

# **Business Requirements Document for Retail Chain Shop**

To fulfill the requirements of the IASA Student Architecture Competition

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**Business context and Scope:** The requirement is specific to Shopping Centers and Retail Stores where the customers physically collect items or products they prefer from a range of available displayed products and after the fulfillment of the requirements, he checks out at the cash counter where the cashier checks the items in the cart and provides him with a bill and payment options.

**Reasons for change:** Each customer has to go to the cash counter and do the cashier for him to be able to pay for the products before leaving the store check the items. Thus the cashier becomes the time consuming bottleneck where all the customers have to wait. The Solution focuses on removing this bottleneck and thus reducing the time spent by the customer waiting for the cashier.

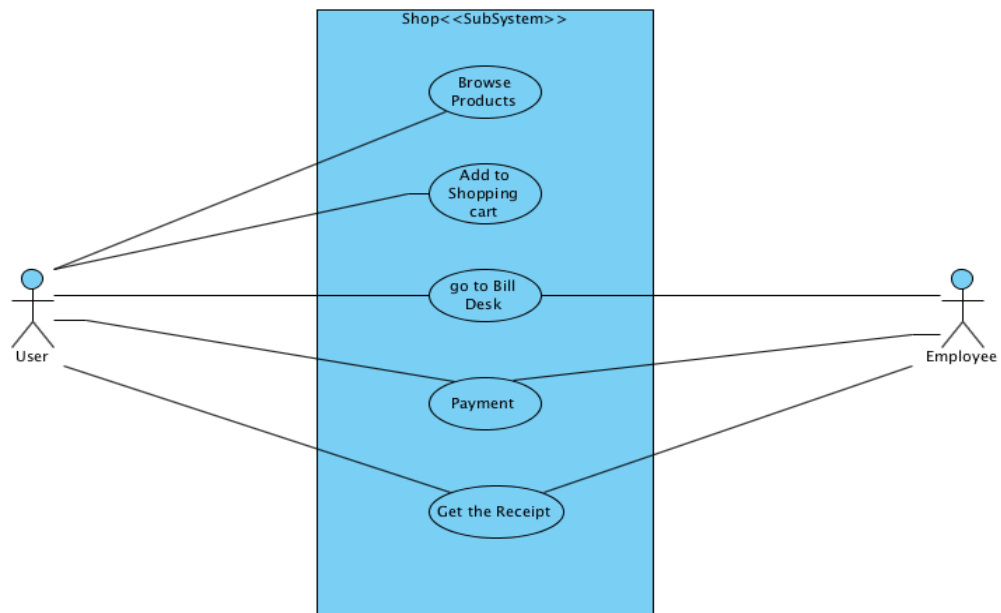
**Stakeholders:** The Primary Stakeholders are the Customers and Members of the Store who will be using the solution and benefiting from it. The Secondary Stakeholders are the owners of the Store who will be indirectly affected by increasing profits of the store.

**Target State:** The Customer should be able to scan a product using a hand-held device and add one or more amounts of it into his virtual cart and also delete it as he wishes. Once his requirements are fulfilled, the customer should be able to check out at the device itself or a kiosk or cash counter by just showing his virtual cart and associated ID and paying the amount of his cart using any of the payment options. He must also get the receipt at the kiosk before exiting.

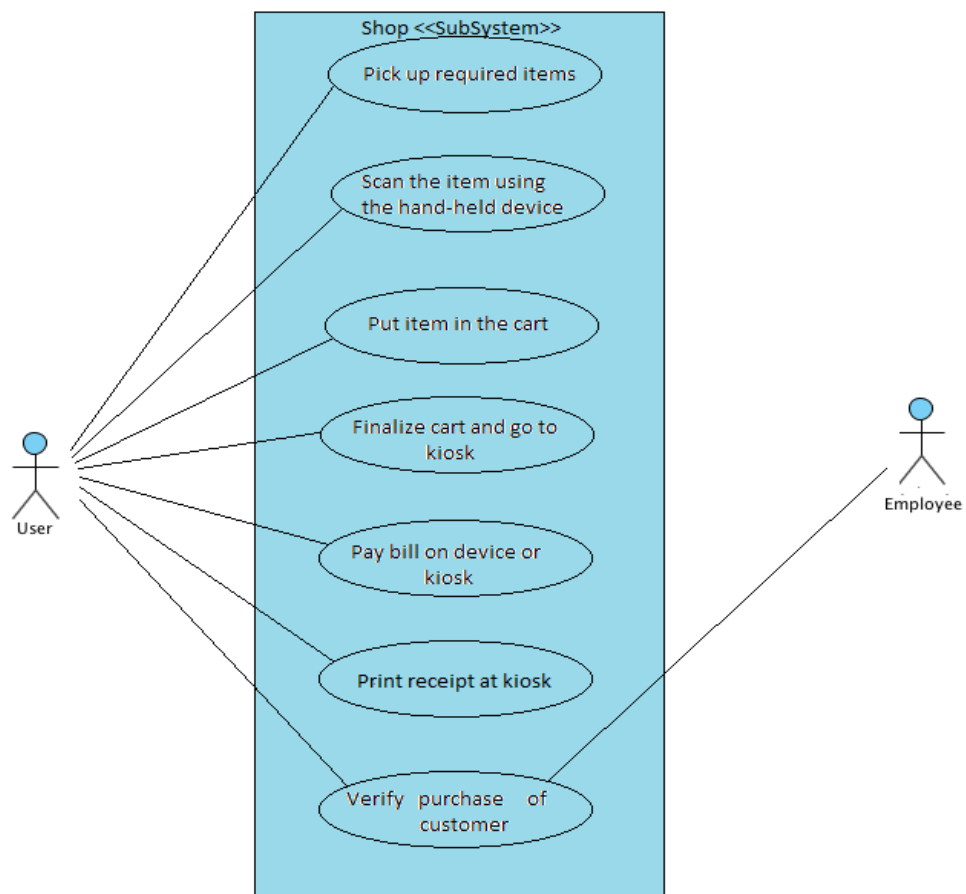
**Constraints:**

- The Customer has to scan every product before putting it in the cart and an employee has to be present to verify the purchase of the customer before he can exit the store.
- The Customer has to be a member of the Store to be able to avail the solution.
- The Store network must provide Internet access to the customers throughout the store.

### AS-IS Diagram:-

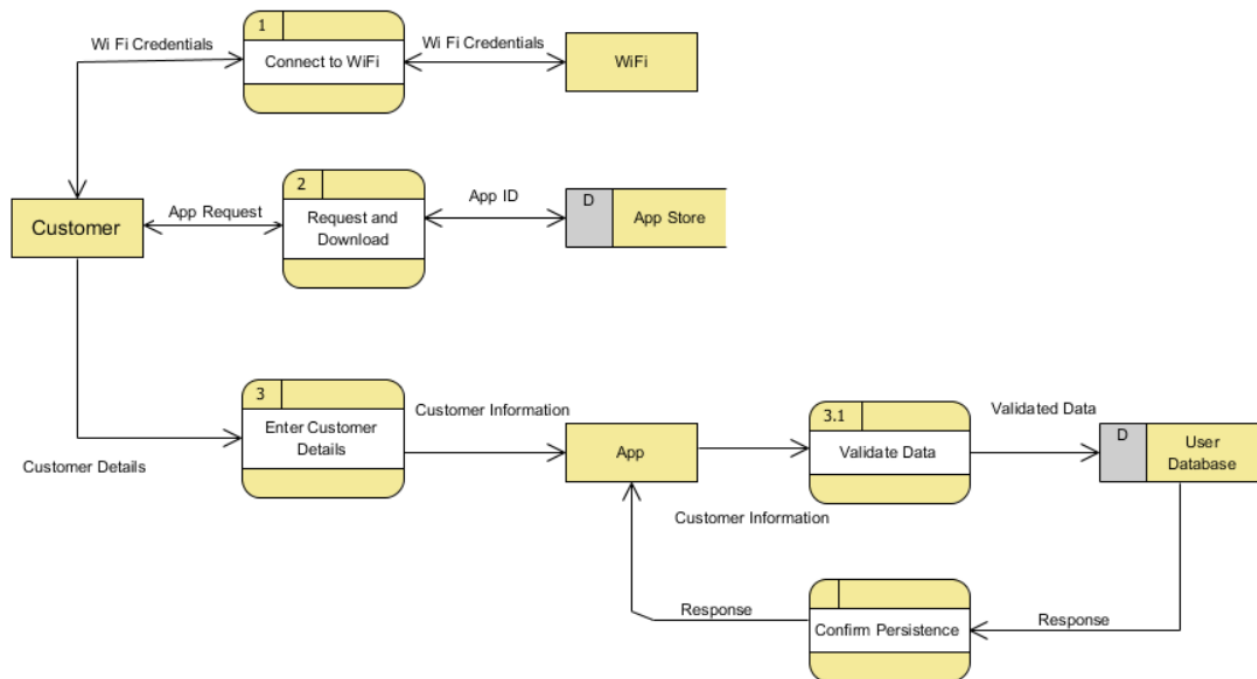


### TO-BE Diagram:-



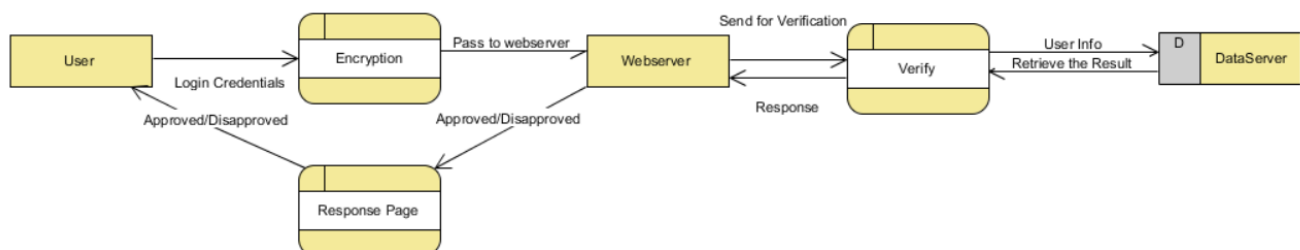
## **Data Flow Diagram:**

### **User Registration**



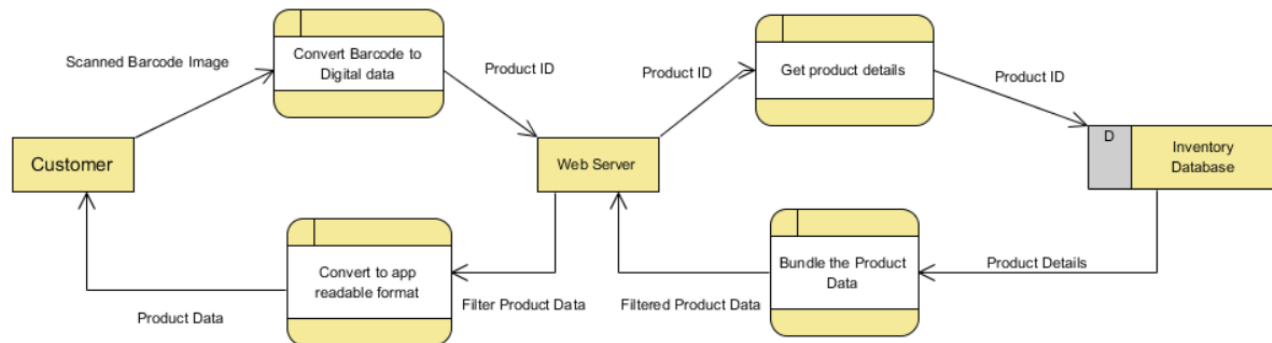
This Data Flow Diagram shows the flow of data when a new user tries to register with the store in order to use the application. The Customer uses his personal mobile phone to connect to the store Wi-Fi and download the application and enter his details and register with the store.

### **User Login**



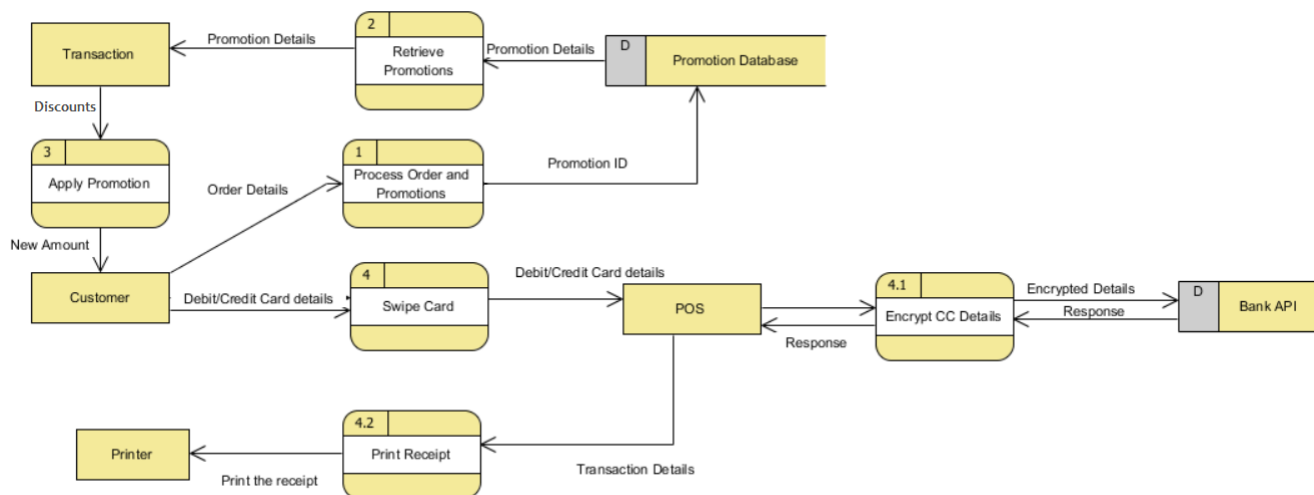
This Data Flow Diagram shows us the flow of data between different entities when the user tries to login into the application. This process will remain the same on the user's personal mobile phone or store owned hand-held device. The application accepts the user credentials and checks with the server to validate them before giving the user the access to add items into the cart.

## Add item into cart



This Data Flow Diagram shows us the flow of data on the event of addition of items into the virtual cart by scanning the barcode. The Customer uses the hand-held device to scan the barcode on the product and add it into the cart.

## Bill Payment



This Data Flow Diagram shows us the flow of data when the user tries to pay the bill for the items he bought. The bill can be paid on the hand-held device itself or on the kiosk. The final receipt will be printed and can be collected at the kiosk. This receipt will be used by the Employee to verify the purchase made by the customer.