System Requirements Statement (SRS) –

ELECTRO-MART

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# Introduction

This document explains the system requirements and scope for developing Electro-Mart System.

Electro-Mart System could divide the four main parts, Customer part, Vendor part ,Admin part and the acknowledgement part.

# Functional Requirements

The Account part of Electro-Mart System has three modules which are divided 13 processes described as below.

|  |  |  |
| --- | --- | --- |
| **No** | **BRS requirement ID** | **Description** |
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#### Vendor Module

### Account Creation Process

* Eletro-Mart System compels to create the account before using it. So, Electo-Mart System should provide the function which helps the user to create the new account.
* When the user creates a new account, the function demands four information described as below.

1.Login information

2.Contact Details

3.Security Question Information

4.Payment information.

* The Login information

The Login information consists of some items described as below.

1.UserID

2.Password

3.First Name

4.Last Name

5.E-mail ID

6.User Type

7.Address

8.Contact number

* + All items are compulsory demanded.
  + UserID
* The UserID should be unique. If the UserID correspond with not case-sensitive to other which is previously registered, the UserID should not be registered as an account.
  + Password
* The Password has constrains which makes the Password consists of more than or equal 8 and less than or equal 16 characteristics including characters described as below.

1.Numeric figure (at least one)

2.Capital alphabet (A-Z)(at least one)

3.Small alphabet (a-z)(at least one)

4.Special character (#, $, %, &, etc.) (at least one)

* The Password is masked by dummy characters. The re-entering Password is demanded.
* The Password must be encrypted in the system.
  + User Type

The User Type falls into three categories described as below.

1.Customer

2.Vendor

3.Administrator

* The User Type defines also three types of user; " Customer user", "Vendor user", and "Administrator user”.
* In an Account Creation Process, the user can select the Type as Customer or Vendor only.
* No one could select the Administrator type, because Administrator is implemented to the Electro Mart system in advance.
* Contact Details
* The Contact Detail consists of some items described as below.

1.Permanent Address

2.Contact Phone No

* + All items are compulsory demanded.
  + Permanent Address
* Permanent Address should be filled.
* But only the state should be selected from options.
* The Security Question information

The Security Question information is needed when Vendor or Customer forgot their Password. This information consists of two items described as below.

1. Selected Question
2. Answer
   * All items are compulsory demanded.
   * Some questions which are difficult to answer for anyone else are prepared in advance.

E.g. which color do you like most?

* + A question should be selected from options by the user, and the Answer is also registered by the user itself.
* Login information should be entered on one screen, and then Vendor information and Security Question information should be entered on another screen.

### Login Process

* Electro-Mart System always compels Vendor authentication before using itself except when a new account is successfully created.
* The user authentication demands UserID and Password. The UserID and the Password should be checked in three ways.
  + First, The UserID and the Password should be existed and correct.
* If The UserID and the Password are not equal to what the user has registered, the user authentication cannot be provided.
  + Second, the User Type linked to the UserID should be "user".
* When the User Type is " Vendor ", user can be placed on “Vendor Home Page”.
  + Finally, UserID should be available.
* The Administrator can decide whether the UserID is available or suspended
* If user is rejected, user authentication is not provided for the Vendor.
* The Vendor’s account should be active for as long as the duration decided by Admin.
* Only when the three checks are successfully completed, the Vendor can be placed on respected page.
* The “Vendor’s Home Page” provides the some items described as below.

1. A trigger to logout
2. A trigger to update Account
3. A trigger to Change Password
4. A trigger to Search Product
5. A trigger to Publish Product for sale
6. A trigger to Update Product Information
7. A trigger to Delete Product
8. A trigger to Browse existing Market price

### Forgot Password Process

* When the Vendor lost their Password, the recovery method should be provided by the Electro-Mart system.

The recovery method is described as below.

* + First, Vendor enters their UserID for Electro-Mart System.
  + Next, the system demands for the Answer which has been registered since when the Account was created.
  + Only when the Answer is correct, the Vendor get the new password by E-mail which also has been registered since when the Account was created.
  + The new password is automatically generated by Electro-Mart System.
* Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
* As a consequence, The Vendor could get the user authentication using the new password.
  + Then, the Vendor better change the new password manually.
* If the Answer is not correct otherwise, then the correct Answer is demanded for Vendor again.
  + In that case, of course, the Vendor doesn’t get the new password.

### Change Password Process

* When the Vendor wants to change their Password, the measure should be provided by Electro-Mart System.
* Therefore, the system should provide the function which is available after getting the Vendor’s authentication.
* The function demands the current password and the new password.
  + Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
  + The current password and the new password are masked by using dummy characters.
  + The new password is demanded to enter twice to avoid a typing error.
* Only when the current password is correct, the Vendor could change their Password.
* When the current password is changed into new password, Electro-Mart System compels the Vendor’s authentication again.

### Update Account Process

* Electro-Mart System should provide the function which makes the account updated for the Vendor.
* The information Vendor could update is described below.

1. Login information

2. User information

3. Security Question Information

* The Login information

The updatable items as described below.

1. First Name
2. Last Name
3. E-mail ID
   * All items are compulsory demanded, but updating is optional.

* The User information

The updatable items as described below.

1. User Name
2. User Phone No
3. E-mail ID
4. Permanent Address
   * All items are compulsory demanded, but updating is optional.

* The Security Question information

The updatable items as described below.

1. Selected Question
2. Answer
   * All items are compulsory demanded, but updating is optional.

#### Search Product

• Search conditions are described as below.

1. Product category

2. Price range

• As the result of searching Requirements, Vendor could see the list of products which are available for sale.

1. Product name

2. Price

3. Quantity

4. Photos

#### Customer Module

### Account Creation Process

* Electro-Mart System compels to create the account before using it. So, Electro-Mart System should provide the function which makes Customer creates new account.
* When Customer creates new account, the function demands four information described as below.

1. Login information

2.Contact Details

3.Security Question Information

4.Payment information.

* The Login information

The Login information consists of some items described as below.

5.UserID

6.Password

7.First Name

8.Last Name

9.E-mail address

10.User Type

* + All items are compulsory demanded.
  + UserID
* The UserID should be unique. If the UserID correspond with not case-sensitive to other which is previously registered, the UserID should not be registered as an account.
  + Password
* The Password has constrains which makes the Password consists of more than or equal 8 and less than or equal 16 characteristics including characters described as below.

1.Numeric figure (at least one)

2.Capital alphabet (A-Z)(at least one)

3.Small alphabet (a-z)(at least one)

4.Special character (#, $, %, &, etc.) (at least one)

* The Password is masked by dummy characters. The re-entering Password is demanded.
* The Password must be encrypted in Electro-Mart System.
  + User Type

The User Type falls into three categories described as below.

1.Seller

2.Customer

3.Admin

* The User Type defines also three types of user; " Seller user", "Customer user", and "Admin user”.
* In an Account Creation Process, the user can select Customer.
* No one could select The Admin, because Admin is implemented to Electro-Mart System in advance.
* Contact Details
* The Contact Detail consists of some items described as below.

1.Permanent Address

2.Contact Phone No

* + All items are compulsory demanded.
  + Permanent Address
* Permanent Address should be filled.
* But only the state should be selected from options.
* The Security Question information

The Security Question information is needed when Customer lost their Password. This information consists of two items described as below.

1. Selected Question
2. Answer
   * All items are compulsory demanded.
   * Some questions which are difficult to answer for anyone else are prepared in advance.

E.g. which color do you like most?

* + A question should be selected from options by the Customer, and the Answer is registered by the Customer.
* Login information should be entered on one screen, and then Customer information and Security Question information should be entered on another screen.

### Login Process

* Electro-Mart System always compels Customer authentication before using itself except when a new account is successfully created.
* The user authentication demands UserID and Password. The UserID and the Password should be checked in three ways.
  + First, The UserID and the Password should be existed and correct.
* If The UserID and the Password are not equal to what the user has registered, the user authentication cannot be provided.
  + Second, the User Type linked to the UserID should be "user".
* When the User Type is " Customer ", user can be placed on “Customer Home”.
  + Finally, UserID should be available.
* The Admin can decide whether the UserID is available or suspended – Refer to the SRS of the Admin part.
* If user is rejected, user authentication is not provided for Customer.
* The Customer account should alive for so long as the duration decided by Admin.
* Only when the three checks are successfully completed, Customer can be placed on respected page.
* The “Customer Home” provides the some items described as below.

1. A trigger to logout
2. A trigger to update Account
3. A trigger to Change Password
4. A trigger to Search Product
5. A trigger to Publish Product for sale
6. A trigger to Update Product Information
7. A trigger to Delete Product
8. A trigger to Browse existing Market price

### Forgot Password Process

* When Customer lost their Password, the recovery method should be provided by

Electro-Mart system.

The recovery method is described as below.

* + First, Customer enters their UserID for Electro-Mart System.
  + Next, Electro-Mart System demands the Answer which has been registered since when the Account was created.
  + Only when the Answer is correct, Customer get the new password by E-mail which also has been registered since when the Account was created.
  + The new password is automatically generated by Electro-Mart System.
* Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
* As a consequence, The Customer could get the user authentication using the new password.
  + Then, the Customer had better change the new password manually.
* If the Answer is not correct, otherwise, the correct Answer is demanded for Customer again.
  + In that case, Of course, Customer couldn’t get the new password.

### Change Password Process

* When Customer wants to change their Password, the measure should be provided by Electro-Mart System.
* Therefore, Electro-Mart System should provide the function which is available after getting the Customer authentication.
* The function demands the current password and the new password.
  + Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
  + The current password and the new password are masked by using dummy characters.
  + The new password is demanded to enter twice to avoid a typing error.
* Only when the current password is correct, Customer could change their Password.
* When the current password is changed into new password, Electro-Mart System compels Customer authentication again.

### Update Account Process

* Electro-Mart System should provide the function which makes the account updated for Customer.
* The information Customer could update is described below.

1. Login information

2. User information

3. Security Question Information

* The Login information

The updatable items as described below.

1. First Name
2. Last Name
3. E-mail address
   * All items are compulsory demanded, but updating is optional.

* The User information

The updatable items as described below.

1. User Name
2. User Phone No
3. E-mail address
4. Permanent address
   * All items are compulsory demanded, but updating is optional.

* The Security Question information

The updatable items as described below.

1. Selected Question
2. Answer
   * All items are compulsory demanded, but updating is optional.

#### Search Product

• Search conditions are described as below.

1. Product category

2. Price range

• As the result of searching Requirements, Customer could see the list of products which are available for sale.

1. Product name

2. Price

3. Quantity

4. Photos

#### Buy Product

• To buy the product followings are the condition

1. Product category

2. Price range

3. Product Quantity

4. Product Name

**2.2.8 Cancel Order**

• Before paying Customer can cancel the order in following condition

1. If the product does not fulfil the requirement.

2. If price goes out of his budget.

Browse existing product Price

• Customer could see the information of existing product**s.**

#### Admin Module

**•** Adminshould be responsible for following activities**,**

### Login Process

* Electro-Mart System always compels user authentication before using itself except when a new account is successfully created.
* The user authentication demands UserID and Password. The UserID and the Password should be checked in three ways.
  + First, The UserID and the Password should be existed and correct.
* If The UserID and the Password are not equal to what the admin has registered, the Admin authentication cannot be provided.
  + Second, the User Type linked to the UserID should be "Admin".
* When the User Type is "Admin", user can be placed on “Admin Home”.
  + Finally, UserID should be available.
* The Admin can decide whether the UserID is available or suspended – Refer to t
* .0he SRS of the Admin part.
* If user is rejected, user authentication is not provided for system user.
* The Admin account should alive for so long as the duration decided by Admin.
* Only when the three checks are successfully completed, Admin can be placed on respected page.
* The “Admin Home” provides the some items described as below.

1. A trigger to logout
2. A trigger to update Account
3. A trigger to Change Password
4. A trigger to Search Product
5. A trigger to Publish Product for sale
6. A trigger to Update Product Information
7. A trigger to Delete Product
8. A trigger to Browse existing Market price

### Forgot Password Process

* When Admin lost their Password, the recovery method should be provided by Electro-Mart system.

The recovery method is described as below.

* + First, Admin enters their UserID for Electro-Mart System.
  + He will enter the E-mail id since when the Account was created.
  + Only when the E-mail Id is correct, Admin get the new password by E-mail which also has been registered since when the Account was created.
  + The new password is automatically generated by Electro-Mart System.
* Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
* As a consequence, The Admin could get the Admin authentication using the new password.
  + Then, the Admin had better change the new password manually.

### Change Password Process

* When Admin wants to change his Password, the measure should be provided by Electro-Mart System.
* Therefore, Electro-Mart System should provide the function which is available after getting the Admin authentication.
* The function demands the current password and the new password.
  + Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
  + The current password and the new password are masked by using dummy characters.
  + The new password is demanded to enter twice to avoid a typing error.
* Only when the current password is correct, Admin could change his Password.
* When the current password is changed into new password, Electro-Mart System compels user authentication again.

### Update Account Process

* Electro-Mart System should provide the function which makes the account updated for Admin.
* The information Admin could update is described below.

1. Login information
2. User information
3. Security Question Information

* The Login information

The updatable items as described below.

1. First Name
2. Last Name
3. E-mail address
   * All items are compulsory demanded, but updating is optional.

* The User information

The updatable items as described below.

1. User Name
2. User Phone No
3. E-mail address
4. Permanent address
   * All items are compulsory demanded, but updating is optional.

* The Security Question information

The updatable items as described below.

1. Selected Question
2. Answer
   * All items are compulsory demanded, but updating is optional.

#### Record Generation

• Admin should able to see all the records from any users.

• Daily report of enrolment to admin.

• Monthly report of enrolment as per the states to admin.

#### Accounts Management

• Admin should able to manage all the accounts with following activities,

1. Enable accounts

2. Disable accounts

#### Message Acknowledgement Module

• In following conditions acknowledgement to be send

1. After completion of successful registration.
2. After every successful transaction (buy, sale).
3. Now the messages are being sent by using email but in future we can have mobile SMS.

#### 2.5 Use Case Diagram

**Admin:**

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*Fig. Use case diagram for admin*

1. In Admin use case diagram Admin is the Actor.
2. Admin can handle following use cases:
3. Login
4. Report Generation
5. Controls account

**Vendor:**

1. In Vendor use case diagram Vendor is the Actor.
2. Vendor can handle following use cases:
3. Register
4. Login
5. Search Product
6. Publish Product
7. Update Product
8. Delete Product
9. Browse Product Price

**Customer:**

1. In Customer use case diagram Customer is the Actor**.**
2. Customer can handle following use cases:
3. Register
4. Login
5. Search Product
6. Buy Product
7. Cancel Order
8. Browse Product Price