

# Functional Requirements

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# 1. User Management

## 1.1. Registration

- A pop up window of registration form will appear when user select Sign-In
- User needs to fill up registration details include:
  1. First Name
  2. Last Name
  3. Birth date
  4. Username
  5. Email Address
  6. Password
  7. Password confirmation
- In addition, user will be required to key in a random generated alpha-numeric figure to authenticate that it is a human registering to the platform through the implementation of Re-Captcha.
- Upon submitting the details, an activation email will be sent to the potential user to activate his account. The verification email is sent to the email address which is registered with us.

## 1.2. Login

- The platform will authenticate the user by keying in email address and password.
- After logging, the home page will be shown with its three main interfaces: Personal, Promotions and Social. These interfaces are toggled through swiping actions (left, right).
- Have a *Forgot Password* feature

## 1.3. Profile

### 1.3.1 My Style

- My Style is a way for users to express their preferences on clothing style, color, music, and interests. Their choices for each categories will be stored as tags, for which product recommendations will be based on.
- User can view and edit their My Style by using check boxes.

### 1.3.2 Edit Profile

- Edit Profile functionality allows users to change their Password and birth date
- Before accessing the functionality, user will be asked to type their current password. Upon successful attempt, user can change his/her password and birth date.

- Validation of complexity and confirmation will be done for new passwords

### 1.3.3 Billing Info

- User can have multiple billing address, one of which to be set as a Default Billing Address
- Billing address information will have :Street Address, Unit Number, and Postal Code

## 2. 3D Visualization

### 2.1 2D Photo to 3D Avatar

- User can upload a picture of him/herself with no teeth showing and no hair on the forehead.
- Accepted format is *tiff, jpg, png* with size less than **4mb**.
- Upon uploading, a 3D Avatar is going to be rendered.
- If user is happy with the Avatar, he/she can proceed to shopping, or he/she can re-upload other pictures until the desired Avatar is achieved.

### 2.2 Webcam photo to 3D Avatar

- User can take picture using laptop camera
- Upon submitting picture, a 3D Avatar is going to be rendered.
- If user is happy with the Avatar, he/she can proceed to shopping, or he/she can re-take pictures until the desired Avatar is achieved.

Avatar can be edited at any point of time using Edit Avatar menu.

## 3. Shopping

### 3.1 Catalogue Browsing

- User can browse through catalogue by filtering through Brands and Product Categories.
- User can also utilize the search bar to find a specific product.

### 3.2 Try on Product

- For each product, user can click Try On to put the product on his/her Avatar.

- User will be directed to Try On page, where the Product Information is displayed
- User can remove the item from Avatar, put the item into Shopping Cart, or continue shopping

### **3.3 Shopping Cart**

- The Shopping cart functionality allows customers to review all the items that they consider buying earlier
- They can remove, add and reduce quantity of items (this affects accumulated price), and proceed to check out

### **3.4 Payment Gateway**

- Payment page will show the order summary consisting:
  - Items and each item's quantity and price
  - Additional charges such as Tax and Shipping charges
  - Total payable
- User will also need to provide billing/delivery address. If previously user has already put in her billing address, the fields will already be pre-filled though still editable,
- After completing the billing address, User will be redirected to PayPal for payment processing.
- Upon successful payment, User will be redirected to Successful Purchase page

### **3.5 Past Purchase**

- Clicking Past Purchase will show the users all of his/her past orders

### **3.6 Order Tracking**

## **4. Social**

### **4.1 Friends Management**

#### **4.1.1 View Friends**

- User can view list of his friends

#### **4.1.2 Search Person**

- User can type in a name in a search bar
- User can't find his or her own account, although person with the same name will still be displayed
- The result for each person will indicate "Friends" if he/she is a friend, "Pending Friend Request" if request has been sent by either side, and "Add as Friend", if users are not friends yet.

#### **4.1.3 Add Friend**

- By adding friend, a friend request is sent to the corresponding user
- If a person has already initiated friendship from the other side, the option to "Add as Friend" will be replaced with "Pending Friend Request"

#### **4.1.4 Remove Friend**

- User can Remove a Friend by clicking Remove Friend

#### **4.1.5 Approve or Reject Friend Request**

- Upon viewing friend requests, user can either approve or reject the friend request

### **4.2 Chat**

- User is able to view friends who are online and start a chat conversation
- A mini pop up window at the bottom will appear for each chat room
- A chat can have multiple people in it (group chat).

## **5. Recommendation**

### **5.1 Based on Users' Preferences**

- My Style preferences of a user will be stored as tags in the database.
- The system will find Top 3 products that have most number of same tags as what the user have indicated.
- Only products that the user hasn't bought will be featured in the recommendations.

### **5.2 Based on Users' Past Purchase**

- The system will sort the tags of all the past purchased products based on frequency. The top 25% or 5 (whichever is the lowest) of the sorted tags will be used for comparison to

the rest of the products that the user haven't bought

- The top 3 products that the user haven't bought which has the most matches to the most frequent tags earlier will be featured in Past Purchase Based recommendations.

### **5.3 Based on Other's Past Purchase**

- The system will sort the tags of all the past purchased products based on frequency. The top 25% or 5 (whichever is the lowest) of the sorted tags will be used for comparison to the rest of the users on Veon.
- The distinct tags of all Veon users' past purchased products are compared to the Top 5 User's past purchase tags.
- From the comparison, we will get top 3 most similar users whose past purchase tags have most similarities to the current users' most frequent tags.
- From each Similar Person, we will recommend one of their past purchase that is not yet bought by the current user.
- Because there are 3 Similar Persons, at the end this will result in 3 recommended items based on others' past purchase.

### **5.4 Unstructured Data**

- Unstructured data will be captured from chat conversation
- There will be detection of words in the unstructured data from which the system can gain insights from.
- A set of keywords to look out for will be saved in database. These keywords will be our existing product tags, product categories, and brand name.
- We will loop through saved conversation for each user will be done to detect high frequency of the key words being talked about
- At the end, we will recommend products based on the highest frequency key words.

## **6. Vendor**

### **6.1 Vendor's Registration**

- A vendor will have to fill up a form, with the following fields:
  - Vendor Name
  - Username
  - Email
  - Password
  - Password confirmation
- Vendor will also be required to key in a random generated alpha-numeric figure to authenticate that it is a human registering to the platform through the implementation of

Re-Captcha.

- A verification will be sent to the indicated email
- Upon clicking the link in the email, a vendor authorization email will be triggered to the site admin, which will have to log in and authorize the new vendor request.
- Upon successful authorization, vendor can log in to the system using the common login functionality.

## **6.2 Batch Uploading**

- Vendor can upload multiple products at one go

## **6.3 Publish/Unpublish**

- Publish functionality is to make a product accessible to all users of Veon.
- Unpublish means hiding the product temporarily until a ready product information is achieved.

## **6.4 Product View**

