**High Level Design:**

Our overall system is a website where users interact with a UI and the information taken at the front end is transferred and processed in the back end. At this point, our system is separated into subsystems: logging in, user registration, and board creation. All of the back end functionality is handled by functions defined in the helper file DBHelper.

**Logging in:** This subsystem first requires user input at the front end. The information is processed at the back end and the database is checked to see if the credentials given are registered and confirmed. If they are, the user is logged in, if not, an error message is sent.

**User Registration:** This subsystem first requires user input at the front end. The information is processed at the back end and it is stored in the database. A confirmation code is sent to the user’s inputted email address. The user can then input the confirmation code and their account can be confirmed in the database.

**Board Creation:** This subsystem first requires user input at the front end. The information is processed at the back end and it is stored in the database. A new board is created that can be interacted with by users. If the board a user tries to create already exists, an error message is displayed.

All the data is stored in a MySQL database. If a user tries to view a board, the Board Creation and Logging in subsystems will interact. A user needs to be logged in before they can use or create a board. Also with User Registration and Logging in. A user has to be registered before they can log in.

**Low Level Design:**

We are not taking a typical object oriented design in this project, so we are using JavaScript tom implement our features.

**Logging in:** This subsystem makes a call to the loginUser function of DBHelper. In DBHelper, it checks to make sure the user is in the database and valid. Next, it makes sure the inputted credentials match the stored credentials in the database. If any of these are not valid, an error message is sent.

**Board Creation:**