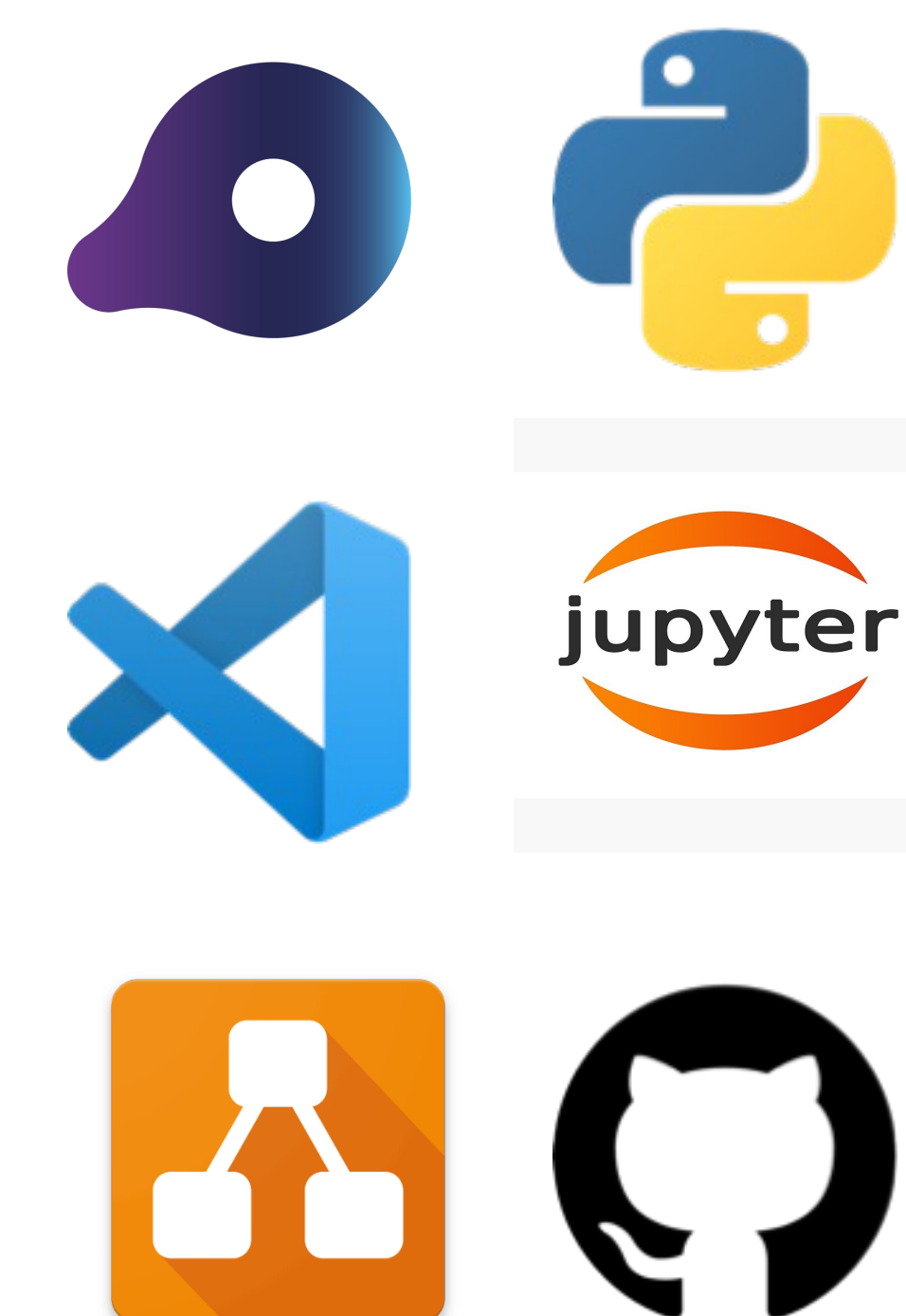




# School of Computing and Information Sciences

Summer 2022 Senior Design Project

## A Novel Edge-Based Computer Vision Application for Workforce Performance Optimization

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### PROBLEM

GuacamoleID provides authentication technology. It authenticates users continuously or on-demand and is used for protecting endpoints against unauthorized access. It uses face recognition for computers to remain login. Our role for this project was to implement a chatroom website from zero that uses GuacamoleID feature for login and registration purposes.

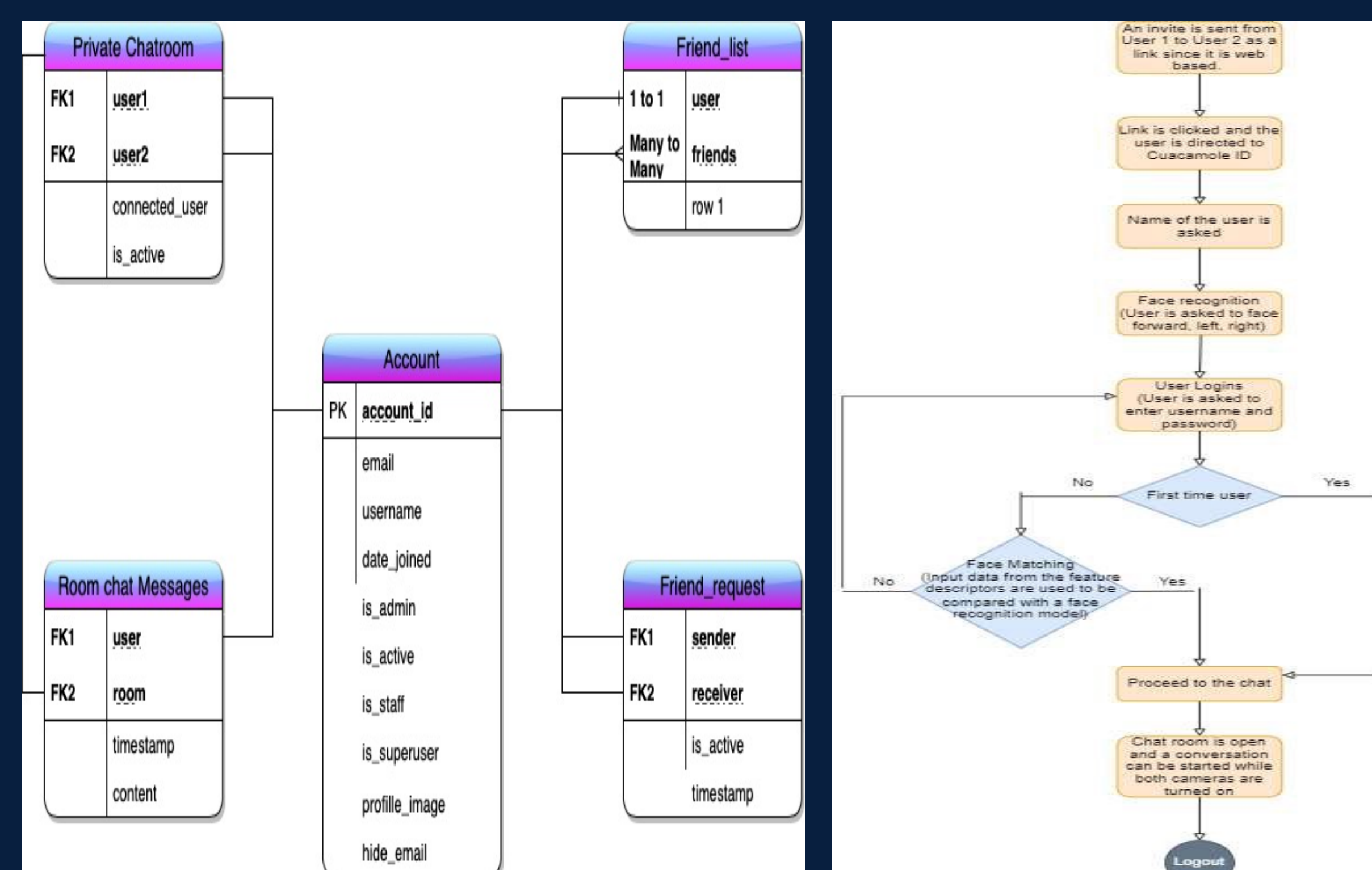
### CURRENT SYSTEM

The current system consists in a chatroom that will use GuacamoleID features such as authentication, face recognition, and face matching to login a user or register a new user. This website was developed from zero and until today, our team could complete a frontend design, a backend and database implementation and a starting code for AI that will be continued in the future.

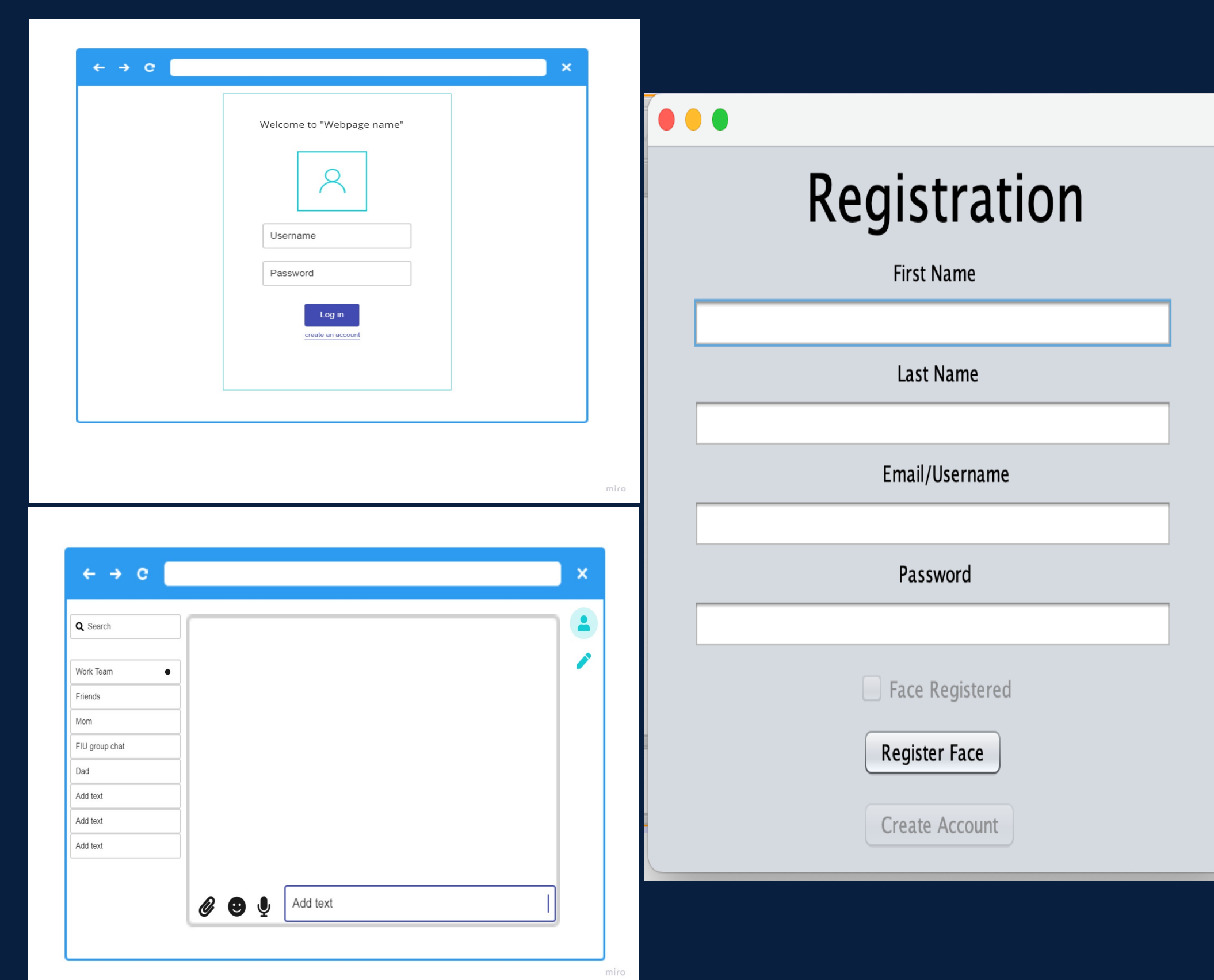
### REQUIREMENTS

- ❖ Python
- ❖ Django
- ❖ Jupyter Notebook
- ❖ GuacamoleID

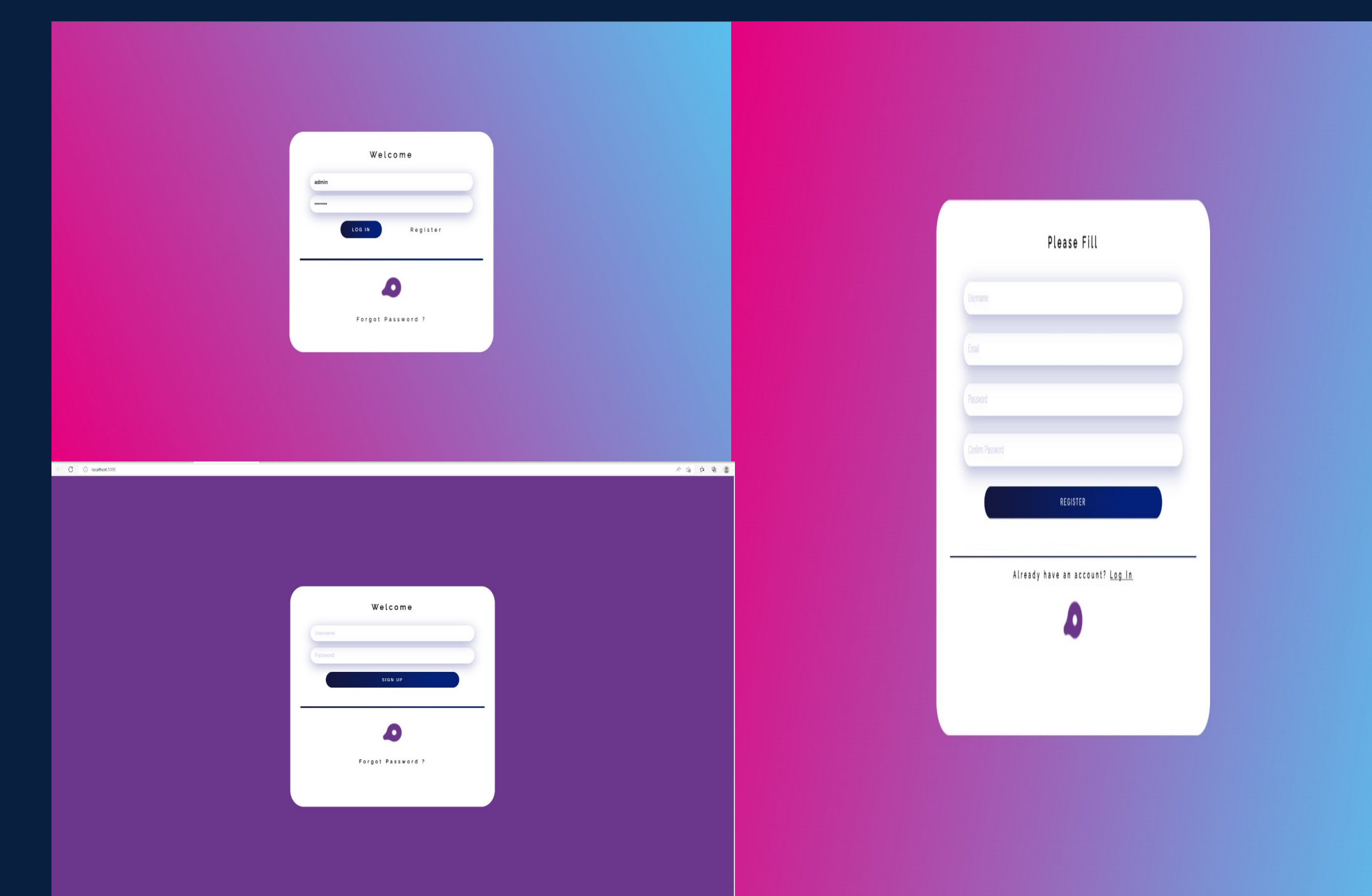
### SYSTEM DESIGN



### OBJECT DESIGN



### SCREENSHOTS



### IMPLEMENTATION

For the implementation of this project the following frameworks/languages/IDEs were used:

- **Frontend:** REACT/JavaScript/Visual Studio Code.
- **Backend:** Django/Python/Visual Studio Code.(PgAdmin for database)
- **AI:** Python/Jupyter Notebook.

### VERIFICATION

For verification, we used several test cases and user stories to make sure we do not miss any scienstial feature in our application. Some of test cases are registration, login, provide 1 to 1 chat capabilities, and log out.

### SUMMARY

Throughout Summer 2022, our team made a big effort for the realization of this application. We made progress in the assigned tasks; most requirements were satisfied. By the end of this semester, our team succeeded in the implementation of front end, backend, and database.

### ACKNOWLEDGEMENT

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