Report

Outline and Architecture

Have built a health app that lets you book appointments with whatever concerns health or anything, search up exercises.
For my presentation tier html is used to provide the basic website layout for the user and css works alongside it to style the page to make it more aesthetically pleasing. This works by linking the css style sheet in the html.For my application tier I used express, express works by defining, handling routes and how they respond to get and post requests. Express also works with ejs to render the javascript dynamically that will be available for someone to see on the browser.

Within express I used express session,validator and sanitiser. These check if certain data like password is the correct length or if an email is correct and matches the database, sanitise works by protecting sensitive information like login and register detail from hackers that put malicious script tags(XXS) or sql injections.
Bcrypt was also used to hash passwords so that the real password is not saved to the database, this adds a layer of protections for the user to ensure their credentials are not publicly available to whoever has access to the the database.

Ejs allows you to add dynamic behaviour when making a html file you use .ejs not .html so you can include this dynamic tag <%= %> to embed javascript.When embedding make sure you define the variable you are using in your main,js file where the route handlers are otherwise there will be an error and the whole file with semantic tags will show on local host.

For the data tier I used mysql by downloading it and creating the instance of the database then connecting it to my index.js so that it can be accessed. Also created a dotenv file to hide my credentials so that it is not available to everyone who sees my code in my index.js, then I added it to my .gitignore so that it will not be pushed to github and it is only available on my local computer.

Data Model

If select * from exercises; is written this is what is shown and it describes the content in the table. ↙️

id	name	description	category	
1	squat	Stand shoulder width apart , keep back straight and squat/go towards floor	legs	
2	Tricep dip	Place your hands behind you and lower yourself to floor	arms	

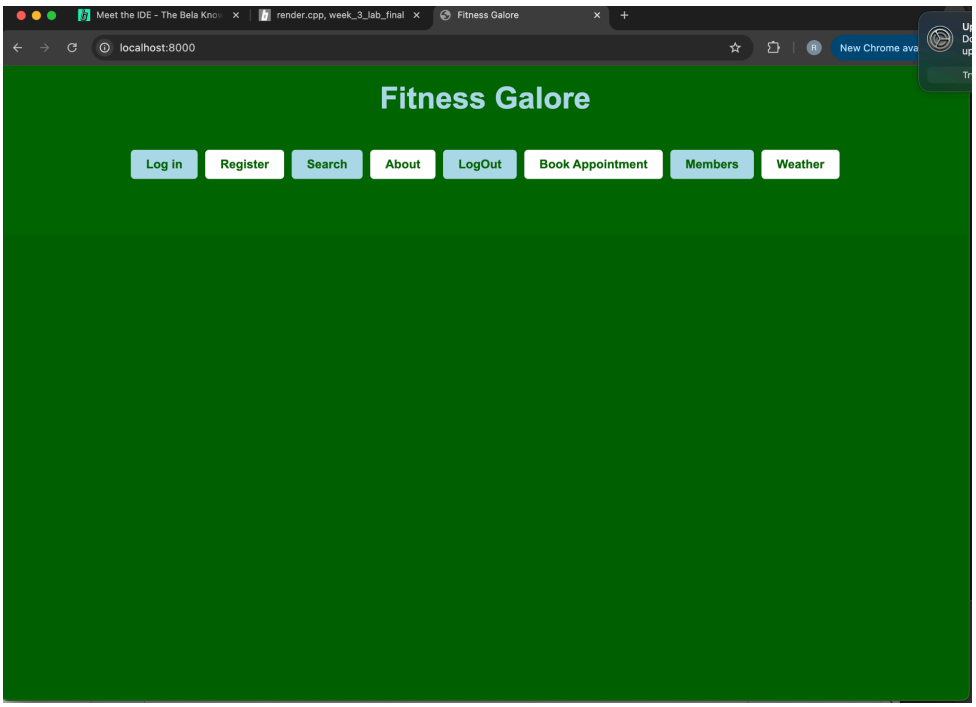
If Describe users; is written this is what is shown ↙️

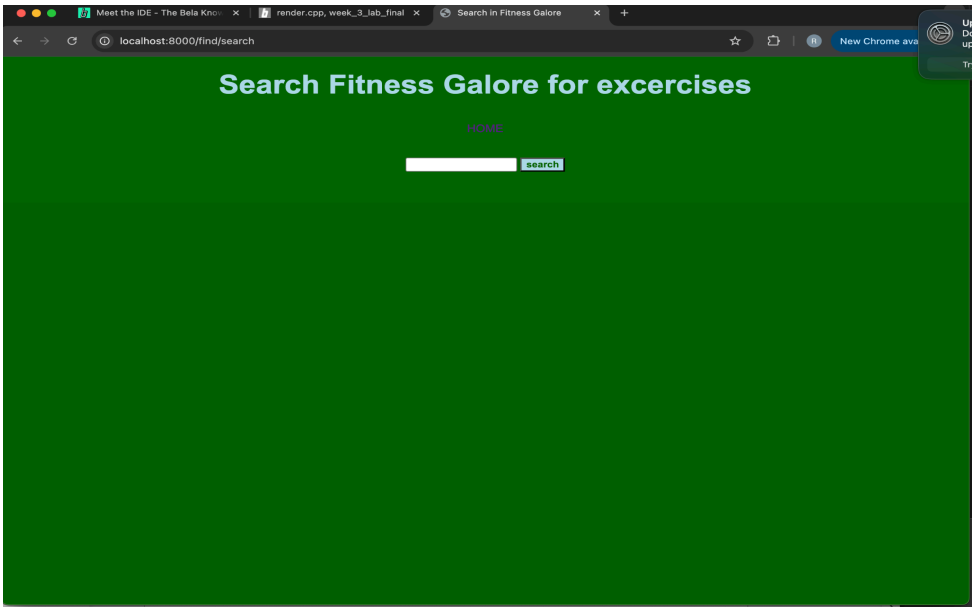
Field	Type	Null	Key	Default	Extra
id	int	NO	Primary	NULL	Auto-Increment
username	varchar(255)	NO	Unique	NULL	
first	varchar(255)	NO		NULL	
last	varchar(255)	NO		NULL	
email	varchar(255)	NO	Unique	NULL	
hashedPassword	varchar(255)	NO		NULL	

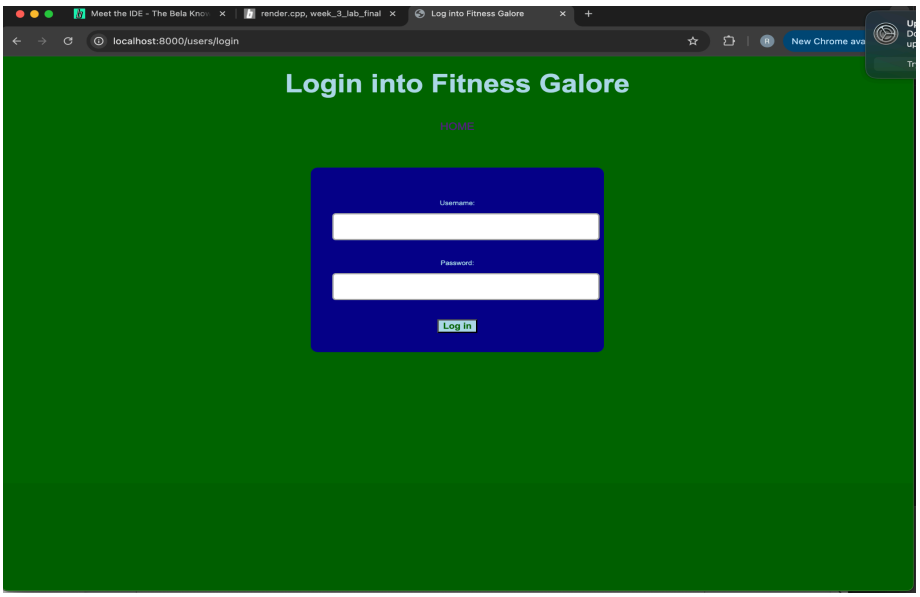
Auto increment means the id will increase as more is added to the table no 2 items will have the same id. Unique means that every username and email is unique and can not be used again; this prevents confusion and ensures everyone has their own personal username. In the default the null means that the table will not make an error if it's empty and will allow data to be inserted. Int means numbers will be stored and varchar(255) means characters will be stored up to 255 characters(wanted to make sure users could write a long name if they wanted to).

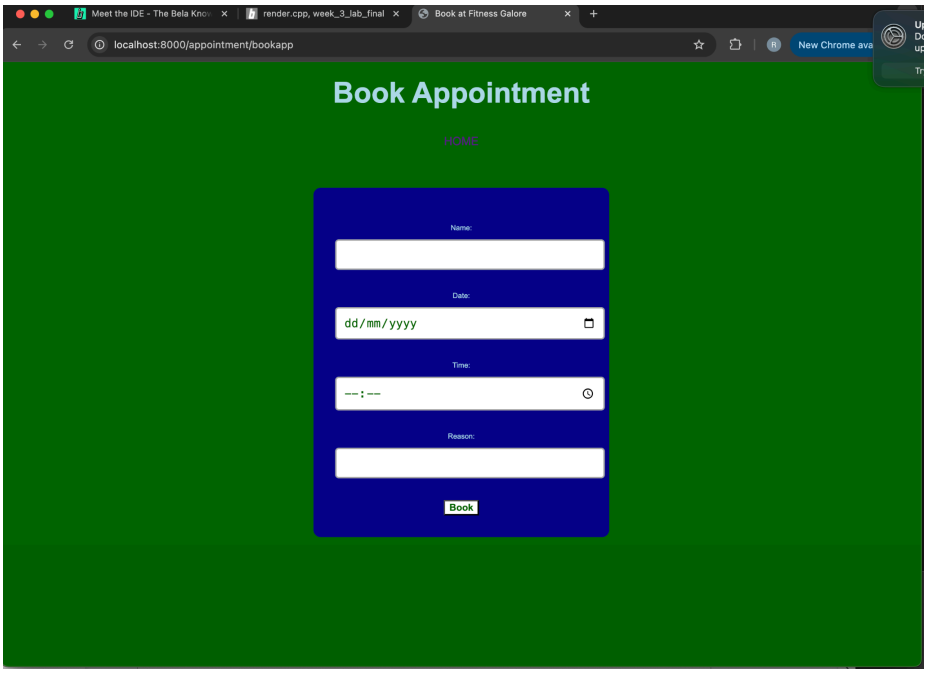
Created the database by using the command CREATE DATABASE IF NOT EXISTS health; after that I typed USE health to actually get inside the database I made and created 2 tables one for users, one for appointments and one for exercises with all the necessary information such as username,first name, last name, email, time and date of appointment, description and category of exercise. After creating all of that I then create a user that can access the database and grant all privileges so that it can successfully use it and navigate the website otherwise there will be errors.

User Functionality


Meet the IDE - The Bela Kno
render.cpp, week_3_lab_final
Fitness Galore
localhost:8000
New Chrome ava
Fitness Galore
Log in
Register
Search
About
LogOut
Book Appointment
Members
Weather


Meet the IDE - The Bela Kno
render.cpp, week_3_lab_final
Search in Fitness Galore
localhost:8000/find/search
New Chrome ava
Search Fitness Galore for excercises
HOME
search





The user without logging in can browse the about section which provides a brief info of the websites and the aim, the search section for exercises for their legs, arms, back and core. However they will need to log in/register to book an appointment or see other members. The search function will search the database for the exercise depending on what category you want. The register will allow you to store your info and become a member so that you can log in and access all features.