

### PROJECT OVERVIEW

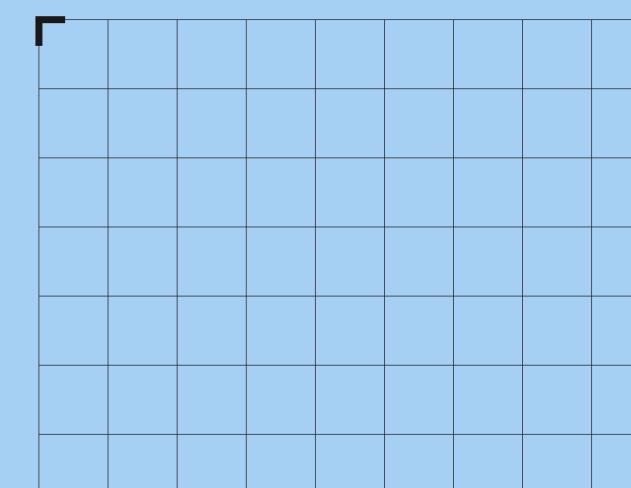
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**Purpose:** To build and demonstrate building an application in JavaScript.





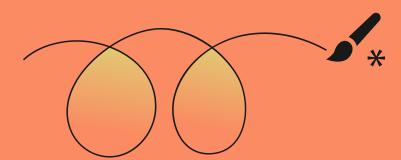
**Objective:** Create an Uno game that has a database, a chat functionality, and shows knowledge of project workflow.



### PROJECT ARCHITECTURE

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Frontend: JavaScript, CSS, Embedded
JavaScript



**Backend:** 

PostgresSQL, pgAdmin4









### COMPLETED FUNCTIONALITIES





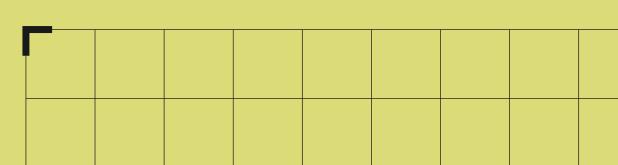


- - Chat Log
  - User Authentication: create/register/login
  - Database Setup



- Game:
   joining/playing/creat
   ing/exit
- Logic of Game





### PROBLEM STATEMENT

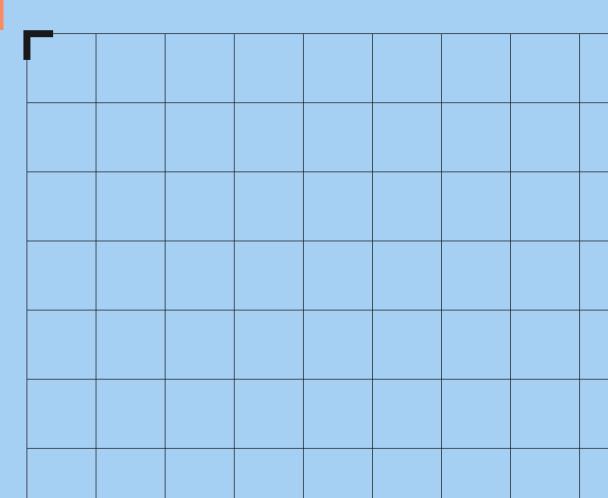
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#### **Challenges:**

- Card game logic
- Synchronizing game state
- Setting up and running the database
- Validating user and registration
- Socket connection
- Logging into render without validation



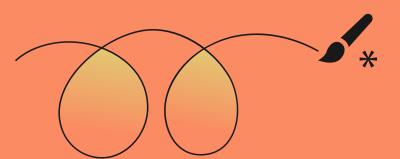




### RESEARCH METHODOLOGY

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- Clearly understand the rules of Uno to know how to implement
- Planning out a UI that is simple and easy to visualize



- Figuring out proper game flow and turn management
- Figuring out socket protocols between the client and server







### TESTING PLAN







To test the logic of the game:

 Test the ability to create and join a game





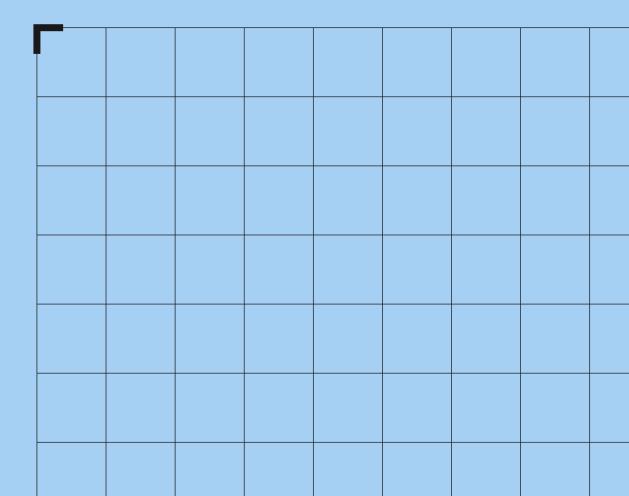
- Create a user from registration and see if it was able to register to the database
- Tested the logic of the cards and executed the desired results

## WHAT WE LEARNED

- How to implement a chat log within our application
- How to connect, set up, and validate users within our database
- How to connect game state within the game
- How to use and utilize web sockets which allows client and server to send data to each other at any given time



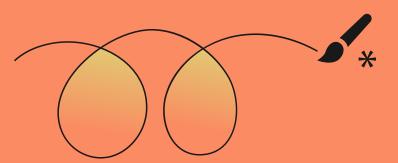




### CONCLUSION

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- Collaboration as a team and constant communication is crucial in the successful implementation of the game
- Gained a deeper understanding as a team on implementing Uno in JavaScript



 When faced with a challenge/problem, we learned how to troubleshoot and resolve the issues











