

Cloud-based Retail Solution



Overview:

The client for this project wanted Mindfire to develop a comprehensive solution to serve the needs of the key entities in the retail space dealing with consumer goods business. The aim was to not only enable them to run their operations efficiently but also to deal with the changing trends efficiently. Mindfire developed a cloud based platform with centralized data storage and on-line applications that can be run on all devices having online web browsers. It allows customers, channels, merchants and suppliers to engage effectively and have a streamlined supply chain management system running for them.

Client details:

Name: Confidential **Type:** Retail Solution provider **Location:** USA

Technologies:

Asp.net Web forms, C#, WCF, Web Api, Ado.net, Bootstrap, JQuery, JavaScript, MySQL

Project Description:

There are 5 major components to the application:

- Products
- Customers/Channels/Merchants: These are the major stakeholders who use the system. Each of them has a database mapped.
- Suppliers
- Basket/Orders: There are 3 types of baskets in Sunrise which are used to create orders between merchants/channels/customers. Also there are 3 kinds of orders in Sunrise (B2C, B2B and B2B2C). Besides this, there is another basket (purchase order basket) used to create orders between merchants and suppliers.
- Invoices: There is a mechanism for creating e-invoices from the sales order (B2C, B2B and B2B2C).



Workflow:

Accounts for merchants are created in the application and are provided with the login credentials. They are the top level users of the application. Every merchant subsequently creates its base of suppliers, channels, customers and in turn provides them with corresponding login details. Besides that, details of products and warehouses are also added. Purchase orders are raised by merchants to their suppliers to fill up their warehouses with the required goods. The orders raised can be of various types e.g. B2B orders to the channels, B2B2C orders for the customers directly and B2C orders between the channels and customers.

Channels are allowed to login using their credentials and their access to various functionalities in the application is limited by their role. Having complete right to view their own data, they have their own warehouses. By raising B2B orders they can fill up their warehouses with the products they need.

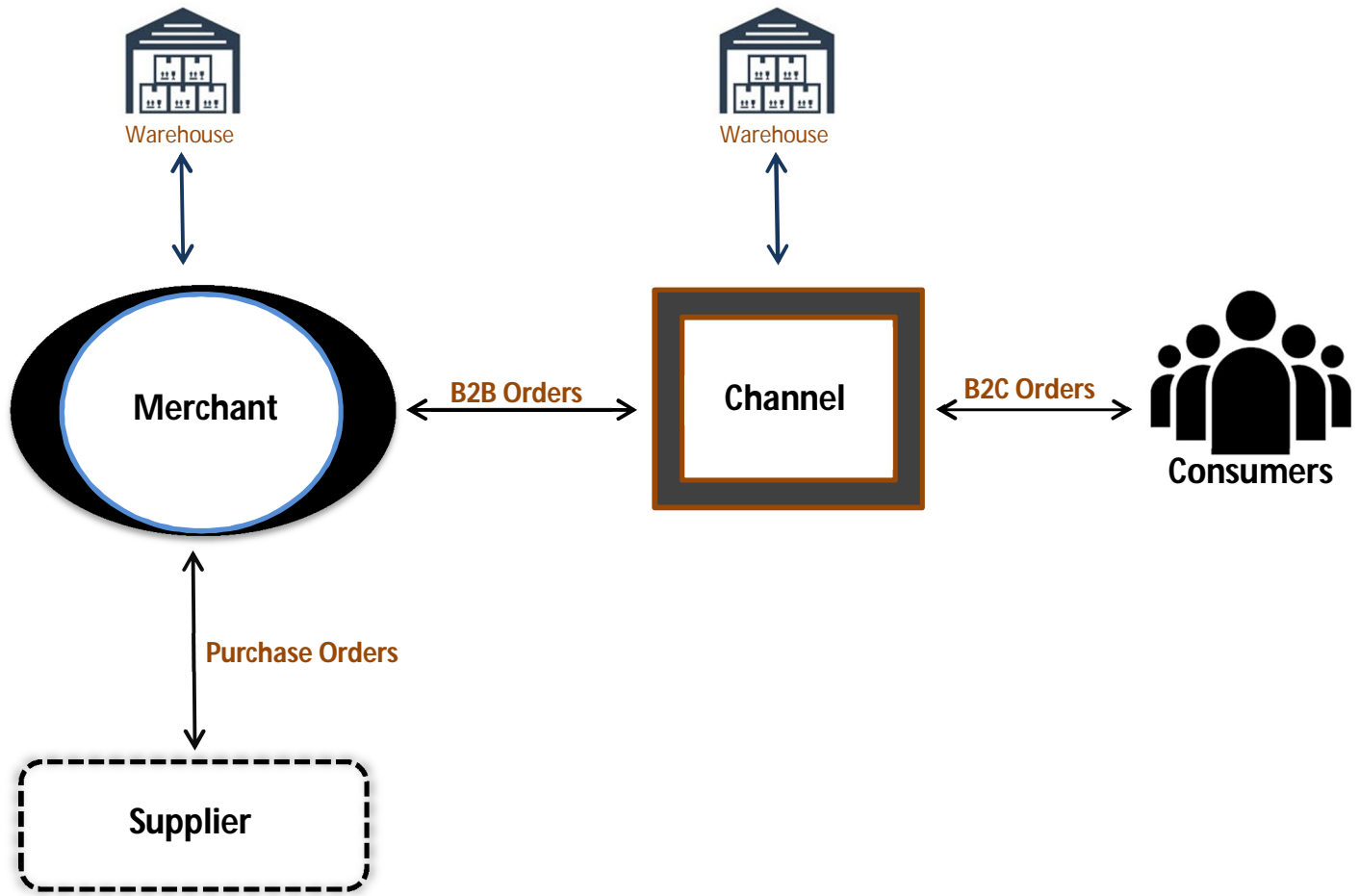
Customers and Suppliers can login too and their access to various functionalities of the application is defined by their roles and the work they are supposed to do.

There are 3 baskets in the application:

- DirectOrderbasket – This is the basket which is used by mostly channels/merchants to create all the 3 types of orders (B2C, B2B, B2B2C).
- POS Basket – This is also used by Merchants/channels to create B2B2C and B2C orders. There are a host of features which can be used as and when desired.
- Webshop basket – This is public basket which online users can use to place orders. One can register and login here and is thus not limited to merchants/channels only.



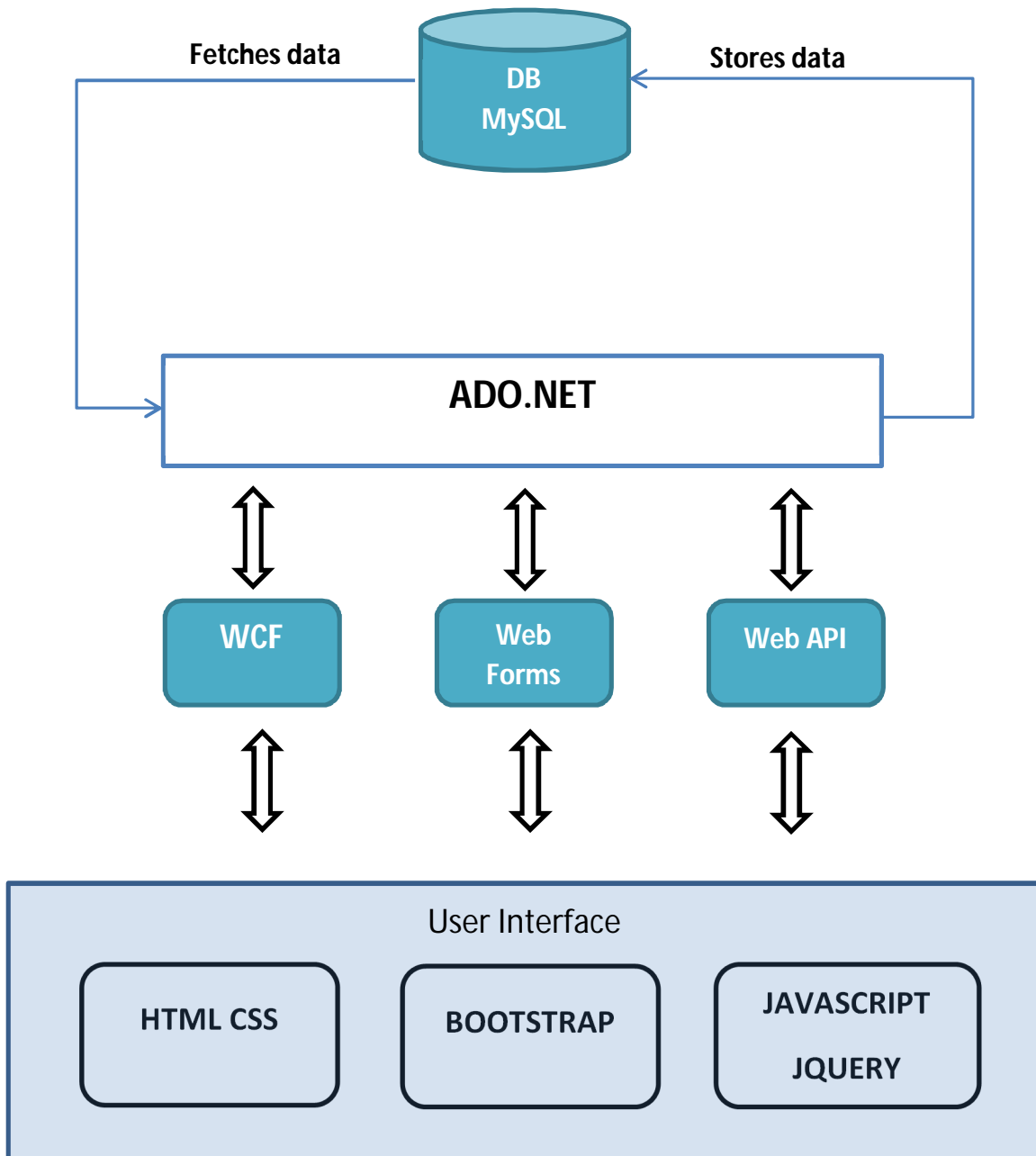
Flow Diagram:





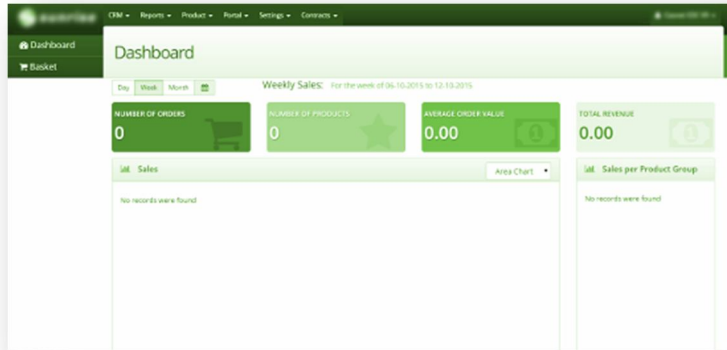
Cloud-based Retail Solution

Architecture Design:





Screenshots:



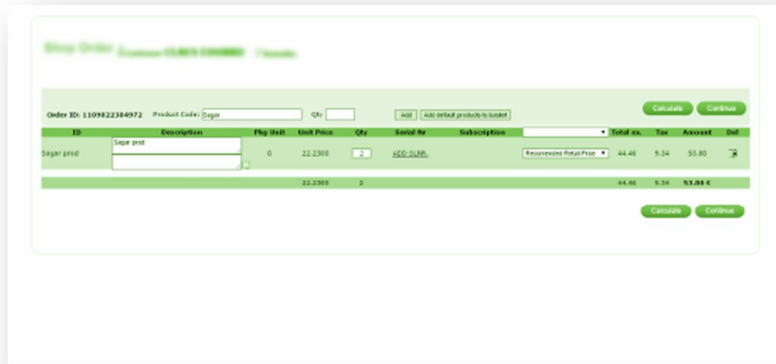
Screen 1: This is the first screen shown to a user logging in. The screen has the option to go to different pages by navigating via the menus and sub menus. There is also the option to log out of the application.



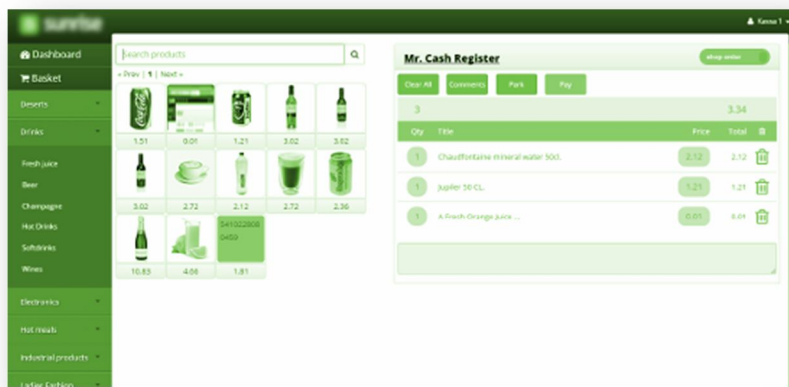
Screen 2: This is the first screen shown to a user visiting a Web shop. This page is fully customizable and the HTML for the same is mainly stored in templates in the database.



Cloud-based Retail Solution



Screen 3: Direct order basket page which is used to create orders in the App



Screen 4: The screen shows a POS Basket which is used to create orders. Technology wise HTML 5 is used along with provision for local storage etc. This also features offline order making capabilities.

Cloud-based Retail Solution



The screenshot displays a web shop basket interface. At the top, there is a table with columns for Product, Prijs, Promo Prijs, and Bestelling. The main product is 'De Rosé Box - Zuid-Franse ROSÉ voor de zomer - Augustus - 1' with a price of € 37.80 and a promo price of € 41.93. Below the product name, there is a description: 'Zes heerlijkheden om je dorst te blussen!' and a list of contents: 'Inhoud: 2 x 2013 - Domaine Fontanel - CÔtes de Roussillon Villages - Rosé - 0,75 Ltr. - Rosé', '2 x 2013 - Château Beauregard Miroze - Tradition Rosé - Corbières - BIO - 0,75 Ltr. - Rosé', and '2 x 2014 - Domaine de l'Arpille - Arpille Rosé - (Screwcap) SyrahGrenache - CÔtes de Thongue - 0,75 Ltr. - Rosé'. There are links to 'Meer voor minder' for each item. A 'Markal verwijderen' button and a 'Vanaf 1 Prijs: € 41.93' badge are also visible. Below the product details, there is a table with columns for Prijs, Besparing, and Uw Prijs. The table shows 'Inhoud: 1 producten' with a price of € 37.80 and a saving of € 0.00, resulting in a 'Uw Prijs' of € 41.93. Underneath, there are shipping options: 'LEVERING' (selected), 'GRATIS LEVERING vanaf 18 flessen', and 'AFHALING'. The total order amount is 'Totaal Bestelling: € 49.93'. At the bottom, there are buttons for 'Verder winkelen' and 'Bestellen'.

Product	Prijs	Promo Prijs	Bestelling
De Rosé Box - Zuid-Franse ROSÉ voor de zomer - Augustus - 1	€ 37.80	€ 41.93	€ 41.93

	Prijs	Besparing	Uw Prijs
Inhoud: 1 producten	€ 37.80	€ 0.00	€ 41.93
Verzending:			
<input checked="" type="radio"/> LEVERING			€ 8.00
<input type="radio"/> GRATIS LEVERING vanaf 18 flessen			
<input type="radio"/> AFHALING			
Totaal Bestelling:			€ 49.93

Screen 5: Web shop Basket, also known as public basket, is used to create orders.