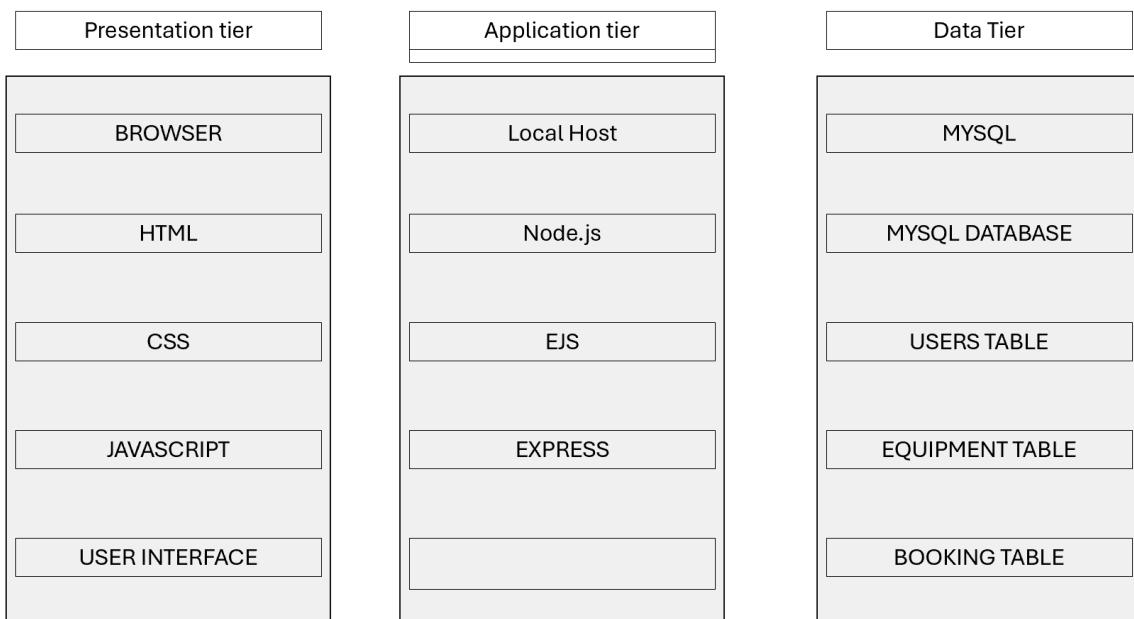


Lab Documentation:

Outline:

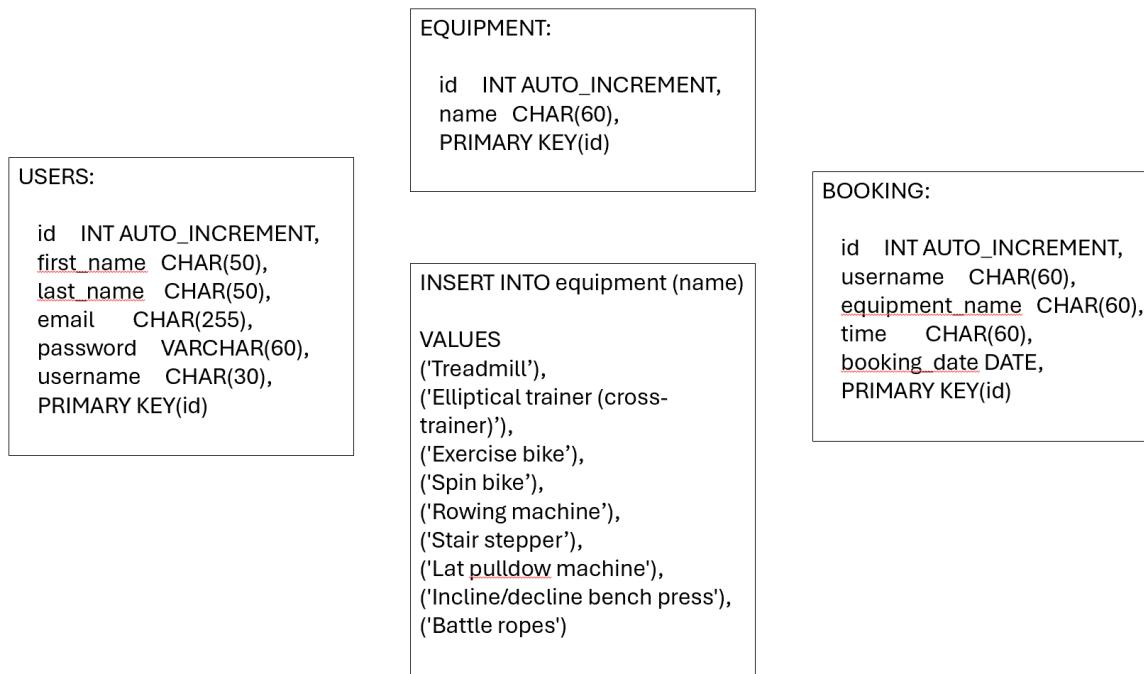
The website I have built is a fitness website. It showcases gym equipment, membership and bookings. The user is able to search for bookings on certain equipment, create an account as well as log in. They are also able to view the current list of equipment we own. The website uses a range of mySQL, Node.js, ejs and express.

Architecture:



The three tiers of a website are the data tier, application tier and the presentation tier. The data tier contains all the data within the website such as accounts made, queries asked etc.. Within this tier I have used mysql to create a health database. For the application tier, I used node.js to run the server, express to handle routes and EJS to render files that include HTML, CSS and Javascript.

Data Model:



I created the health database using the command CREATE DATABASE. From there I created 3 tables within the database; users, equipment and booking. Users table: contains all the information such as the username, password, first name, last name and email. Equipment table: Contains the list of equipment owned. Booking: This table contains information on which user would like to book certain pieces of equipment on specific days, at a specific time. To allow other users to gain access to this database, I needed to create a user within the database and grant access to said user to the database and all the information within the database.

User Functionality:

The screenshot shows a registration form titled "Register Here:". At the top, there is a navigation bar with links: Home, About Fitness4you, Login, Become a member!, View Equipment, Search Bookings, Book Equipment, and LogOut. Below the navigation bar, there are five input fields labeled "First name:", "Last name:", "Username:", "Password:", and "Email:". Each label is followed by a text input field. At the bottom of the form is a single "Register" button.

Register here: The user can create an account by entering their first and last name, creating a username and password, as well as providing an email. All this information is stored within the health database, under the table users.

Sign In Here:

[Home](#) [About Fitness4you](#) [Login](#) [Become a member!](#) [View Equipment](#) [Search Bookings](#) [Book Equipment](#) [LogOut](#)

Username:

Password:

Once an account is created, the user will be able to log in with the same username and password they created.

Search Bookings at Fitness4you

[Home](#) [About Fitness4you](#) [Login](#) [Become a member!](#) [View Equipment](#) [Search Bookings](#) [Book Equipment](#) [LogOut](#)

Equipment Name:

users booked Treadmill on Fri Dec 12 2025 00:00:00 GMT+0000 (Greenwich Mean Time) at 3PM

[Back to Search Page](#)

The user will be able to search certain pieces of equipment within the list of equipment that is in the view equipment route and when they're booked. If there are any bookings within the piece of equipment the user has searched up, a message will pop up to the user showing them who booked it, when they booked it and for what time.

Current Equipment at Fitness4you

[Home](#) [About Fitness4you](#) [Login](#) [Become a member!](#) [View Equipment](#) [Search Bookings](#) [Book Equipment](#) [LogOut](#)

- Treadmill
- Elliptical trainer (cross-trainer)
- Exercise bike
- Spin bike
- Rowing machine
- Stair stepper
- Lat pulldown machine
- Incline/decline bench press
- Battle ropes

The view equipment page lists all the current equipment that is available in the gym. All this information comes from within the health database, under the equipment table.

The screenshot shows a dark teal header with the title "Book Equipment at Fitness4you". Below the header is a horizontal navigation bar with links: Home, About Fitness4you, Login, Become a member!, View Equipment, Search Bookings, Book Equipment, and LogOut. The main content area has a white background. It contains four input fields with placeholder text: "Username: [redacted]", "Equipment Name: [redacted]", "Date: dd/mm/yyyy [redacted]", and "Time Slot: [redacted]". Below these fields is a single-line button labeled "Book Equipment".

Users will be able to book the pieces of equipment listed within the view equipment list. They will need to input their username, the name of the equipment they want to book, the date of booking and the time. This information is stored within the health database, under the table booking.

AI Declaration:

Artificial intelligence tools were used in this assignment for educational purposes and to support the development process. While AI assisted with refining explanations and improving clarity, all ideas, decisions, and the overall structure of the website are entirely my own. I have carefully reviewed, edited, and validated any AI-generated content to ensure accuracy, originality, and alignment with the assignment requirements.