

# Web Application: Resource Management

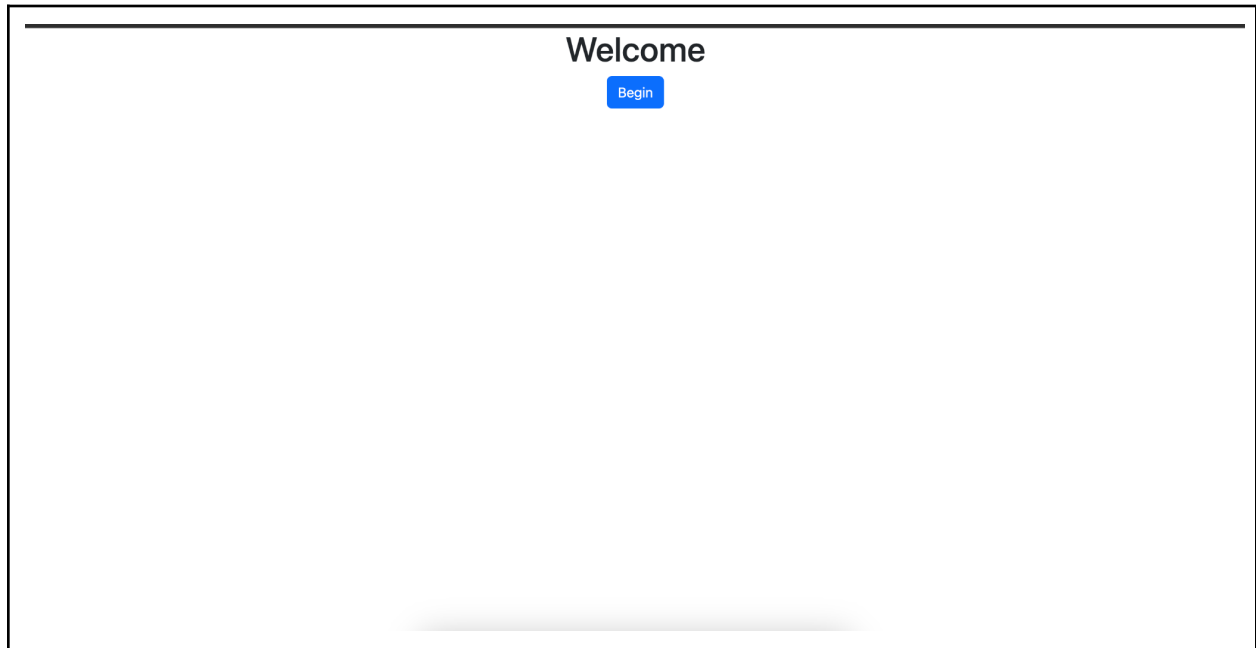
## User Documentation

BY

17485\_-REDACTED-

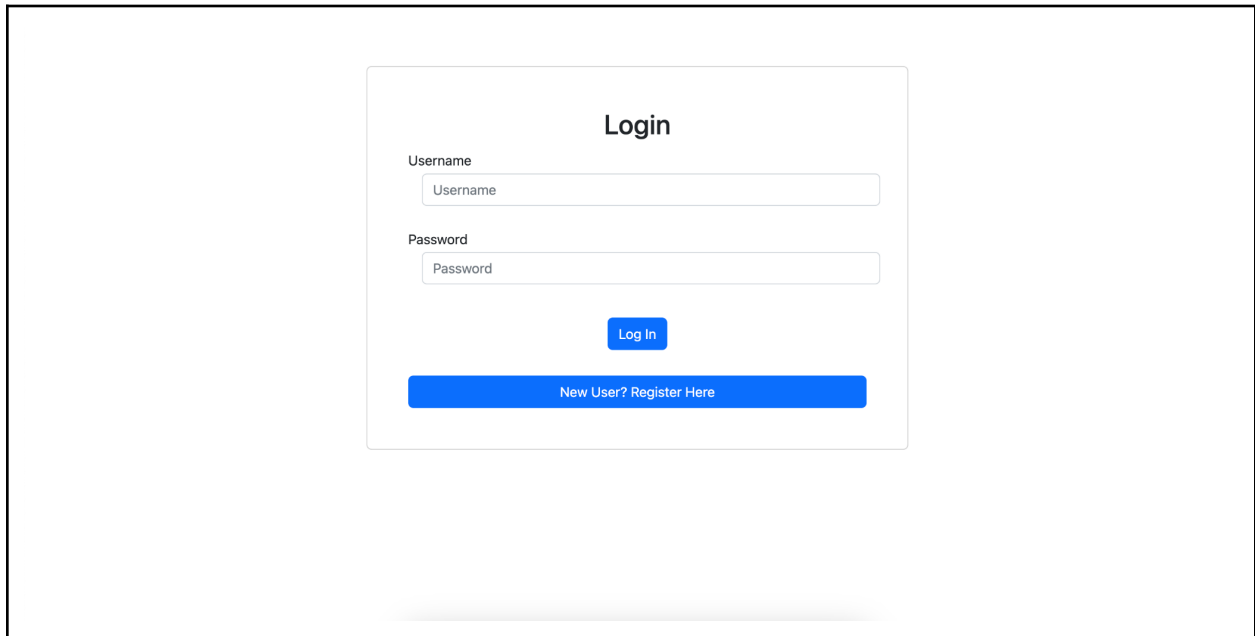
## Front-End

<http://localhost:3000/>



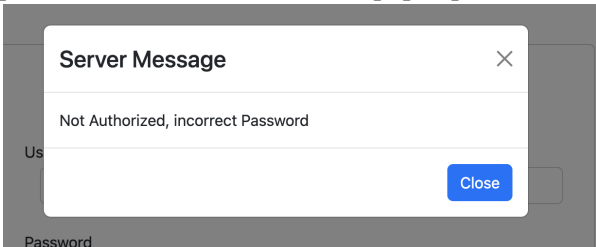
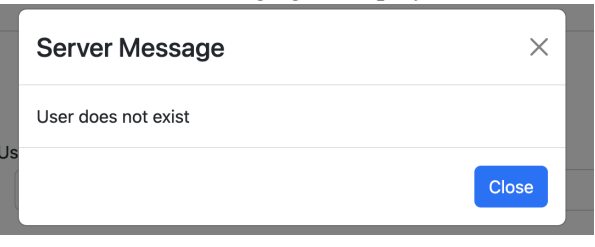
When the website is launched, it takes the user to the open page “<http://localhost:3000/>” . The purpose of this page is to be a place holder for the “/” directory. We could discard this page and direct straight to the login page. Current design: Clicking the “Begin” button redirects to the user to “<http://localhost:3000/login>”.

<http://localhost:3000/login>

A screenshot of a web browser showing a login page. The page has a white background with a light gray border. In the center, there is a white box with a light gray border. Inside this box, the word "Login" is centered at the top. Below it, there are two input fields: "Username" and "Password". The "Username" field has the text "Username" inside it. Below the "Password" field, there is a blue button with the text "Log In". At the bottom of the box, there is a blue button with the text "New User? Register Here".

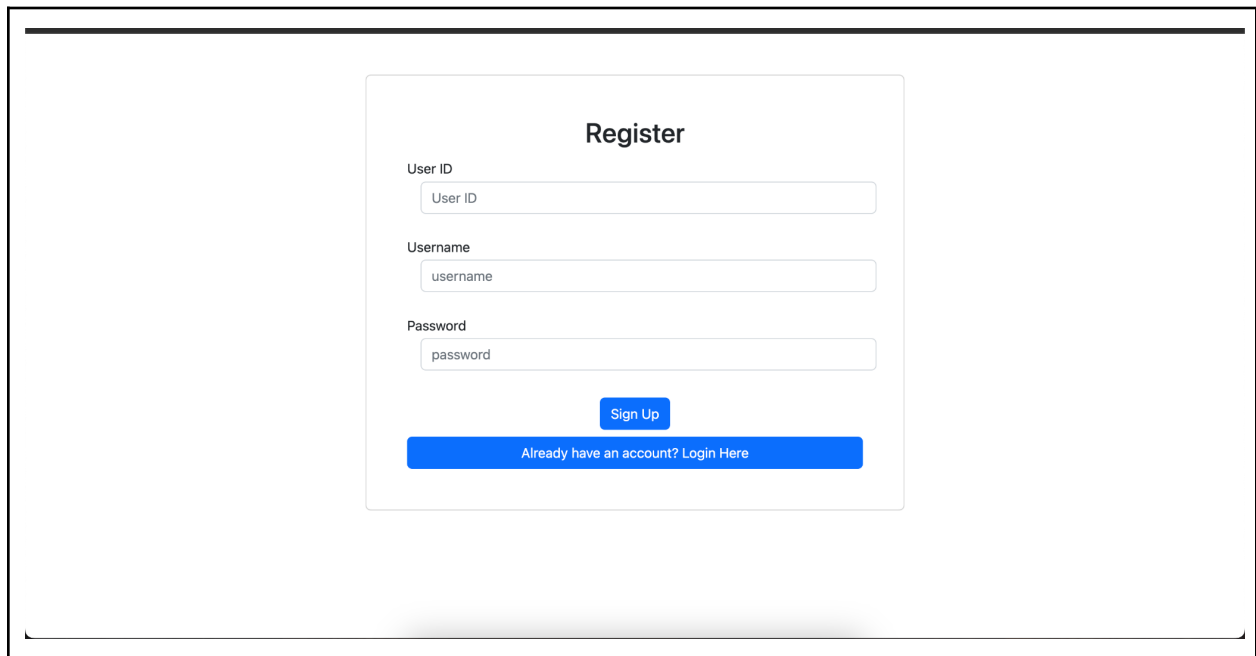
This is the login page. The user is required to input a correct username and password and click the login page. Once a valid combination has been input, the user is redirected to ["http://localhost:3000/my\\_projects"](http://localhost:3000/my_projects).

### *Server Messages*

<p>If the user inputs a valid username, but incorrect password, then this notification pops up</p>  A screenshot of a modal message box titled "Server Message" with a close button (X) in the top right corner. The message inside says "Not Authorized, incorrect Password". At the bottom right, there is a blue button labeled "Close".	<p>If the user input a username that does not exist then this modal message gets displayed.</p>  A screenshot of a modal message box titled "Server Message" with a close button (X) in the top right corner. The message inside says "User does not exist". At the bottom right, there is a blue button labeled "Close".
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If the user clicks the "Register Here" button, they will be redirected to ["http://localhost:3000/create\\_account"](http://localhost:3000/create_account).

[http://localhost:3000/create\\_account](http://localhost:3000/create_account)

A screenshot of a web browser showing a 'Register' form. The form is centered on a white background with a thin black border. It contains three input fields: 'User ID' with the placeholder text 'User ID', 'Username' with the placeholder text 'username', and 'Password' with the placeholder text 'password'. Below the fields are two buttons: a blue 'Sign Up' button and a blue button with the text 'Already have an account? Login Here'.

This is account creation page for the user, if they do not posses a valid account. The user is required to enter a unique 'User ID' , 'Username' and 'Password'. Once they the field have been properly filled in, then the user will be routed to "[http://localhost:3000/my\\_projects](http://localhost:3000/my_projects)".

#### *Server Messages*

If the user inputs a Username that exist already then the following message will appear.

A screenshot of a 'Server Message' dialog box. The dialog box has a title bar with the text 'Server Message' and a close button (an 'X' icon). The main content area contains the text 'Username exists already.' and a blue 'Close' button at the bottom right.

Clicking the "Login Here" button will reroute the user to, "<http://localhost:3000/login>".

[http://localhost:3000/my\\_projects](http://localhost:3000/my_projects)

The screenshot shows a web application interface for managing projects. At the top, there is a dark navigation bar with links: 'Home', 'Create Project', 'Join Project', and 'Sign Out'. The main content area displays a project named 'Test' with the ID '643df861f5f8ec0feae53acd'. A red 'Leave Project' button is visible. Below the project name, there are two hardware sets, each with a '100/100' status and a 'HW1 QTY' or 'HW2 QTY' label. To the right of each hardware set are two blue buttons: 'Check In' and 'Check Out'.

Within this page, the logged in user's projects will be rendered on the page.

### *Navigation Bar*

“Home” - Redirects back to “[http://localhost:3000/my\\_projects](http://localhost:3000/my_projects)”.

“Create Project” - Redirects to “[http://localhost:3000/create\\_project](http://localhost:3000/create_project)”

“Join Project” - Redirects to “[http://localhost:3000/join\\_project](http://localhost:3000/join_project)”

“Sign Out” - Redirects to “<http://localhost:3000/login>”

### *Projects*

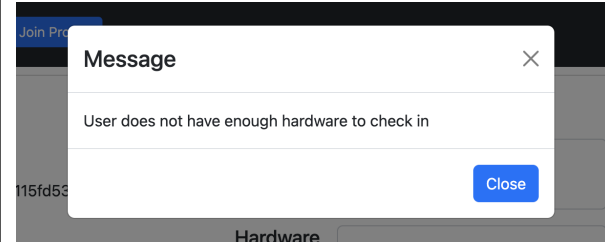
Within each project, there exist a “Project Name” and “Project ID”. The “Project Name” is decided by the user on the project's creation. The “Project ID” is the auto generated ID by MongoDB. \*Could be adapted to use user created IDs for ease”. Clicking the “Leave Project” button removes the user from the project. \*Note leaving a project does not automatically check in hardware, the checked out values is still associated with the user. \*

### *Check In/Out*

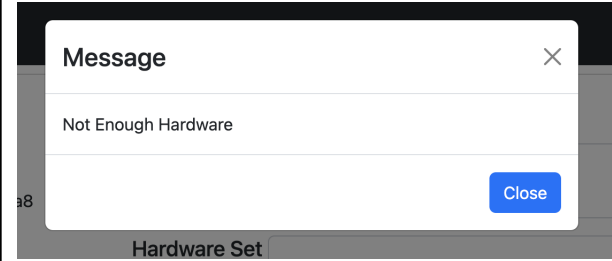
Hardware sets are global value. The “100/100” is the current available from the set. Checking out set will cause the over value to decrease for all projects.

## Server Messages

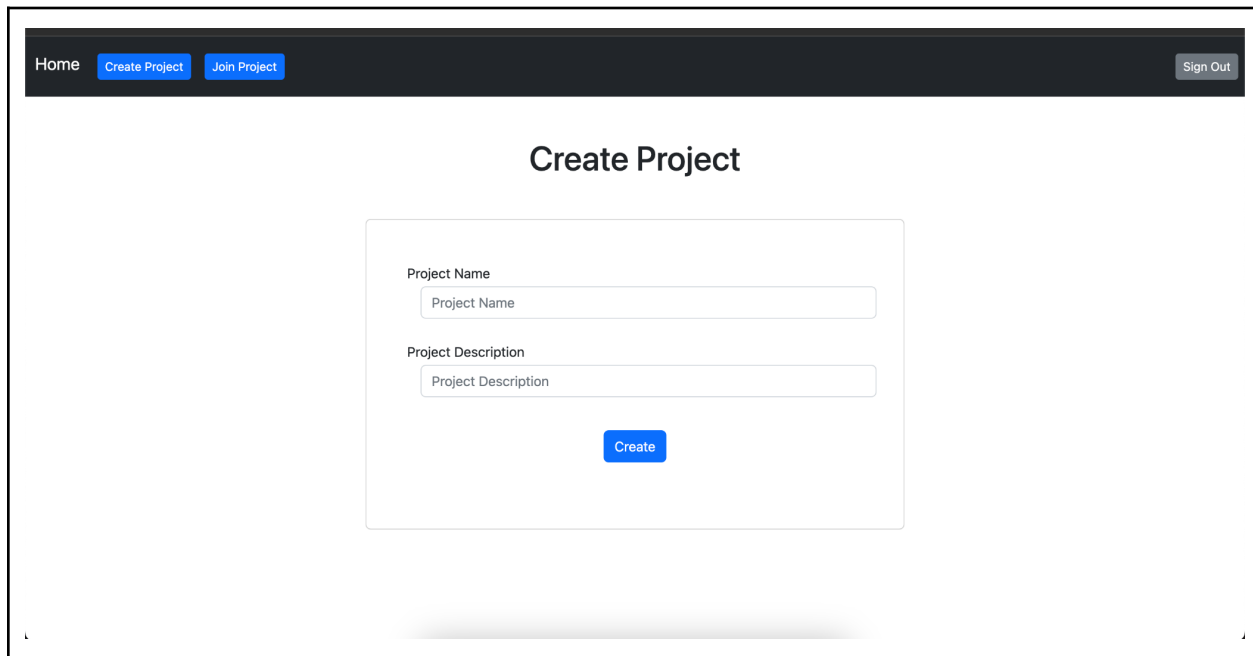
If the user attempts to check in more than the user has checked out, this message pop up.



If the user attempts to check out more hardware sets than there are available then this message appears



http://localhost:3000/create\_project

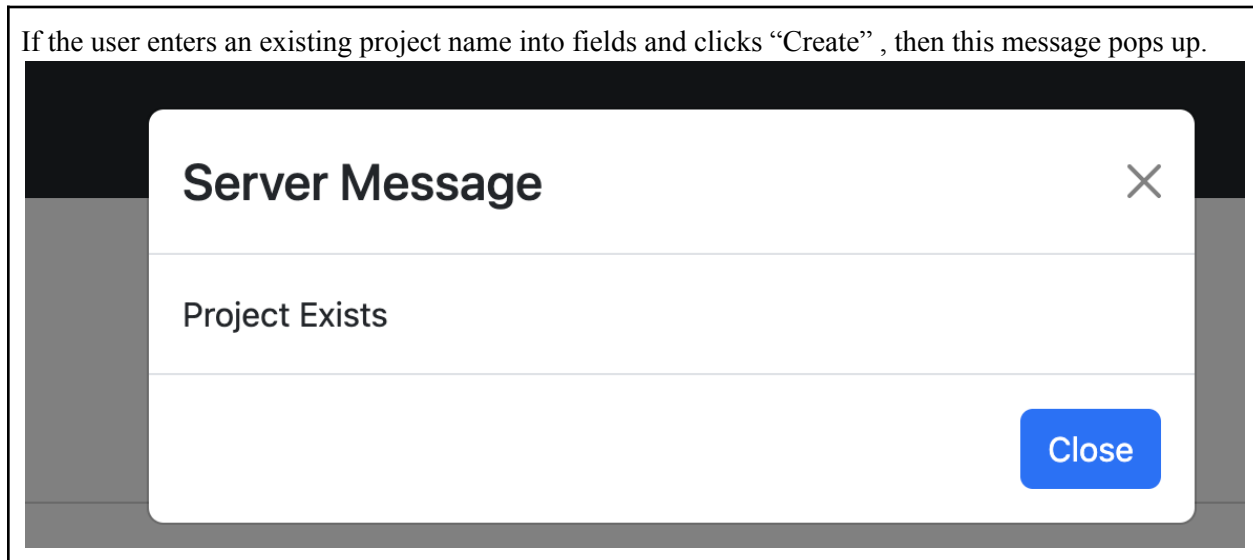


The screenshot shows a web application interface for creating a project. At the top, there is a dark navigation bar with links for 'Home', 'Create Project' (highlighted in blue), 'Join Project', and a 'Sign Out' button. The main content area is titled 'Create Project' and contains a form with two input fields: 'Project Name' and 'Project Description'. Below these fields is a blue 'Create' button.

From this page the user can create a project. The user need to define a unique project name and fill in anything into the Description field.. Once the fields have been filled with valid inputs and the “Create” button has been pressed, it creates the project and adds the user to the project.

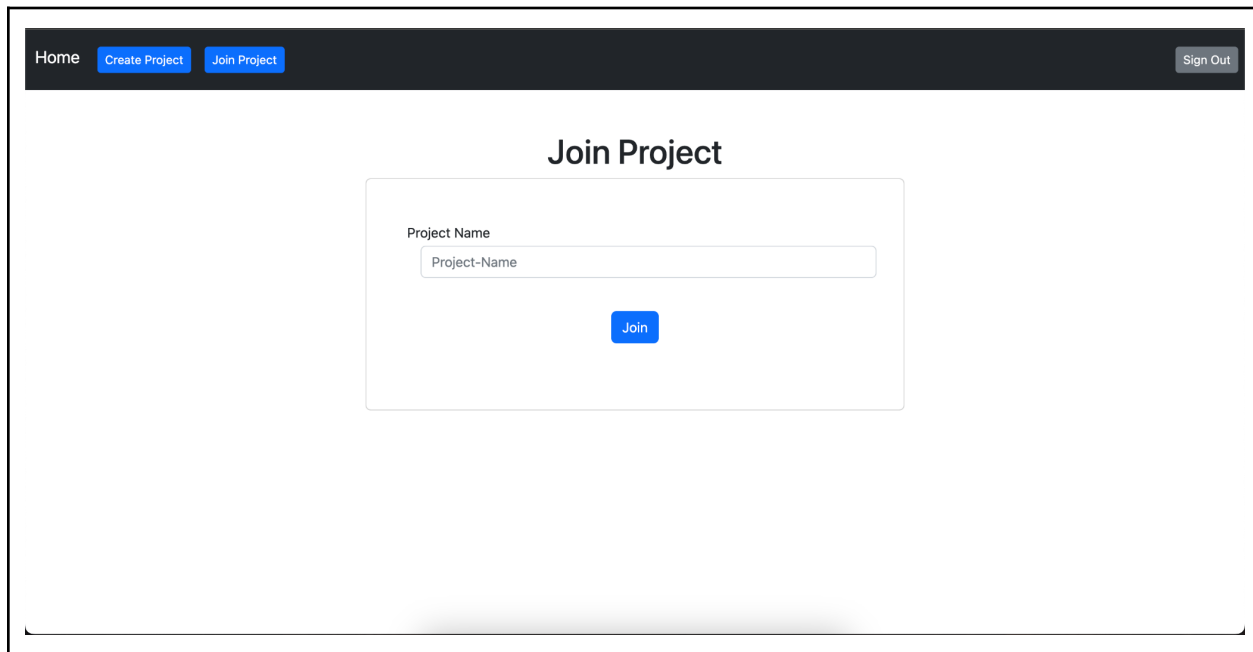
#### *Server Messages*

If the user enters an existing project name into fields and clicks “Create” , then this message pops up.



The screenshot shows a modal dialog box titled 'Server Message' with a close button (X) in the top right corner. The message text inside the dialog is 'Project Exists'. At the bottom right of the dialog is a blue 'Close' button.

http://localhost:3000/join\_project

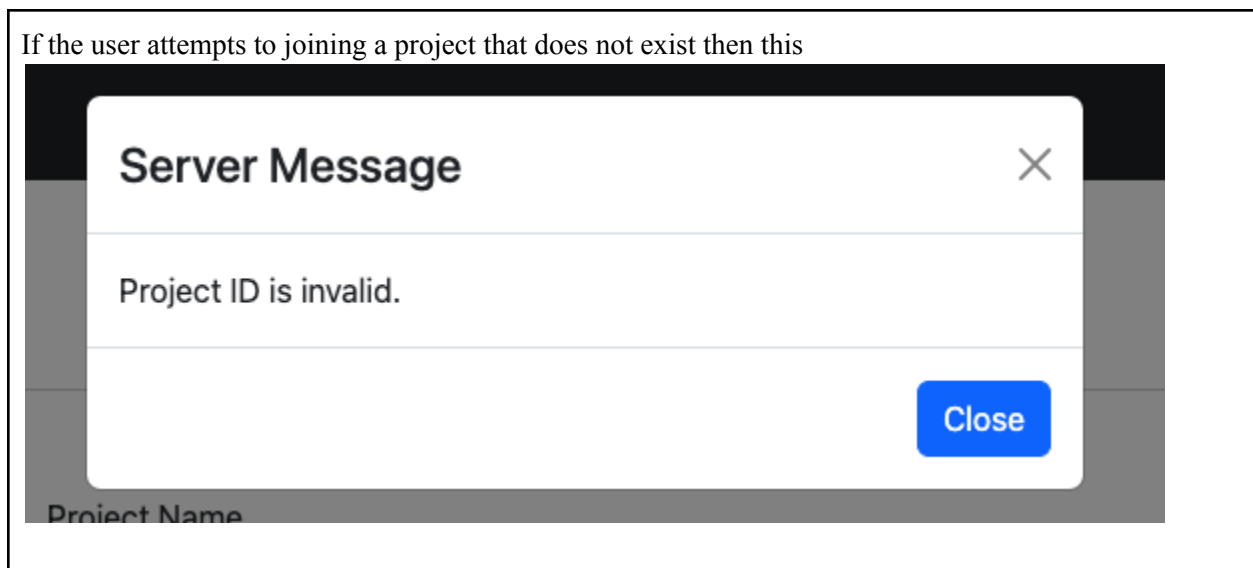


The screenshot shows a web application interface for joining a project. At the top, there is a dark navigation bar with links for 'Home', 'Create Project', 'Join Project', and a 'Sign Out' button. The main content area is titled 'Join Project' and contains a form. The form has a label 'Project Name' above a text input field that contains the placeholder text 'Project-Name'. Below the input field is a blue 'Join' button.

From this page the user can join any exiting project through the unique project name of the targeted project.

#### *Server Messages*

If the user attempts to joining a project that does not exist then this



The screenshot shows a 'Server Message' dialog box. The dialog has a title bar with the text 'Server Message' and a close button (X). The main content area displays the message 'Project ID is invalid.' Below the message is a blue 'Close' button. The dialog is overlaid on a background that shows a portion of the 'Join Project' form, including the 'Project Name' label.



## Database

For this application, we utilized Mongo DB for the storage and management of data relating to users and project details.

General Structure of Database:

### Management

- ↳ Users
  - ↳ UserID
  - ↳ Username
  - ↳ Password
  - ↳ Projects
  - ↳ HWSets
- ↳ Projects
  - ↳ Project Name
  - ↳ Project Description
  - ↳ Authorized Users
- ↳ HWSets
  - ↳ Set Name
  - ↳ Availability
  - ↳ Capacity