AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)

Dept. of Computer Science
Faculty of Science and Technology

CSC2210: OBJECT ORIENTED PROGRAMMING 2

Summer 2023-2024

Section: [F]

Group No: 04

Project Report On

*Project Name [**OSHOMOY**]*

Supervised By

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Submitted By:

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<tr><td><b>Evaluation Criteria (CO2)</b></td><td colspan="2"><b>Total =</b></td><td colspan="2"><b>Evaluation Criteria (CO3)</b></td><td><b>Total =</b></td></tr>
<tr><td>Requirement fulfillment</td><td colspan="2"></td><td colspan="2">Organization of the application</td><td></td></tr>
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CO2: Display and verify the mean of a real-life Project using the concepts of C# Graphical User Interface based environment with database integration to depict a desktop-based application.					
Assessment Criteria	**Not Attended/ Incorrect (0)**	**Inadequate (1-2)**	**Average (3)**	**Good (4)**	**Excellent (5)**
Evaluation Criteria	**Evaluation Definition**				
Requirement fulfillment	Fails to demonstrate any understanding of real-life scenario-based project development or functional requirement identification. There is no attempt to depict a project or identify functional requirements accurately.	Demonstrates limited understanding of real-life scenario-based project development and functional requirement identification. The project depicted lacks coherence or relevance to real-life scenarios, and functional requirements are inaccurately identified or insufficiently described.	Presents a basic depiction of a real-life scenario-based project and identifies some functional requirements. However, the project lacks depth or complexity, and some functional requirements may be vaguely defined or missing key details.	Effectively demonstrates a realistic scenario-based project and accurately identifies most functional requirements. The project is well-developed with appropriate complexity, and functional requirements are clearly articulated with relevant details.	Exhibits an exceptional understanding of real-life scenario-based project development and accurately identifies all functional requirements. The project is meticulously developed with thorough attention to detail, reflecting a comprehensive understanding of Object-Oriented Programming project development activities.
Validation	Fails to demonstrate any understanding or implementation of validation forms in their system. There is no attempt to deal with data validation, and validation requirements are completely ignored or incorrectly applied.	Demonstrates limited understanding of validation forms and data validation techniques. While some attempt may be made to implement validation, it is incomplete or poorly executed, leading to inadequate handling of data validation.	Shows a basic understanding of validation forms and data validation techniques. They attempt to implement validation, but some aspects may be missing or incorrectly implemented, resulting in partial or inconsistent handling of data validation.	Effectively demonstrates the use of validation forms and implements data validation techniques. Validation is mostly accurate and comprehensive, ensuring the proper handling of data input and verification in the system.	Exhibits an exceptional understanding and implementation of validation forms and data validation techniques. Validation is meticulously implemented with thorough attention to detail, ensuring robust data validation procedures and contributing to the overall reliability and integrity of the system.
Verification	Fails to demonstrate any attempt to verify the system data or functional requirements. There is no evidence of understanding or implementation of verification processes, and data	Demonstrates limited understanding of verification processes and data flow in the system. Verification attempts are incomplete or inaccurate, and	Shows a basic understanding of verification processes and attempts to verify system data. However, verification efforts may be inconsistent or lack	Identifies and verifies system data, ensuring proper functional requirements are met. Verification efforts are mostly accurate and thorough,	Exhibits an exceptional understanding of verification processes and meticulously verifies system data. Verification efforts are comprehensive and precise, with a keen

	flow is not considered.	there is insufficient consideration given to ensuring data integrity and functionality.	thoroughness, and there may be gaps in ensuring proper functional requirements and data flow.	with attention to ensuring data integrity and appropriate data flow within the system.	focus on ensuring all functional requirements are met and maintaining proper data flow throughout the system.

CO3: Prepare and Explain a real life desktop based application synthesizing several component of C# along with development tools to adhere the given requirements.

Assessment Criteria	Not Attended/ Incorrect (0)	Inadequate (1-2)	Average (3)	Good (4)	Excellent (5)
Evaluation Criteria	**Evaluation Definition**				
Organization of the application	Fails to identify any suitable real time application or requirements for project development activities related to OOP.	Limited understanding about the project scopes and scenarios or identification of functional requirements.	Lacks depth or relevance to OOP project development activities and may contain inaccuracies. Real-life scenarios are mentioned, but the discussion lacks depth or clarity.	Consider and integrate the idea of several core aspects of the project along with relevance to real-life scenarios. Demonstrating a solid understanding of the application presentation.	Generalize and exhibits an exceptional understanding of project preparation according to a to real-life scenarios. Also contains proper and insightful identification of the system which is comprehensive and precise.
Representation and Integration of Database	Fails to identify and present any understanding or implementation of database. Also failed to integrate the data with the project itself.	Limited understanding of the database concepts or their proper way of using in a real time project. While some attempt may be made to implement but it is incomplete or poorly executed, leading to inadequate design.	Lacks depth or relevance to database integration with the application. Shows a basic understanding but some aspects may be missing or incorrectly implemented, resulting in partial or inconsistency. May lack proper normalization.	Integrate the database with the forms properly and implements it with proper validation which is mostly accurate and comprehensive, ensuring the proper handling of data input and verification along with general normalization.	Exhibits an exceptional understanding and implementation of database ensuring attention to detail, and robust data manipulation procedures and contributing to the overall clarity.
Graphical User Interface	Fails to present or prepare GUI based application interfaces. There is no evidence of creating or integrating such things according to their usefulness.	Limited understanding of graphical user interfaces. Lack of design knowledge. Very poor attempt to make such things which are currently obsolete or can't be identified as coherent.	Shows a basic understanding of creating user interfaces. Most of them are interconnected but maybe some of them lack it. However, most of it can be described as user friendly.	Effectively identifies and meet the consider the simplicity. Design related works are mostly accurate and taken proper attention to ensuring a user-friendly coherent system.	Exhibits an exceptional work design following a high standard of simple and elegant work. Several controls and mechanism has been organized in a preferred way according to the coherent usage .

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Chapter 01: (Introduction)

"Oshomoy" is a focused donation application designed to streamline contributions for disaster relief and social causes. It offers users a simple and efficient way to donate funds, supporting various charitable activities that directly impact communities in need. By facilitating donations for natural disasters, emergencies, and other pressing causes, Oshomoy empowers individuals to make a tangible difference in the lives of others.

The app's core mission is to promote a spirit of giving and community support. Every contribution, big or small, plays a vital role in helping people recover from crises and enhances social well-being. Through Oshomoy, you become part of a larger movement dedicated to providing timely aid and fostering a more compassionate society.

By using Oshomoy, you are not just donating money-you are making a meaningful impact in addressing social challenges. Together, we can build a world where generosity and empathy lead the way to a brighter, more connected future.

Chapter 02: (User Story)

Admin:

1. User Management
   As an admin,
   I want to manage user accounts, including registration, password resets, and role assignments,
   So that I can maintain a secure, organized, and well-functioning user environment within the app.

2. Managing Donations
   As an admin,
   I want to view and oversee all donations made through the app, including total donations,
   So that I can ensure transparency and proper allocation of funds for the causes we support.

3. Changing User Roles
   As an admin,
   I want to change user roles and assign or revoke admin privileges,
   So that I can designate trusted users to help with managing donations and user accounts.

4. User Modification
   As an admin,
   I want to edit or delete user accounts,
   So that I can resolve account issues, or remove inactive or unauthorized users from the system.

User:

1. Donating to Causes
   As a user,
   I want to donate to natural disasters or specific social causes,
   So that I can contribute to causes that align with my values and make an impact.

2. Flexible Payment Options
   As a user,
   I want the ability to choose between a one-time donation or a recurring (monthly or yearly) donation,
   So that I can manage my contributions based on my financial capacity and preferences.

3. Viewing Previous Donations
   As a user,
   I want to view my donation history,
   So that I can track my past contributions and stay updated on how my donations were used.

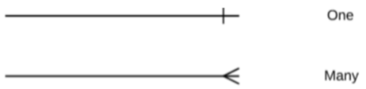
4. Account Management
   As a user,
   I want to update my username, email, and password,
   So that I can keep my account secure and ensure my contact information is current.

5. Receiving Donation Receipts
   As a user,
   I want to print or download a receipt for each donation I make,
   So that I have a record of my contributions for personal or tax purposes.

6. Backing Up Donation History
   As a user,
   I want to download my donation history as a spreadsheet,
   So that I can keep a personal backup and review my past contributions at any time.

Chapter 03: (ER Diagram)

Indicators:



🟦 Primary Key

🟪 Secondary Key

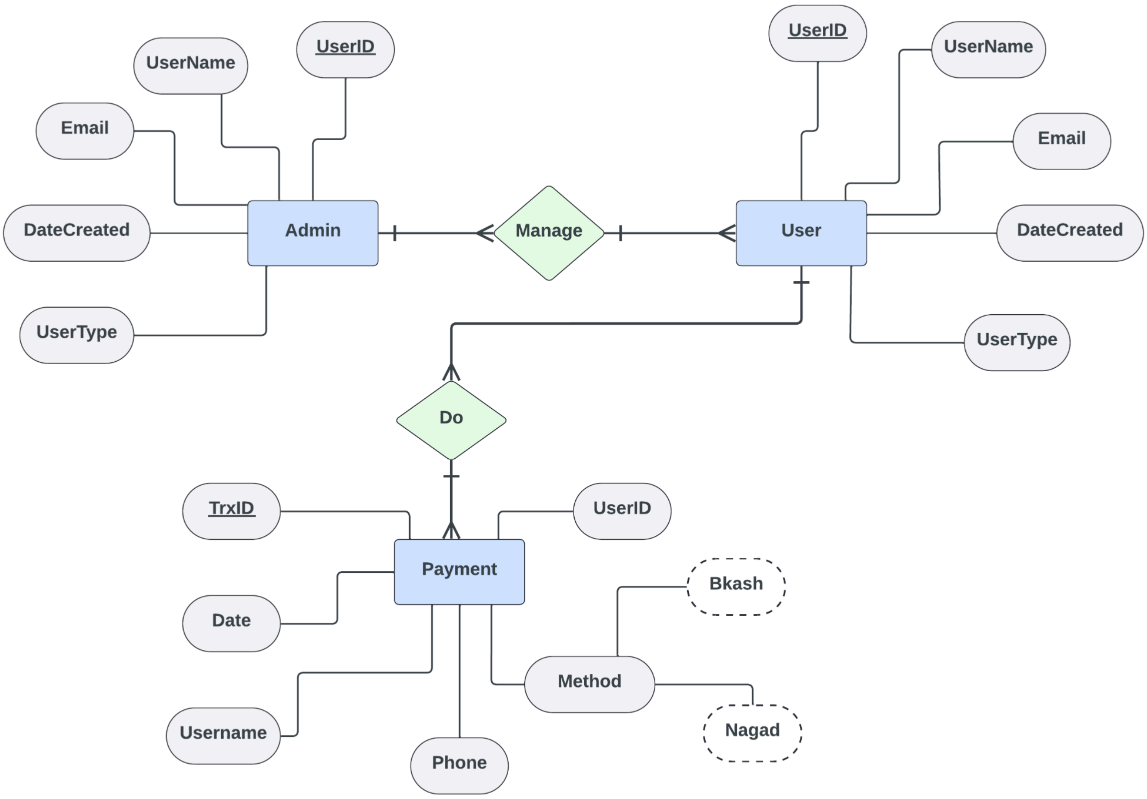


Figure 1: Entity-Relationship Diagram

Final table after Optimization:

i. User : UserId, Username, Email, Password, UserType, CreationDate

ii. Payment : TrxId,Username, Email, Method, Phone, Date, UserId

Chapter 04: (SQL Queries)

User table Creation:

```
CREATE TABLE Users (
        UserId INT IDENTITY(1,1) PRIMARY KEY,
        UserName NVARCHAR(255) NOT NULL,
        Email NVARCHAR(255) NOT NULL,
        Password NVARCHAR(255) NOT NULL,
        UserType NVARCHAR(50) NOT NULL,
        CreationDate DATETIME DEFAULT GETDATE()
);
```

Payment table Creation:

```
CREATE TABLE Payment (
        TrxId INT IDENTITY(1,1) PRIMARY KEY,
        Username NVARCHAR(255) NOT NULL,
        Email NVARCHAR(255) NOT NULL,
        Phone NVARCHAR(255) NOT NULL,
        Method NVARCHAR(50) NOT NULL,
        PaymentDate DATE NOT NULL,
        UserId INT,
        CONSTRAINT FK_UserId FOREIGN KEY (UserId) REFERENCES Users(UserId)
);
```

User Data Insertion:

```
INSERT INTO Users (UserName, Email, Password, UserType)
        Values ('your_username', 'your_email@example.com', 'your_password',
                   ‘your_user_type')
);
```

User Data Selection:

```
SELECT UserId, UserType
FROM Users
WHERE UserName = 'your_username'
WHERE Password = 'your_password'
;
```

User Data Modify/Update:

```
UPDATE Users
SET
        Username = 'new_username'
        Password = 'new_password'
        Email = 'new_password'

WHERE UserId = given_user_Id ;
```

User Data Delete:

```
DELETE FROM Users
WHERE UserID = given_user_Id
;
```

User Role Change:

```
UPDATE Users
SET
        UserType = 'User/Admin’'

WHERE UserID = given_user_Id ;
```

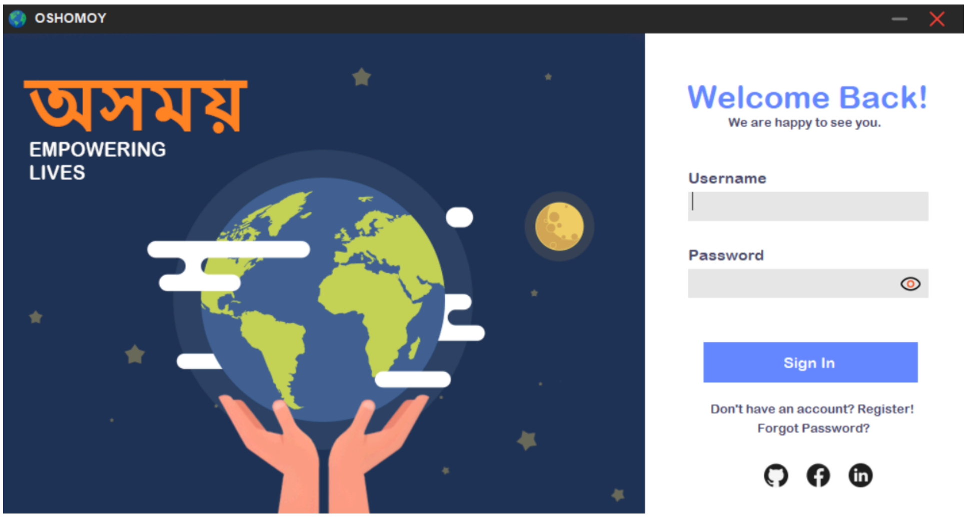
Payment Info Insertion:

```
INSERT INTO Payment (Username, Email, Phone, Method)
          Values ('your_username', 'your_email@example.com', 'your_phone',
                       ‘Bkash/Nagad',)
);
```

Payment Data Selection:

```
SELECT *
FROM Payment
WHERE UserID = User’s_Id
;
```

Chapter 05: (Screenshots)



OSHOMOY

Welcome Back!

We are happy to see you.

Username

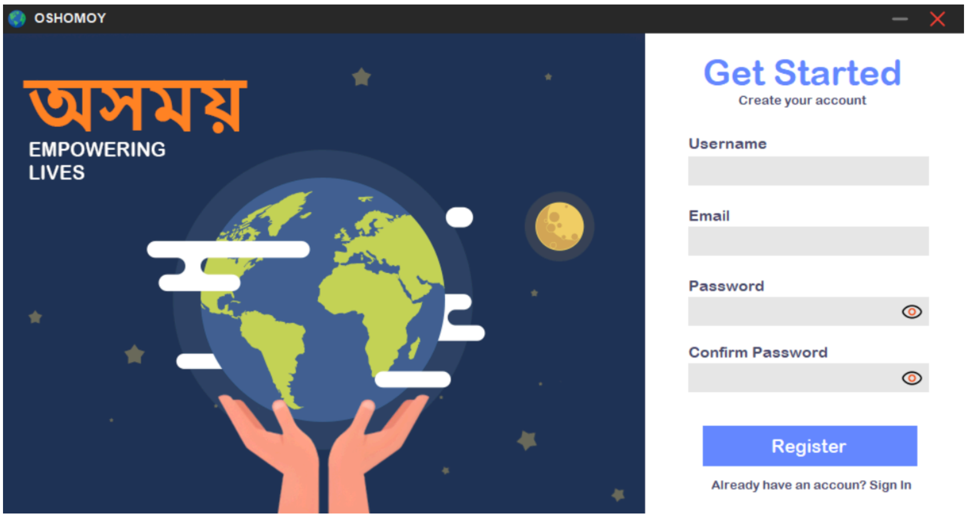
Password

Sign In

Don't have an account? Register!

Forgot Password?

Image 1: Login Page



OSHOMOY

Get Started

Create your account

Username

Email

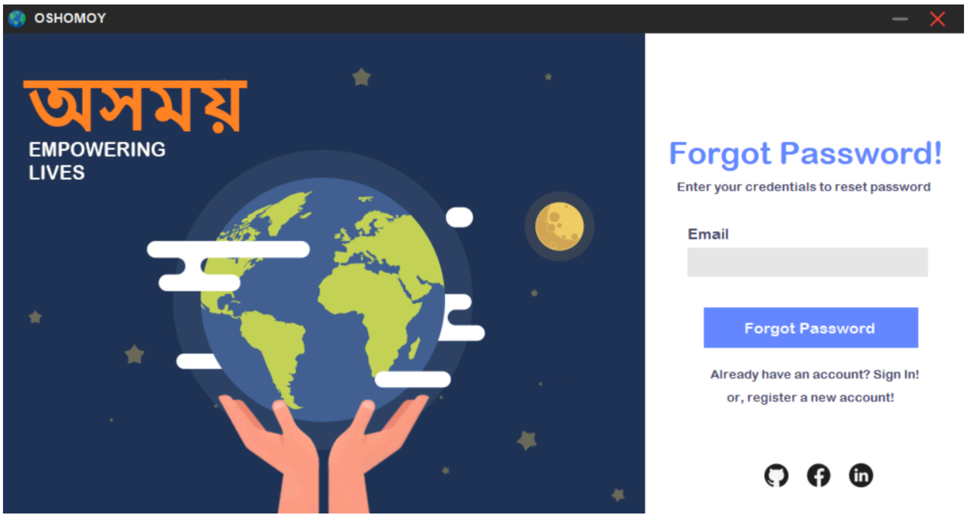
Password

Confirm Password

Register

Already have an accoun? Sign In

Image 2: Register Page



OSHOMOY

Forgot Password!

Enter your credentials to reset password

Email

Forgot Password

Already have an account? Sign In!

or, register a new account!

Image 3: Forgot PasswordPage

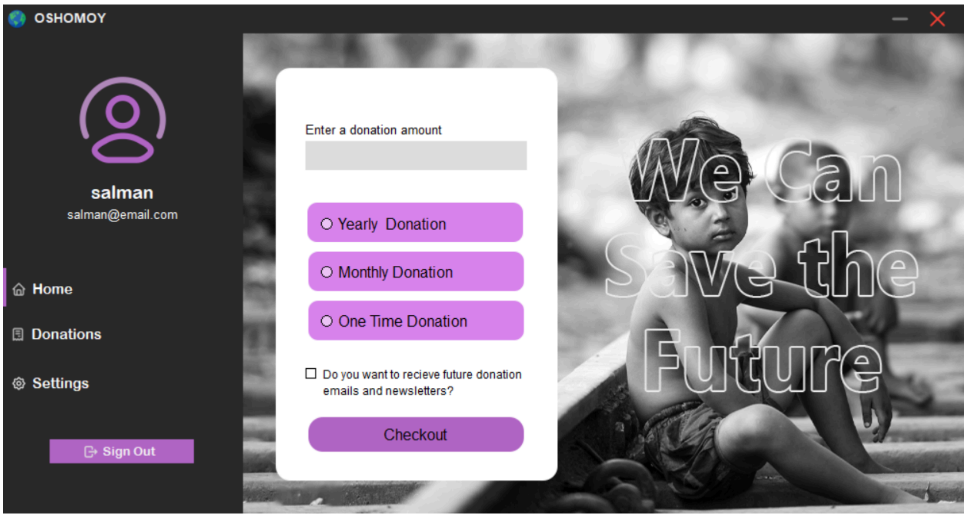
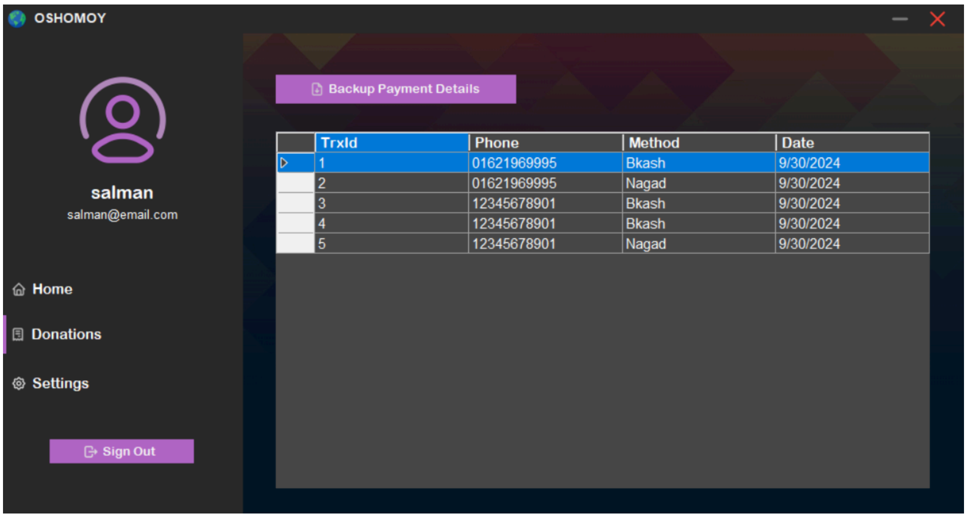
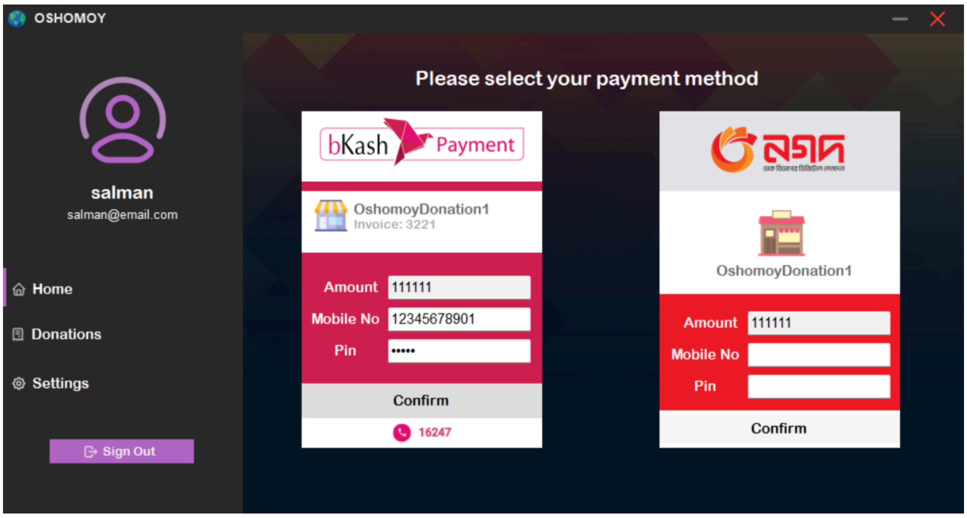


Image 4: User Home Page



	TrxId	Phone	Method	Date
▷	1	01621969995	Bkash	9/30/2024
	2	01621969995	Nagad	9/30/2024
	3	12345678901	Bkash	9/30/2024
	4	12345678901	Bkash	9/30/2024
	5	12345678901	Nagad	9/30/2024

Image 5:User Donation Page



bKash:

Amount 111111

Mobile No 12345678901

Pin •••••

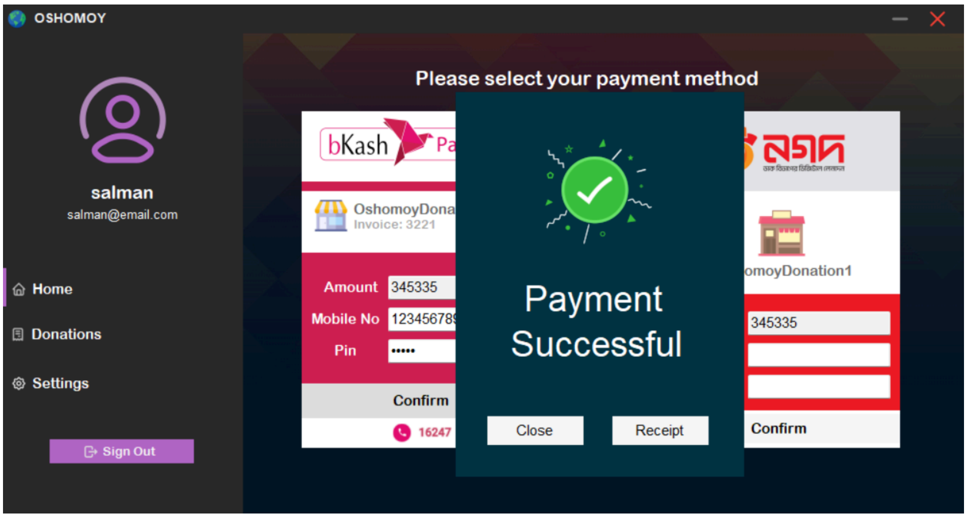
Nagad:

Amount 111111

Mobile No

Pin

Image 6: User Payment Page



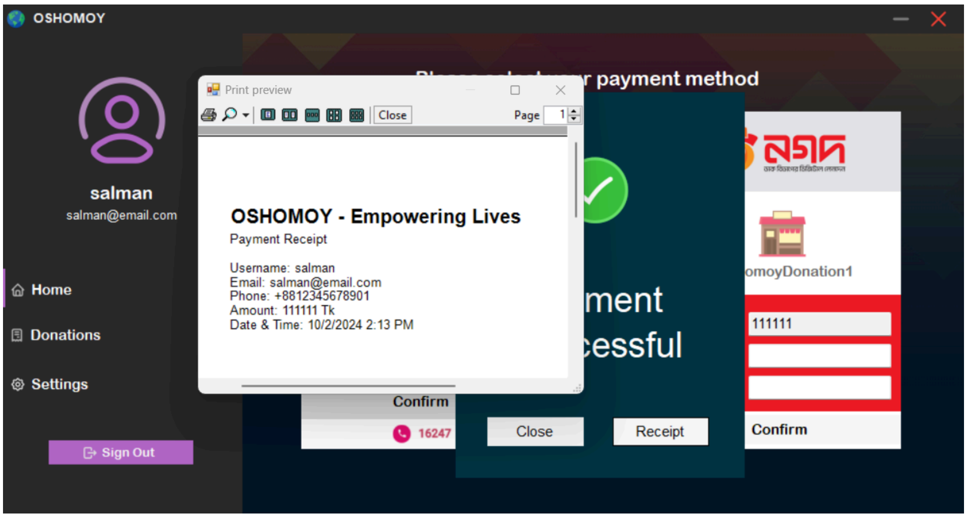
Please select your payment method

Amount 345335
Mobile No 123456789
Pin •••••

345335

Payment Successful

Image 7: User Payment Successful Page



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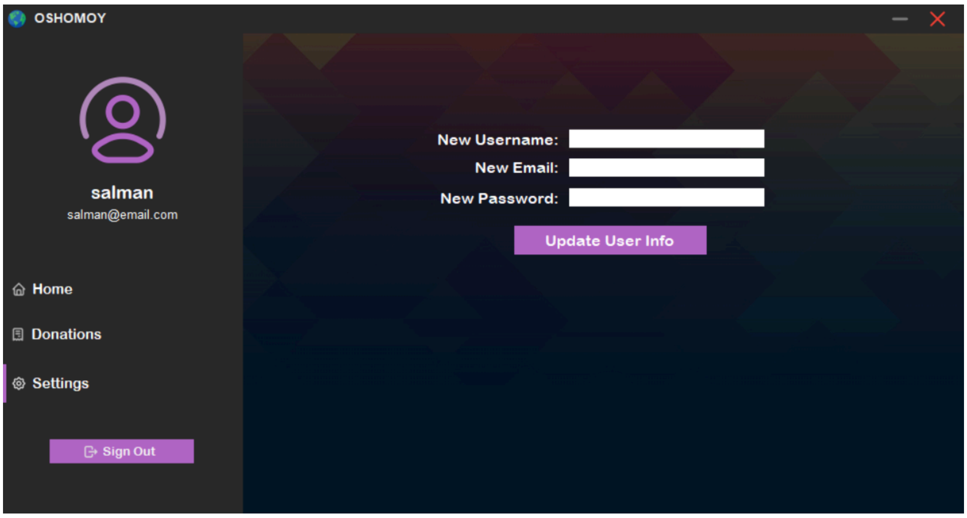
Payment Receipt

Username: salman
Email: salman@email.com
Phone: +8812345678901
Amount: 111111 Tk
Date & Time: 10/2/2024 2:13 PM

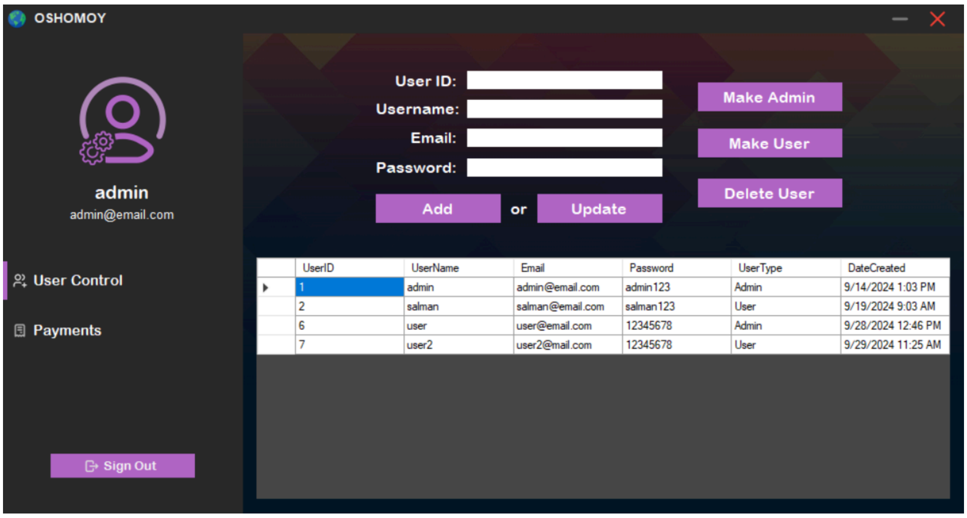
111111

Image 8: User Payment Receipt Page



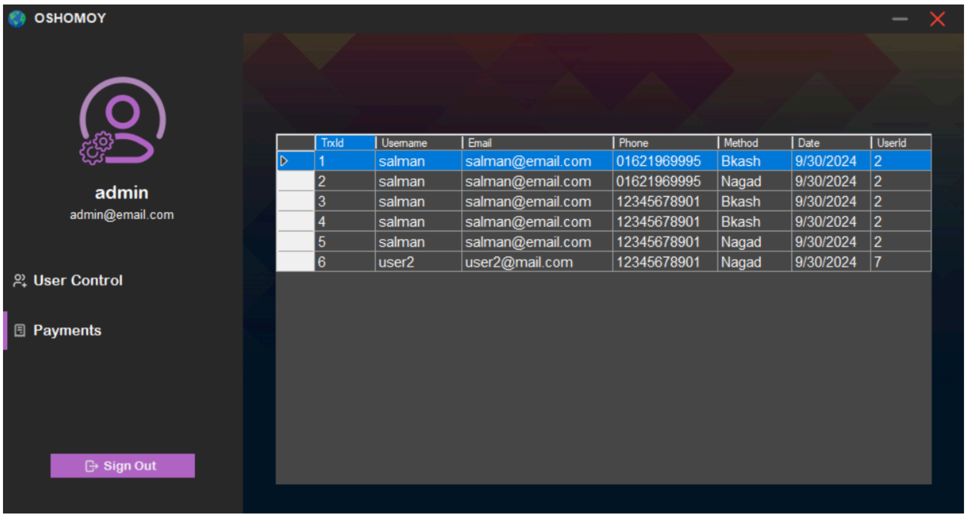
New Username:
New Email:
New Password:

Image 9: User Settings Page



UserID	UserName	Email	Password	UserType	DateCreated
1	admin	admin@email.com	admin123	Admin	9/14/2024 1:03 PM
2	salman	salman@email.com	salman123	User	9/19/2024 9:03 AM
6	user	user@email.com	12345678	Admin	9/28/2024 12:46 PM
7	user2	user2@mail.com	12345678	User	9/29/2024 11:25 AM

Image 10: Admin UserControl Page



TrxId	Username	Email	Phone	Method	Date	UserId
1	salman	salman@email.com	01621969995	Bkash	9/30/2024	2
2	salman	salman@email.com	01621969995	Nagad	9/30/2024	2
3	salman	salman@email.com	12345678901	Bkash	9/30/2024	2
4	salman	salman@email.com	12345678901	Bkash	9/30/2024	2
5	salman	salman@email.com	12345678901	Nagad	9/30/2024	2
6	user2	user2@mail.com	12345678901	Nagad	9/30/2024	7

Image 11: Admin Payments Page

Name	ID	Contributions
1. SALMAN SAYEED	22-49006-3	AdmDashboard.cs, Admin1Panel.cs, Signup.cs
2. S.M.NAHID HASSAN	22-49026-3	PaymentSelect.cs, Confirmation.cs, User1Panel.cs
3. MD SADIKUL ISLAM	22-49036-3	Login.cs, User3Panel.cs, Dashboard.cs
4. MD. ABU SIYAM	21-45868-3	Forgotpass.cs, User2Panel.cs, Admin2Panel.cs