International Islamic University Chittagong

Department of Computer Science and Engineering
Project Report

Project Name: Shariah-Based Bank Account Management System

Course Code: CSE-1122

Course Title: Computer Programming I Lab

Submitted To:

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Semester: 1st

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Remarks:

Shariah-Based Bank Account Management System

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Project Title: Shariah-Based Bank Account Management System

Introduction: The "Shariah-Based Bank Account Management System" is a robust and secure banking application designed to efficiently handle various banking operations in compliance with Shariah principles. This system ensures that users can manage their conduct transactions, calculate Zakat and access banking services seamlessly while adhering to Islamic banking guidelines. With its secure login and user-friendly interface, it aims to provide a comprehensive solution for modern banking needs.

Features:

Account Creation:

- User can open new accounts.

Update Information:

- Modify existing account details.

Transactions:

- Secure handling of deposits.

- Withdrawals in compliance with Shariah principles.

Account Details Check:

- View account details.

Account Remove:

- Remove accounts securely.

View Customer List:

- Display a list of all customers.

Zakat Calculator:

- Compute the Zakat amount based on the account balance with Islamic principles.

Implementation:

Short Description: The Shariah-Based Bank Account Management System is a console-based banking application implemented in C. Users can manage accounts, conduct transactions, calculate Zakat and ensure secure access through a password-protected login. The system uses standard C libraries for input/output, memory allocation and windows-specific functions for console control. The menu-driven interface allows for easy navigation and the application stores account data in files for persistence. The system in designed to be simple yet effective, providing a reliable banking solution.
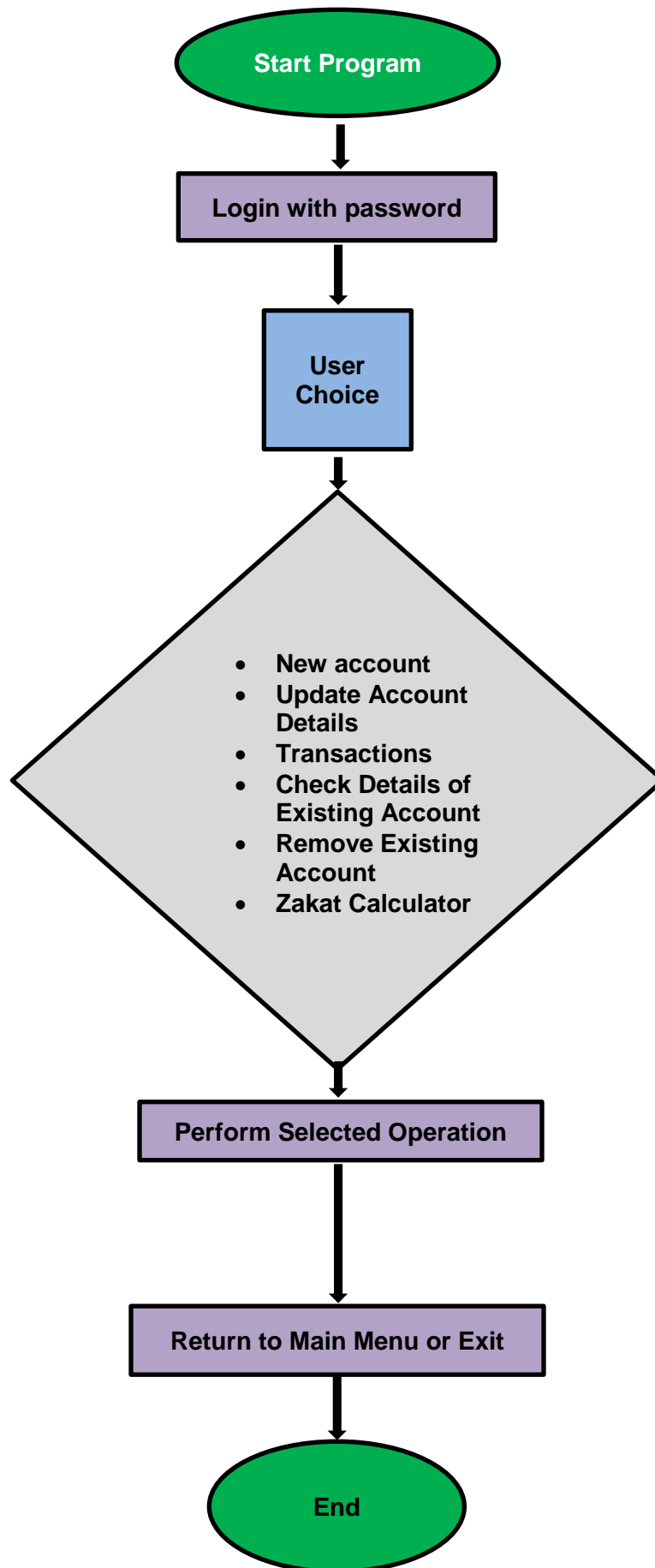
Library Used:

stdio.h: Standard Input/Output functions for reading and writing.

stdlib.h: Standard library functions for memory allocation, conversion and the other utility functions.

windows.h: Windows API functions for controlling the console.

Future Scope: Future enhancements for the Shariah-Based Bank Account Management System include integrating a comprehensive login system, notification features, an enhanced user interface and versions for various platforms (Android, iOS, Windows, MacOS). Additionally, incorporating machine learning could optimize task management and time efficiency. The possibilities for expanding the system are extensive.

Flow chart:

```
          ┌─────────────────────┐
          │    Start Program    │
          └─────────────────────┘
                     │
                     ▼
          ┌─────────────────────┐
          │  Login with password│
          └─────────────────────┘
                     │
                     ▼
          ┌─────────────────────┐
          │        User         │
          │       Choice        │
          └─────────────────────┘
                     │
                     ▼
                 ◇─────────◇
               ◇             ◇
             ◇                 ◇
           ◇  • New account     ◇
          ◇   • Update Account   ◇
          ◇     Details          ◇
          ◇   • Transactions     ◇
          ◇   • Check Details of ◇
          ◇     Existing Account ◇
          ◇   • Remove Existing  ◇
           ◇    Account         ◇
             ◇ • Zakat Calculator◇
               ◇             ◇
                 ◇─────────◇
                     │
                     ▼
          ┌─────────────────────────┐
          │ Perform Selected Operation│
          └─────────────────────────┘
                     │
                     ▼
          ┌─────────────────────────┐
          │ Return to Main Menu or Exit│
          └─────────────────────────┘
                     │
                     ▼
              ┌─────────────┐
              │     End     │
              └─────────────┘
```
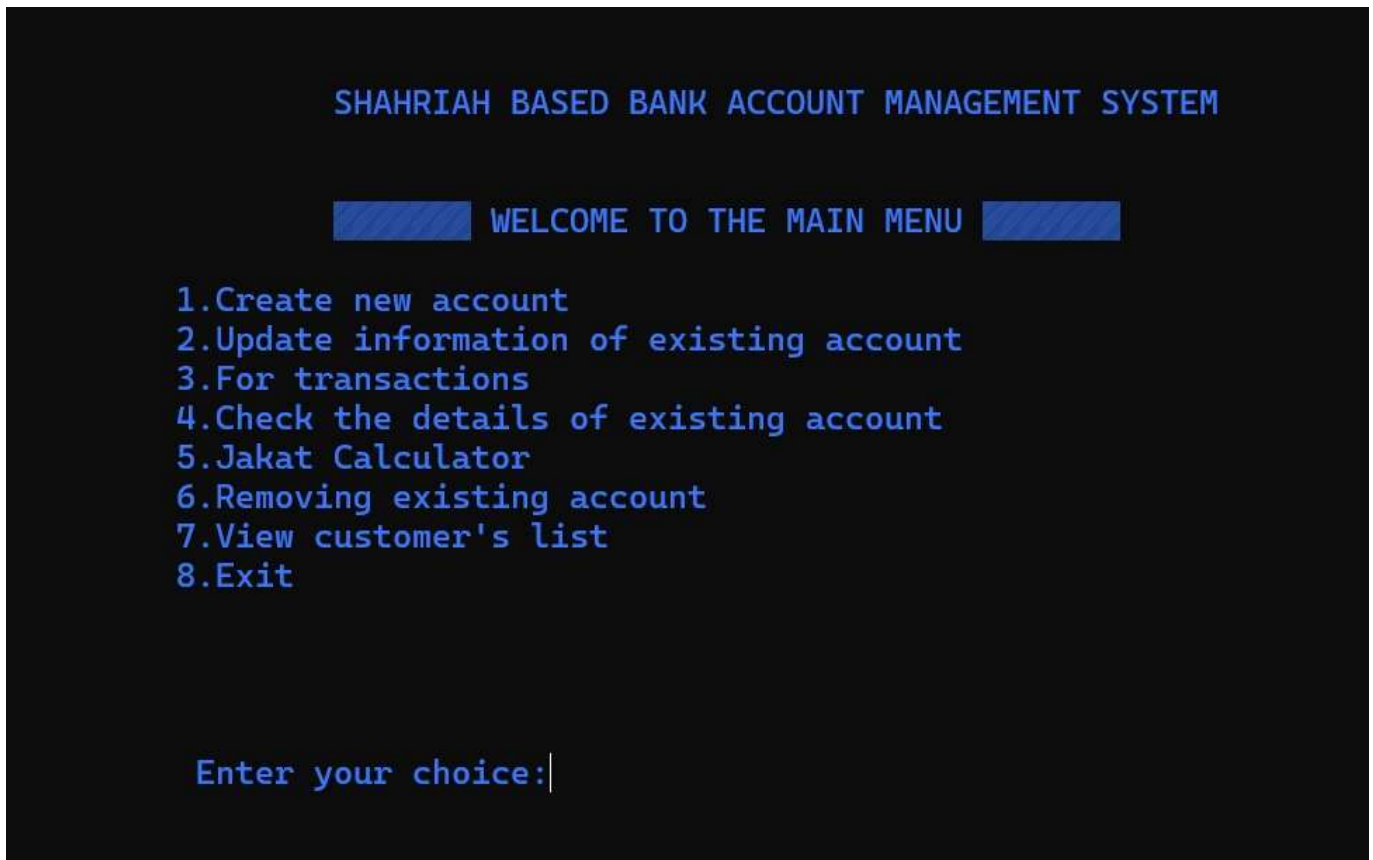
- New account
- Update Account Details
- Transactions
- Check Details of Existing Account
- Remove Existing Account
- Zakat Calculator

Screenshots:
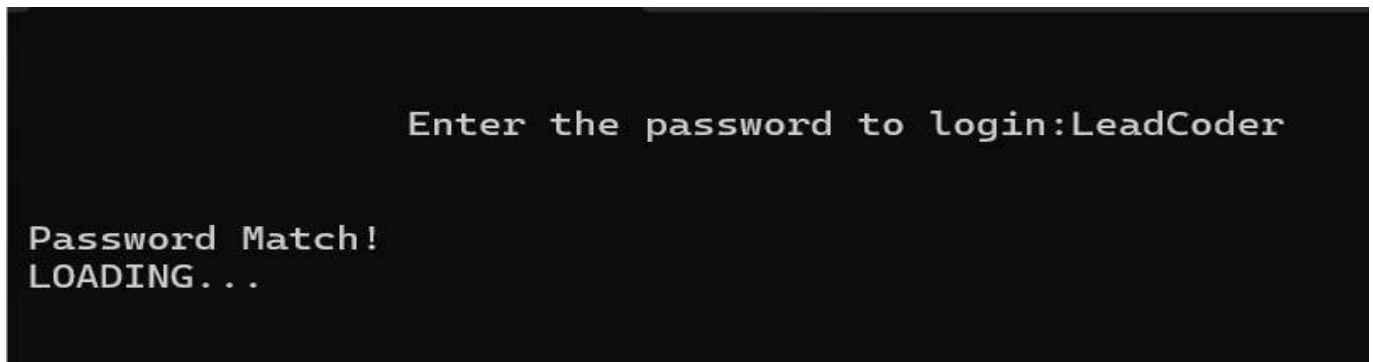
Starting

User choice

```
           ▨▨▨  ADD  RECORD   ▨▨▨

Enter today's date(mm/dd/yyyy):6/22/2024

Enter the account number:4

Enter the name:Azharul

Enter the date of birth(mm/dd/yyyy):12/7/2003

Enter the age:21

Enter the address:CDA

Enter the NID card number:123456

Enter the phone number: 01755511122

Enter the amount to deposit:Tk 1000

Type of account:
        #Saving
        #Current
        #Fixed1(for 1 year)
        #Fixed2(for 2 years)
        #Fixed3(for 3 years)

        Enter your choice:Savings
```

Create New Account

```
Enter the account no. of the customer whose info you want to change:4

Which information do you want to change?
1.Address
2.Phone

Enter your choice(1 for address and 2 for phone):
```

Update Information

```
Enter the account no. of the customer:4


Do you want to
1.Deposit
2.Withdraw?

Enter your choice(1 for deposit and 2 for withdraw):1
Enter the amount you want to deposit:Tk 200


Deposited successfully!
Enter 1 to go to the main menu and 0 to exit:
```

Transactions

```
Account NO.:1
Name:Kamrul
DOB:28/6/24
Age:21
Address:Hajipara
NID card No:123
Phone number:1793329260
Type Of Account:Fixed2
Amount deposited:Tk 100000.00
Date Of Deposit:19/6/24



Enter 1 to go to the main menu and 0 to exit:
```

Details of Account

Zakat Calculator

Removing Account

```
ACC. NO.          NAME                      ADDRESS                    PHONE

    1           Kamrul                     Hajipara               1793329260
    2            Atiq                           CDA               1815500446
    3           Raquim                     Kotowali               1859990441
    4            Tamim                      Agrabad               1815672345

Enter 1 to go to the main menu and 0 to exit:
```

View Customer List

```
This A Mini Project Which Is Developed By LeadCoder

Thank You For Using Our System.

Process returned 0 (0x0)    execution time : 501.652 s
Press any key to continue.
```

Ending