## Assignment 6 (Application Engineering & Development - Spring 2018)

Shopping Mall are an essential part of our lives, the way a person buys clothes and technology has for long been a try and buy model, where an individual has to go to the shop of their desire and get the tactile feel of the product before purchase, while doing so they also judge the merchant, while the merchant tries to gain their trust leading to a sale.

In the 21<sup>st</sup> century though, much has changed. Individual use the power of the internet to shop for everything they otherwise would have had to go to mall for. This ease of shopping has transformed the way the latest generation interacts with the product they buy. Now shoppers read review to see the trustworthiness of the seller and watch videos to get the tactile understanding of the product. Many websites have cashed-in on the advancement of this technology, leaving shops and malls in the dark ages.

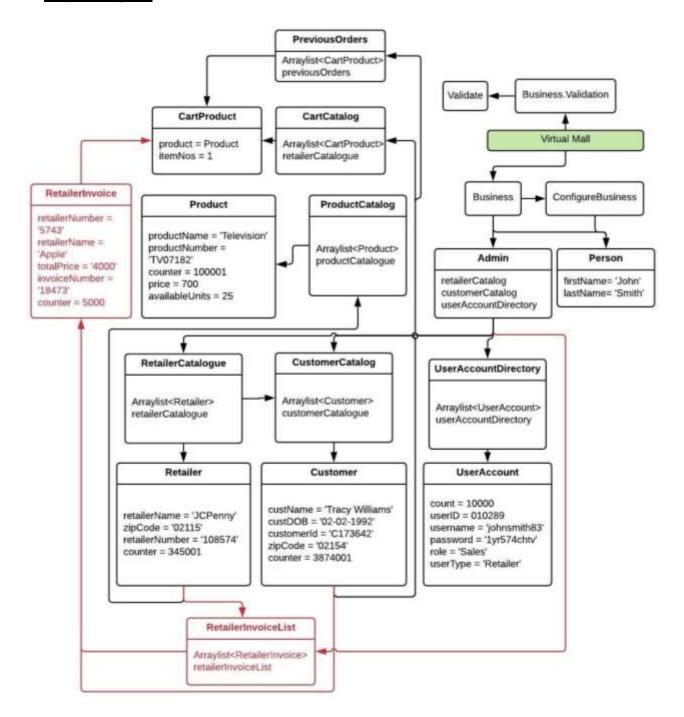
As malls are finding it thoroughly difficult to gain an audience to their products they have decided to go online. But to be competitive with existing online websites, they must offer what the others do not. Reducing prices is one of them, but what online shoppers miss out on from the older shopping model is the ability to have the product in their hands after paying. To be competitive the online shopping experience must offer quick delivery and problem free shipping.

To overcome the challenges of delayed shipping, the application must only find warehouses and stores that are located in close proximity to the customer. Shoppers must be prompted to add their zip codes so the system can automatically find the retailers close to their location to guarantee a sub-two hour delivery time.

Apart from being competitive the online experience must also be enjoyable and user-friendly, many websites that offer a great online shopping methods, lack to improve user satisfaction. This can drastically detract an individual from considering the website, or recommending it to others in the future.

Since the customers move to new locations, change their names, mistakenly enter incorrect date of births a set of customer details must be editable, such as the zip code, last name, first name and date of birth. However to prevent customers from changing their user identifications this must not be editable by the customer, but can be edited by the administrators.

## **Object Diagram**



Changes made include the addition of the RetailerInvoice & RetailerInvoiceList to ensure the Retailer can issue an invoice that can be received by the customer in the Product Cart. This Invoice can also be seen in the admin login. The RetailerInvoiceList is the Array List for the RetailerInvoice and holds all invoices in an invoice number format, this ensures all invoices are unique and can be tracked without confusion