CAPSTONE PROJECT (CAP307)

PROJECT NAME
E-Wallet Application

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E-Wallet Application

Date	Project Title	Prepared By
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Part 1 – Feature Listing

1.1 User Application (Android & iOS)

1. **Splash Screen (Minimalistic Design or Adinkra Symbols)**

2. **Sign-Up:**

   a. Sign-Up with Email

      OR

   b. Sign-Up with Phone

      OR

   c. Sign-Up with social media

3. **Account Verification**: an OTP will be sent to the user along with an option to resend OTP.

4. **Customer Profile Setup**:

   a. Personal Details

      i. Username **(Generated by system)**

      ii. Name

      iii. Mobile Number

      iv. Email ID

      v. Both Number and Email need to be verified.

   b. For KYC Verification: Following document will be required:

      i. National ID Card or Any other Government ID.

      ii. Upload document

    c. Enter Security Pin

    d. Checkbox for Terms and conditions/User agreement

    e. Set fingerprint **(need Third party API for fingerprint)**

    f. Submit

5. **Document Verification:**

    a. Registration of the user will be approved by Admin after the cross verification of the documents uploaded.

    b. Admin can accept or reject the document and if the document is rejected an email will be sent to the user with the rejection reason.

6. **Login**: There are 2 cases for this screen:

    a. Social media

    b. Phone number

7. **Remember Me:**

8. **Forgot Password:** In case the user forgets his/her password, he/she can retrieve their passwords by clicking on "Forgot Password".

9. **Home screen:**

    a. **Device permissions:** User will need to provide following device permissions:

        i. Location

        ii. Notification

        iii. Camera

    b. Once the account is created, a unique wallet number will be issued by the system.

    c. **Home Screen sections:**

        i. Header

            1. Logo at top

            2. Notification

            3. Scan QR code

        ii. Total Current wallet balance (count)

        iii. Total Cash In/Cash Out (count)

      iv.   Add/Withdraw Funds

      v.   Transfer Funds

d. Menu Bar:

      i.   History Transactions

      ii.   Notifications

      iii.   My wallet account

      iv.   My Profile

      v.   Logout

10. Add/Withdraw Funds:

a. **Adding Funds**: Ability to view the nearby merchants for cash deposit

      i.   The user will be able to View list of nearby merchants' points & Ability to navigate to the particular merchant's point and request for cash deposit. (of the platform)

      ii.   The Users will be able to scan the merchant's QR code placed using a scanner and a request is placed for the 'Add funds' on their wallet number.

          1. Add/Enter amount

          2. Review details

      iii.   The customer will hand over the cash to the merchant, the merchant adds the amount on the customer wallet number.

b. **Withdraw Funds:** Users can request for cash from nearby merchants.

      i.   Merchants will be displayed as per current location & Ability to navigate to the particular merchant's point and request for cash withdrawal. (of the platform)

      ii.   The Users will be able to scan the merchant's QR code and request is placed for the 'Withdraw funds'.

      iii.   The customer enters the amount they would like to withdraw and that amount is sent to the merchant's phone.

          1. Enter amount

          2. Review details

iv. The merchant will be able to provide physical cash to the customer.

11. **Transfer Funds:** The user will be able to transfer funds by the two ways:

    a. **Using Wallet Account Number**: The user will be able to transfer the funds to the other wallet by entering the following details

        i. The user has to enter the wallet number followed by the name of the user whose to be transferred the amount.

            1. Enter wallet number

            2. Name

            3. Enter the amount

            4. Description

            5. Review details

            6. Send option

        ii. After reviewing, for the transaction to enter the pin or scanning the fingerprint, the amount will be transferred to the user's wallet number.

        iii. The customers are able to check his/her account balance by entering a pin or by fingerprint.

        iv. The customer will be able to view the transaction receipt details and receive notification over email.

    b. **Using QR Code:**

        i. The sender will able to scan the Qr code,

            1. The sender (User A) will able to see the other user details linked with particular Qr code

            2. Ability to get over the phone 'Would you like to link your account with Wallet Number'.

                a. If yes, then their wallet accounts are linked and such that it will be redirected to the "Send Funds".

            3. Once the sender and the recipient confirm then they act as beneficiary members for user A and user B for the transaction.

        ii. The sender is then automatically redirected to a 'Send Funds' prompt or they can cancel and exit

1. If they continue and enter an amount to be sent they will then be prompted to re enter their pin to confirm the transaction
2. The recipient receives an 'Accept Funds' request showing the amount being sent to them which they have to confirm.

   iii. After reviewing, for the transaction to enter the pin or scanning the fingerprint, the amount will be transferred to the user's B wallet number to user A.

   iv. The customers are able to check his/her account balance by entering a pin or by fingerprint.

   v. The customer will be able to view the transaction receipt details and receive notification over email.

12. **Payment History:** In the payment history, the user will be able to see all the transactions made by the user so far
    a. Cash In: In this section the user will be able to view the total cash flow to his/her account by means of cash in transfer to his/her account by the mode of wallet number transfer or by the QR code scan transfer. Total cash in, by default listed in more recent to the oldest.
    b. Cash Out: In this section the user will be able to view the total cash out from his/her wallet account by means of cash out in the form of withdrawal or by the QR code scan. Total cash withdrawal, by default listed in more recent to the oldest.
    c. The users will be able to see the drop down menu at the right hand corner with the certain options of sort on the basis of the oldest to more recent, highest amount to lowest amount, lowest point to highest point, on/of monthly payments, and for monthly payments active/canceled, company type and by company/individual name). Usually by default it is listed by date more recent to oldest.
    d. **QR code**: unique QR code for receiving requests and money.
    e. **Edit Payments:**
       i. In this section the user can change/cancel monthly payment amount and payment dates

      ii.   By default this will be listed by date (most recent to oldest) but this parameter can be altered (oldest to recent, highest amount to lowest amount, lowest amount to highest amount)

      iii.   Monthly payment date and final payment date or no such date has been set, the user will be given the option of editing any of these.

13. **My Payment Transactions:** From this section users will be able to track their transaction history.

    a. **Transaction details:**

        i.   Transaction ID

        ii.   Date of Transaction

        iii. Time of Transaction

        iv. Sender Details

        v.   Receiver Details

        vi. Payment Details

        vii. Status of Payment

    b. **Download e-Receipt**: Under this section, users will be able to download the receipts of their transactions.

14. **My Profile Settings:**

    a. **Profile:** Ability to VIEW the profile details such as first name, last name, phone, profile picture, etc. & EDIT the profile details such as first name, last name, email, phone, profile picture, etc. In case of phone change, an OTP verification will be done.

    b. **Change Password:** Ability to change password by providing current password, New Password, Confirm New Password.

    c. **QR code:** User will be able to view his/her unique QR code and be able to download.

    d. **Security:**

        i.   Pin

        ii.   Fingerprint: Toggle button to enable/disable

    e. **Contact Us**

        i.   Ability to view support phone number, email address.

        ii.   Ability to click on a support phone number and will be redirected to make a call through cellular network.

        iii.   Ability to click on support email and will be redirected to "Compose Email" via configured email account.

   f. **Terms & conditions**

   g. **FAQs**

   h. **About app**: Ability to view information about apps.

   i. **Rate the App:** Ability to rate the App.

15. **Notifications** Ability to receive real time- notification for:

   a. Successful transactions

   b. Payments

   c. Failed Transactions

   d. Broadcast Notifications

   e. Rewards Notification

16. **Logout**

1.2 Merchant Application (Android & iOS)

1. **Splash Screen (Minimalistic Design or Adinkra Symbols)**

2. **Sign-Up:**

   a. Sign-Up with Email: In this case, users can sign-up using their email ID and a password.

     OR

   b. Sign-Up with Phone: In this case, users will simply provide a phone number.

     OR

   c. Sign-Up with Social Media: Users can also sign-up through Facebook / Google/ apple Account.

3. **Account Verification**: An OTP will be sent to the user along with an option to resend OTP.

4. **Merchant profile setup:**
   a. Merchant ID (unique: system generated)
   b. Personal Details
      i. Username (Generated by system)
      ii. Name
      iii. Mobile Number
      iv. Email ID
      v. Both Number and Email need to be verified.
   c. Merchant details
      i. Add business details
      ii. Business documents
      iii. Operating time
      iv. Contact number
      v. Add map view
      vi. Select Location
         1. Area
         2. City
         3. State
         4. ZIP code
      vii. Profile image/logo
   d. For KYC Verification: Following document will be required:
      i. National ID Card or Any other Government ID.
      ii. Upload document
   e. Enter Security Pin
   f. Checkbox for Terms and conditions/User agreement
   g. Set fingerprint (need api for fingerprint)
   h. Submit

5. **Document Verification**:
   a. Registration of the user will be approved by Admin after the cross verification of the documents uploaded.
   b. Admin can accept or reject the document and if the document is rejected an email will be sent to the user with the rejection reason.

c. Until the profile is approved, the user's profile will show his account status as "Pending Approval".

d. Admin can accept or reject the document and if the document is rejected an email will be sent to the user with the rejection reason.

e. In case, If all documents will be approved, an email will be sent to the user and the user will be able to log in over the platform.

6. **Login**: There are 2 cases for this screen:

   a. User is already registered and Logged in: In this case the Login screen will not appear and the user will be directed to the home screen.

   b. User is registered but logged out: In this case the login screen is visible to the user for login.

   c. The existing user can login via email. There will be following fields to register on the app:

      i. Email

      ii. Password

      iii. Remember Me

      iv. Forgot Password

   d. When the user enters the email and Password the API will run in the backend, which will cross check the data from the database and will redirect to the existing user account.

7. **Remember Me:** Whenever the user opens the application, credentials will be saved and the user can login easily.

8. **Forgot Password:** In case the user forgets his/her password, he/she can retrieve their passwords by clicking on "Forgot Password". An email with a link to reset the password will be sent to the user's registered email.

9. **Merchant Home screen:** This will be the landing screen for the user whenever they complete their sign-up or login in the application.

   a. Once the account is created, a unique wallet number will be issued by the system.

   b. The user will be able to see the following sections on the homepage:

      i. Cash Deposit Requests

    ii.   Requests for cash

    iii.   History Transactions

    iv.   Notifications

    v.   My Wallet

    vi.   My profile

    vii.   Logout

10. **Deposit/Withdrawal Requests:** Ability to view the nearby customers request for deposit/withdrawal

   a. View list of Requests

      i.   Customer details

      ii.   Requested Deposit/Withdrawal Amount

      iii.   Accept(Button): If accepted the amount mentioned in the request will be deposited into the customer's wallet or withdrawal into the merchant's wallet.

      iv.   Reject (Button)

   b. The list can be viewed in two categories such as:

      i.   Accepted Requests

      ii.   Rejected Requests

   c. Cash deposit request:

      i.   The merchant will accept the adding fund request, after verifying the physical cash, the requested amount is transferred to the customer wallet and deducted from the merchant wallet.

      ii.   The merchant is able to check his/her account balance by entering a pin or by fingerprint.

      iii.   The merchant will be able to view the transaction receipt details and receive notification over email.

   d. Withdraw request: Ability to see the withdraw request

      i.   Ability to view customer details and requested amount

      ii.   Accept or reject the request

      iii.   If accepted, The merchant will be able to provide physical cash to the customer.

iv. The amount will automatically be deducted from the customer wallet and transferred to the merchant wallet.

v. The merchant is able to check his/her account balance by entering a pin or by fingerprint.

vi. The merchant will be able to view the transaction receipt details and receive notification over email.

11. **Manage Payment Transactions:** From this section merchants will be able to manage their transaction history.

    a. Transaction details:

        i. Transaction ID

        ii. Date of Transaction

        iii. Time of Transaction

        iv. Sender Details

        v. Receiver Details

        vi. Payment Details

        vii. Status of Payment

    b. Download e-Receipt: Under this section, merchants will be able to download the receipts of their transactions.

12. **My Profile:**

    a. **Merchant Point ID (unique) & wallet details**

    b. **Profile:** Ability to VIEW the profile details such as first name, last name, phone, profile picture, etc. & EDIT the profile details such as first name, last name, email, phone, profile picture, etc. In case of phone change, an OTP verification will be done.

    c. **Change Password/PIN:** Ability to change password by providing current password, New Password, Confirm New Password.

    d. **Manage earnings:**

        i. Users will be able view total earnings over the platform.

        ii. Payout Requests: Users can request payouts from the admin.

        iii. View transaction history

    e. **Security :**

    i. **Pin**

    ii. **Fingerprint: Toggle button to enable/disable**

  f. **Contact Us**

    i. Ability to view support phone number, email address.

    ii. Ability to click on a support phone number and will be redirected to make a call through cellular network.

    iii. Ability to click on support email and will be redirected to "Compose Email" via configured email account.

  g. **Terms & conditions**

  h. **FAQs**

  i. **About app**: Ability to view information about the app.

  j. **Rate the App:** Ability to rate the App.

13. **Notifications** Ability to receive real time- notification for:

  a. Successful transactions

  b. Payments

  c. Failed Transactions

  d. Broadcast Notifications

14. **Logout**

13 **Admin Panel(Web)**

1. **Login**:

  a. Service owners can login using an email and a password.

  b. He/she can do a "forgot password" to reset the password.

2. **Home Screen:** The Admin will be able to see multiple sections on the dashboard. These details will be:

  a. Total Customers

  b. Total Payments

  c. Total merchants

  d. New users (Current Date)

  e. Sub-admin management

f. Report management

g. Manage revenue

h. Ability to Sign-out

3. **Manage Customers:** From this section, the admin can edit/remove users. From this section, admin can:

   a. Edit and Delete users

   b. View their profile

   c. Generate unique username/wallet number & QR code for each user

   d. Document verification for users:

   e. Check their Payment History

      i. add funds/withdraw request

   f. Admin have complete control on users workflow and can enable and disable them anytime.

   g. Apart from that, the admin can see details of their profile.

   h. Admin can export the data of users in a CSV format.

4. **Manage Merchants :** From this section, the admin can edit/remove users. From this section, admin can:

   a. Edit and Delete marchants

   b. View their profile

   c. Generate unique username/wallet number & QR code for each user

   d. Document verification for users:

   e. Check their Payment History

      i. add funds/withdraw request

   f. Admin have complete control on users workflow and can enable and disable them anytime.

   g. Apart from that, the admin can see details of their profile.

   h. Admin can export the data of users in a CSV format.

5. **Manage Transactions:** The admin will be able to manage all the transactions over the platform.

a. **Manage add funds/withdraw request:** Ability to manage all the add funds and withdraw request

    i. Customer Details

    ii. Merchant details

    iii. Request type - add funds/withdraw

    iv. Payment details

6. **Revenue Management**

    a. **Manage Payments:** Ability to view total payments of customers/merchant over the platform

    b. **Manage commission fee:** Admin have the ability to manage commission fees over the platform.

    c. **Manage refunds:**

7. **Manage Services Categories:** From here, admin can manage categories to be displayed to users in the Application.

    a. Add Categories

    b. Delete Categories

    c. Edit Categories

8. **Manage Sub-Admin:** Super Admin will be able to add/edit/delete other user and assign them different roles in the system

    a. Admin Can change the sections as per the different sections assigned to them.

    b. Admin will be able to see the list of the users who are added on the system.

    c. Only super Admin can change the access of the other users

    d. Admin will be able to edit their profile and it will have role-based access on the Panel.

9. **Analytics**: This section will display the data in a graphical way. Admin can export these reports in CSV format for any further uses. Admin can view the transactions data wrt to:

    a. A Day

b. A Month

c. A Year

d. Custom

10. **Manage Customer Support:** From here, the admin can manage the Support queries that have been reported by the users. The Admin can see it under two different sections -

a. Queries Received

b. Complaints/Disputes

11. **Manage CMS Pages:** The administrator can add additional information such as-

a. Contact Support

b. Legal

c. Privacy policy

d. FAQs

12. **Notification Management**: Admin can perform these tasks and Enable and Disable Notifications for certain functions:

a. Content based changes and updates

b. Activity-Based Updates

c. Broadcast Notification

13. **Signout**

Part 2 - Estimations

2.1 Deliverables

Languages- English

The deliverables will include:

1. User App (Android & iOS)

2. Merchant Application (Android & iOS)

3. Admin Panel

2.2 Cost & Timeline Estimation (Source Code)

App Development	Android & iOS Application
Backend Development	NodeJS
Frontend Development	Angular 2+
Timeline	6-8 Weeks
Cost (USD)	25000