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Inspiring Excellence

CSE370 : Database Systems
Project Report
Project Title : Call Center Management System

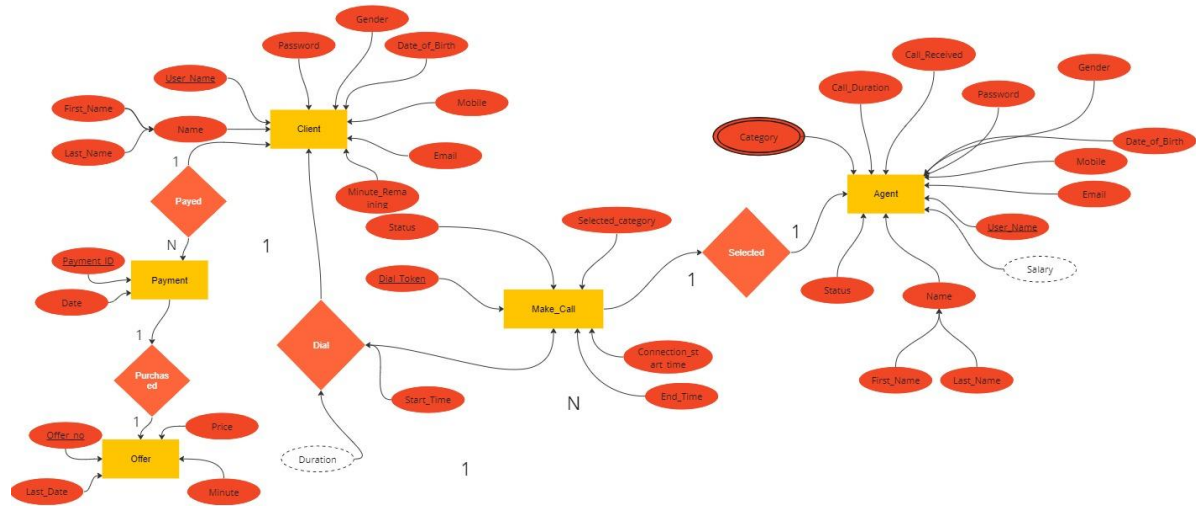| Group No : 10, CSE370 Lab Section : 06, Spring 2023		
ID	**Name**	**Contribution**
20216006	Soumitra Das	UI, Database, Integration
22101312	Shoabur Rahman Chishty	UI, Database, ER
20101566	Sium Ibn Akhter	UI, Database
20301006	MD.Nur Islam Dhali Arnob	UI, Database, Schema

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Introduction

Name of our project is Call Center Management System. Like the name suggests, we made a program which will store all the information of a call center. Clients/customers are the user, who will make a call to experts, who are indicated as 'Agent' in this program. Clients can sign up and log in to their respective account. They need to input some information about themselves and an unique username to make an account. Registration process is pretty much the same for both clients or agents. The only difference is agents need to add at least one, at most three areas of expertise to complete the registration. Clients are given 100 minutes at first to use it to make calls. They can buy additional minutes by making in-app purchases. Some offers are available for a limited amount of time for buying minutes. Purchase history of any particular customers are stored and they can view them anytime. Customers select a category before calling to ensure they are getting a suitable expert to talk to. Agents who are experts in that particular category can see the call notification when they are active. Both client and agent can edit all the information in their profile except for username. There is also one particular account which has admin privilege. Admin can see and delete all the agent and customer information. He/she also can add purchase offers. Everything is stored in a database named ccms_database. This database is made with SQLite3 RDBMS and the whole program is written in python. We used Kivy GUI library to create and connect frontend interfaces.

Project Features

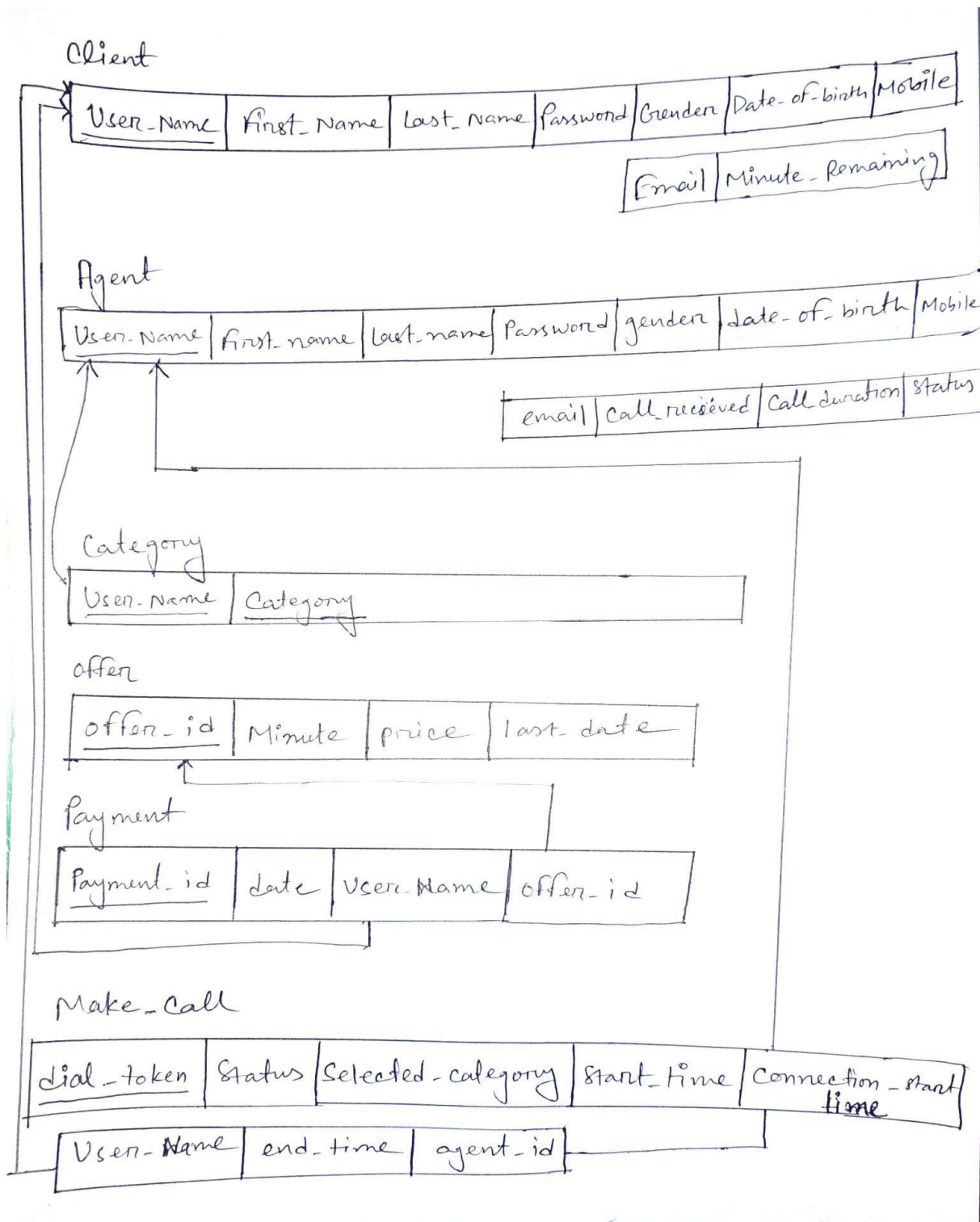Some notable features of this project are:

- ➢ Clients can connect with experts based on a particular field of interest.
- ➢ Redundant connection between expert and customer
- ➢ Has nicely designed log in, sign up, profile, offer, purchase or purchase history window.
- ➢ Profile editing feature.
- ➢ Checks errors, or conflicting inputs and shows where the problem is while submitting some information to ensure no problem occurs in the backend.
- ➢ Admin can add offers and set deadlines. After the due date, offers will be removed from the customers purchase list, but not from the database.
- ➢ Customers can browse purchase history where the purchased offers as well as the purchase date will be mentioned.\
- ➢ Multiple options for buying offer bundles.
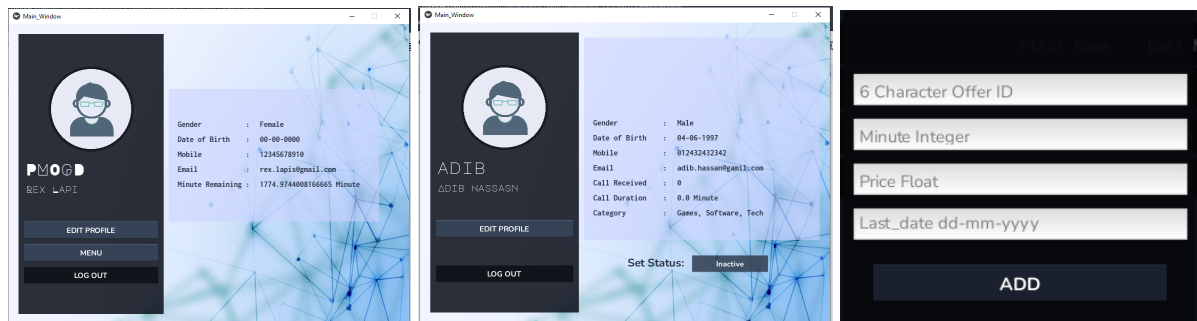
ER/EER Diagram

Schema Diagram

Client

User-Name	First_Name	Last_Name	Password	Gender	Date-of-birth	Mobile

Email	Minute_Remaining

Agent

User-Name	First_name	Last-name	Password	gender	date-of-birth	Mobile

email	call recieved	Call duration	status

Category

User-Name	Category

Offer

offer_id	Minute	price	last date

Payment

Payment_id	date	User-Name	offer_id

Make_call

dial_token	Status	Selected-category	Start-time	Connection_start time

User-Name	end_time	agent_id

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Frontend Development

Contribution of ID : 20101999, Name : Soumitra Das
UI/profile.py,
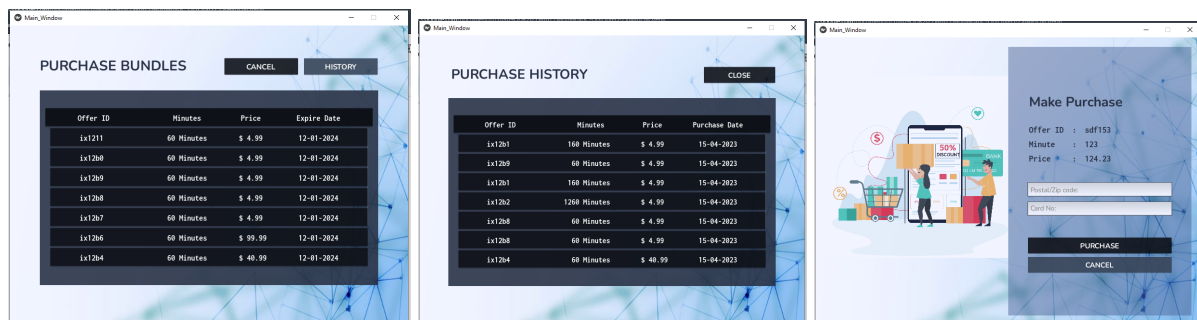**UI/agent_dashboard.py,**
main.py

(main.py contains all the popups and transitions)

Contribution of ID : 20101998, Name : Shoabur Rahman Chishty
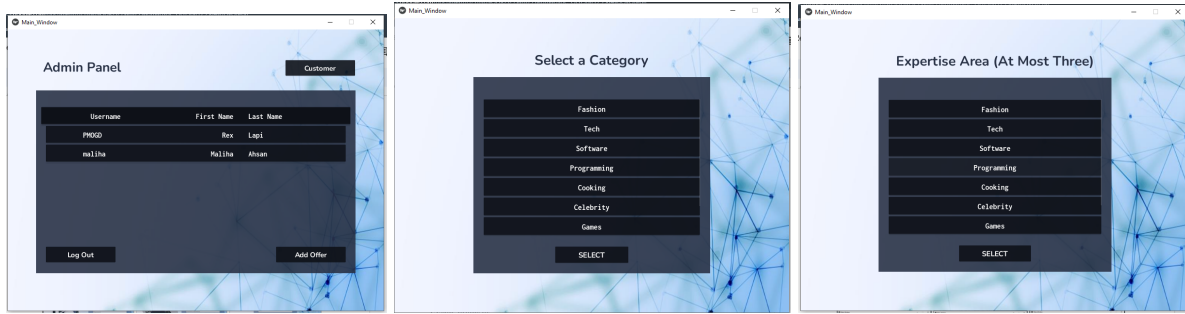**UI/purchase.py,**
UI/purchase_history.py,
UI/offer.py

Contribution of ID : 20101997, Name : Sium Ibn Akhter
UI/admin.py,
UI/category_selection.py,
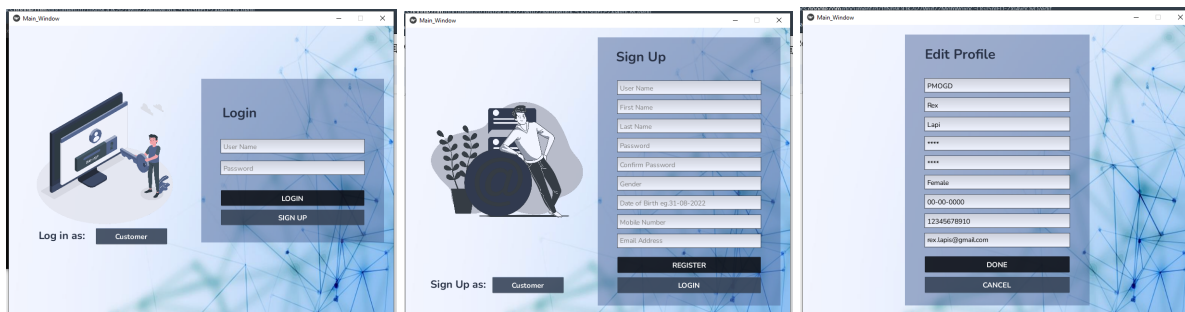**UI/agent_category_selection.py**

Contribution of ID : 20101996, Name : MD.Nur Islam Dhali Arnob
UI/login.py,
UI/edit_profile.py,
UI/sign_up.py

Backend Development

We mainly did everything together here. All the query is written in the main file, so no output screenshot has been shown.

Contribution of ID : 20101999, Name : Soumitra Das
Kivy memory optimization,
Database table creation, select, insert, update

Contribution of ID : 20101998, Name : Shoabur Rahman Chishty
Database select, insert, update

Contribution of ID : 20101997, Name : Sium Ibn Akhter
Database select, insert, update

Contribution of ID : 20101996, Name : MD.Nur Islam Dhali Arnob
Database select, insert, update

Conclusion

The whole project is almost completely hardcoded and has more than 2500 lines. Even after that this is not perfectly suitable for deploying because the amount of time given for this project was not sufficient. It is stored in a GitHub repository available for viewing. Link is here:
https://github.com/Blaiteray/CCMS

References

❖ **https://gist.github.com/opqopq/15c707dc4cffc2b6455f**
❖ **https://kivy.org/doc/stable/**