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| **TechieDoods**  **6/12/2020** |
| E-Commerce  Application Requirement |

This Application system is majorly focusing on 5 main modules like every other major E-commerce app.

1. User profile
2. Application admin panel
   1. Product control
   2. Order and delivery control
3. Dealers profiles
4. Order and payment
5. Delivery process

Module Requirements

Each module requires the below information as stated below in UX design which we are going to create.

**1.User profile:**

* **Required user details**
  + Mobile Number
  + Email Address
  + Password
  + Retype Password (at the time of registration and change password)
  + Address (Multiple address can be added or removed. Users can also select a default address)
  + Location (by google map)
  + Payment (usual payment system like amazon or flipkart. Needs to add most of its functionality like adding multiple cards or pay on delivery feature)
* **Expected steps and validation measures**
  + OTP based authentication for new users, order placements (need to discuss on this for confirmation), password change sand payments.
  + Address and card details can be collected at the time of order placement.
  + Giving reward points for bulk orders and big orders (Conditions need to set up by app owners)
* **Considered Scenarios and solutions:**
  + Profile can be maintained by either Email(optional) or Mobile number (preferable).
  + Adding some rewards to each order and in future it needs to reflect on payment system for discount some money. (reward based profile will set by app owners for their user to improve their Business)

**2.Application Admin Panel:**

**Product control:**

* **Required details**

App owners must prepare the list of products and its details for sale.

* + Product Details (can be decided by app owners what products they want to sale from their app)
    - Product ID
    - Product Name
    - Product Picture
    - Product Description
    - Cost Price(CP)
    - Selling Price(CP)
    - Number of Units(NOU)
    - Offer %(if available)
    - Tax %(If available)
    - Tax type
  + Dealer details
    - Dealer ID
    - Dealer name
    - Dealer location (Both Address and location)
    - Product list from dealer.
* **Expected steps and validation measures**
  + Verifying dealers (In person or PAN or TAN or GSTIN number)
  + Updating Product and stocks details daily mid night with the market price.
  + After placing confirmed orders inventory needs to auto updated.
* **Considered Scenarios and solutions:**
  + Product availability list needs to be shared with App owner every day to update in the system.
  + Needed a centralized controller to monitor all this process.
  + Adding products stocks can be done by bulk (using excel) or one by one.
  + Dealers can Upload the products stock using the shared template by the App owner in the given upload link.
  + Id and Name of products must be same
  + Price and offers needed to monitored by someone or by automatic way with previous price or market price to reduce error rate.
  + In Alternate Scenario:
    - If app owner only considers the orders from the customers and they will buy the products from any place they want.
    - For scenario like this, Pricing restructure alone is enough.
    - After getting order, they can redirect that into the delivery man to get the required products from a trusted source for the customers.
    - Problems with this approach: Stock availability, Location availability and growth potential to reach more target audience on right time.

**Order and delivery control:**

* **Required details:** 
  + Product Inventory details
  + Nearby delivery dealers
  + Users based on locations
  + Numbers of orders placed by users
  + Product ID, Product Name, Units, User, Price, Order Date, Order Time, Order ID, Mapped Delivery man ID, Expected Delivery Time, Delivered Time, Feed Back or Rating
* **Expected steps and validation measures**
  + Auto Verify product stocks and matched with nearby location dealers and delivery man.
  + After placing confirmed orders inventory needs to auto updated.
  + If any misplaced order or wrong delivery, needs to create a backup plan to deliver the right product.
* **Considered Scenarios and solutions:**
  + Cancelling misplaced order
  + Proper refund policy for wrong order.
  + Calculating delivery time based on location.

**3.** **Dealers profiles:**

* **Required details:** 
  + Dealer ID
  + Dealer name
  + Dealer location (Both Address and location)
  + Product list from dealer.
  + Verification details
* **Expected steps and validation measures**
  + Verifying Dealers (physical verification and PAN or TAN or GSTIN required)
* **Considered Scenarios and solutions:**
  + Dealers can be added or deleted from application through admin panel

**4**.**Order and payment**:

* **Required details:** 
  + Numbers of orders placed by users
  + Product ID, Product Name, Units, User, Price, Order Date, Order Time, Order ID, Mapped Delivery man ID, Delivery man status, Expected Delivery Time, Delivered Time, Feed Back or Rating, Tax or Offers.
  + Adding address and payment details while ordering.
* **Expected steps and validation measures:**
  + Location can be verified by google maps
  + Card verification can be done by OTP system or google pay. (Based on client need)
  + Verify the nearby delivery person to deliver the order based on location.
* **Considered Scenarios and solutions:**
  + Multiple products can be added to single order. If product A and B is only available at Dealer A and Product C and D is available at Dealer B and the customer places it as a single order. The delivery person needs to know that as a two separate order from same customer.
  + Pricing is needed to list down in application based on customers nearby dealer location. If two dealers are in same position with different price tiers at that time we need to take the maximum price of the product.
  + If the product is not available in first location, it needs to reroute to the second nearest dealer.
  + Based on distance delivery price may vary.
  + Offers can be applied by app admin at any time to make special sale.
  + If particular product is not available needed to suggest

**5**.**Delivery Process**:

* **Required details:** 
  + Delivery man Id, Name, Location, Area covered, Accepted Order, Rejected order, Total Orders, Out zone orders
  + Verification Details
* **Expected steps and validation measures:**
  + Ensuring Delivery to the customers after order has been placed
  + Location based mapping needed to be done
  + If Delivery man is busy, based on that time of delivery also needed to be changed.
* **Considered Scenarios and solutions:**
  + Multiple deliveries can be delivered at same time by the single DM.
  + Delivery time can be set by user to receive.
  + If Multiple orders has been placed at same time with different customers. First delivery needed to be deliver to the nearest store.
  + How will application support planned deliveries if any?

**Functional Requirements:**

* Registration steps for users.
* Product list down
* Similar products needed to be list down while searching.
* Multiple products can be added under single order to the cart.
* From cart user can place the order by adding address and card details (Tax and offers will reflect on order if needed)
* Admin can add products list and stocks from dealers and re update the pricing structure after verifying (Refer admin panel module for more understanding).
* Needed a centralized configuration file to change company name, logo and colors if multiple customers needed similar products.
* Admin panel for our developers to enable or disable the particular module for customers.
* Data bases can be created automatically based on client requirement with columns in excel.
* Bulk upload of products and pricing can be added via application

Admin Panel – Web Application

Ecommerce app – Mobile application

The data’s which is added by the admin panel needed to reflect in the mobile app.