user and change the device orientation from portrait to landscape. | AppPulse | Mobile app: Entire app |
| Slow_launch_of_the_native_app | Tip | To show a slow launch, log in as an AppPulse user and kill the app. From this point forward, any launch will be slow until you log in with a different user | AppPulse | Android Native app: Launch |
| Error_500 | Tip | To generate error 500, login with AppPulse user, add items to the cart, checkout and click on pay now | AppPulse | Order Payment |
| Error_403 | Tip | To generate error 403, click on the 'Sign in with Facebook' button. | AppPulse | Login page |


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**Network Virtualization and Service Virtualization**

Here is a list of all Network Virtualization and Service Virtualization configuration items with explanations.

| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| ShipEx_repeat_calls | 0 | Defines the number of times to repeat a call to ShipEx.<br>Use this parameter to find unnecessary multiple calls to the same methods, and affects performance.<br>▪ Default = **0** (no repeat calling. | NV | Purchase |
| Max_concurrent_users | 0 | Defines the maximum number of concurrent users allowed. Any additional users are rejected with an error code of **500**.<br>▪ Default = **0** (no concurrent sessions allowed)<br>▪ Possible values = Any positive integer | LoadRunner<br>StormRunner<br>NV | Login response |
| Show_slow_pages | No | Determines whether the Network Virtualization report shows any problems and errors: HTTP Codes **4xx** and **5xx**, loading unused libraries, timeout, downloading big images, etc. | NV<br>StormRunner | Home Page<br>Laptops Page |


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| Name | Value | Description | Tools | Location in AOS |
|---|---|---|---|---|
| Tips_replace_3rd_party_services_with_SV | Tip | Replace the ShipEx, MasterCredit, or SafePay third-party services with Service Virtualization by updating the relevant URLs in the **services.properties configuration** file.<br>This file is located here: **/<service>/properties/services.properties** where **<service>** is:<br>▪ **accountservice**<br>▪ **MasterCredit**<br>▪ **order**<br>▪ **ROOT**<br>▪ **SafePay**<br><br>For example, update the configuration file for the **accountservice**:<br>1. Open this file: **/accountservice/properties/services.properties**<br>2. Navigate to the **<service-name>.url.host** line and update the **URL/IP address** string to the Service Virtualization URL and IP address.<br>3. Navigate to the **<service-name>.url.port** line and update the **port string** to the Service Virtualization port.<br>4. Save the file, and repeat these steps for each remaining **<service-name>** in the **services.properties** file.<br>5. Then repeat the entire process in the **services.properties** file for the remaining services (**MasterCredit**, **order**, etc.). | SV | Backend services:<br>▪ ShipEx<br>▪ MasterCredit<br>▪ SafePay |


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### Global Buttons

These buttons are available no matter what you select in the **Configuration** menu.

**Top-right corner**

- **Export to Excel:** Export the currently displayed table of information to an Excel spreadsheet.
- **Save:** Save the currently displayed table of information.

**Bottom-right corner**

- **Restore Default Settings:** If you activated flags, values, or tips in the Configuration screen, click this button to restore the Configuration settings to their default values.
- **Restore DB to Factory Settings:** If you have too much data or users in the database, click this button. You will get a clean database like what was included in the first installation. **NOTE:** All changes made in the **Configuration** tab will remain.


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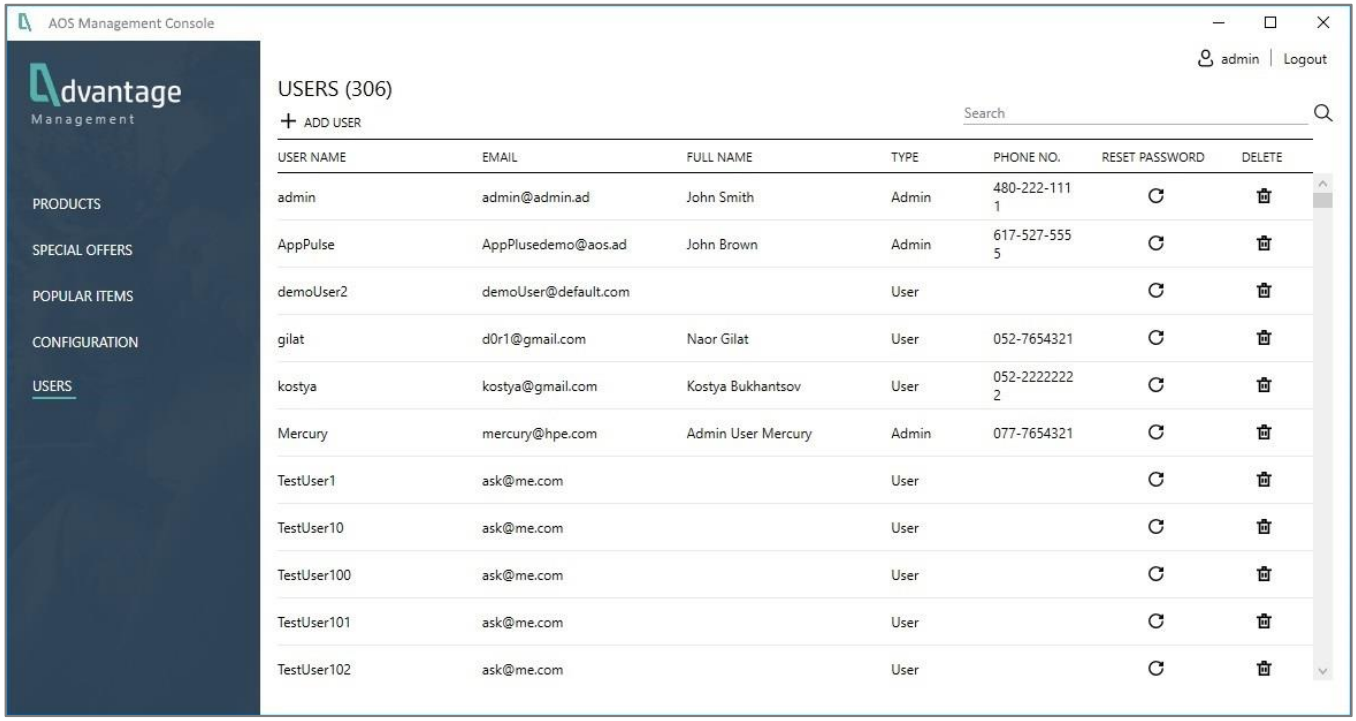
# Users Management

This is where you add users, modify users, and delete them. Some of these users can access the AOS Management Console, some can access the AOS Demo app, while others can access both. **NOTE:** If you entered the **Local Host** URL when you logged into the Management Console, any changes you make are local only. If you entered the **Nightly** or **Staging** URL, your changes will appear only in the Nightly or Staging environment, respectively, for all AOS Demo app users to see when they connect to that environment.

1. From the navigation pane, select **Users**.
2. The Users page opens.




3. Here you can see the names and information about all users who can access AOS:
   a. **User Name:** User's AOS login name.
   b. **Email:** User's email address.
   c. **Full Name:** User's complete name (first and last).
   d. **Type:** The type of user indicates the permissions the user has:
      - **Admin.** Can log into the AOS Demo app (web or mobile app) and the AOS Management Console. **NOTE:** The only exception is if the **Admin** user connects to the Production environment; in that case, the **Admin** user cannot make any changes.
      - **User.** Can log into the AOS Demo app (web or mobile app). **NOTE:** This user CANNOT log into the AOS Management Console.
   e. **Phone No.:** User's phone number
   f. **Reset Password:** Press this icon to reset the user's password. A pop-up window asks you to type a new password.
   g. **Delete:** Press this icon to delete the user.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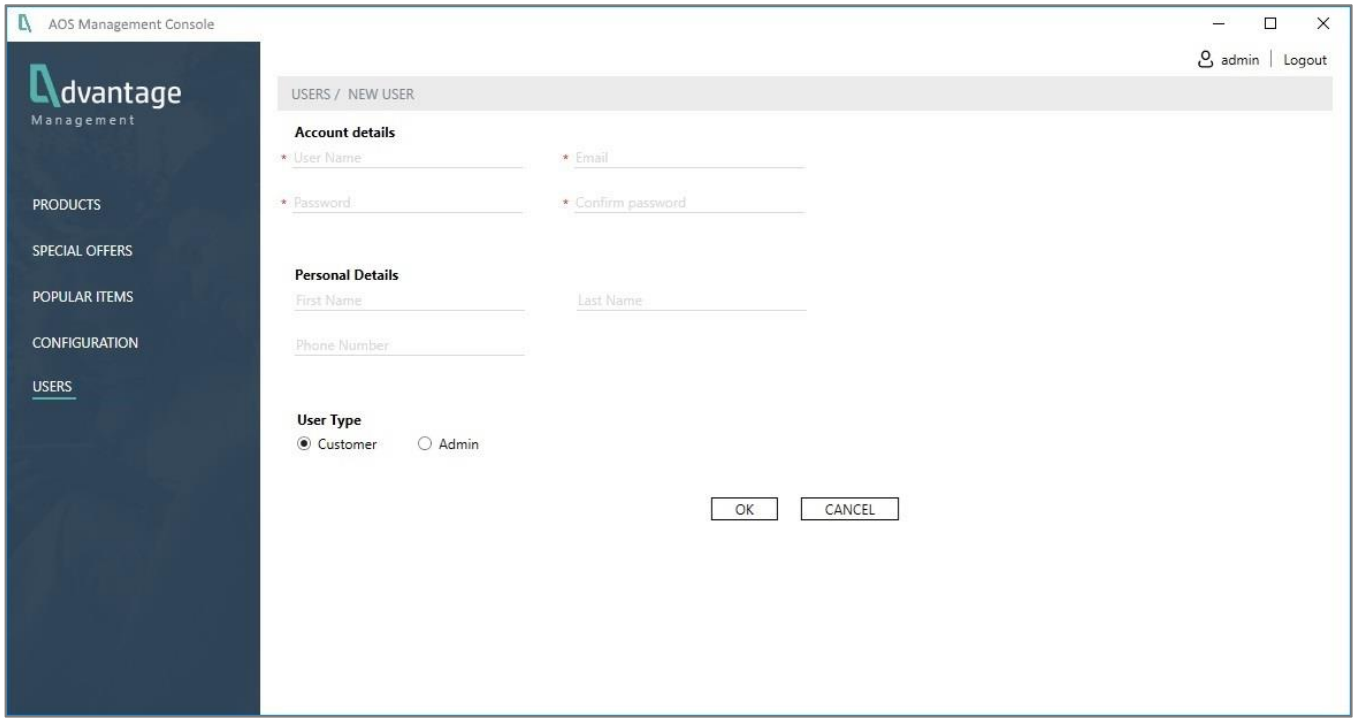
## Add a new user

1. To add a new user, click **Add User** + ADD USER.
2. The New User page opens.




   a. Fill in the **Account Details**.
      - **User name:** AOS login name.
      - **Email:** User's email address.
      - **Password:** User's password.
      - **Confirm Password:** Re-enter user's password.
   b. Fill in the **Personal Details**.
      - **First Name:** User's first name.
      - **Last Name:** User's last name.
      - **Phone Number:** User's phone number (any format).
   c. Select **User Type**.
      - **Admin.** Can log into the AOS Demo app AND the Management Console and use all the features.
      - **User.** Can log into the AOS Demo App but CANNOT log into the Management Console.

## Reset password

1. From the Users page, click the **Reset Password** icon to the right of the user's name. You will be prompted for a new password.

## Remove an existing user

1. From the Users page, click the **Delete** icon to the right of the user's name. The user becomes inactive and cannot use AOS. You can later restore the user if necessary.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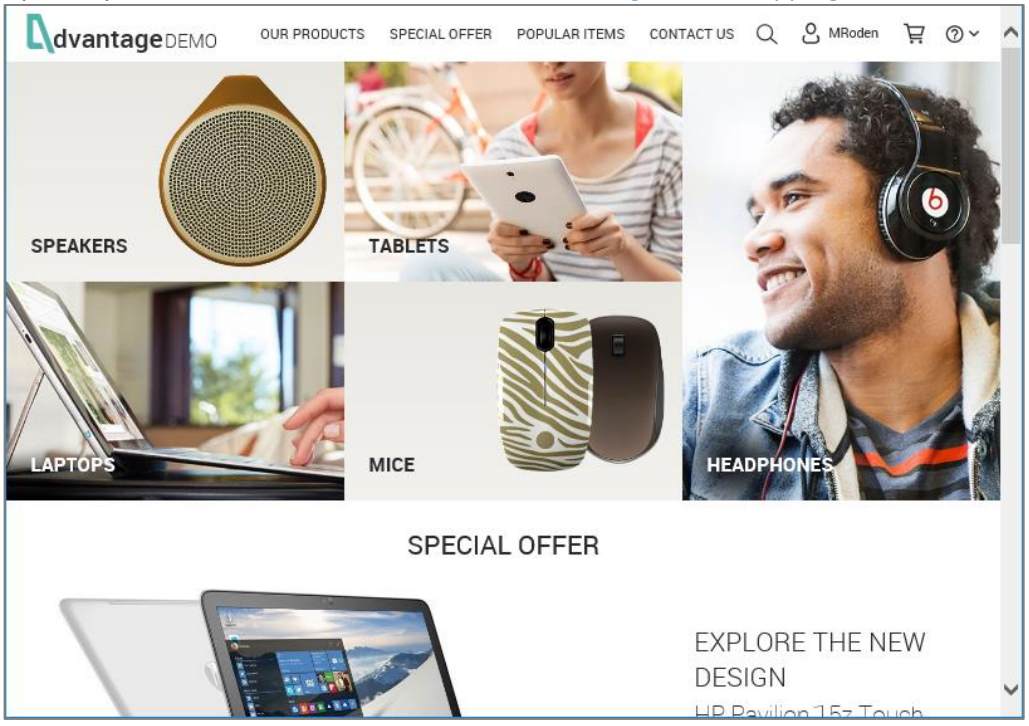
# Section 5. How to Get AOS

This section focuses on how to get different version of AOS to use when demonstrating your product(s). The way you do this depends on the version you need.

## Access the Public versions

The three public AOS systems: Production, Nightly, and Staging. Nightly and Staging are quite stable and are useful for light performance testing. Production is one hundred percent stable and simulates production level functionality. Use them for enablement, workshops, conferences, etc.

1. Open any browser and enter this URL: www.advantageonlineshopping.com Production version.




**NOTE:** To access the Nightly or Staging versions, you must enter the appropriate IP address.
For details, contact AOS Support at: adm_demo_app_development@microfocus.com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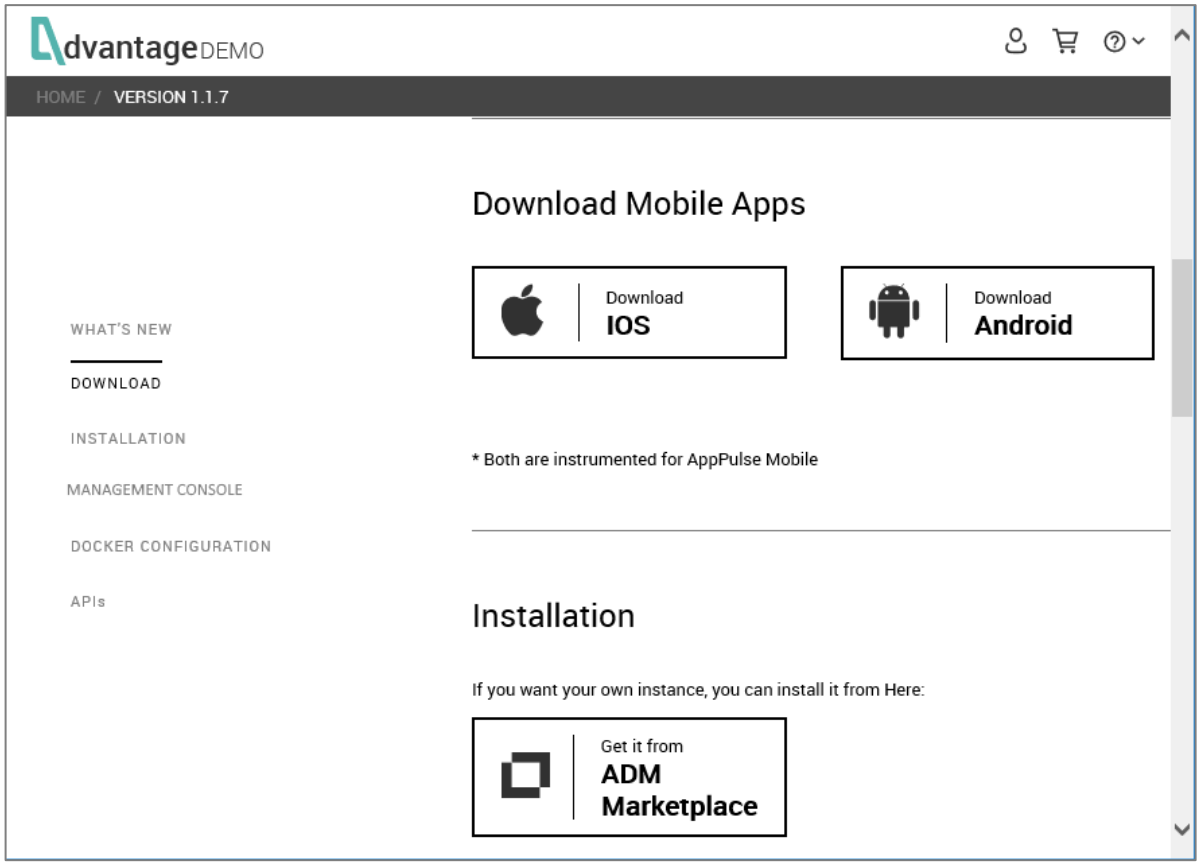
# Download the Mobile app (iOS or Android native app)

Use this process when you want to run the AOS app on your mobile device.

1. From your mobile device, open any browser and enter this URL: www.advantageonlineshopping.com
2. Go to **Help > AOS Versions.**
3. From the left-hand navigation panel, select **Download**.




- Select **Download IOS** or **Download Android**, depending on your mobile device OS.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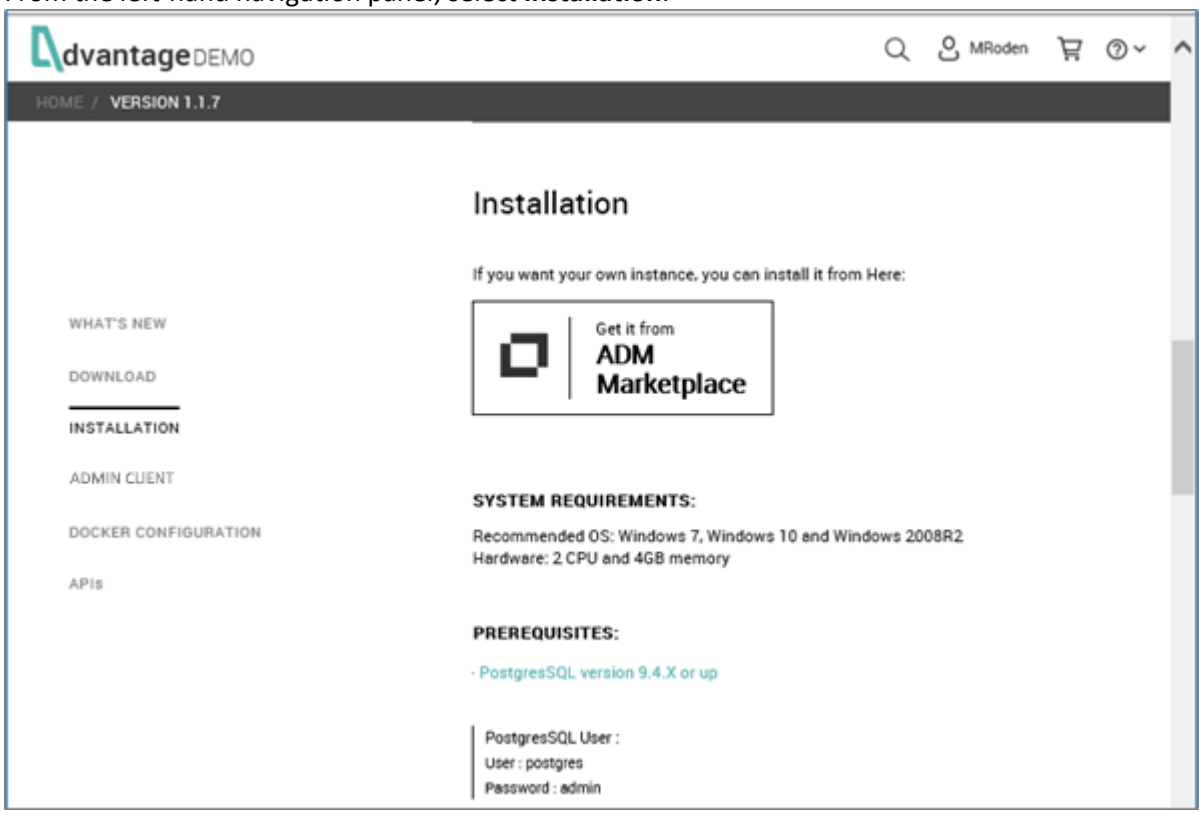
## Install the Local Windows version

Use this if you want to install your own Windows instance of AOS. The Windows version is extremely easy to install and does not require the Internet.

1. Open any browser and enter this URL: www.advantageonlineshopping.com
2. Go to **Help > AOS Versions**.
3. From the left-hand navigation panel, select **Installation**.




   a. Verify your system meets the system requirements: **PostgreSQL**.

      **NOTE:** Write down the PostgreSQL user name and password for use during PostgeSQL installation.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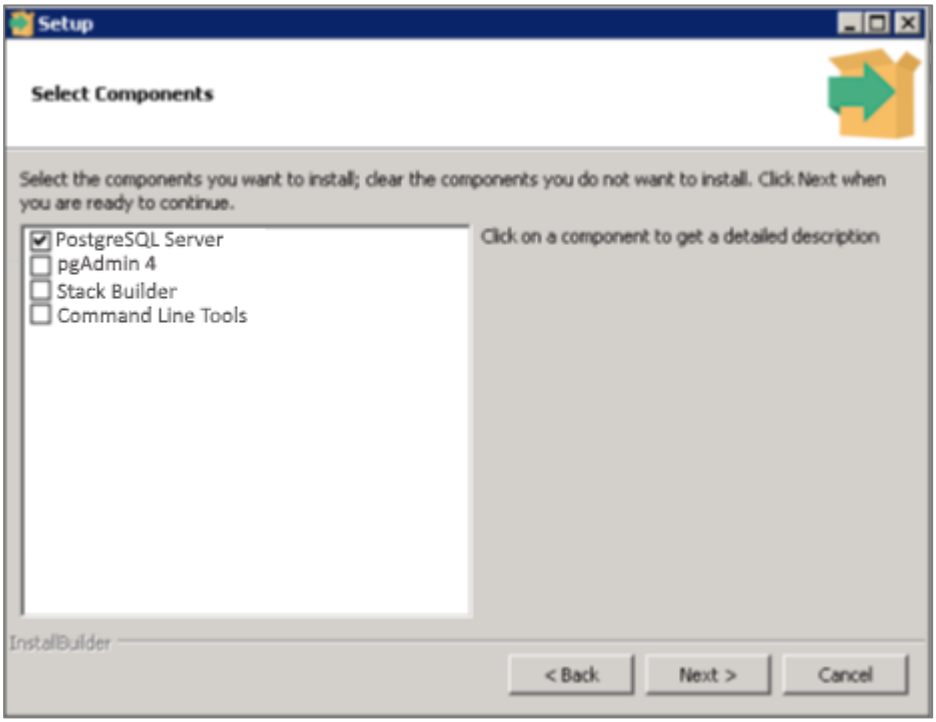
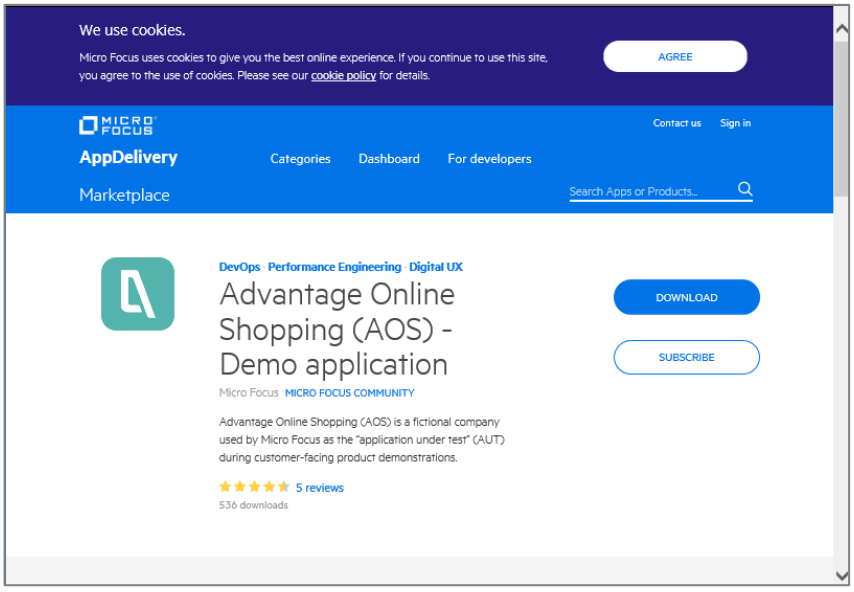
**When installing PostgreSQL:**

- During setup, in the Select Components window, you MUST check the **PostgreSQL** checkbox. **NOTE:** The other tools are useful for debugging, but are not necessary for AOS.




- When you are asked to enter a password for the **postgres** user, enter any password you want (we suggest **Admin**).

b. Once the prerequisites are installed, click **Get it from ADM Marketplace**.




- Sign in with your credentials; otherwise, sign up for an account.
- Make sure you have PostgreSQL installed; if you do not, click its respective link.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- Click **Download**. **NOTE:** Valid Marketplace credentials (user name and password) are required to download AOS.
- Once the executable is downloaded, run the installation and follow the prompts.

4. When the installation is complete, four new icons will appear on your Desktop:

- **Start AOS Services:** Right-click and select **Run as administrator** it initiates a local Tomcat server and registers AOS as a Windows service. This makes the backend and its API and services, available to any requests.

  **NOTE:** You can also start the server as follows:
  - Enter **services** in the Windows search string.
  - Select **Services-Desktop app** from the pop-up menu.
  - Scroll down the list of services until you find **apache Tomcat x.0 AOS** (where "x" is the version) and right-click to **Start** it.

  **IMPORTANT!** If you forget to start these services and later decide to use the AOS Management Console, you will be unable to impact the local instance of AOS.

- **AOS Demo App (Web):** Double-click this icon to open AOS in your default browser with the local URL, http://localhost:8080.
- **AOS Management Console (.NET):** Double-click this icon to open the Management console or right-click and select **Run as administrator** from the pop-up menu.
- **Stop AOS Services:** Right-click this icon and select **Run as administrator** to stop Tomcat and the AOS service.
  **NOTE:** You can also stop the server as follows:
  - Enter **services** in the Windows search string.
  - Select **Services-Desktop app** from the pop-up menu.
  - Scroll down the list of services until you find **apache Tomcat AOS** and right-click to **Stop** it.

For instructions on using the Management Console, please read **Section 5. AOS Management Console**.


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# Install the Containerized Version of AOS from GitHub

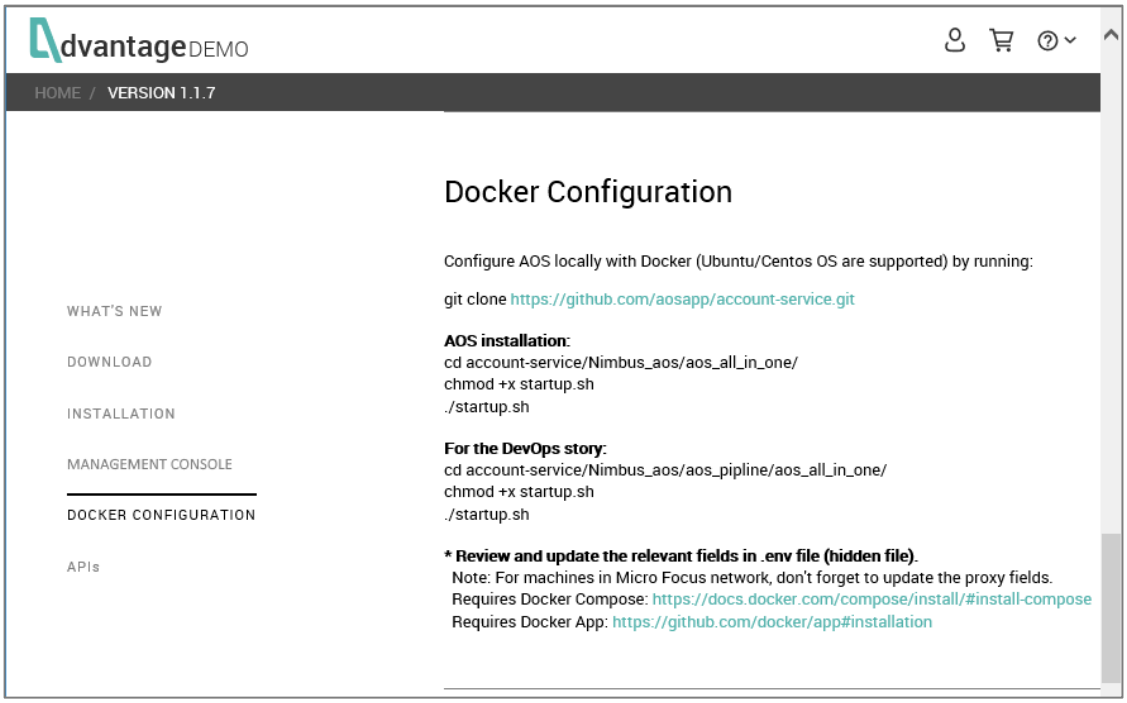
Many individuals involved in pre-sales like to have their "own" private demo environment. With this on-premises version, you can configure AOS according to your own needs and tweak the system as necessary (something you cannot do with the public environments). This version is also a good option where there is no Internet access.

**NOTE: We have 3 types of containerized deployments available from GitHub:**

a. 3 containers all in one host – Use this when you want a fast deployment of AOS and don't care about the backend architecture and layer; maybe you just want to do a quick demo.
b. 5 containers all in one host – Use this when you want to show an "almost-real production" environment without setting up a swarm cluster (perhaps you lack the resources to do so).
c. 5 containers with on 3 machines – Use this to demonstrate a real production environment (not full scale but still real), including a load balancer with network mapping, and the ability to scale each service.
d. In case you want to deploy AOS in a swarm cluster, set up the cluster using these instructions: https://docs.docker.com/engine/swarm/swarm-tutorial/create-swarm/

The installation process is the same, as shown below, except for the installation directory, which is identified for each type of deployment in Step #3f.

1. Open any browser and enter this URL: www.advantageonlineshopping.com
2. Go to **Help > AOS Versions**.
3. From the left-hand navigation panel, select **Docker Configuration.**




e. **Install the prerequisites:**
   - Docker App: https://github.com/docker/app#installation
   - Docker Compose: https://docs.docker.com/compose/install/#install-compose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f. **Configure (clone) AOS locally with Docker (both Ubuntu and Centos are supported) by running:**

```
git clone https://github.com/aosapp/account-service.git
```

g. **Install AOS:**

**NOTE: The *DIRECTORY* varies, depending on the type of containerized deployment:**

- 3 containers all in one host – the *DIRECTORY* is `aos_all_in_one`
- 5 containers all in one host – the directory is `aos_spring_cloud_deployment`
- 5 containers on 3 machines – the directory is `aos_spring_cloud_distributed`

```
cd account-service /Nimbus_aos/DIRECTORY/
chmod +x startup.sh
//If you need to configure proxy, this is the time.
./startup.sh
```

h. **Set up proxy, if necessary:** For machines in the Micro Focus network, don't forget to update the relevant proxy parameters in the hidden file (**.env**). These parameters are required when running behind the proxy.


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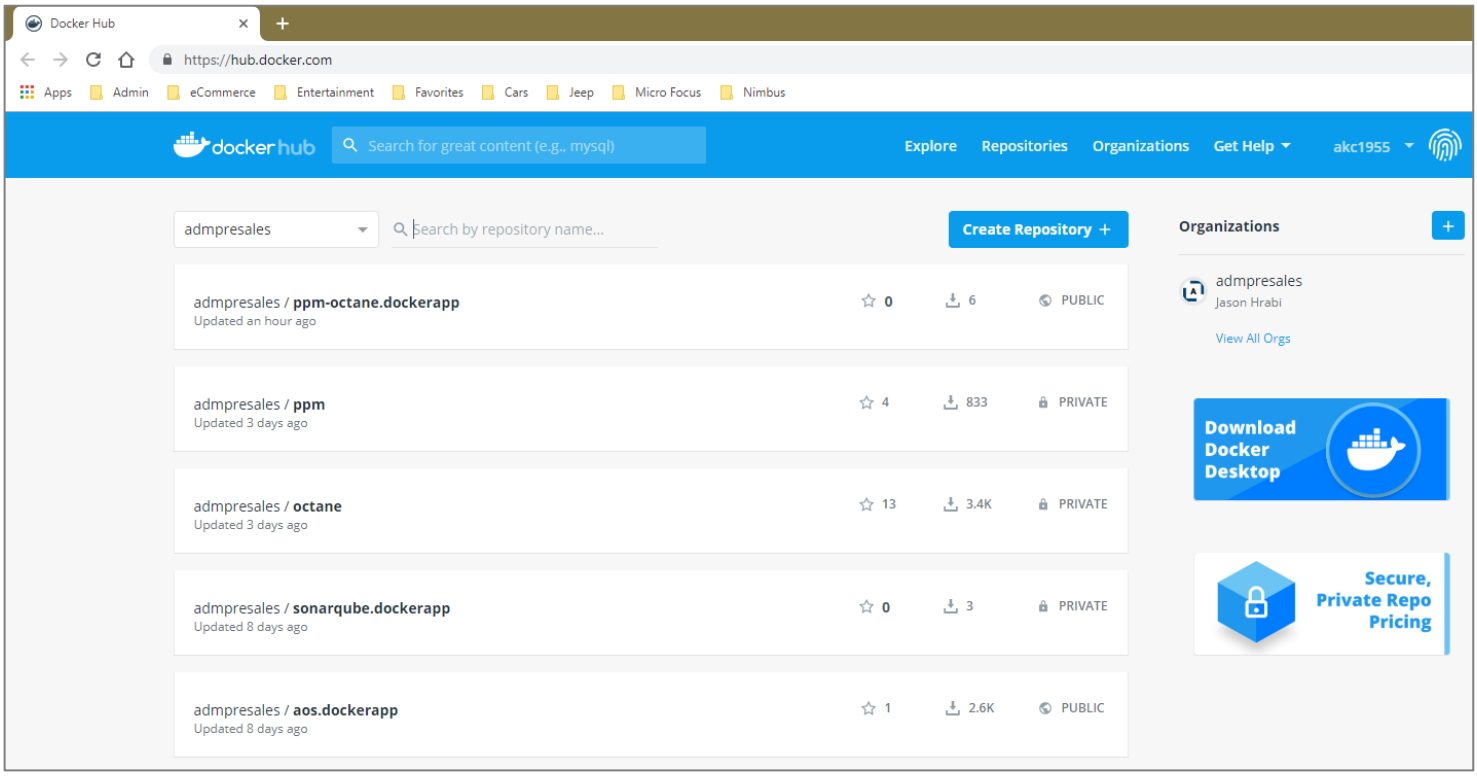
# Install the AOS Nimbus Server Version

Install this if you want the standard three-container version of AOS used with most Nimbus demos. It provides the advantages of the single-container version mentioned earlier, but also supports virtualization of the services layer. This version includes containers for the database, the services layer and the main application.

1. Open any browser and enter this URL: https://hub.docker.com
2. Log in with your Docker Hub credentials (you also need to provide your Docker ID to the ADM TE team to be given access to the **admpresales** repository mentioned below)
3. Select the **admpresales** repository and search for **aos**.




4. AOS consists of three containers that must be started in the following order:
   a. **aos_postgres**
   b. **aos_accountservice**
   c. **aos_main**
5. If you prefer, there is an application called **nimbusapp** that allows you to create, start, stop, and delete all three containers using one command. For details, see: **https://www.mfdemoportal.com/forums/week-in-week-out/use-nimbusapp-to-easily-manage-nimbus-containers**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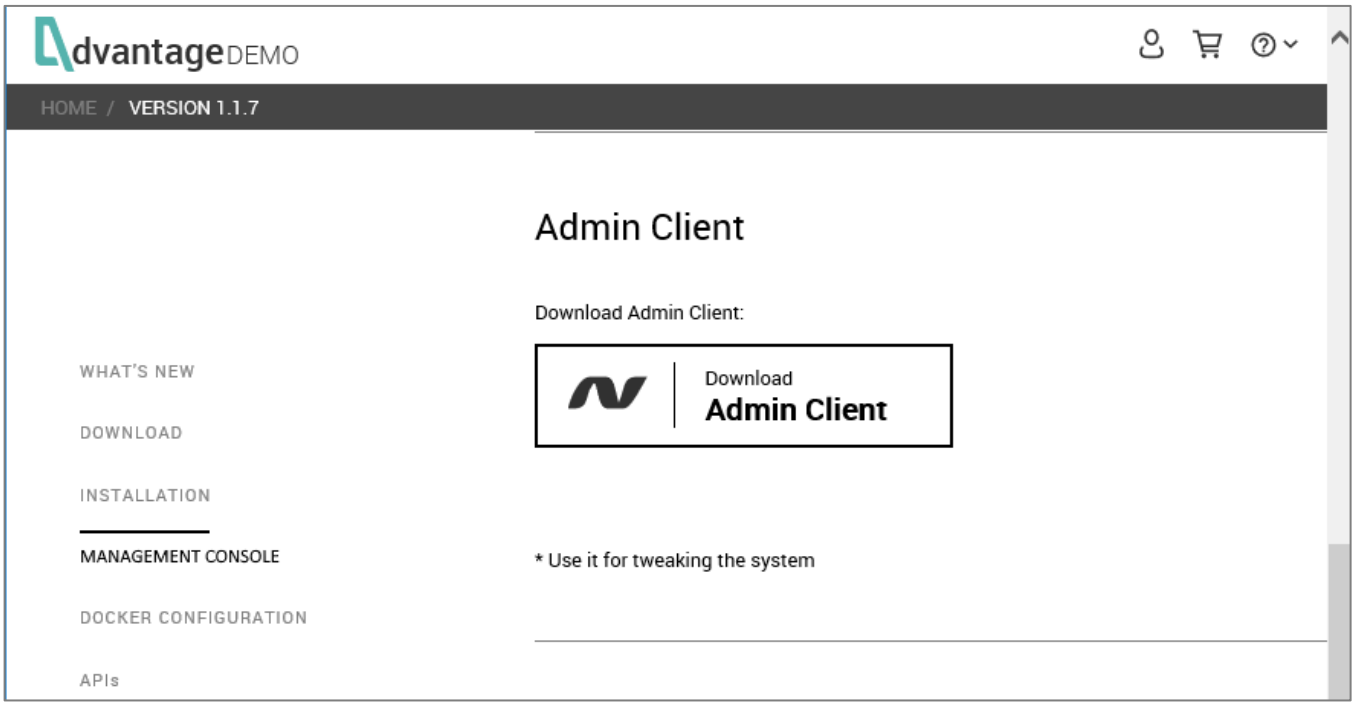
# Download the Management Console

Download the AOS Management Console so you can change the contents of AOS. This is great when you want to deliberately "cause problems" in AOS that can be addressed by a Micro Focus products you are demonstrating.
**NOTE:** When you install the AOS Demo App locally, the Management Console is automatically installed as well.

1. Open your browser and enter this URL: www.advantageonlineshopping.com
2. Go to **Help > AOS Versions**.
3. From the left-hand navigation panel, select **Management Console**.




4. Click **Download Management Console.**
   - Click **Download**.
   - Go to the folder where you downloaded the Management Console.
   - Find and extract the zip file: **AOS+demo+*[version#]*.zip**
   - Click the **.exe** file to run the Management Console: **AOSAdministrator.exe**

For instructions on using the Management Console, please read **Section 5. AOS Management Console**.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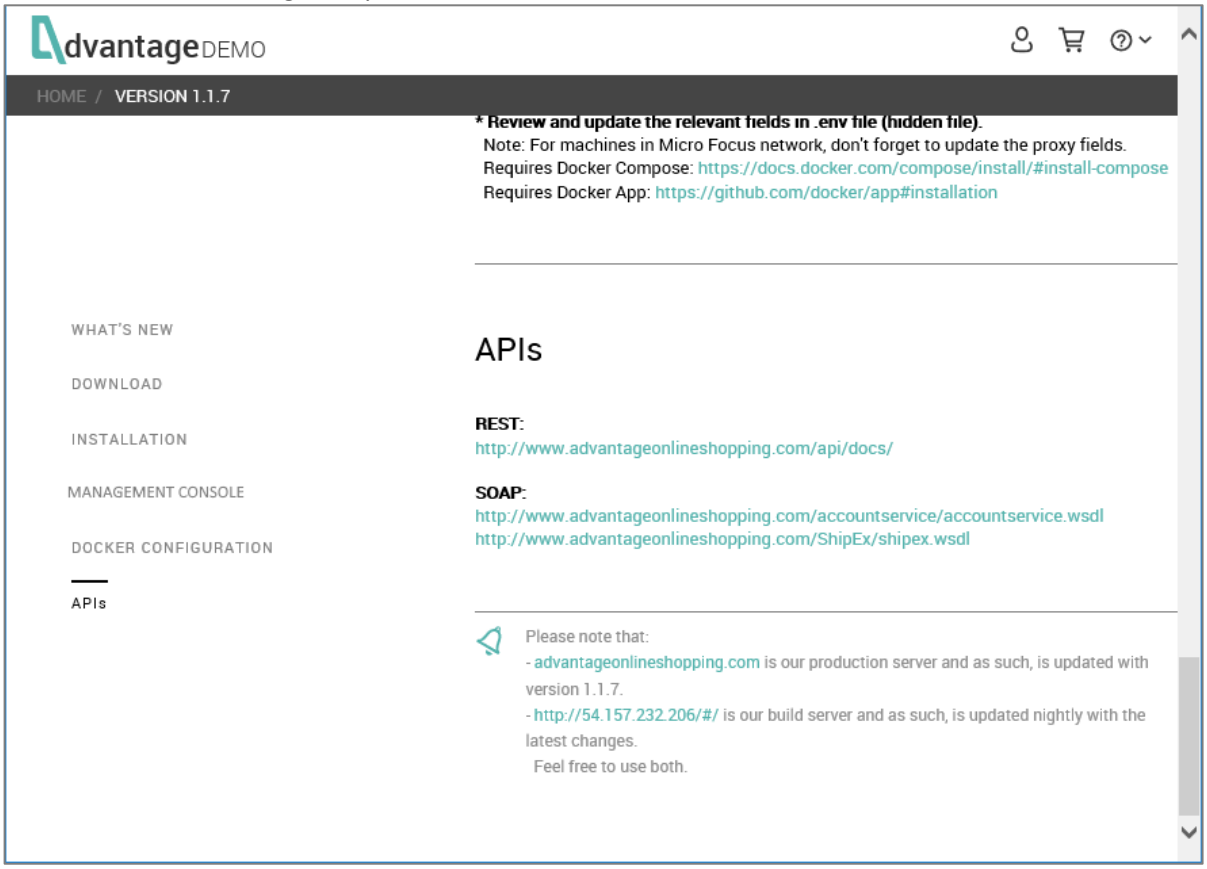
# Access the APIs

Click the links for the REST or SOAP APIs if you are a developer who wants to send requests to AOS without a UI.

1. Open your browser and enter this URL: www.advantageonlineshopping.com
2. Go to **Help > AOS Versions**.
3. From the left-hand navigation panel, select **APIs**.




4. For REST APIs, click the link beneath **REST:**
   - http://www.advantageonlineshopping.com/api/docs/
5. For SOAP APIs, click the links beneath **SOAP:**
   - http://www.advantageonlineshopping.com/accountservice/accountservice.wsdl
   - http://www.advantageonlineshopping.com/ShipEx/shipex.wsdl
6. Use any of these servers:
   - **Production server (updated with each new version):** www.advantageonlineshopping.com
   - **Nightly server (updated nightly with latest changes):** http://54.157.232.206/#/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# Section 6. Troubleshooting & FAQs

This section contains any troubleshooting tips associated with recurring issues (there may not be many) as well as list frequently asked questions.

**IMPORTANT!** If you experience any problems not documented here and want to ask questions, you can contact the AOS Support team by email: adm_demo_app_development@microfocus.com
Try to provide the following information when you contact the team:

- AOS version
- Operating system
- What you were doing when the problem occurred
- What (if anything) you did to try to resolve the problem

## Installation

1. **Cannot access the remote database**
   - **Situation:** You get an **Access denied** message when you choose **Remote Database** and click **next** during the installation process.
   - **Reason:** If you do not open the remote database option on Postgres, it will not work.
   - **Resolution:**
     - Change the configuration file. For details, see: https://blog.bigbinary.com/2016/01/23/configure-postgresql-to-allow-remote-connection.html
     - Make sure firewall is not blocking access to the remote database. If it is, disable the firewall for all remote connects or for your specific connection.

## Running the AOS Demo App (Windows)

1. **Service will not start for the local instance of AOS.**
   - **Situation:** You double-click the **Start AOS Demo App** icon, the command window opens, but the service will not start.
   - **Reason:** You must be the administrator to start the service.
   - **Solution:** Right-click the **Start AOS Demo App** icon and select **Run as admin** from the pop-up menu.

## Running the AOS Management Console

1. **Cannot start the AOS Management Console.**
   - **Situation:** You double-clicked the **AOS Management Console** icon and entered the proper login credentials, but nothing happened – no spinning circle, no interface.
   - **Reason:** Sometimes when you access the AOS Management Console and enter the proper credentials, it does not start up right away.
   - **Resolution:** Try re-clicking the icon and entering the proper login credentials. Look for the spinning circle. If you do not see it, re-click the icon again. **NOTE:** You may have to do this three times.


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