Notices

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Terminology

External Application – third-party e-commerce application, in this document: uStore Connect Sample Application. uStore Connect Sample Application allows anonymous browsing but requires registration for checking out orders.

External User – External Application User managed by the External Application.

uStore User – user of uStore application.

Registered User- a user that signed in to the External Application. The list of registered External Users and their details is maintained in Customers.xml file.

Anonymous User – a user that is browsing the store without signing in to the External Application. Anonymous users will be required to sign in in order to check out their orders or view orders history.

Overview

The uStore Connect interface allows customers and integrators to bring the same variable data print (VDP) ordering workflow available in uStore to their existing e-commerce systems. Customers will continue to use the uStore architecture to house product definitions and provide interface to uProduce, in addition to other tasks, but can also now import the order workflow portion of uStore into their own solution – providing broad customization capabilities, online template editing with uEdit, various recipient list provider options and online proofing. This capability will allow customers and integrators to develop systems offering VDP campaigns quickly and cost effectively.

Customers ordering static products would use the 3rd party system, but when ordering VDP products, they will automatically be redirected in the background to uStore to complete the order for that product. Once the product is completed, the customer is then directed back to the 3rd party system shopping cart. A new set of Web Service APIs are provided to support this integration. These APIs provide the ability to read store and order data, manage users and orders, send orders to production and much more. A full integration sample is provided with the uStore SDK to jump start the integration process.

This document describes the uStore Connect sample, imitating a third party e-commerce application which integrates with uStore.

***Note**: uStore Connect is not supported in uStore LE configuration.*

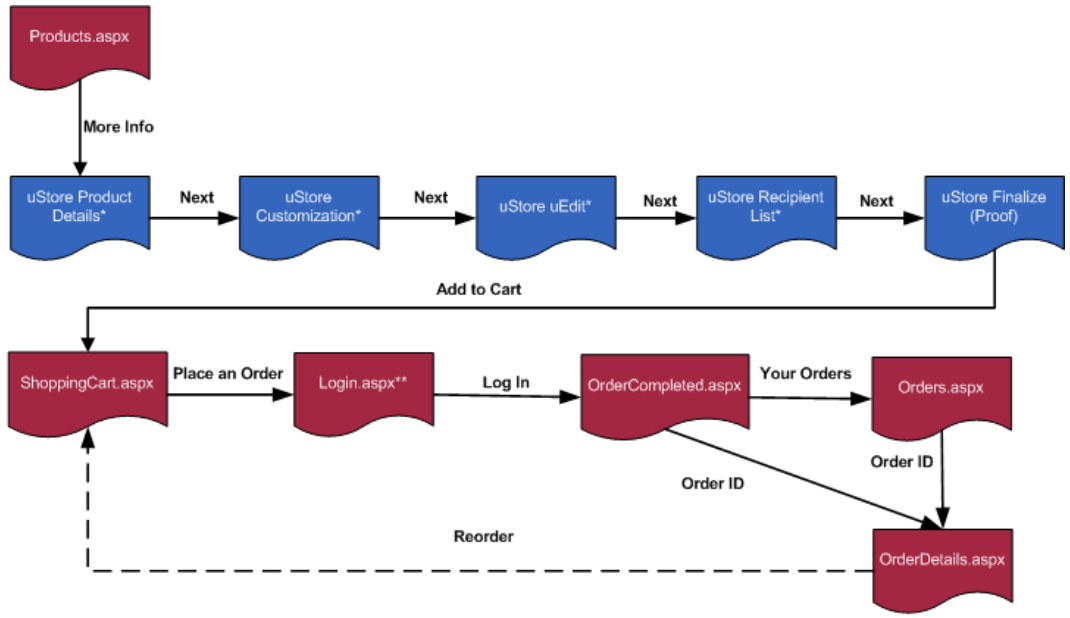
Ordering Procedure in uStore Connect

High-Level Flow

The following flowchart describes the External Application workflow.

Please pay attention to the transition from the External Application (marked in red) to uStore (marked in blue) and back.

Figure 1: uStore Connect Sample Application Flowchart

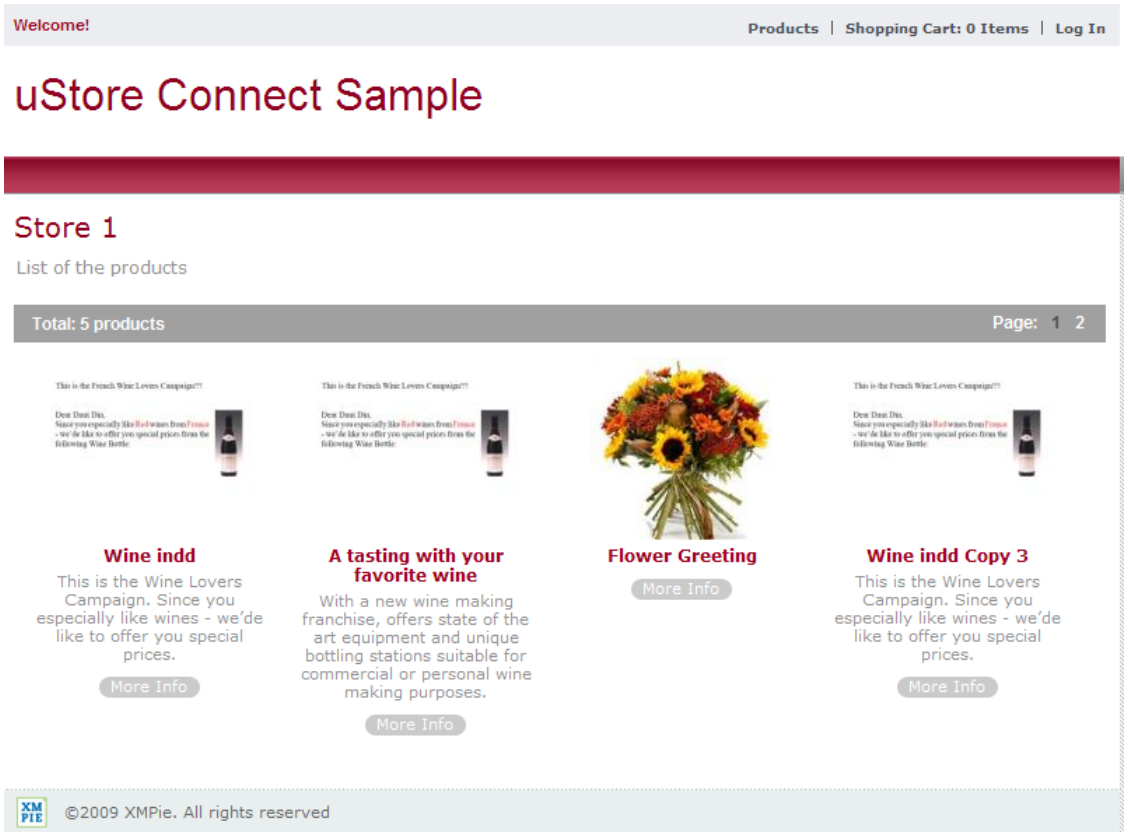


*According to uStore product setup, these steps can be optional.
** Registered Users are redirected from ShoppingCart.aspx directly to OrderCompleted.aspx

Products Page (Products.aspx)

This page displays a list of products, with their names, descriptions and thumbnails.

Figure 2: uStore Connect Sample Application – Products Page



The **Products** page calls uStore API to retrieve information about:

- the store
- the product list with product details
- the product thumbnail

Clicking the **More info** button redirects you to the Product's Details page in uStore (Figure 3).

Prior to redirecting, the application checks if a uStore User has been already obtained for the External User.

If no, uStore API is called to perform the following operations:

- a new uStore User is created for the External User.
- permissions are granted to the newly created uStore User by assigning him to the appropriate User Group in uStore.

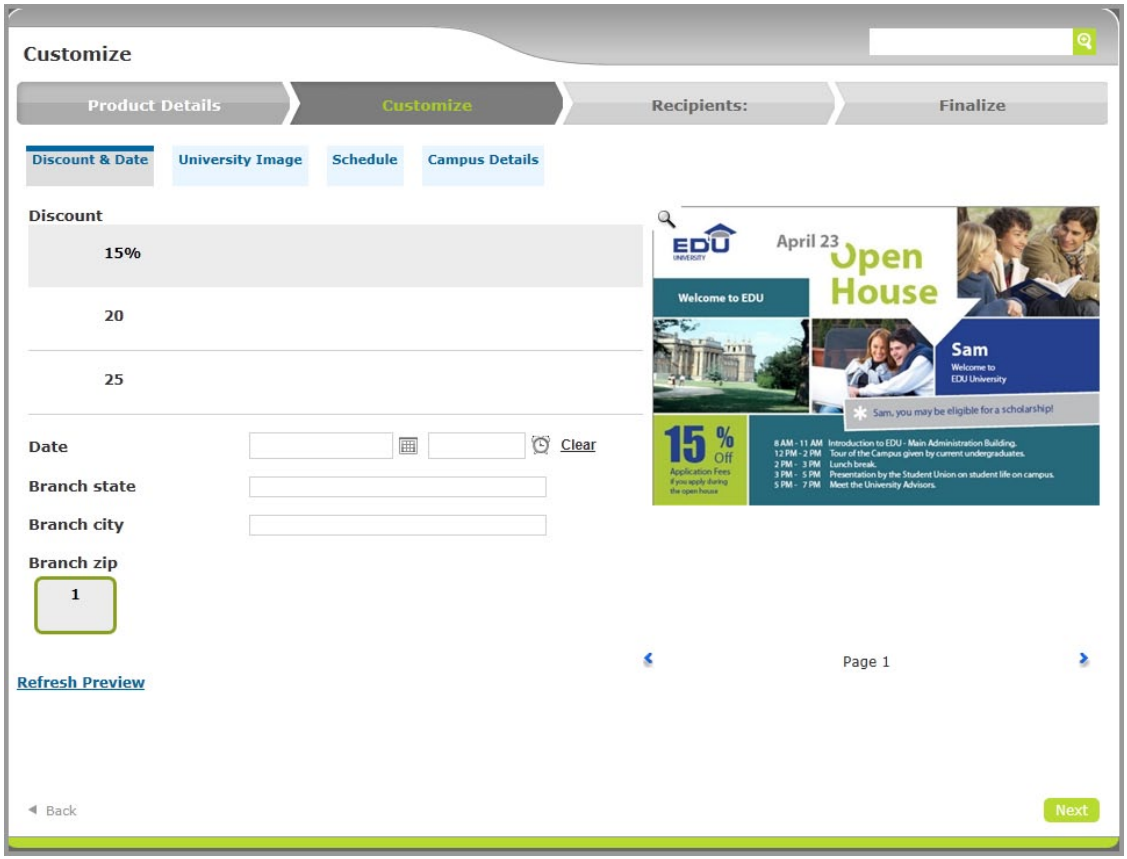
uStore API is called to retrieve a Sign On URL to redirect you to the right **Product Details** page in uStore. The External Application is redirecting to this URL.

uStore

You are redirected to uStore in order to be able to customize and personalize the selected product. uStore allows the shopper to perform the following steps (according to Product setup in uStore Admin application):

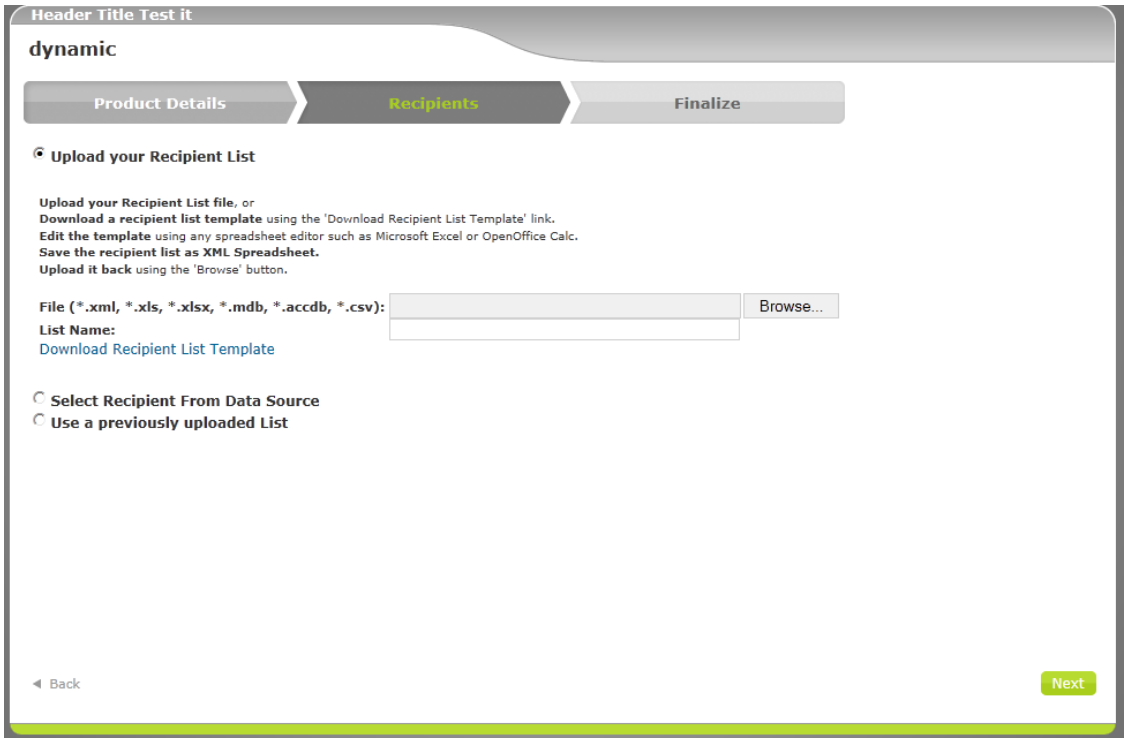
- **Product Details**
- **Customization**

Figure 3: uStore Connect Sample Application – Customization step in uStore



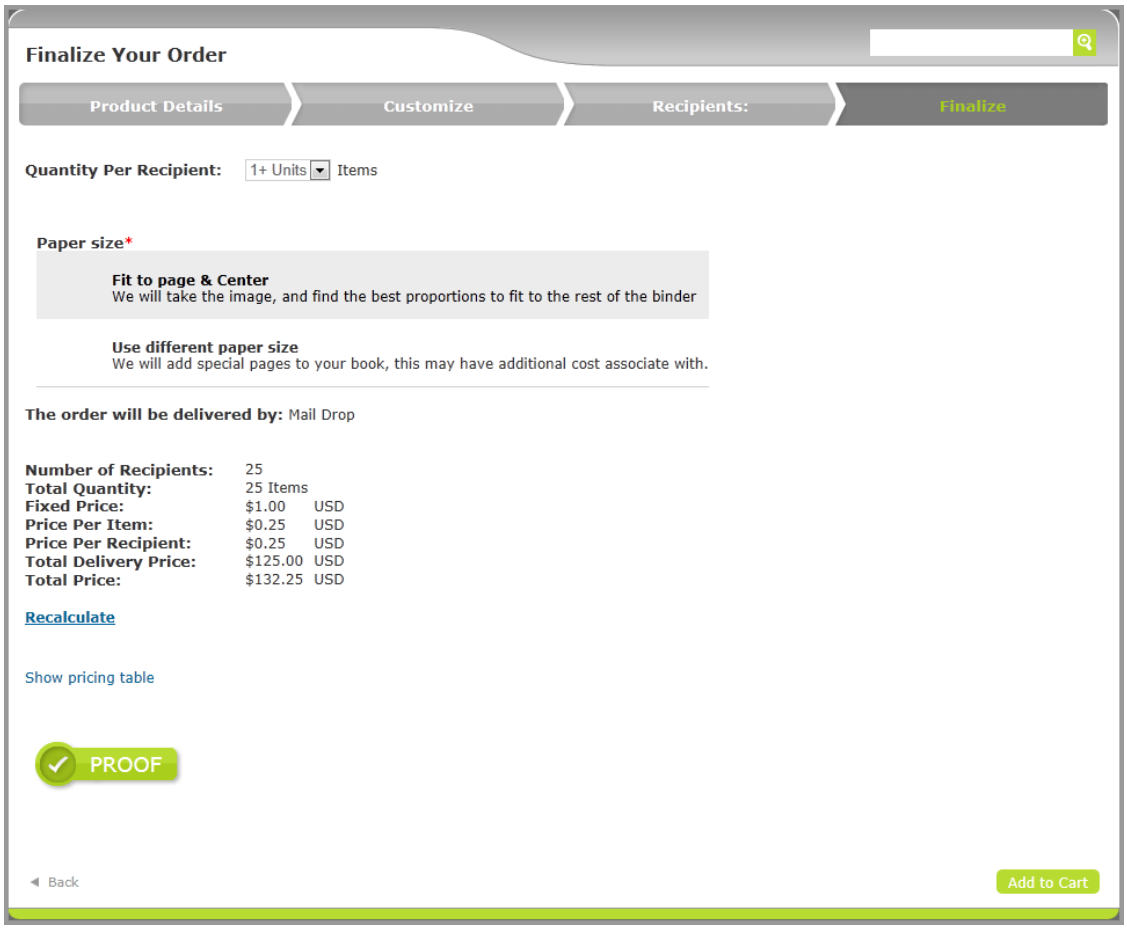
- **Text and Image Editing in uEdit**
- **Defining the Recipient List**

Figure 4: uStore Connect Sample Application – Recipient List definition in uStore



- **Finalizing the Order (proof)**.

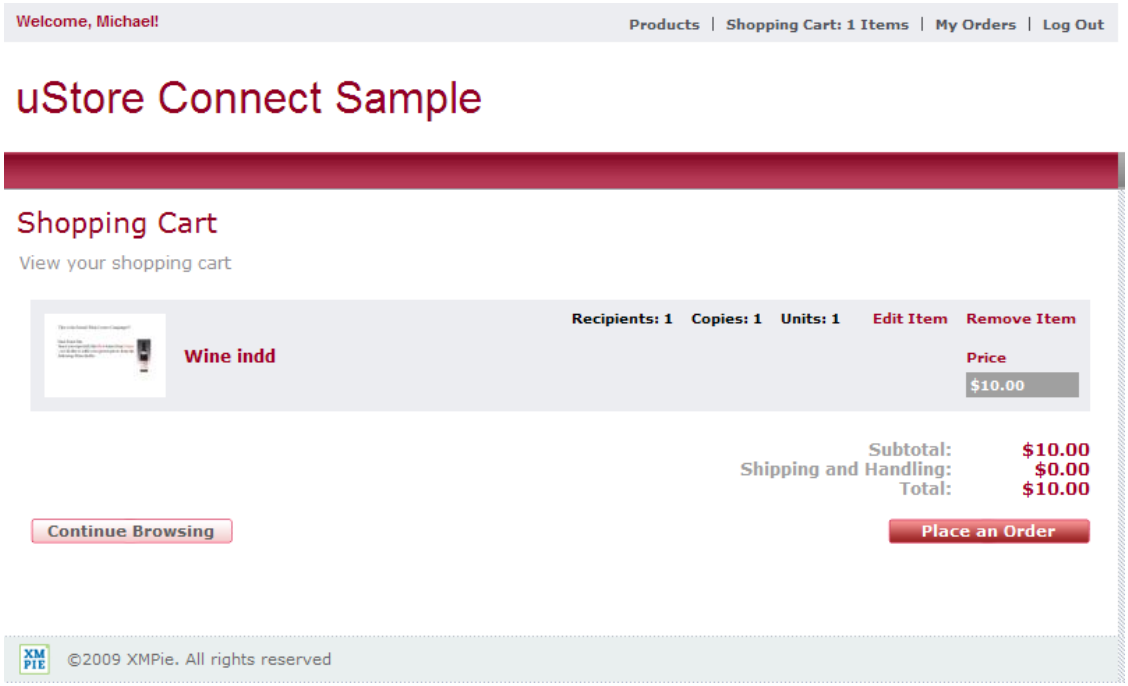
Figure 5: uStore Connect Sample Application – Finalizing the order in uStore



When clicking the **Add to Cart** button, you are redirected back to the External Application's Shopping Cart. Clicking **Cancel** redirects to the **Products** (Products.aspx) page (Figure 2) in the External Application.

Shopping Cart Page (ShoppingCart.aspx)

Figure 6: uStore Connect Sample Application – Shopping Cart Page



This page displays all the items in the uStore shopping cart by calling uStore API. The uStore Shopping Cart ID is associated with the current External User and persists in the Customers.xml file.

uStore API is called to retrieve a list of order items in the Shopping Cart and their details (by uStore Cart ID).

Clicking the **Edit Item** link calls uStore API to retrieve the URL of the order item and redirects you to the Finalize page in uStore (Figure 5). When editing is completed in uStore application, you are redirected back to the Shopping Cart page in the External Application and the data is refreshed.

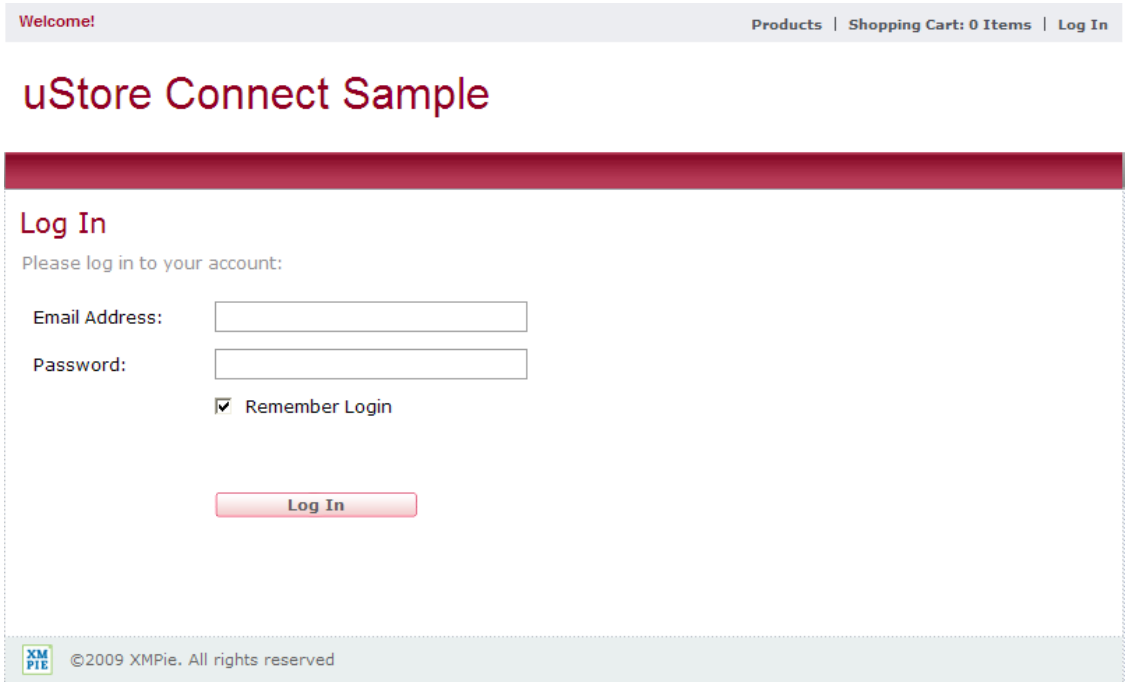
Clicking the **Remove Item** link calls uStore API to delete the order item from the uStore shopping cart.

When clicking the **Place an Order** button, the External Application will check if you are a Registered User or not. If you are a Registered User, your order will be placed and you will be redirected to the **Order Completed** page (Figure 9). Otherwise, you are required to sign in in the **Login** page (Figure 7).

Note: *An order that has been submitted is no longer available for editing.*

Login Page (Login.aspx)

Figure 7: uStore Connect Sample Application – Login Page

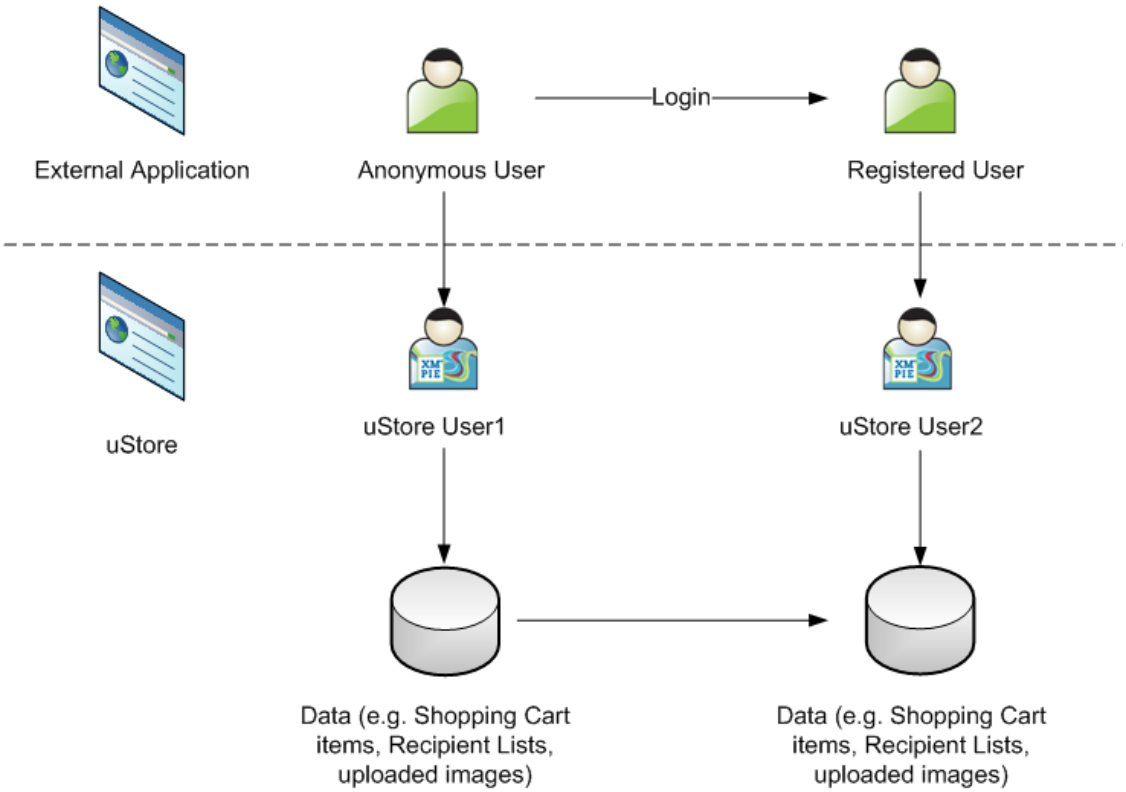


In this page the External User is required to log in to the External Application. During the login, the user name (email address) and password are verified by the External Application. If the provided credentials are valid, you become a Registered User.

Note: *The list of Registered Users and their details is maintained in Customers.xml file.*

The External Application might assign different uStore Users for an Anonymous User and a Registered User. Once the Anonymous User becomes a Registered User after login, uStore API is called to merge the data of the uStore User created for the Anonymous User with the data of the uStore User created for the Registered User (Figure 8):

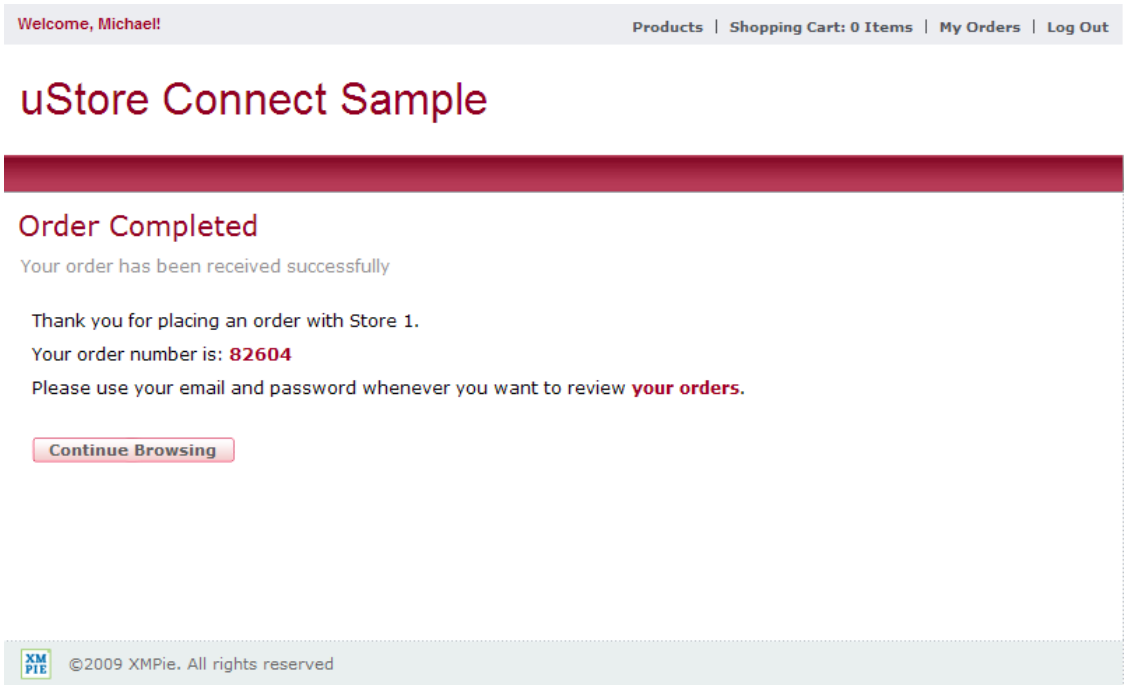
Figure 8: uStore Connect Sample Application – User Data Merge Diagram



If you are in the process of placing an order, clicking the **Log In** button will redirect you to the **Order Completed** page.

Order Completed Page (OrderComplete.aspx)

Figure 9: uStore Connect Sample Application – Order Completed Page



While this page is loaded, uStore API is called to submit the Shopping Cart in uStore.

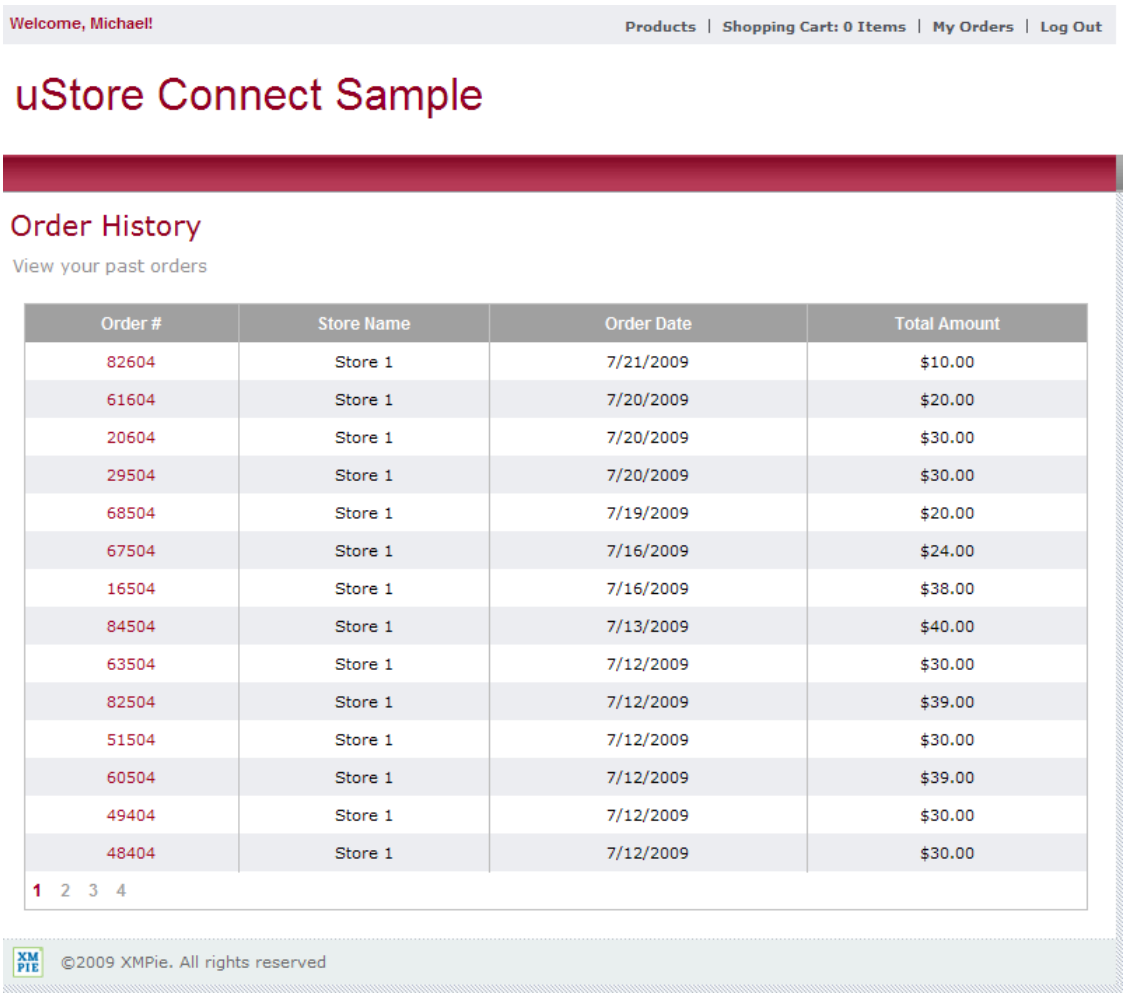
This page displays an order confirmation message and provides you with the order ID returned by the order submission API.

- Clicking the **My Orders** link in the top part of the page or the **your orders** link in the order confirmation message redirects you to the **Order History** page (see Order History Page (Orders.aspx) below).
- Clicking the order ID redirects you to the **Order Details** page (see Order Details Page (OrderDetails.aspx) on page 13)

Order History Page (Orders.aspx)

This page displays the past orders of the Registered User by calling uStore API.

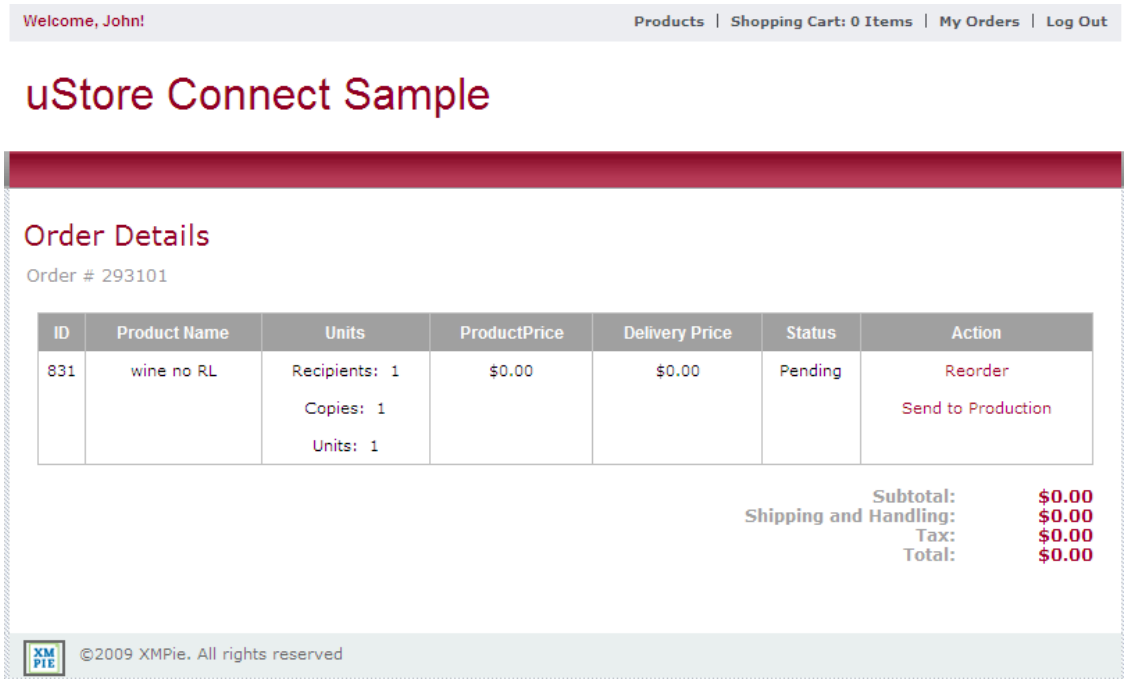
Figure 10: uStore Connect Sample Application – Order History Page



Clicking on an order ID you get to the **Order Details** page (OrderDetails.aspx) (see below).

Order Details Page (OrderDetails.aspx)

Figure 11: uStore Connect Sample Application – Order Details Page

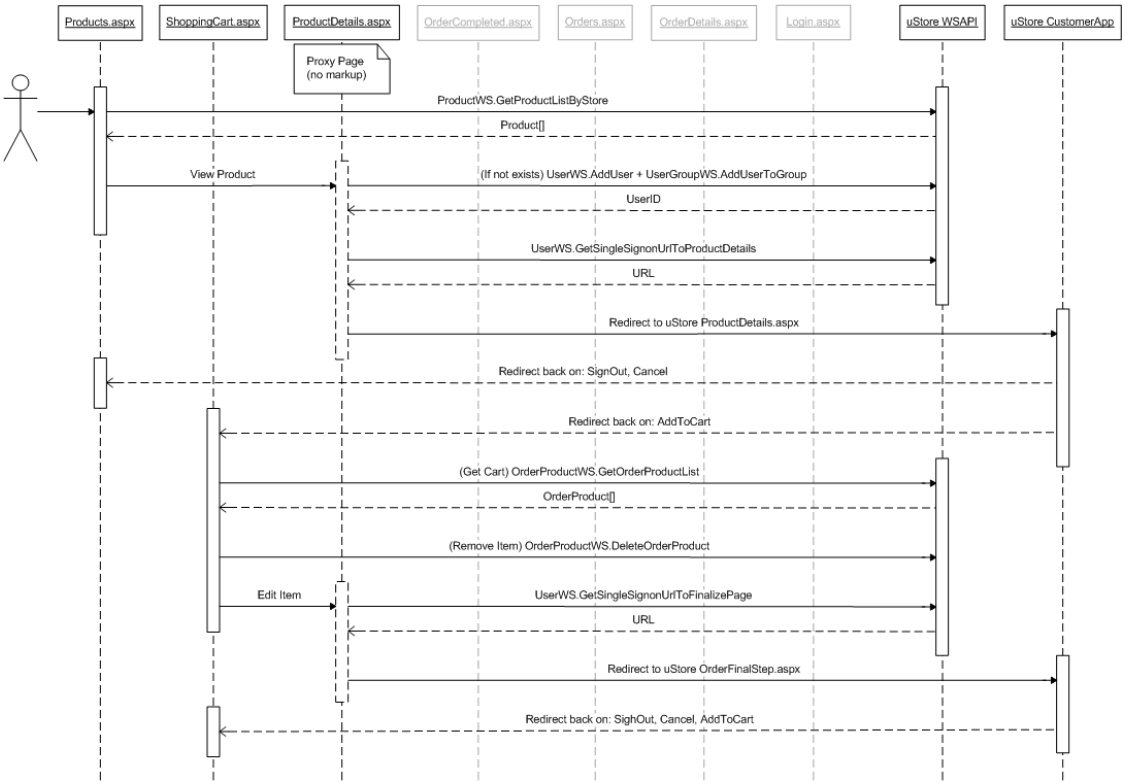


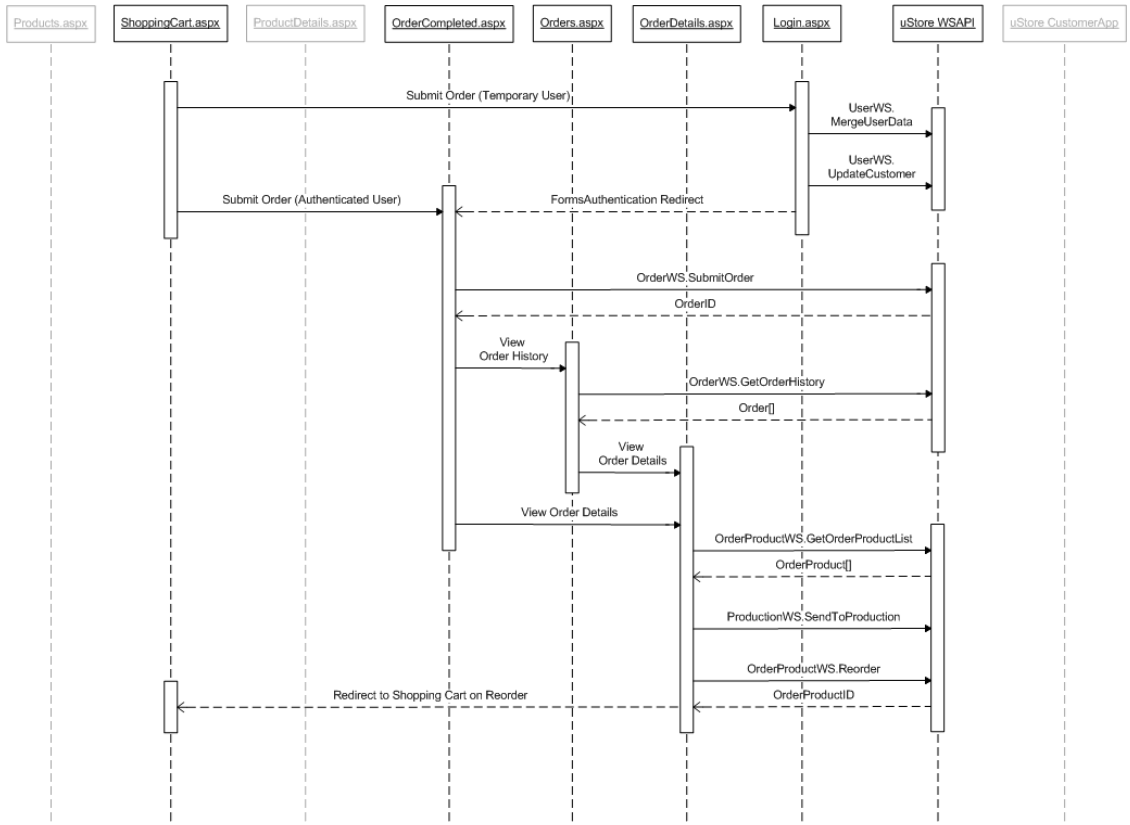
This page displays the order items in an order by calling uStore API to get the order item list with details.

- Clicking **Reorder** duplicates an order item and adds it to the active cart, returning the order item ID. Once you click this link you are redirected back to the Shopping Cart page (see Figure 6) where you can place a new order.
- Clicking **Send to Production** sends an order item to production by calling uStore API.

Detailed Flow Diagram

Figure 12: uStore Connect Sample Application – Order Completed Page




Products.aspx
ShoppingCart.aspx
ProductDetails.aspx
OrderCompleted.aspx
Orders.aspx
OrderDetails.aspx
Login.aspx
uStore WSAPI
uStore CustomerApp
Submit Order (Temporary User)
UserWS.
MergeUserData
UserWS.
UpdateCustomer
Submit Order (Authenticated User)
FormsAuthentication Redirect
OrderWS.SubmitOrder
OrderID
View
Order History
OrderWS.GetOrderHistory
Order[]
View
Order Details
View Order Details
OrderProductWS.GetOrderProductList
OrderProduct[]
ProductionWS.SendToProduction
OrderProductWS.Reorder
Redirect to Shopping Cart on Reorder
OrderProductID

Appendix A: uStore Connect Installation

Summary

This chapter describes the installation procedure of the 'uStore Connect Example' website.

Pre-requisites

- IIS is required on the hosting machine.
- Microsoft .NET framework 4.0 should be installed.
- uStore should be accessible from the hosting machine.
- A 'uStore Connect ' store with products should be configured on the uStore system.

Creating a Virtual Directory

In order to install the 'uStore Connect Sample' website, IIS virtual directory should be created on the hosting machine.

To create the IIS virtual directory, copy 'uStore Connect Sample' folder to the desired location on the hosting machine disk.

You can use the IIS Manager to create a virtual directory for an ASP.NET Web application that is hosted in IIS. A virtual directory appears to browsers as if it were contained in a Web server's root directory, even though it can physically reside somewhere else.

You must create a virtual directory as part of an existing IIS Web site. This can be either the default Web site that is created when IIS is installed, or a Web site that you have created. For more information about how to install and configure IIS, or about how to create a Web site, see the IIS Help or the online IIS product documentation on the Microsoft TechNet Web site.

Follow one of the procedures that are described in How to: Open IIS Manager topic to open IIS Manager. You can then create a virtual directory.

To create a virtual directory by using IIS Manager in IIS version 6.0:

1. In the IIS Manager, expand the local computer and the website to which you want to add a virtual directory.
2. Right-click the site or folder in which you want to create the virtual directory, click **New**, and then click **Virtual Directory**.
3. In the Virtual Directory Creation Wizard, click **Next**.
4. In the **Alias** box, type a name for the virtual directory – 'uStoreConnectSample', and then click **Next**.

5. In the **Path** box, type or browse to the physical directory that contains the 'uStore Connect Sample', and then click **Next**.
6. Select the check boxes for the access permissions that you want to assign to the users. Read and Run Scripts check boxes must be selected. These permissions enable you to run ASP.NET pages.
7. If you are working on IIS 7, make sure that the StoreConnectSample web site uses a Classic .NET AppPool (do not use the default AppPool).
8. Click **Next** and then click **Finish**.

To create an application (virtual directory) by using IIS Manager in IIS version 7.0:

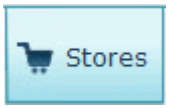
1. In the IIS Manager, expand the local computer and the website to which you want to add a virtual directory.
2. Right-click the site or folder in which you want to create the application directory, click **Add Application**.
3. In the **Alias** text box, type a name for the virtual directory – 'uStoreConnectSample'.
4. Click **Select** to select the application pool that uses framework 4.0, usually called "ASP.NET v4.0."
5. In the **Physical path** text box, type or browse to the physical directory that contains the 'uStore Connect Sample', and then click **OK**.

Now 'uStore Connect Sample' site can be accessed by typing in:
`http://[machine IP address]/uStoreConnectSample`.

Note: *For information on final configuration steps required for uStore Connect Sample application setup, see Appendix B below.*

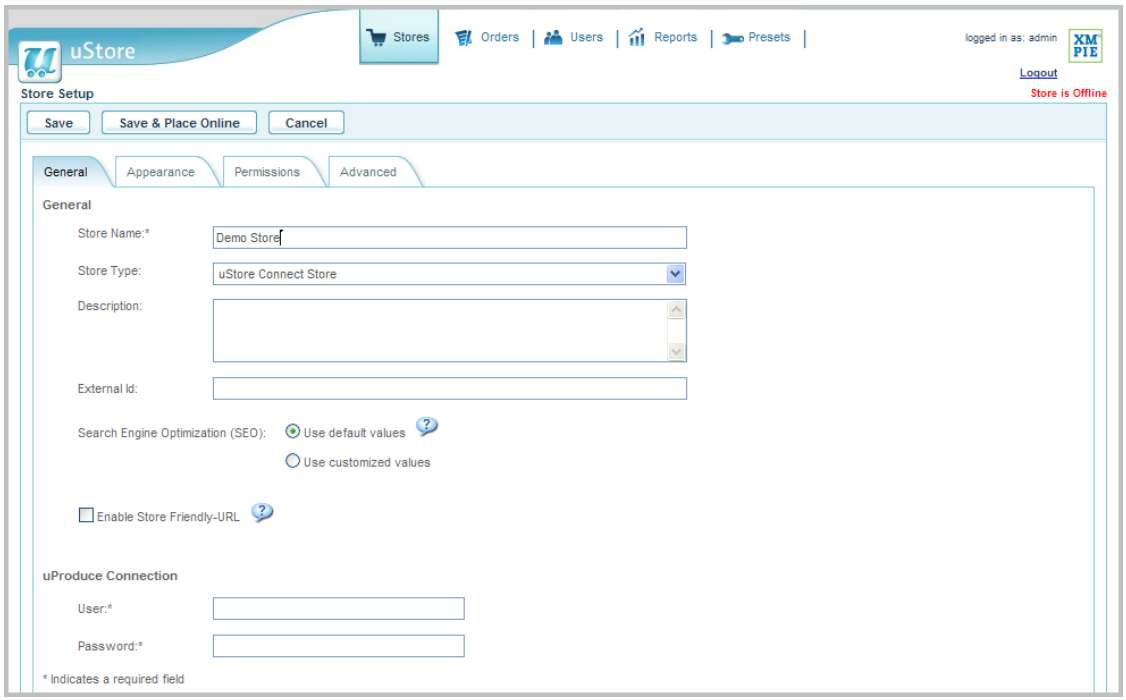
Setting up a uStore Connect Store

To setup a uStore Connect store in uStore Admin application:

1. Click the 

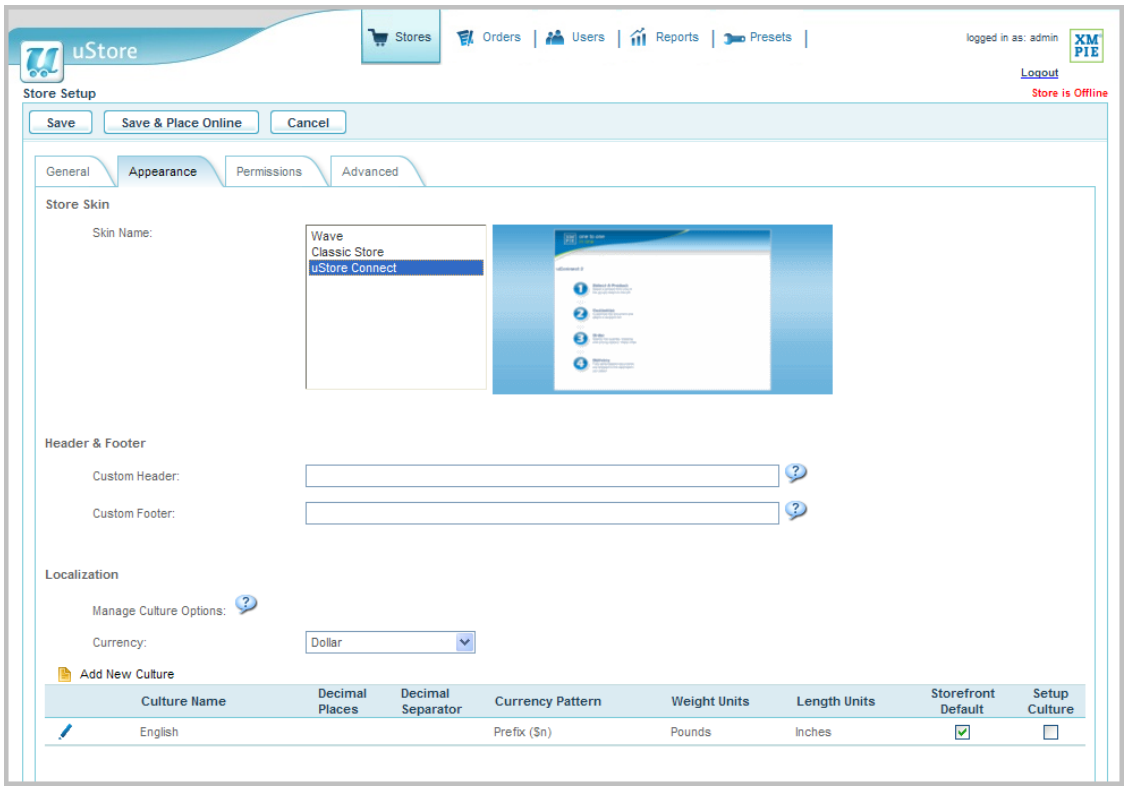
icon to open the **Store List** page.
2. Click the **Setup** link next to the store you wish to configure for uStore Connect integration. The **Store Setup** page is displayed.
3. In the **General** tab of the **Store Setup** page, select **uStore Connect Store** in the **Store Type** drop-down list.

Figure 13: Store configuration for uStore Connect integration – General Tab



4. In the **Appearance** tab of the **Store Setup** page, select the **uStore Connect** skin.

Figure 14: Store configuration for uStore Connect integration – Appearance Tab



5. Click **Save & Place Online** to save your settings.

Granting Permissions to uStore API

1. Create a new user group in uStore with the name **API** and set the **Permissions** to allow **Access Web Service API**.
2. Add your Admin user to group **API**.

For more details on granting permission to the Web Services API, see "Assigning Permissions to the User Group" section in the *uStore User Guide*.

uStore Connect Configuration

1. In the **web.config** file (residing in the root directory of the uStore Connect Sample installation), edit the following parameters (highlighted in **red**):

- `<add key="DefaultStoreId" value="1"/>`: the ID of the store to connect to. The store ID is visible in the **Store Setup** page in uStore Admin application.
- `<add key="DefaultCultureId" value="1"/>`: culture in which the store is displayed. The default culture is English (1).
- `<add key="AdminUserName" value="admin"/>`: username of the user (usually, the uStore administrator) who is allowed to call the Web Services API (usually, uStore administrator). This user must be assigned to a User Group with **Access Web Service API** permission allowed.
- `<add key="AdminPassword" value="admin"/>` : password of the user (usually, the uStore administrator) who is allowed to call the Web Services API
- `<add key="ProductsPerPage" value="4"/>` : number of products displayed per page

….

`<applicationSettings>` : this section provides paths to uStore Web Services. Please replace localhost with the relevant IP address (if necessary)

```
    <uStoreConnectExample.Properties.Settings>
      <setting name="uStoreConnectExample_ProductWS_ProductWS"
serializeAs="String">
        <value>http://localhost/uStoreWSAPI/ProductWS.asmx</value>
      </setting>
      <setting name="uStoreConnectExample_StoreWS_StoreWS"
serializeAs="String">
        <value>http://localhost/uStoreWSAPI/StoreWS.asmx</value>
      </setting>
      <setting name="uStoreConnectExample_UserWS_UserWS"
serializeAs="String">
        <value>http://localhost/uStoreWSAPI/UserWS.asmx</value>
      </setting>
      <setting name="uStoreConnectExample_PermissionsWS_PermissionsWS"
        serializeAs="String">
        <value>http://localhost/uStoreWSAPI/PermissionsWS.asmx</value>
      </setting>
      <setting name="uStoreConnectExample_OrderWS_OrderWS"
serializeAs="String">
        <value>http://localhost/uStoreWSAPI/OrderWS.asmx</value>
```

```
      </setting>
      <setting name="uStoreConnectExample_OrderProductWS_OrderProductWS"
        serializeAs="String">
        <value>http://localhost/uStoreWSAPI/OrderProductWS.asmx</value>
      </setting>
    </uStoreConnectExample.Properties.Settings>
  </applicationSettings>
```

Your store is now ready to be integrated with the External Application.

uStore Connect Data Storage

uStore Connect Sample website uses an XML file to store External User details. The file is located at: `<uStore Connect Website Installation>/DataSources/Customers.xml`. Make sure that the file is accessible for writing.

In order to edit/add users to the uStore Connect Sample site, the following elements in the **Customers.xml** file should be edited (the elements are highlighted in **red**):

```
<Customer Id="<unique External User ID>" FirstName="<External User's first
name>" LastName="<External User's last name>" Email="< External User's email
address>" Password="< External User's password>"></Customer>
```