EC2010-COMPUTER PROGRAMMING

GUI-Assignment 4

GROUP 17

2022/E/065

2022/E/066

2022/E/067

2022/E/068

TITTLE:

PHONE RELOAD SYSTEM (**SMART** load)

INTRODUCTION

In today's world, using our phones is a big part of our lives. Connecting us with the world and facilitating communication. A routine task for many of us involves reloading our mobile credits to stay connected, whether it's for calls, texts, or internet usage. Recognizing the widespread nature of this need, our team set out to create a solution that transcends demographic boundaries that is, online mobile reload system. It is a Graphical User Interface (GUI) project. We named our project as **smart load**. It like a smart and easy way to reload your phone credit. Imagine it as a cool and friendly assistant that makes reloading quick and simple.

We concentrated on every mistake that a user can make throughout the project and made relevant adjustments to fix it. For examples, forgetting the password or the username, inputting invalid mobile numbers etc.

Since this project is done without including a data base system to manage user's account, we made a default account named **Admin** to proceed the payments and the password for this default account was **group17**.

And we also justified changing the password process by replacing the old password with the new one, in-order to change the old password if forgot, we can use the mail id that was used for creating the account for the first time to proceed, for this default account we use group17@gmail.com as the mail id.

We also made relevant adjustments to make the user to use this interface repeatedly until they want to stop.

GROUP MEMBERS AND CONTRIBUTIONS

RENUJAN J. 2022/E/065 - Finalizing the project and designing the login interface, mock interface designs

LOGITHAS K. 2022/E/066 - Network selection interface and all 4 reload pages for each network selection

KAJANI R. 2022/E/067 - New user interfaces and bill payment summary, interface explanation

RISHIKESHAN K. 2022/E/068 - Forgot password interfaces, flow chart preparation for the project

TOOLS USED

1. For draw the Mock Interfaces and Flowchart, we used "**PENCIL Project**" software.
    - Pencil is built for the purpose of providing a free and open-source GUI prototyping tool that people can easily install and use to create mockups in popular desktop platforms.

PENCIL Project App Icon

2. To create our GUI project, we used "**Visual Studio**" software.
    - Visual Studio Code is a lightweight but powerful source code editor which runs on your desktop and is available for Windows, macOS and Linux.

Visual Studio App Icon

3. For Documentation (Report Creation)
    - Microsoft Word is a word processor developed by Microsoft. It was first released on October 25, 1983, under the name Multi-Tool word for Xenix systems.

Microsoft Word App Icon

4. For our project LOGO design and Background Teams
    - Adobe Photoshop is a raster graphics editor developed and published by Adobe lnc. For Windows and macOS. The software has become the most used tool for professional digital art, especially in raster graphics editing.

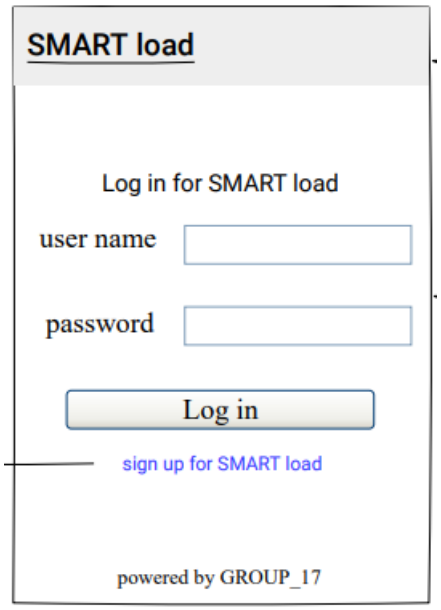
Adobe Photoshop App Icon

PROGRAMMING LANGUAGES USED

- **C++:** Main programming language for the online reload system logic and functionality.

MOCK INTERFACES WITH EXPLANATION

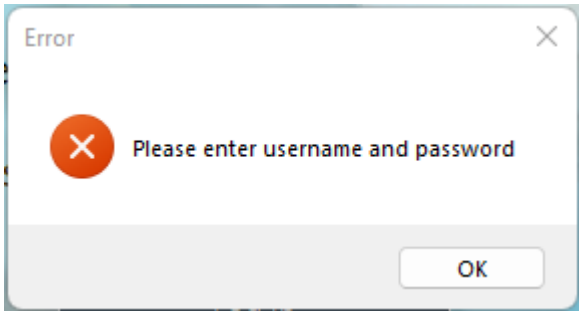
Main Interface / First Interface / Log in Interface



The **Login Page** serves as the entry point for registered users. It prompts users to enter their username and password, ensuring secure access to the Online Reload System. The minimalist design prioritizes user convenience, with clearly labeled input fields for the username and password. The "Log In" button allows users to submit their credentials and gain access to the system. This straightforward and secure login process is designed to provide a quick and hassle-free experience for users who have already registered with the Smart Load System.

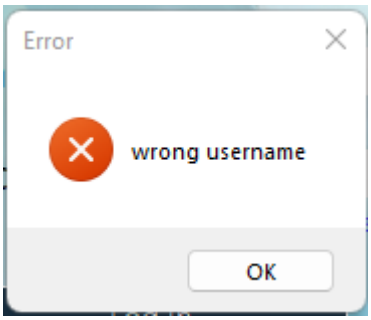
Login Page with Error Handling

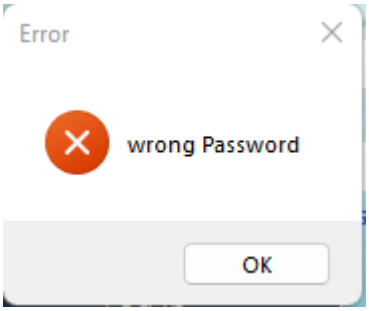
- Missing Credentials



If a user forgets to input either the username or password, an error message dynamically appears, guiding the user to provide the necessary information.

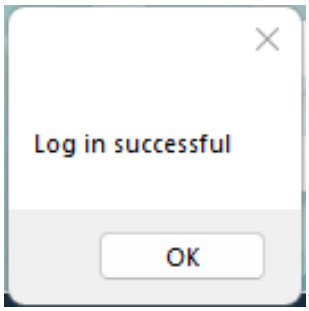
- Incorrect Username or Password





In the case of incorrect credentials, such as a wrong username or password, the system displays a clear error message. This feature aims to guide users through the login process and provides instant feedback, minimizing potential frustration and ensuring a smooth user experience.

- Login Success



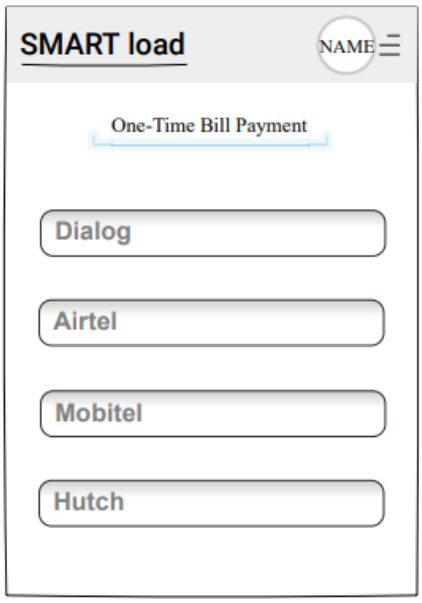
Upon successfully entering the correct username and password, users are directed to the **Login Success Page.** This page serves as a confirmation, signaling that the login process was completed successfully. A friendly message or visual cue, such as a checkmark or a welcoming statement, reinforces the positive outcome.

Sign Up interface

The **Sign-Up Page** is designed for users who have not registered yet. It prompts them to provide essential information to create an account within the Smart Load System. The interface includes the following fields:

- **Username:** Users are required to choose a unique username for identification.
- **Password:** A secure password is necessary for account protection.
- **Mobile Number:** Users input their mobile number, ensuring seamless communication.
- **Email:** An email address is collected for communication and account verification purposes.
- **Terms and Conditions:** Users are presented with and required to agree to the terms and conditions of using the Smart Load System.

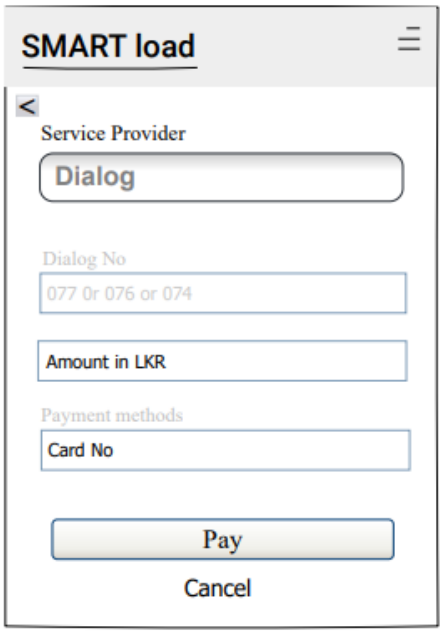
Service Providers Interface



The **Reload Options Page** empowers users to choose from a variety of mobile service providers. This interface presents clear and clickable options, allowing users to select their preferred provider from popular choices like Dialog, Mobitel, Hutch, and Airtel.

The design emphasizes visual clarity, making it easy for users to identify and click on their chosen provider. By offering a range of popular service providers, the Smart Load System caters to a diverse user base, ensuring that users can reload credits regardless of their mobile network.

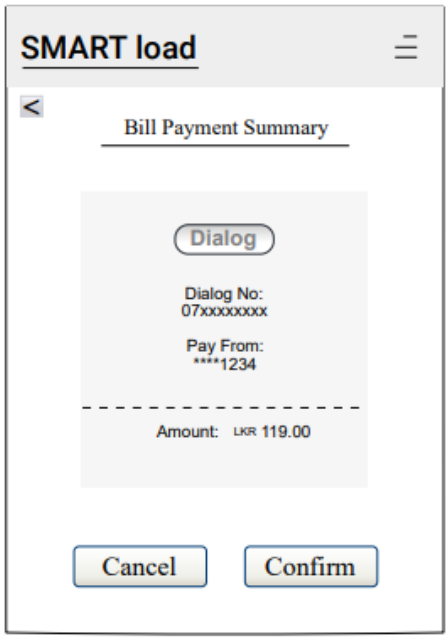
Selected Service Provider Interface / Payment Details Page



Upon selecting a specific service provider, users are directed to the **Payment Details Page.** This interface is structured to gather essential information for the mobile credit reload:

1. **Mobile Number:** Users input the mobile number they intend to reload credits for, ensuring accuracy.
2. **Amount:** Users specify the desired reload amount, providing flexibility based on their needs.
3. **Payment Method:** This section prompts users to choose their preferred payment method, whether it's credit/debit card, digital wallets, or other options available within the Smart Load System.

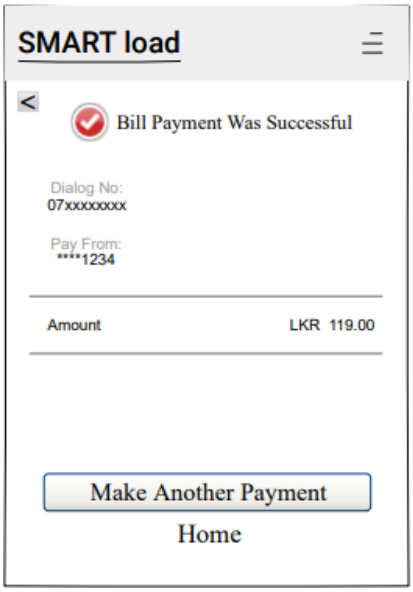
Bill Summary interface / Payment Confirmation page



The **Payment Confirmation Page** serves as the final step before completing the mobile credit reload. This interface is designed to provide users with a summary of their transaction and prompt them to confirm their payment details:

1. **Bill payment Summary:** Users can review a concise summary of their transaction, including the mobile number, reload amount, and chosen payment method.
2. **Confirmation Button:** A prominent "Confirm" button allows users to finalize the transaction. Clicking this button signifies their approval and triggers the reload process.
3. **Cancel Option:** In the interest of user control, a "Cancel" or "Go Back" option is available, enabling users to revisit or modify their payment details before proceeding.

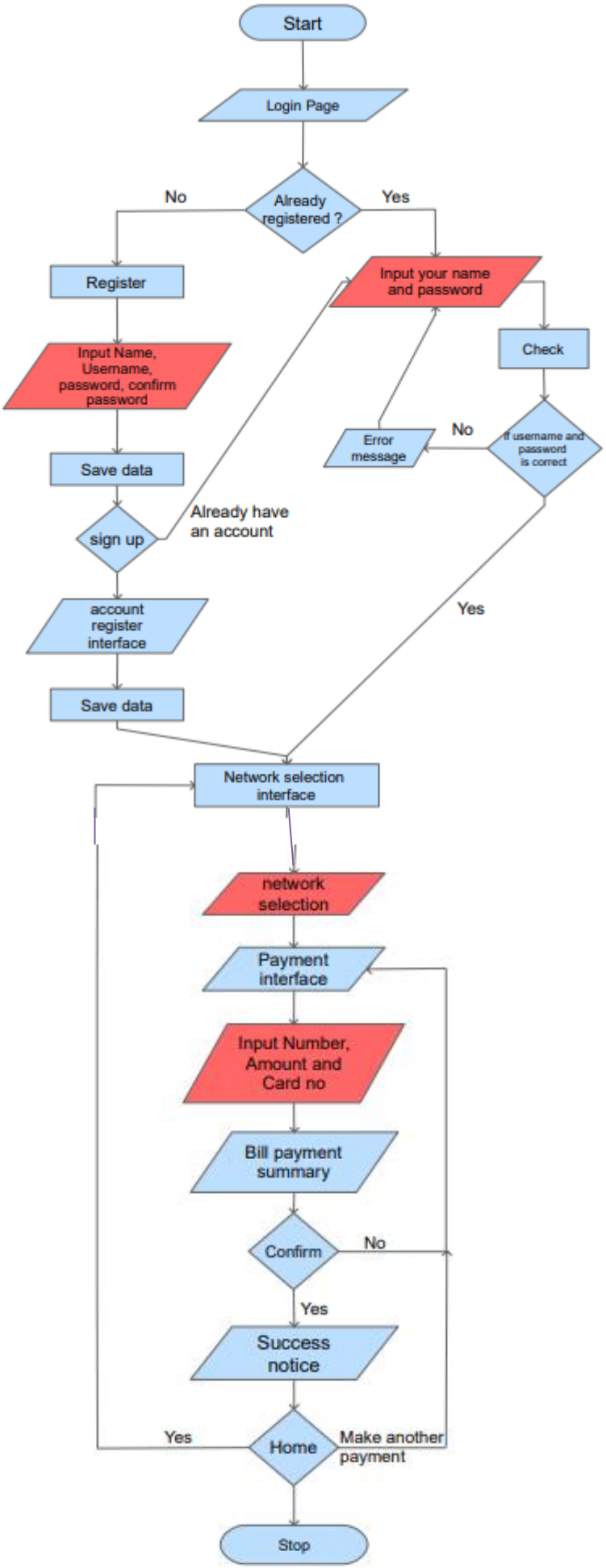
Final Interface Interface / Payment success page



The **Payment Success Page** is the concluding interface that users encounter upon the successful completion of their mobile credit reload. This page serves multiple purposes:

1. **Confirmation Message:** Users are greeted with a confirmation message indicating that their payment was successful.
2. **Transaction Details:** A summary of the transaction, including the reloaded mobile number, amount, and payment method, is displayed for users to review.
3. **Options for Next Steps:**
    - **Make Another Payment:** Users have the option to initiate another payment if they wish to reload credits for additional mobile numbers or adjust the amount.

FLOWCHART


Start
Login Page
Already registered ?
No
Yes
Register
Input your name and password
Input Name, Username, password, confirm password
Check
Error message
No
If username and password is correct
Save data
Already have an account
sign up
account register interface
Yes
Save data
Network selection interface
network selection
Payment interface
Input Number, Amount and Card no
Bill payment summary
Confirm
No
Yes
Success notice
Yes
Home
Make another payment
Stop

EXPLANATION

A flowchart for an online mobile reloads application typically involves several key steps. Here's a short description of the flowchart for an online course registration app:

- Start: The flowchart begins with the start symbol, indicating the initiation of the mobile reload registration process.
- User Login: Users are prompted to log in to the application using their credentials. This step ensures secure access to the registration system.
- Network Selection: After login, users are directed to a network catalog where they can select the network, they want to continue with. This involves interaction with a user-friendly interface.

Identify Symbols

Common symbols include:

- Oval: Start/End
- Rectangle: Process
- Diamond: Decision
- Parallelogram: Input/Output
- Arrow: Flow direction

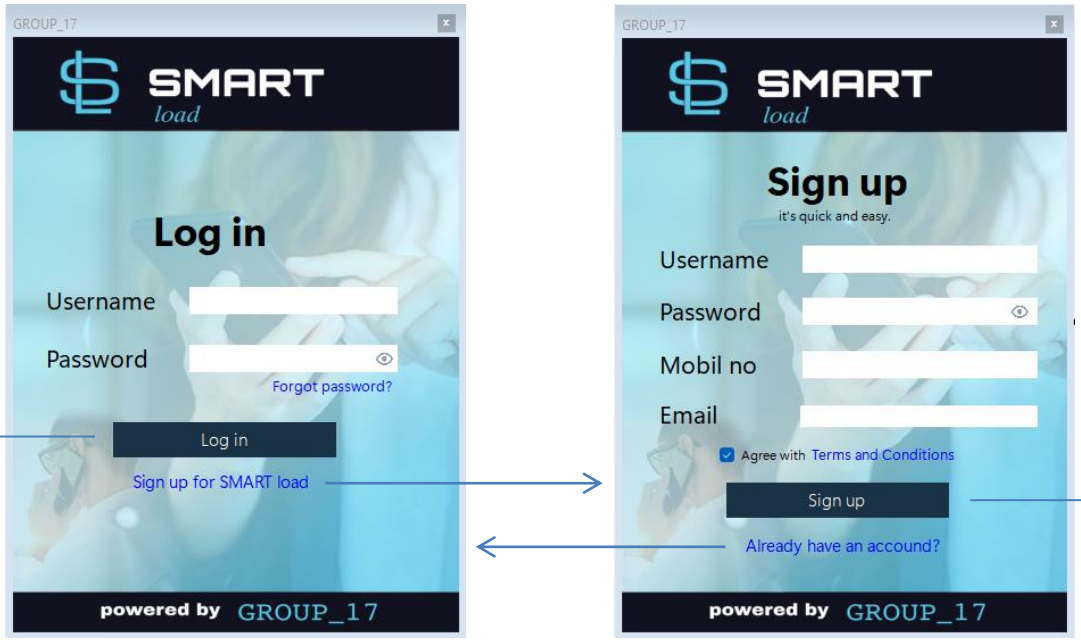
Starting and Ending Points: We'll begin by identifying the start and end of the process, represented by the rounded rectangles. This will establish the overall scope of the flowchart.

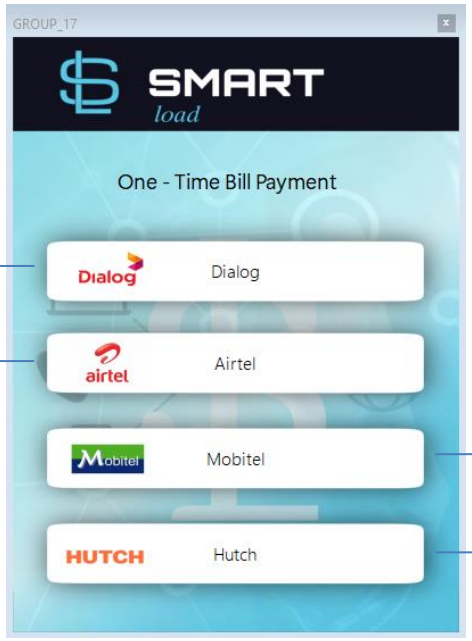
Process Steps: We'll carefully examine each of the rectangular boxes, which represent specific actions or tasks within the process. I'll explain what each step entails.

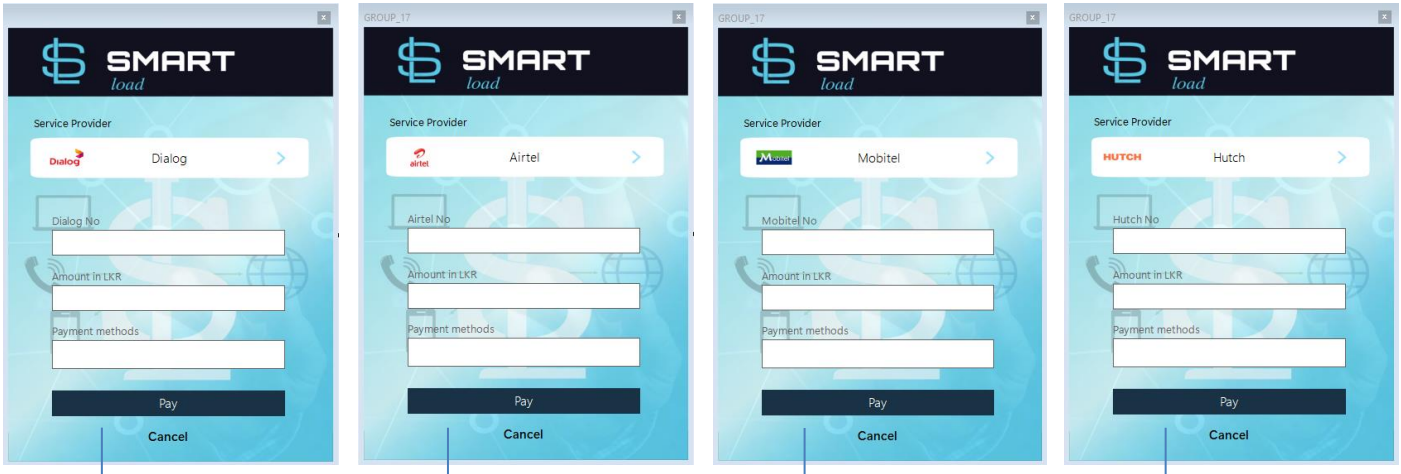
Decision Points: We'll pay close attention to the diamond shapes, which indicate decision points where the flow of the process can branch in different directions. We'll discuss the conditions that trigger each. path and the potential outcomes.

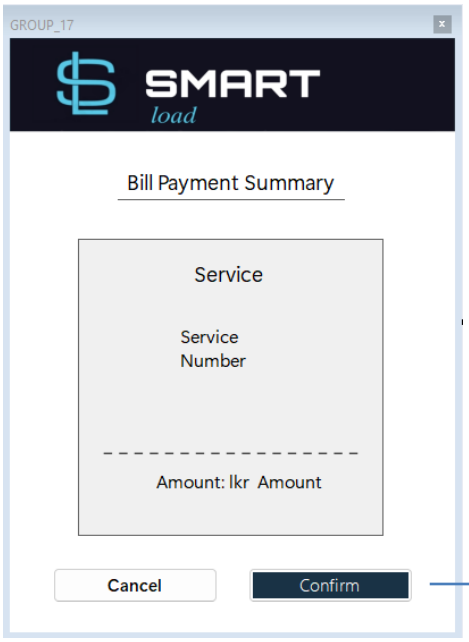
Data Flow: We'll track the movement of information throughout the process, represented by the arrows. This will help us understand how data is input, processed, and output at various stages.

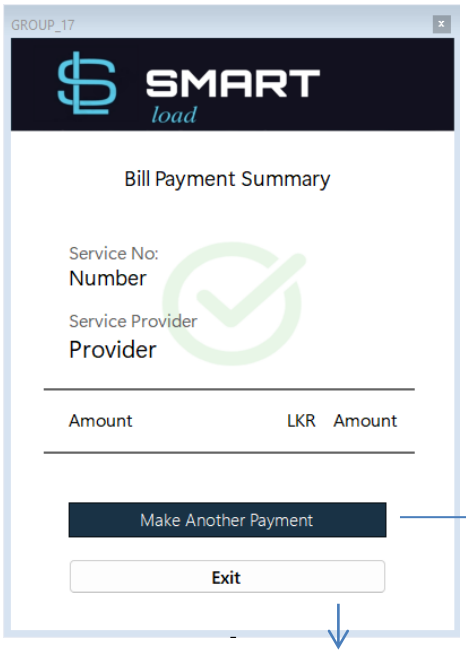
INTERFACES


GROUP_17
SMART load
Log in
Username
Password
Forgot password?
Log in
Sign up for SMART load
powered by GROUP_17
GROUP_17
SMART load
Sign up
it's quick and easy.
Username
Password
Mobil no
Email
Agree with Terms and Conditions
Sign up
Already have an accound?
powered by GROUP_17


GROUP_17
SMART load
One - Time Bill Payment
Dialog
Airtel
Mobitel
HUTCH
Hutch

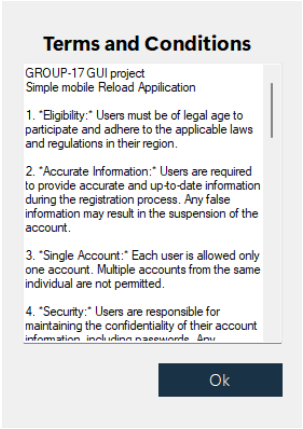

SMART load
Service Provider
Dialog
Dialog No
Amount in LKR
Payment methods
Pay
Cancel
SMART load
Service Provider
Airtel
Airtel No
Amount in LKR
Payment methods
Pay
Cancel
SMART load
Service Provider
Mobitel
Mobitel No
Amount in LKR
Payment methods
Pay
Cancel
SMART load
Service Provider
Hutch
Hutch No
Amount in LKR
Payment methods
Pay
Cancel



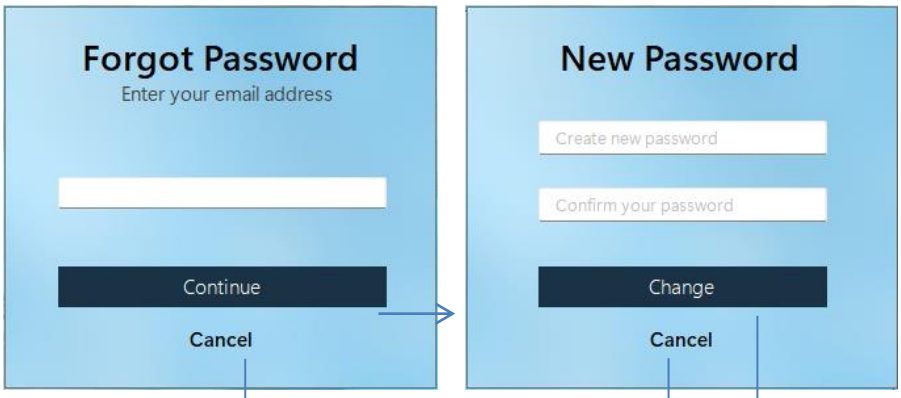


Application Exit

Terms and Condition panel



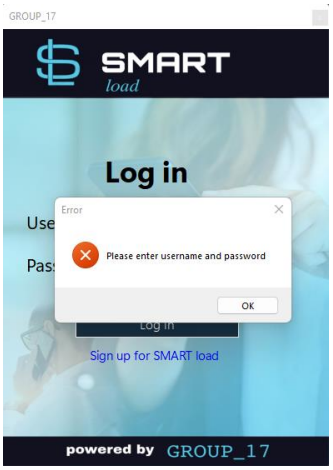
Forgot Password



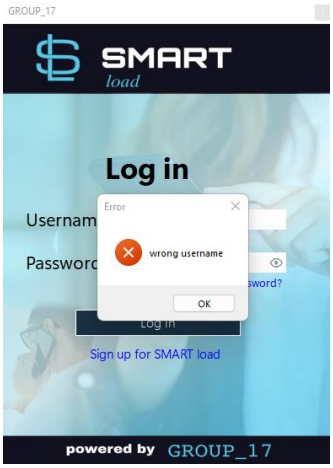
LOGIN page

DEMO

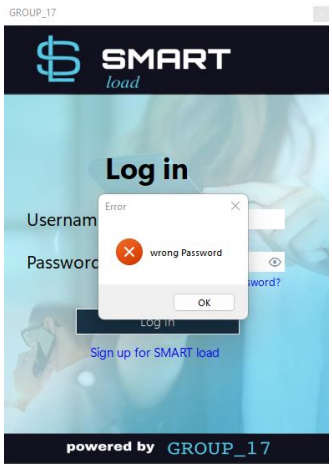
Not include



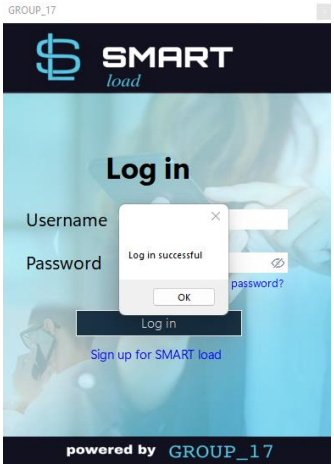
Wrong username



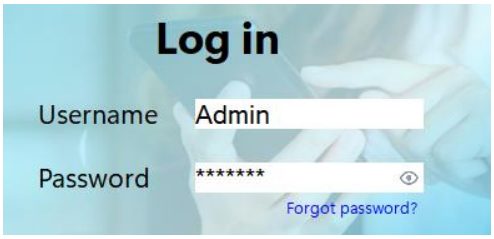
Wrong Password



s login in Success



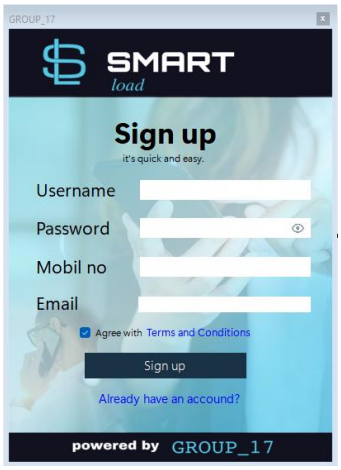
Hide Password

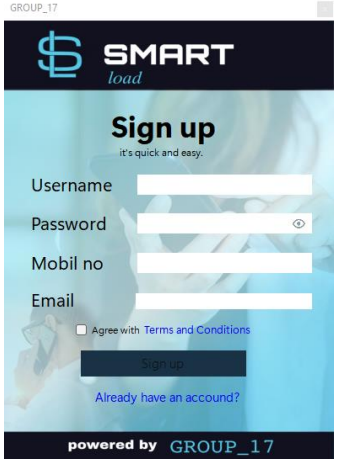


Show Password

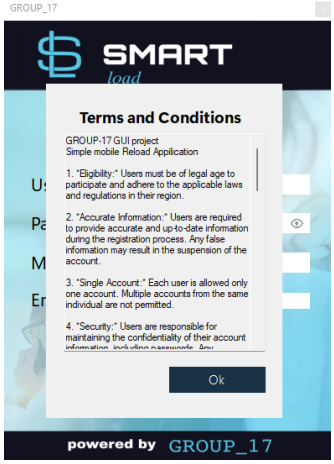
If the newuser

Not Agree

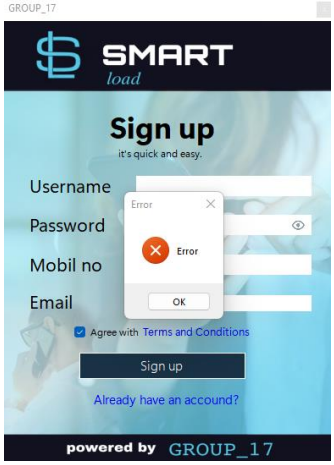




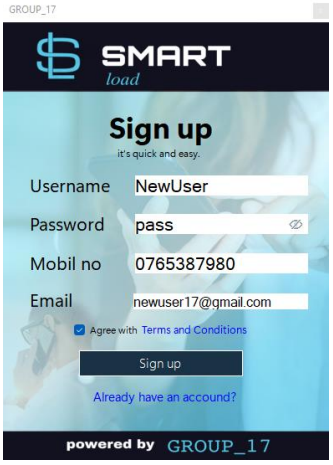
Terms and Conditions

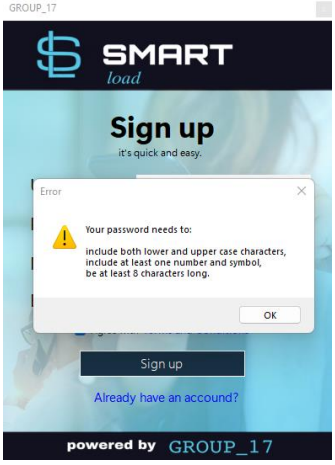


No data

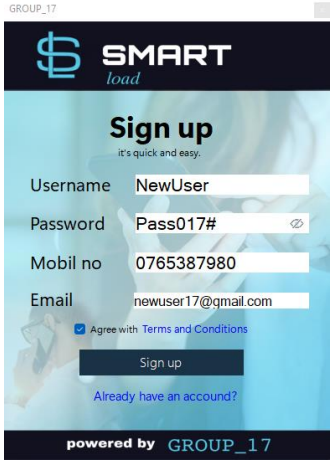


Wrong pass validation

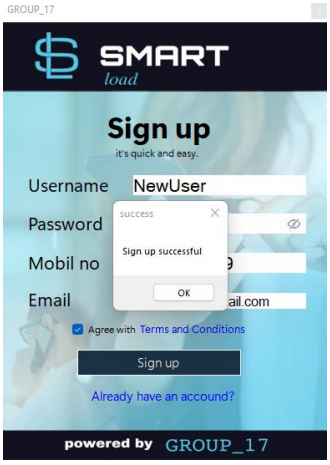




Correct data

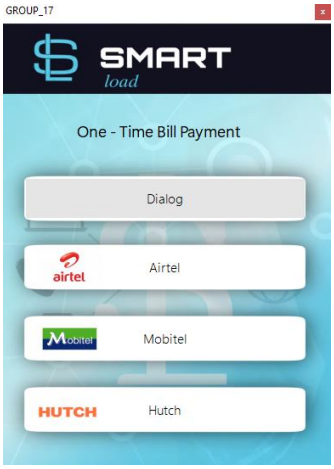


Sign up success

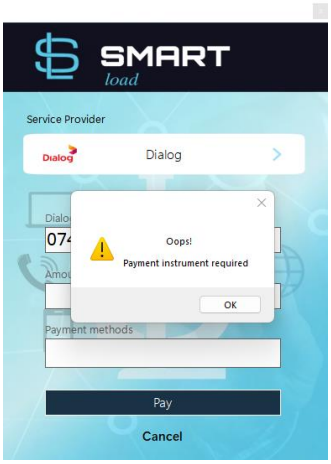


If login or Sign up Success

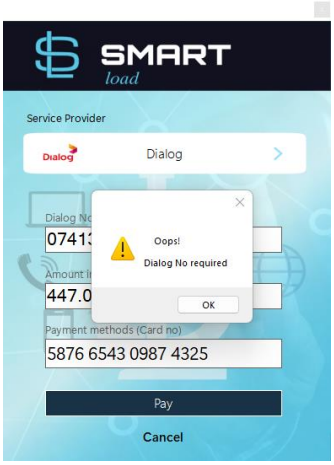
Select Dialog



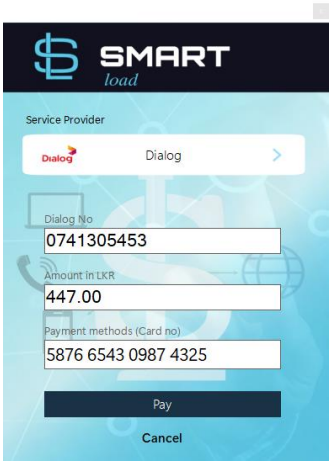
datas Not include



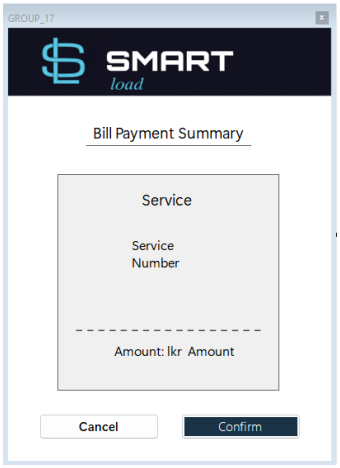
Wrong Number



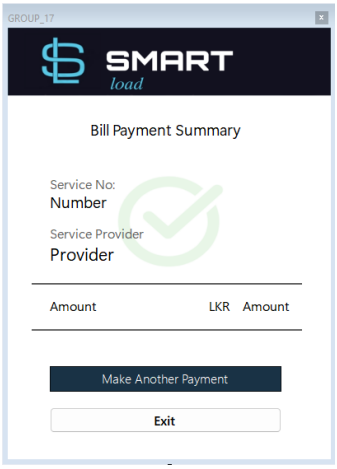
Success



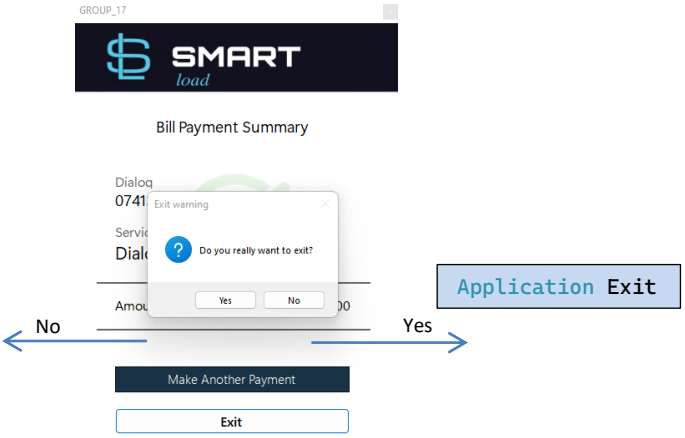
Summary



Reload Success

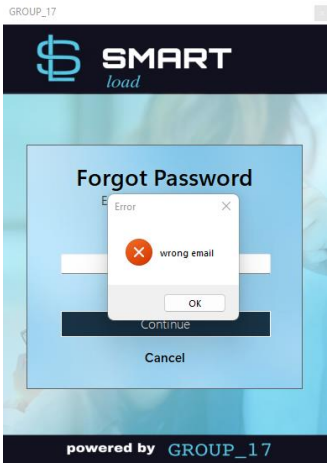


Exit

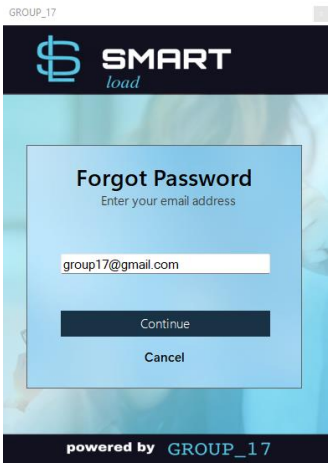


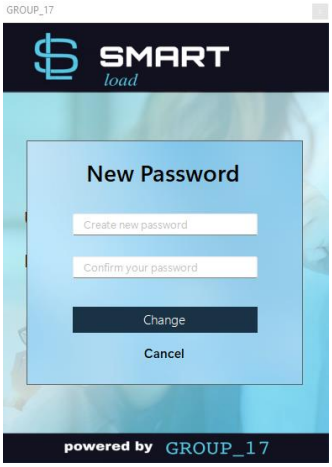
If the user Forgot the Password

Wrong Mail

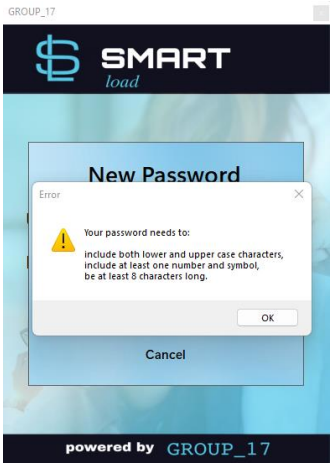


Correct Mail



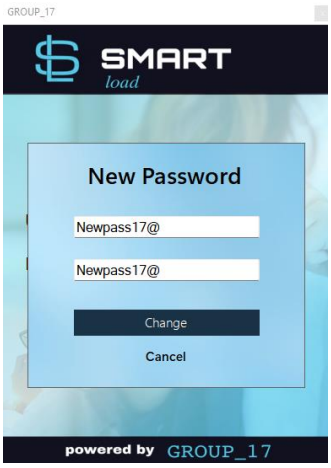
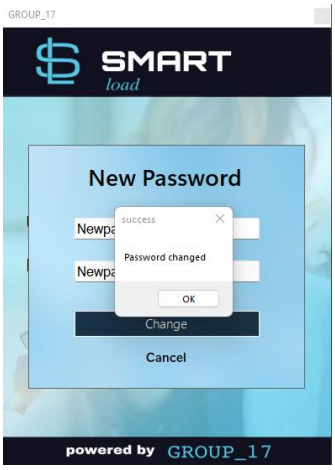
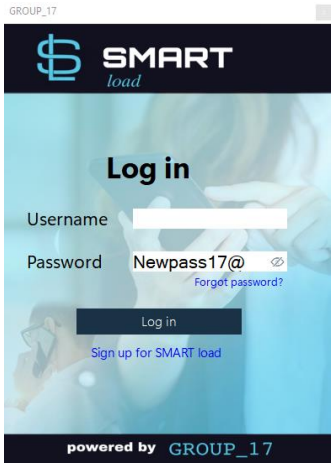


Validation Wrong



Passwords not match

Passwords Match



Password Changed