North South University

Smart Banking Solution

Database System Labs

Course: CSE 311 + L

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Project Submitted By: **Course Faculty:**

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Project Overview

Smart Banking Solution is an online forum that helps people to get easy access to banking information within minutes. A series of certified agents from different Banks and their agents can interact with people at any time. Users of the website are allowed to ask/search/surf the website anytime to gain crucial information about their desired banks or banking-related information.

The website also has huge revenue potential due to the interaction of multiple Banks and their agents. Alongside that, Ads are allowed to run on the website through certified Agents and Admins.

A list of Banks with their contact website is also stored in the website's database. Users can search for specific Banks, or their agents to talk and find solutions to their problems. Besides that, Users are also given the opportunity to directly contact the Admins/Agents if any further query is necessary.

Languages and Resources

Primarily to create the visual outlook, we have used HTML and CSS. To establish a connection with our Database, we have used PHP. Our Database is created with MySQL. Interaction between our website and the database happens in real-time and is fluid.

The database contains all the information about the users, banks, agents, and ads. Information can be extracted anytime. For very specific purposes, we have also used JavaScript.
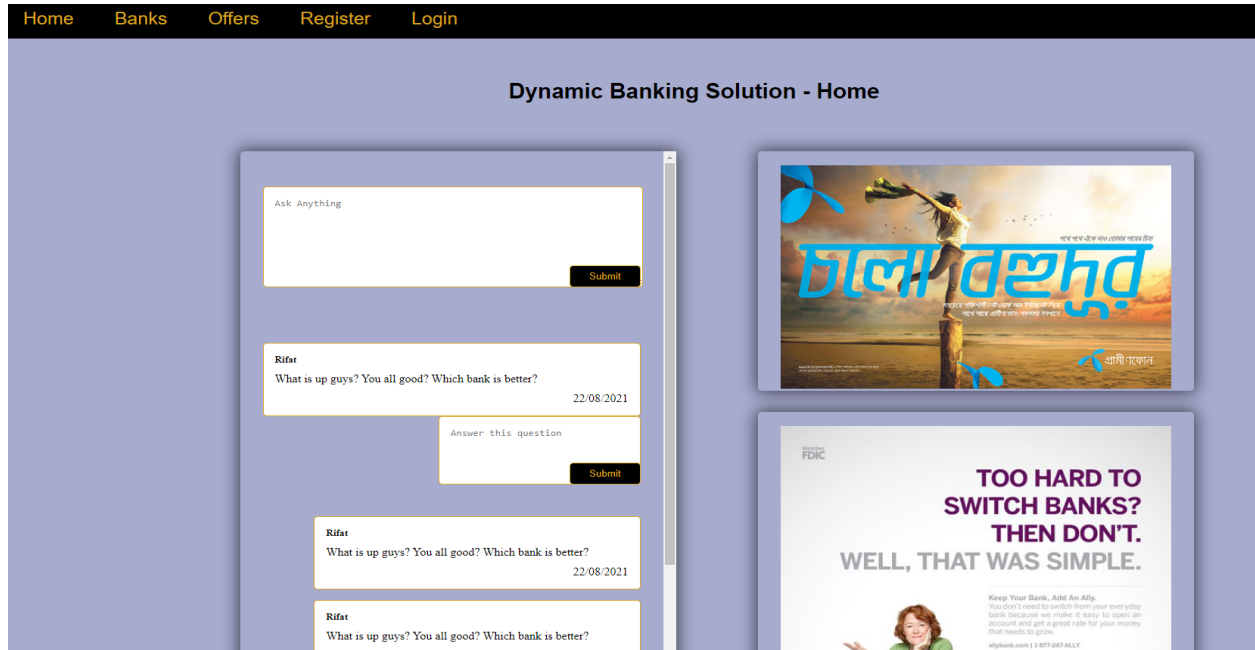
IDEs & Softwares used

Sublime Text, Notepad, XAMPP, myPHPadmin

OS: Windows 10

Platform Supported: PC / MAC

Design

Home Page

Banks

Banks	Website	Phone	Contact	Email
Prime Bank Limited	*PB Website*	9567265	PB Connect	info@primebank.com.bd
Basic Bank Limited	*BB Website*	9567265	BB Connect	webmail.basicbanklimited.com
Islami Limited	*ISB Website*	9567265	ISB Connect	islamibank@gmail.com
HSBC Bank Limited	*HSBC Website*	096127 16240	HSBC Connect	contact@hsbc.com
Grameen Bank Limited	*Grameen Website*	0258055628	Grameen Connect	contact@grameen.com

Offers:

Register
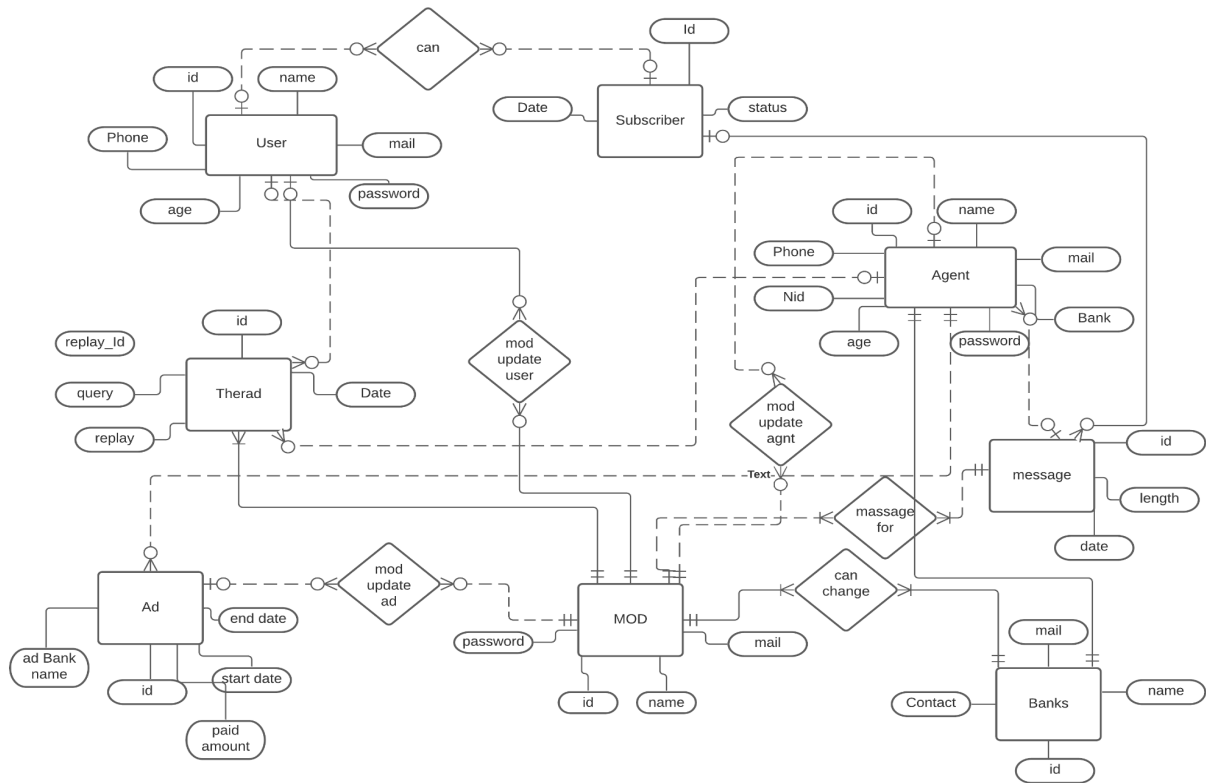
ER Diagram

Use Case Diagram
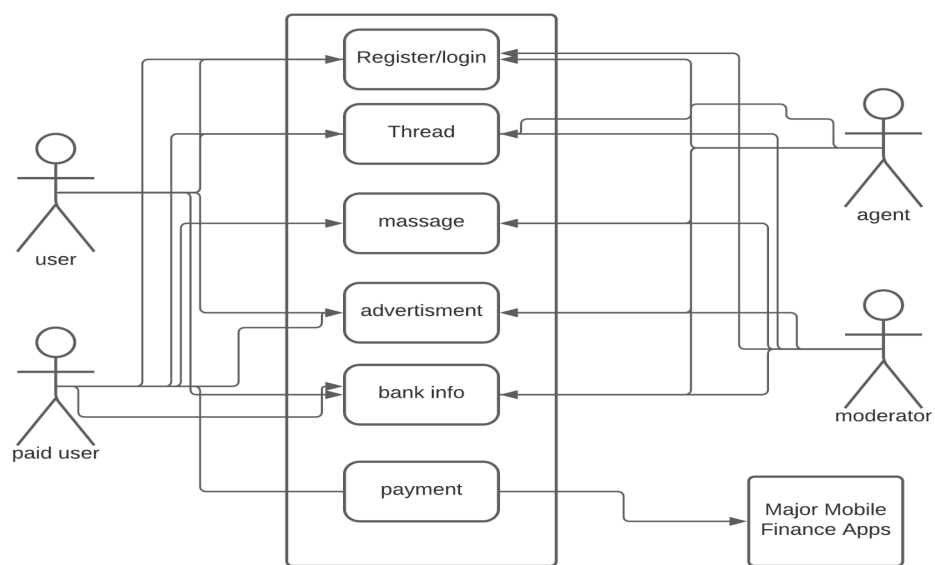
Physical Diagram
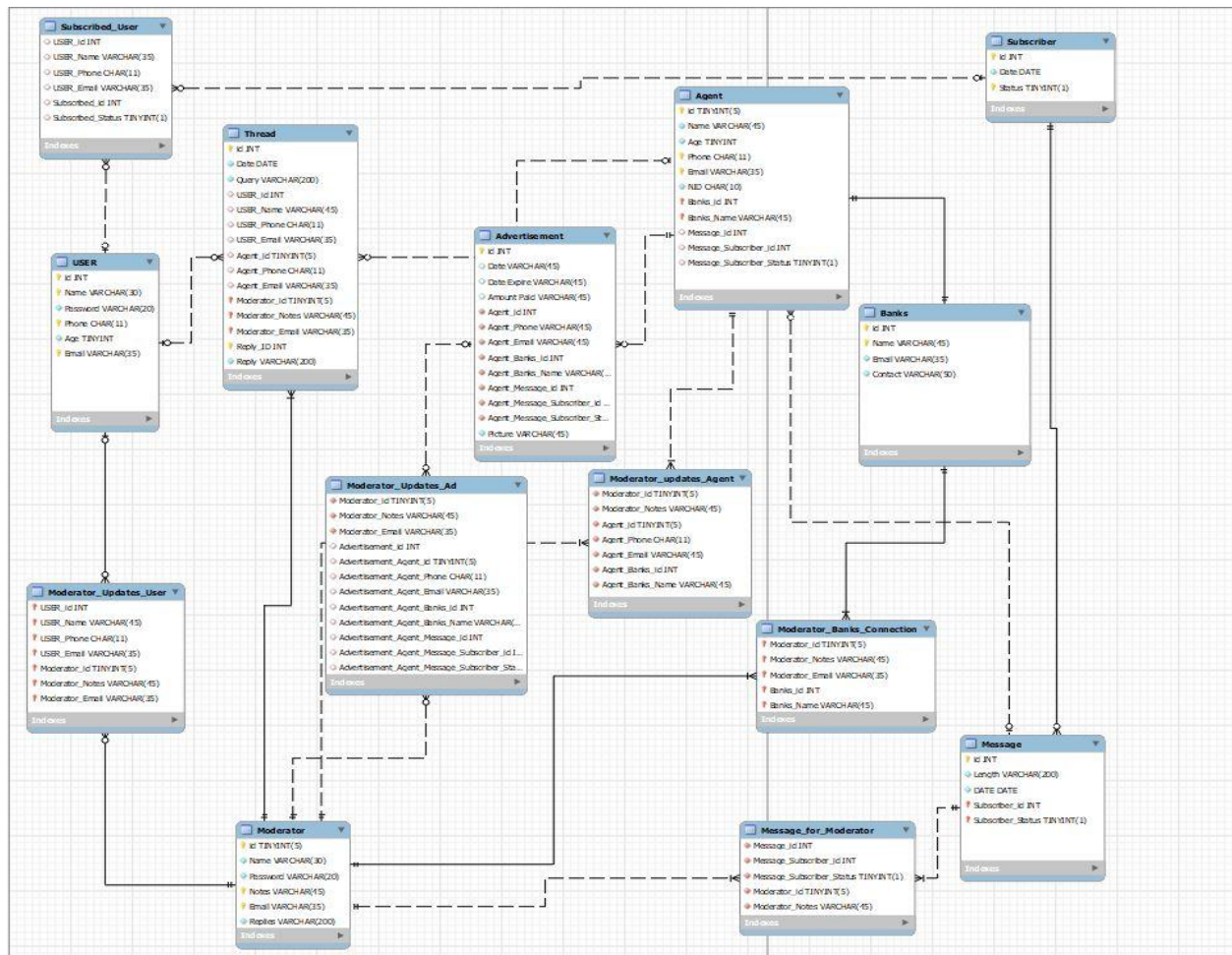
Database

	Table	Action						Rows	Type	Collation	Size	Overhead
☐	**agent**	⭐	📋 Browse	🔧 Structure	🔍 Search	📥 Insert	🗑 Empty	⊘ Drop	12	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐	**banks**	⭐	📋 Browse	🔧 Structure	🔍 Search	📥 Insert	🗑 Empty	⊘ Drop	5	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐	**moderator**	⭐	📋 Browse	🔧 Structure	🔍 Search	📥 Insert	🗑 Empty	⊘ Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐	**ques_and**	⭐	📋 Browse	🔧 Structure	🔍 Search	📥 Insert	🗑 Empty	⊘ Drop	18	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐	**user**	⭐	📋 Browse	🔧 Structure	🔍 Search	📥 Insert	🗑 Empty	⊘ Drop	10	InnoDB	utf8mb4_general_ci	16.0 KiB	-
	5 tables	Sum							45	InnoDB	utf8mb4_general_ci	80.0 KiB	0 B

User Experience:

As described previously in the project proposal, users are able to subscribe to the website, ask their questions, and go through a list of queries that have been asked before by browsing our home feed. All queries are stored with the user's name, replier's name, date & time. Additionally, Ads specified for users will show up on the website. Those Ads will take them to other Bank's websites and directly to the offer page. The subscription fee is very low and the transaction will be handled via 3rd party MFS companies. All transactions are manual to keep the simplicity alive and to save time.

Agents & Admins:

To keep the user experience alive, Admins and dedicated Agents of multiple Banks will be looking through the home feed to find new issues submitted by the user. Agents who reply faster and better are definitely going to be given more privileges in the future. Along with that, Admins are also able to answer questions from Users.

As the website is basically a Forum, all the interaction happens mainly in the home feed.

Banks:

Multiple registered Banks are included in the Database with their contact information. This information can be found under the Bank's window. Now users won't have to search for individual Bank and find their individual contacts, instead, they will get an index of highly accurate information about some popular Banks in Bangladesh.

Banks are also a huge revenue source for the website as their Ads will be running in the Home Feed and in the Offer page.

Usage of MySQL throughout the website

```sql
SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
START TRANSACTION;
SET time_zone = "+00:00";
```

```sql
ALTER TABLE `ques_and`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT,

--
-- AUTO_INCREMENT for table `user`
--

ALTER TABLE `user`
  MODIFY `ID` int(11) NOT NULL AUTO_INCREMENT,
COMMIT;
```

```php
$sql_query = "SELECT * FROM ques_and  where status='User'";



$QUERY = mysqli_query($conn, $sql_query);
if ($QUERY)
{

  while($row = mysqli_fetch_assoc($QUERY)){  ?>

```

```php
$sql_query = "INSERT INTO agent (Name,Email,Phone,Age,Password,Bank_ID,Bank_Name, NID)
VALUES ('$Name2','$Email2','$Phone2','$Age2','".md5($Password22)."', '$Bank_ID', '$Bank_Name','NID')";
```

```php
$sql_query= "SELECT * FROM agent WHERE Email='$Email2' OR Password='$Password22'";
```

And Much more.

We have used a hefty amount of CSS to stylize the website. Some Basic and advanced HTML implementation were needed to build the structure of the website. PHP worked as the bridge between the Backend and the Frontend.

Drawbacks:

Sometimes images don't load properly. Initially, we came up with lots of ideas to implement in the website, but over time we understood our lackings in PHP language. Working with HTML & CSS was pretty easy and comfortable but connecting the Database through PHP took a lot of time for us, even though we were only able to understand basic PHP commands.

Therefore many initially planned features are not present on the website. A plethora of issues mounted up right before the final dates which took multiple days to solve. Most of the issues arrived from the Home Feed as it is our most sophisticated part of the website.

Building the Database wasn't much of an issue but implementing it and connecting it with the website was the main hassle. Although we were able to accomplish much of the tasks we wanted to complete.