Fitpulse – A Fitness and Gym Website using OTP Consent Widget Library

A PROJECT REPORT

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in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

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At

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PRESIDENCY UNIVERSITY

SCHOOL OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the Project report **"Fitpulse - A Fitness and Gym Website using OTP consent widget library"** being submitted by "Dhanush E, Devaraja, Sujay P V, Soma Sai Dhanush, and Thrupthi V" bearing roll number(s) "20191CSE0126, 20191CSE0124, 20191CSE0595, 20191CSE0781, and 20191ISE0183" in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out under my supervision.

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DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **Fitpulse - A Fitness and Gym Website using OTP consent widget library** in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Computer Science and Engineering**, is a record of our own investigations carried under the guidance of **Impa B H, Assistant professor, School of Computer Science & Engineering, Presidency University, Bengaluru.**

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

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ABSTRACT

Fitpulse is a comprehensive online hub that gives customers access to top-notch fitness and wellness-related information, products, and services. The website is made to be accessible to people of different fitness backgrounds and experience levels, from newcomers to seasoned fitness aficionados. Users of the website get access to a variety of home workout facilities and gym equipment in addition to its content on nutrition and fitness. All forms of workouts, including strength training, cardio, and endurance training, can be done in these facilities. It gives access to choose the nearest gym which will be very convenient to travel and saves a lot of time in order to target particular muscle areas and meet specific fitness objectives. Many people who wish to keep active and healthy now prefer working out at home. The convenience of exercising at home is among its greatest benefits. Without having to worry about finding time to get to the gym, you may exercise whenever you like. Also, since you don't have to pay for a gym membership, doing out from home is an economical choice. Users can get a thorough and all-encompassing approach to exercise and wellness on the FitPulse website. The website is a great place to go for anyone trying to better their health and well-being thanks to its variety of tools and services

ACKNOWLEDGEMENT

First of all, we indebted to the **GOD ALMIGHTY** for giving me an opportunity to excel in our efforts to complete this project on time.

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CHAPTER-01
INTRODUCTION

Fitpulse is an online platform that enables users to schedule gym time and participate in workout challenges based on their fitness level. It has an easy-to-use login and registration process that uses OTP to confirm users' mobile numbers, as well as a range of tasks for customers to choose from that range in difficulty from beginner to intermediate. Fitpulse combines the accessibility of online exercise tools with the support and accountability of a community of fitness enthusiasts, making it simple to use, accessible, and successful in assisting users in achieving their fitness objectives. This study examines Fitpulse's effects on the fitness sector and its efficiency in assisting users in achieving their fitness objectives.

The OTP (One-Time Password) consent widget is a user interface component that is designed to display an OTP field along with a consent checkbox. This widget is typically used in multi-factor authentication (MFA) scenarios, where a user is required to verify their identity using a one-time password before they can access a particular resource or perform a certain action.

Libraries, in this context, refer to software development libraries or frameworks that provide pre-built code components to facilitate the implementation of OTP consent widgets in software applications. These libraries can include user interface components, code for generating and validating OTPs, and other related functionality.

1.1 Features

Fitpulse is a website that offers a variety of fitness services to its users. The website is designed with a user-friendly interface that makes it easy for anyone to navigate and find what they need. The website offers a gym booking page where users can book gym sessions, choose the gym location, and select the type of workout they want to do.

In addition to the gym booking page, Fitpulse Gym has an OTP (one-time password) consent widget that ensures secure access to the website. This feature helps prevent unauthorized access to user information and ensures that the user's data is kept confidential.

The website also includes an exercise page that caters to users of all levels, including beginners, intermediates, and pros. This page contains a wide range of workouts that users can choose

from, depending on their fitness goals and experience level. The exercises page also includes detailed instructions and videos to help users perform the workouts correctly and safely.

Furthermore, Fitpulse has a contact us page where users can submit their queries and concerns to the website's customer support team. This page also contains the company's contact information, including phone numbers, email addresses, and social media handles.

Finally, the about us page provides users with information about the company's history, mission, and values. This page also includes details about the website's founders and team members, as well as testimonials from satisfied customers.

Overall, Fitpulse is a comprehensive fitness website that offers a range of services to help users achieve their fitness goals. With its user-friendly interface, secure access, and detailed workout instructions, the website is an excellent resource for anyone looking to improve their fitness level.

1.2 Acronyms And Definitions.

OTP: A password or code that is valid for a single use or for a short duration, typically a few minutes. OTPs are commonly used in various authentication and security systems to provide an additional layer of protection.

MFA: a security mechanism that requires users to provide multiple forms of identification to verify their identity during the authentication process. It enhances the security of user accounts and systems by adding an extra layer of protection beyond just a username and password combination.

Rate Limiting: a security technique used to limit the number of requests or actions that can be performed within a specific time period by a particular user or IP address. Rate limiting can help prevent malicious actors from overloading or disrupting a system by sending a large number of requests or attempts to gain access to sensitive resources.

Intrusion detection: a security technique used to detect and respond to unauthorized access attempts or other suspicious activities on a computer system or network. Intrusion detection systems (IDS) can monitor network traffic, system logs, and other system activity to identify potential security breaches.

1.3 Purpose and Scope.

The purpose of this project is to provide a comprehensive online platform for customers of the Fitpulse fitness chain to conveniently book gym slots and access workout guides. The Fit Pulse Fitness Website is a user-friendly platform that enables customers to book gym slots and access workout guides from anywhere, at any time, with ease.

The Fitpulse Fitness Website offers a range of features such as the ability to book gym slots at multiple outlets across Bangalore, view workout guides for different fitness levels (beginner, intermediate and pro), and get in touch with customer service for queries. Customers can also browse the website for information on the various gym membership options available, including the 3-month, 6-month, and 12-month membership plans.

To ensure the security of customer information, the website has implemented OTP (one-time-password) authentication at three different stages: during registration, via email and phone, and during the booking process. The OTP system also includes a timer, providing additional security against unauthorized access.

The scope of this project includes developing a fully functional website that is user-friendly, responsive, and accessible on a range of devices. The website will feature a clean and modern design, with clear calls-to-action, easy navigation, and fast loading times. The website will be optimized for search engines, ensuring that customers can easily find the information they need.

In addition to the core features of the website, we aim to include additional features in the future, such as personalized workout plans, fitness tracking tools, and online classes. These features will be developed based on customer feedback and the evolving needs of the fitness industry.

Overall, the Fitpulse Fitness Website will serve as a one-stop-shop for customers looking to access gym services and workout guides. By providing a convenient and secure platform, we hope to encourage more people to prioritize their fitness goals and make exercise a part of their daily routine.

CHAPTER-02

REQUIREMENT ANALYSIS

2.1 HARDWARE REQUIREMENTS:

To ensure that the Fitpulse fitness Website operates smoothly and efficiently, there are certain hardware requirements that need to be met. These requirements are as follows:

Server: The website requires a server to host its content and handle requests from users. The server should have a minimum of 4GB of RAM and a multi-core processor to handle the load from multiple users accessing the website simultaneously.

Storage: The website requires a storage solution to store its content, including images, workout guides, and other multimedia files. A minimum of 50-100GB of storage is recommended to accommodate future growth.

Network: A stable and reliable internet connection is crucial for the website to function properly. A minimum of 10 Mbps of bandwidth is recommended to ensure speedy website loading times and a smooth user experience.

Backup and Recovery: Regular backups of the website's data should be taken to protect against data loss or corruption. A backup solution that can store multiple backups is recommended. Additionally, a recovery plan should be in place in case of a hardware failure or other issues that may impact website availability.

Overall, these hardware requirements will ensure that the Fit Pulse Fitness Website operates smoothly and efficiently, providing customers with a seamless experience as they book gym slots, access workout guides, and get in touch with customer service for queries.

2.2 SOFTWARE REQUIREMENTS:

2.2.1 React JS:

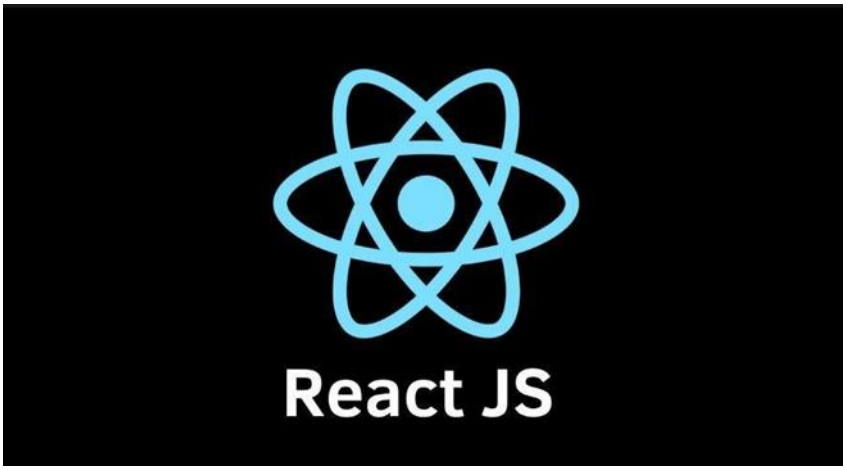

Fig 2.2.1 - React.js

React.js often referred to as React, is an open-source JavaScript library for building user interfaces (UIs). It was developed by Facebook and released in 2013. React.js allows developers to create reusable UI components and efficiently update and render them when the underlying data changes. It has gained widespread popularity in the web development community for its simplicity, performance, and scalability.

2.2.2 Node JS:

Fig 2.2.2 Node.js

Node.js is an open-source, cross-platform runtime environment that allows you to execute JavaScript code outside of a web browser. It uses an event-driven, non-blocking I/O model, making it efficient and well-suited for building scalable network applications.

2.2.3 Express JS:

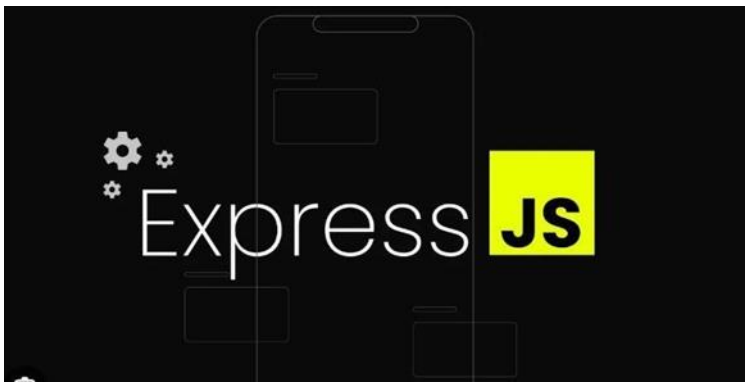

Fig 2.2.3 Express JS

Express.js is a popular web application framework for Node.js that provides a minimalistic and flexible approach to building web applications and APIs. It is designed to be un-opinionated and lightweight, allowing developers to have more control over their application's structure and behaviour.

2.2.3 Mongo DB:

Fig 2.2.4 MongoDB

MongoDB Atlas is a fully managed cloud database service provided by MongoDB, the company behind the popular NoSQL database MongoDB. It allows developers to easily deploy, manage, and scale MongoDB databases in the cloud without the need for extensive infrastructure setup and management.

2.2.4 Twilio:

Fig 2.2.5 Twilio

Twilio is a cloud communications platform that provides various APIs (Application Programming Interfaces) for developers to integrate messaging, voice, and video capabilities into their applications. The Twilio API allows developers to programmatically send and receive text messages, make and receive phone calls, and perform various other communication tasks.

2.2.5 Visual Studio Code:

Fig 2.2.6 VS Code

Visual Studio Code (VS Code) is a popular source code editor developed by Microsoft. It is known for its lightweight and versatile nature, making it suitable for various programming languages and development tasks. While VS Code is primarily a code editor, it provides many IDE-like features through extensions. Users can set up debugging for different programming languages, manage Git repositories, run build tasks, and perform other development-related tasks without leaving the editor.

2.2.6 GitHub:

Fig 2.2.7 GitHub

GitHub is a web-based platform for version control and collaboration that allows developers to host, manage, and share their software projects. It was founded in 2008 by Tom Preston-Werner, Chris Wanstrath, and PJ Hyett and has since become one of the largest and most popular code-hosting platforms in the world. In 2018, Microsoft acquired GitHub for $7.5 billion.

2.2.7 Cascading Style Sheets:

Fig 2.2.8 CSS

CSS (Cascading Style Sheets) is a styling language used to describe the presentation of a document written in HTML (Hypertext Markup Language). It provides web developers with the ability to control the appearance and layout of web pages. CSS separates the presentation layer from the content layer, allowing developers to make changes to the visual style of a website without modifying its underlying structure.

CHAPTER-03

LITERATURE SURVEY

[1] A review on one-time mobile verification by Gagangeet Singh Aujla Durham University, Jan- 2013: In conclusion, OTP (One-Time Password) system is a widely used authentication mechanism that provides an extra layer of security. OTPs are generated by the OTP system using node js API and can only be used once, ensuring that even if a password is compromised, the attacker cannot gain access to the account without the OTP. The implementation of OTP can vary depending on the system, but the basic concept involves sending a unique code to the user's registered mobile number or email address. OTPs can also be generated through apps or hardware tokens.

[2] "Web Development with Node and Express" by Ethan Brown: This book offers a hands-on approach to learning Express.js and covers topics such as building RESTful APIs, handling authentication and security, working with databases, and deploying applications. It provides practical examples and best practices for building real-world web applications.

[3] Review on React JS Authors: Bhupati Venkat Sai Indla1, Yogesh Chandra Puranik Publisher And Year: IJTSRD, 2021: For applications that require stunning user interactions, component reuse, or wild animations, Reactjs is a great complement. It's a strong UI library to create projects for small, medium, and even large-scale businesses. That is why so many businesses rely significantly on React to achieve their long-term commercial objectives. React js' benefits and drawbacks may be succinctly summarised in three words: non-risky, responsive, and advanced. It gives programmers the opportunity to use a virtual browser (DOM) that is faster and more streamlined than the actual one.

[4] MongoDB – a comparison with NoSQL databases Authors: Hema Krishnan, Research Scholar, CUSAT M.Sudheep Elayidom, Associate Professor, School of Engineering, CUSAT T.Santhanakrishnan, Scientist E, NPOL Publisher and Year: International Journal of Scientific & Engineering Research, May-2016: In recent years, the needs for data management for web-based applications have changed significantly. Relational databases offer a wide range of capabilities and tight data consistency. NoSQL databases have been created as a result of the enormous cost associated with storing and managing data in traditional relational database

systems. When compared to RDBMS, NoSQL databases offer greater scalability and heterogeneity. MongoDB, High scalability, performance, and availability are offered by NoSQL databases.

[5] The Future of Gyms: How fitness changed the Rules of Engagement for Gyms after COVID-19, a paper by membr.com May-2021: In conclusion, the COVID-19 pandemic has significantly impacted the fitness industry and forced gyms to adapt to new ways of operation. The hybrid mode of gyms, which combines in-person and virtual workouts, has emerged as a popular option for gym customers post-COVID-19.This approach offers flexibility, convenience, and safety while maintaining a sense of community and support. As such, gyms that embrace the hybrid model are well-positioned to attract and retain customers in the post-pandemic world.

[6] Balasubramanian, V., Ramanathan, R., & Sirigina, S. (2016). Enhanced one-time password (OTP) authentication protocol for web services. Procedia Computer Science, 85, 220-227. The authors propose an enhanced OTP authentication protocol for web services, addressing security vulnerabilities and usability challenges. The protocol incorporates user-friendly features, such as user preferences and login hints, while maintaining security.

[7] "Study for Fitness and Health Website" published by the International Research Journal of Engineering and Technology (IRJET), Sept-2022: There are a few outcomes of the research paper that has helped in building the Fitpulse Website. These outcomes have been added as add on to the website to make Website Responsive and User Friendly. Exercise Section with Videos for Better Understanding and Following the Routine. CSS and React Js to make the website responsive. Contact Page to Guide the User and clarify their queries.

[8] "Two-Factor Authentication: A Comparative Study" by Alhassan, A., & Lamsiah, A. (2015):This study compares and evaluates various 2FA methods, including SMS-based OTP, smart cards, biometrics, and software tokens. It assesses the security, usability, and deployment considerations of each method, highlighting their strengths and weaknesses.

CHAPTER – 04

EXISTING SYSTEMS

HTML:

Fig 4.1: HTML

HTML has been one of the most widely used markup languages for web development. However, HTML only offers minimal security and further security needs to be provided by third-party services. This can be a challenge for websites that require more advanced security measures to protect user data from cyber attacks.

Java:

Fig 4.2: Java

Java is a widely used programming language in the web development industry. However, it moves relatively slowly and large programs require longer compilation times. Additionally, due to its popularity, there are several security flaws that can be discovered in Java code.

MySQL:

Fig 4.3: MySQL

MySQL is a popular relational database management system used in web development. However, it cannot effectively support large databases and developers often struggle to understand the syntax. This can be a hindrance for websites that require robust and scalable database management solutions.

PHP:

Fig 4.4: PHP

PHP is an open-source code language used in web development. However, since the code is open-source, it is simple for anyone to read its text file. This makes it easy for viewers to see

the code and identify any problems in it. This can be a challenge for websites that require more secure code to protect user data.

Angular:

Fig 4.5: Angular

Angular is a popular front-end web development framework used in conjunction with HTML and TypeScript. However, compared to React, it is challenging because there are so many areas to discuss. This can be a hindrance for websites that require a more streamlined development process.

4.1 DRAWBACKS OF THE EXISTING SYSTEM:

While Java, HTML, PHP, AngularJS, and SQL are widely used and popular technologies, they do have certain drawbacks. Here are some drawbacks associated with each of these systems:

Java: Java code tends to be more verbose compared to some other programming languages, which can lead to more lines of code for accomplishing a task. Memory consumption: Java applications can be memory-intensive, especially when running on devices with limited resources. Slower startup time: Java applications generally have a longer startup time compared to languages like Python or JavaScript.

HTML: Limited interactivity: HTML is primarily used for structuring web content and lacks advanced interactivity. It relies on additional technologies like CSS and JavaScript for richer user experiences. Weak styling capabilities: While HTML provides basic styling options, creating complex and visually appealing designs may require additional CSS knowledge and effort. Difficulty in complex application development: HTML alone is not suitable for building

complex web applications. It is often used in conjunction with server-side programming languages like PHP or JavaScript frameworks like AngularJS for dynamic and interactive applications.

PHP: Inconsistent naming conventions and function parameter order: PHP has a history of inconsistent naming conventions and function parameter orders, which can make the language syntax confusing for developers. Weak typing and lose type-checking: PHP's weak typing system can lead to unexpected behavior and errors if not handled carefully. Security vulnerabilities: Historically, PHP has had some security vulnerabilities, and writing insecure code is relatively easy if best practices are not followed.

AngularJS: Steep learning curve: AngularJS can have a steep learning curve, especially for developers new to JavaScript frameworks. Performance overhead: AngularJS applications can be heavy, leading to slower performance compared to lighter-weight frameworks or vanilla JavaScript. Frequent version updates: AngularJS has undergone significant changes with new major versions, which can require developers to update and adapt their codebase frequently.

SQL: Traditional SQL databases can face scalability challenges when dealing with massive amounts of data or high traffic loads. Lack of flexibility: SQL databases follow a structured schema, making it difficult to handle unstructured or semi-structured data effectively. Learning curve: Writing complex SQL queries and optimizing them for performance can require a good understanding of database design and query optimization techniques.

Chapter-05

PROPOSED METHOD

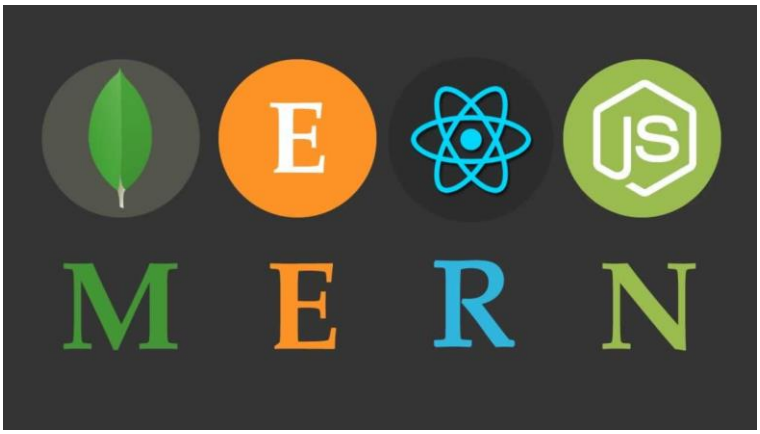

Fig 5.1: MERN Stack

Fitpulse uses Node.js, React.js, Express.js, and MongoDB technological stacks. Node.js is a popular back-end JavaScript runtime environment that allows developers to use JavaScript on the server side. React.js is a popular front-end web development library used to build user interfaces. Express.js is a flexible and lightweight back-end web development framework used to implement authentication and authorization processes. MongoDB is a popular NoSQL document-oriented database used for scalable and flexible database management.

Express.js is being used to implement the authentication and authorization processes as we develop the back end. This allows for more secure user authentication and authorization processes to be implemented, ensuring that user data is protected from cyber-attacks.

Creating the front-end, React.js, HTML, CSS, and JavaScript frameworks are used to implement the user interface. This allows for a more streamlined development process and a more user-friendly interface for the website. Additionally, features such as user status, real-time notifications, and messaging formats can be easily added to enhance the user experience.

In summary, the proposed system utilizes modern and widely used technologies such as Node.js, React.js, Express.js, and MongoDB to create a more secure, streamlined, and user-friendly web development experience. The use of Express.js for authentication and authorization processes, along with the implementation of features such as user status and real-time notifications, enhances the overall security and user experience of the website.

Chapter-06
OBJECTIVES

Objective 1: Develop a user-friendly website interface for Fitpulse that allows users to easily navigate and access different features such as gym booking, exercise suggestions, and user account management.

Objective 2: Implement a secure login and signup system with OTP verification to ensure the authenticity of user accounts and protect user data.

Objective 3: Integrate Twilio API to send OTPs to users for verification during the signup and login processes, enhancing the security and usability of the website.

Objective 4: Develop an intelligent exercise suggestion feature that tailors workout routines to the user's fitness level (beginner, intermediate, pro), considering factors such as age, gender, and goals. and provide a gym booking facility for the users.

Objective 5: Implement a database system using MongoDB Atlas to efficiently store and manage user data, exercise routines, gym bookings, and other relevant information.

Objective 6: Optimize the website's performance and responsiveness to ensure a smooth user experience, regardless of the device or platform used.

Objective 7: Conduct rigorous testing and debugging to identify and fix any issues or bugs in the website, ensuring its stability and reliability.

Objective 8: Continuously improve and update the Fitpulse website by incorporating user feedback, adding new features, and staying up to date with the latest technologies and trends in the fitness industry.

Chapter-07

SYSTEM DESIGN

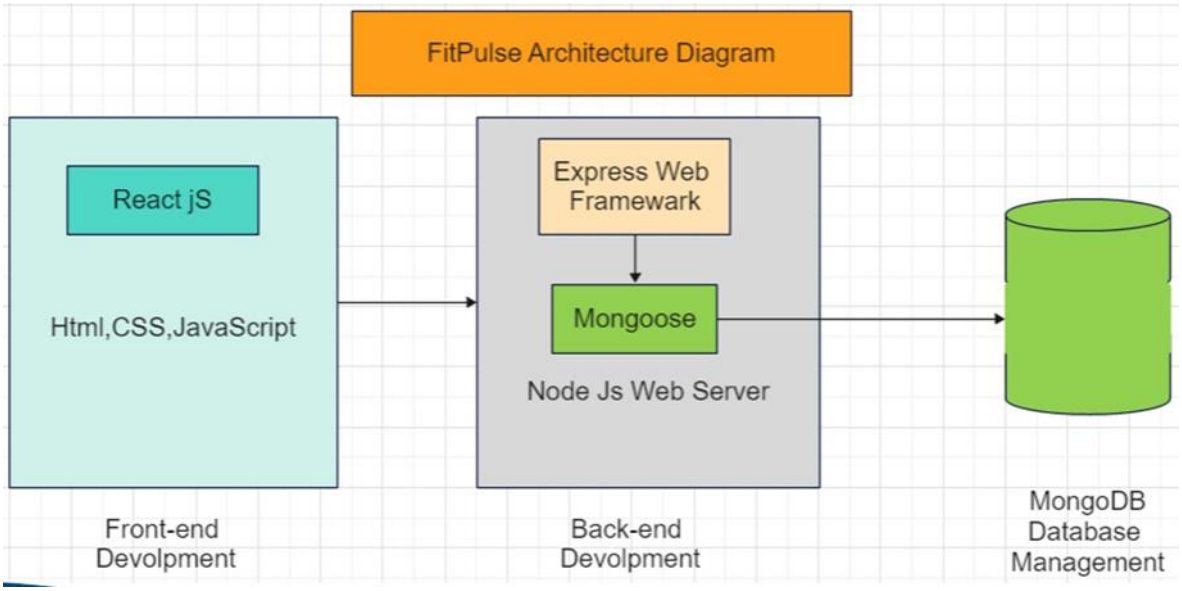

Fig 7.1: architecture diagram

The architecture of the Fitpulse project consists of four main components: the front end, the back end, the database, and the Twilio API for OTP verification. The front end of the project is built using React JS, which is a popular JavaScript library used for building user interfaces. React JS provides a rich set of features that allow developers to create complex user interfaces with ease.

The back end of the project is built using Node.js and Express.js. Node.js is a popular server-side JavaScript runtime environment, while Express.js is a flexible and minimalistic web application framework for Node.js. Together, these technologies allow for the creation of fast, scalable, and robust back-end applications.

The database for the Fitpulse project is hosted on MongoDB Atlas, which is a cloud-based NoSQL database service. MongoDB Atlas provides a highly scalable and reliable database service that can handle large amounts of data.

To ensure secure signups and logins, the Fitpulse project uses OTP verification for the user's mobile number. This is achieved using the Twilio API, which is a cloud communications platform that allows developers to send and receive SMS messages, phone calls, and other types of communications through its APIs.

To connect the front-end, back-end, and database, the Fitpulse project uses Mongoose, which is an Object Data Modelling (ODM) library for MongoDB and Node.js. Mongoose provides a straightforward way to define data models and interact with MongoDB databases.

Overall, the architecture of the Fitpulse project is designed to be highly scalable, reliable, and secure. By leveraging the latest web technologies and cloud services, the project provides users with a fast back-end-friendly platform for booking gym facilities and taking on fitness challenges.

Chapter-08

TIMELINE FOR EXECUTION OF PROJECT

(GANTT CHART)

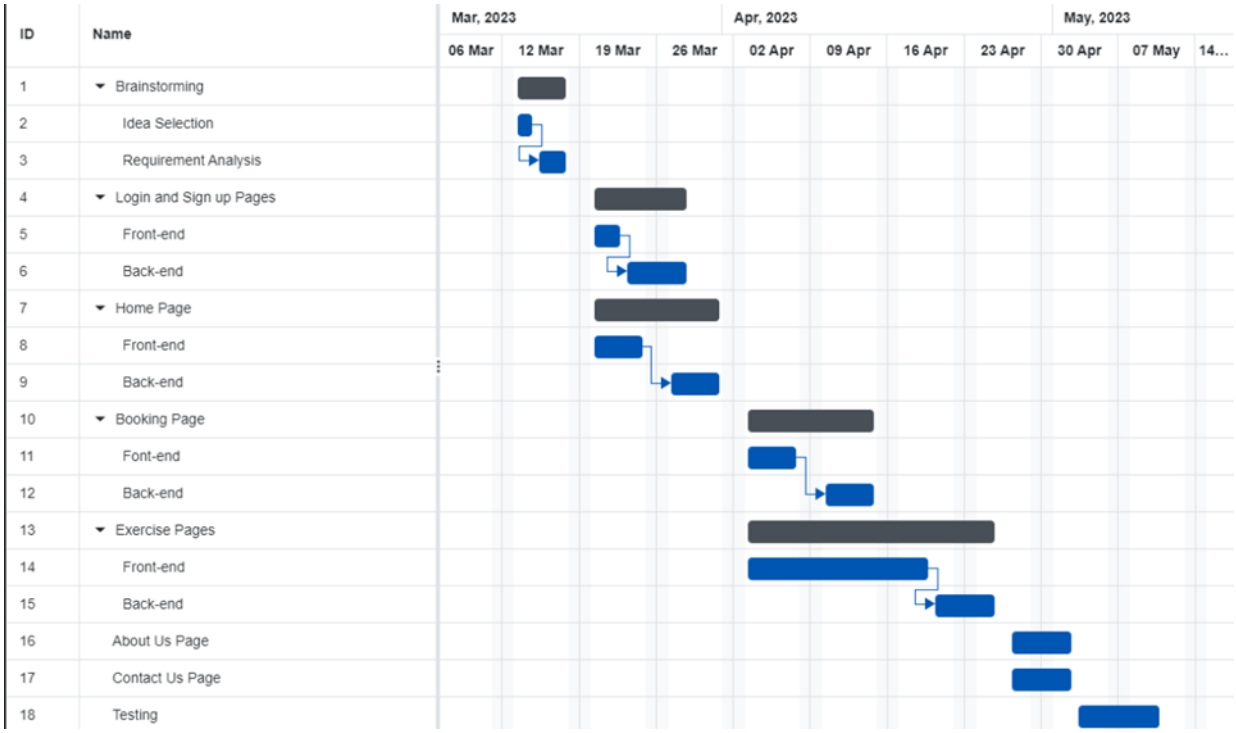

Fig 8.1:Gantt chart

Chapter-09

IMPLEMENTATION

The Fitpulse website is a comprehensive platform designed for gym enthusiasts, providing gym booking services and exercise suggestions tailored for individuals at different fitness levels: beginners, intermediates, and professionals. The website incorporates a secure login and signup system with OTP verification for enhanced user authentication. The technologies utilized in building this website include React for the front end, Node.js and Express for the backend, MongoDB Atlas for database management, and the Twilio API for sending OTPs.

To implement the Fitpulse website, the following steps were followed:

1. Frontend Development:

The front end of the website was developed using React, a popular JavaScript library for building user interfaces. The user interface was designed to be intuitive, visually appealing, and responsive across different devices. Various components were created to represent different sections of the website, such as the home page, gym booking page, exercise suggestion page, login/signup forms, and user profile page. React Router was utilized for handling navigation between different pages.

2. Backend Development:

The backend of the website was built using Node.js, a JavaScript runtime, along with Express, a web application framework. Express provided a robust foundation for handling HTTP requests, routing, and middleware implementation. APIs were developed to handle user authentication, gym booking, and exercise suggestion functionalities. Integration with MongoDB Atlas, a cloud-hosted NoSQL database, was implemented to store user data, gym bookings, and exercise suggestions.

3. User Authentication and OTP Verification:

The website incorporated a secure login and signup system to authenticate users. When a user signs up, an OTP (One-Time Password) verification process was implemented to validate the provided mobile number. The Twilio API, a cloud communications platform, was utilized to

send OTPs via SMS to the user's mobile number. Upon successful OTP verification, the user was granted access to the website's features and functionalities.

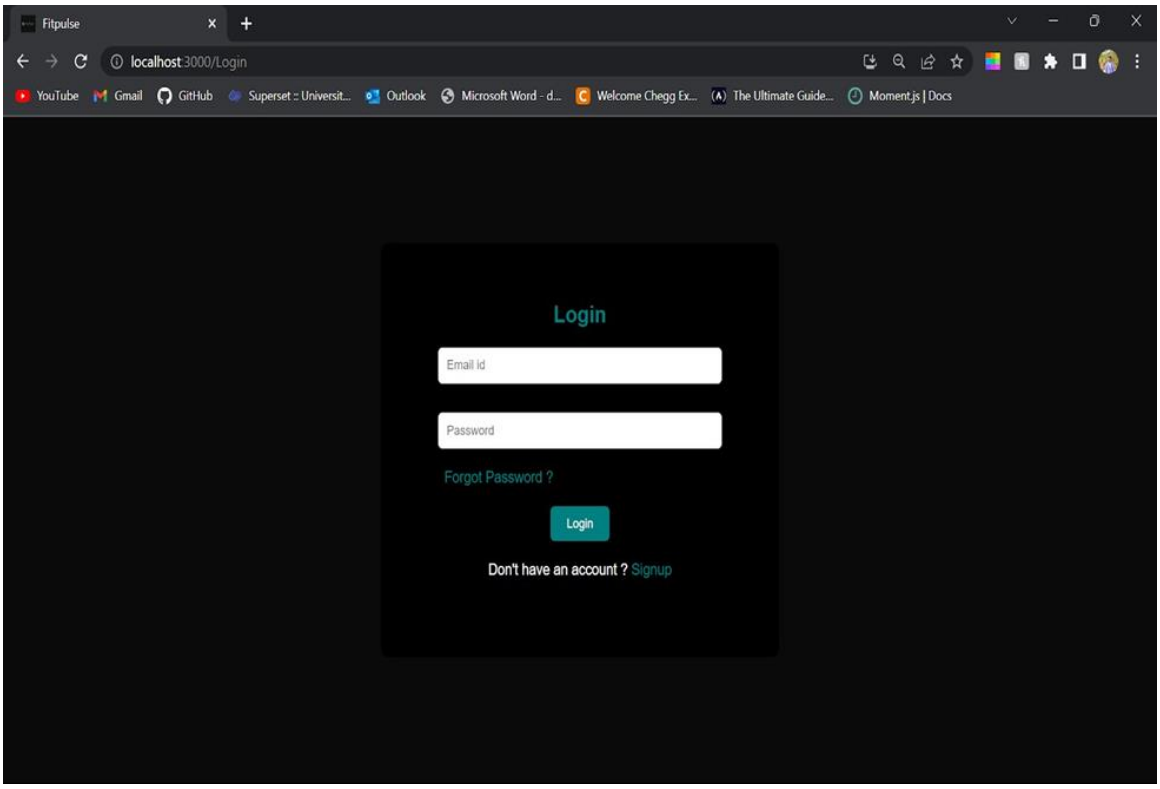

Fig 9.1: Login Page

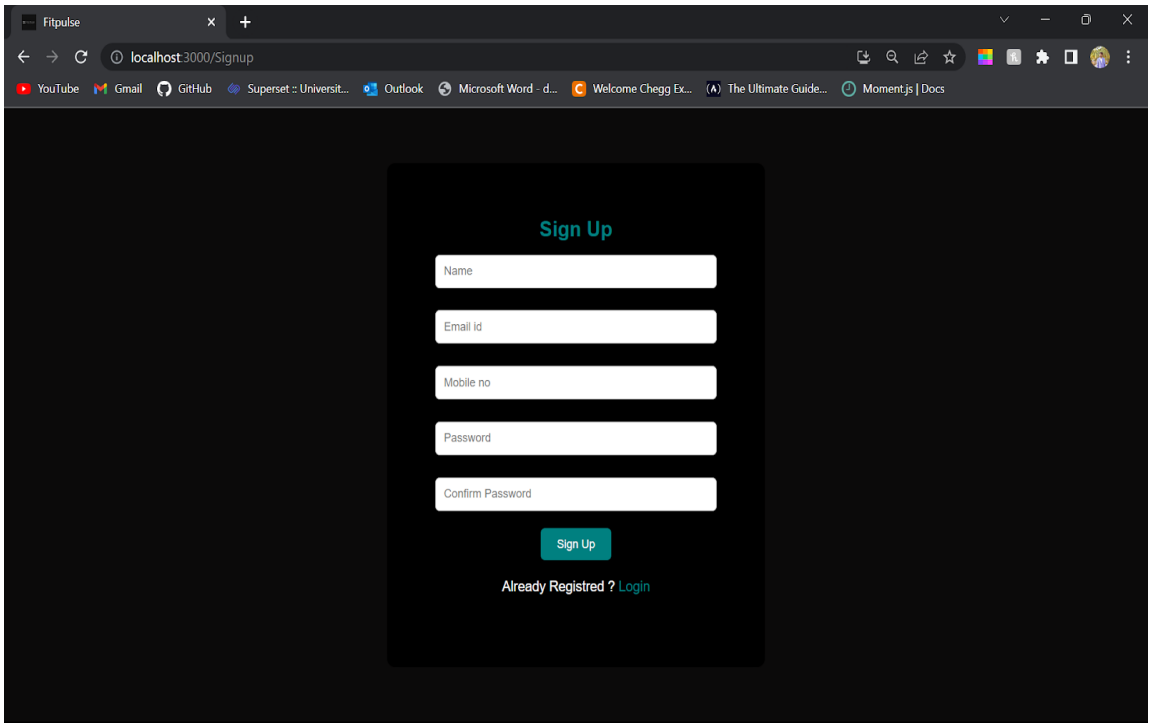

Fig 9.2: Signup Page

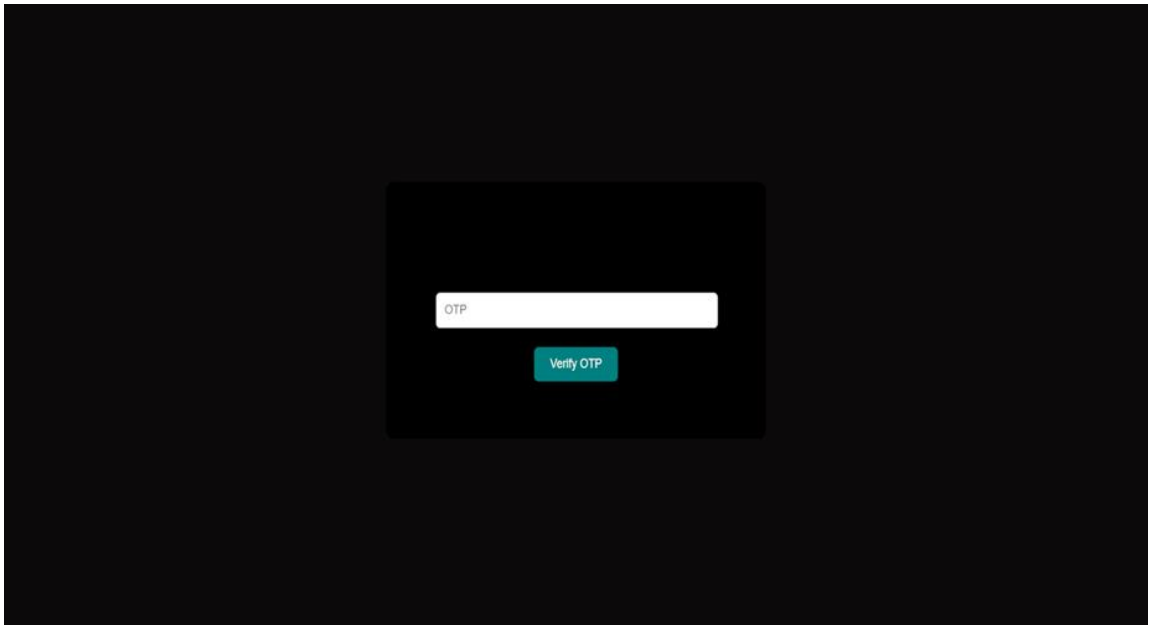

Fig 9.3: OTP Page

4. Gym Booking and Exercise Challenges:

Users were able to book his/her gym membership and book slots using the gym booking functionality. Based on the user's fitness level (beginner, intermediate, or professional), the website provided customized exercise suggestions. The exercise suggestions were tailored to the user's fitness level, goals, and preferences, helping them plan their workout routines effectively.

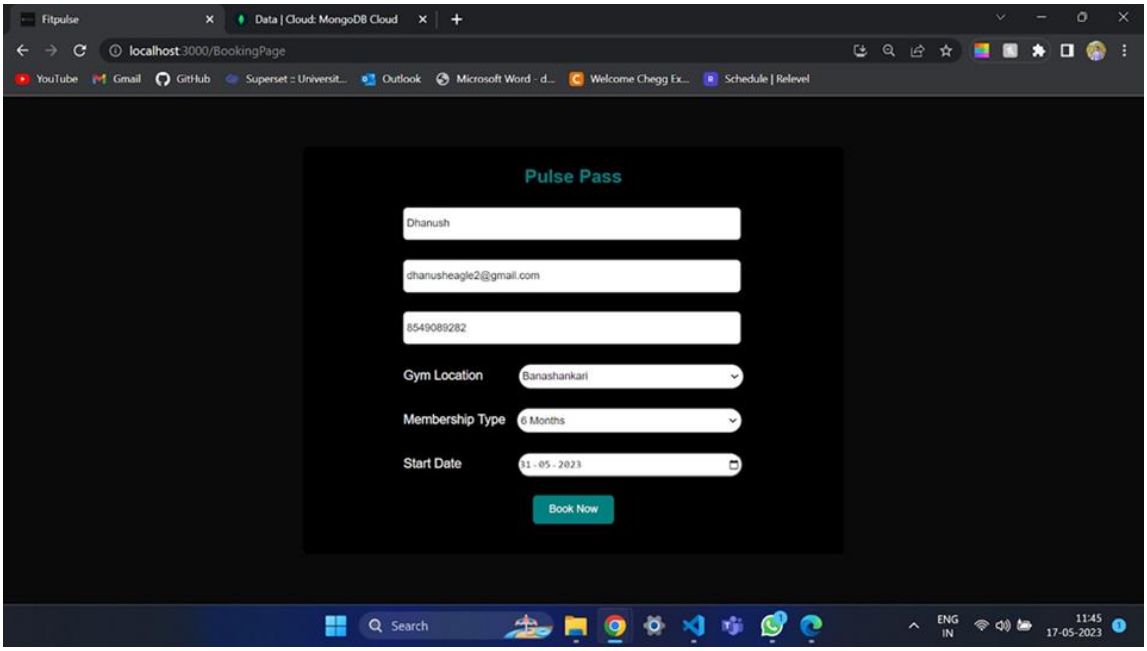

Fig 9.4: Booking Page

Chapter-10

TESTING

10.1 Test Cases

10.1.1 User Signup

Test Scenario	Expected Result	Result	Outcome
Test for Successful User Registration by filling all the fields and OTP verification.	User Details to be inserted into the database	User details are inserted into the database	**PASS**

Table 10.1.1: User sign-up and OTP verification

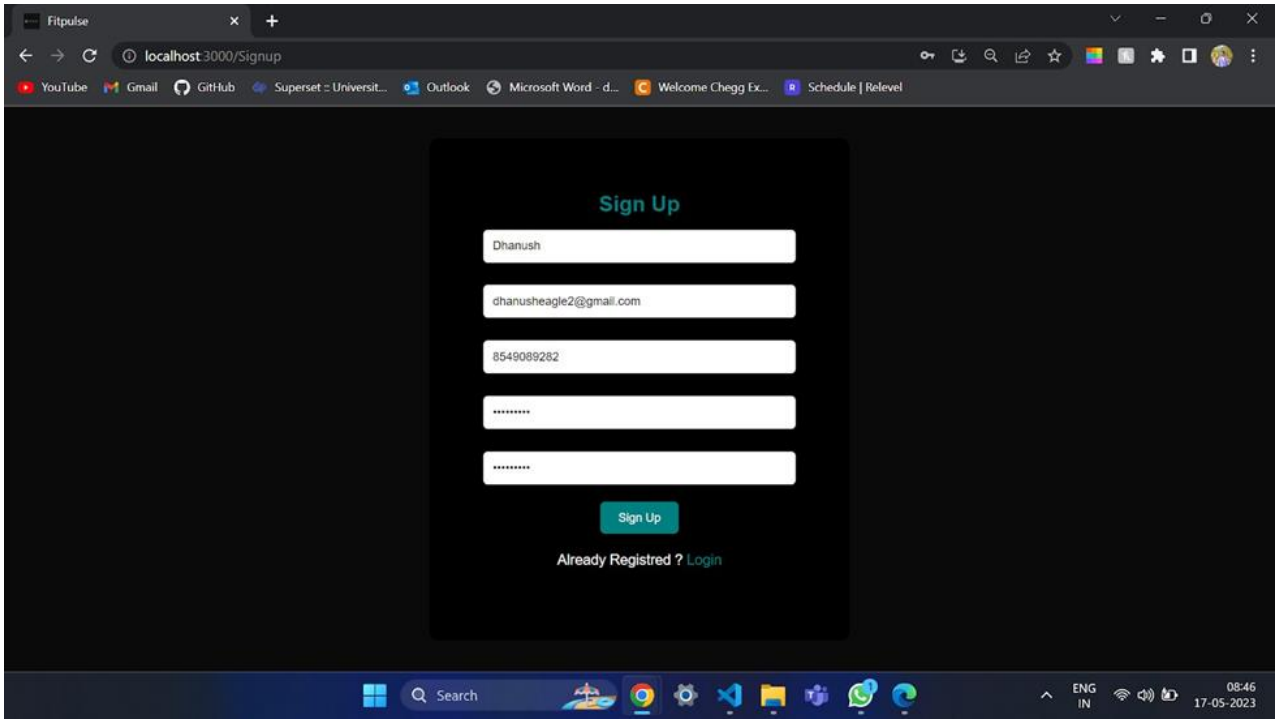

Fig 10.1.1:Sign-up page

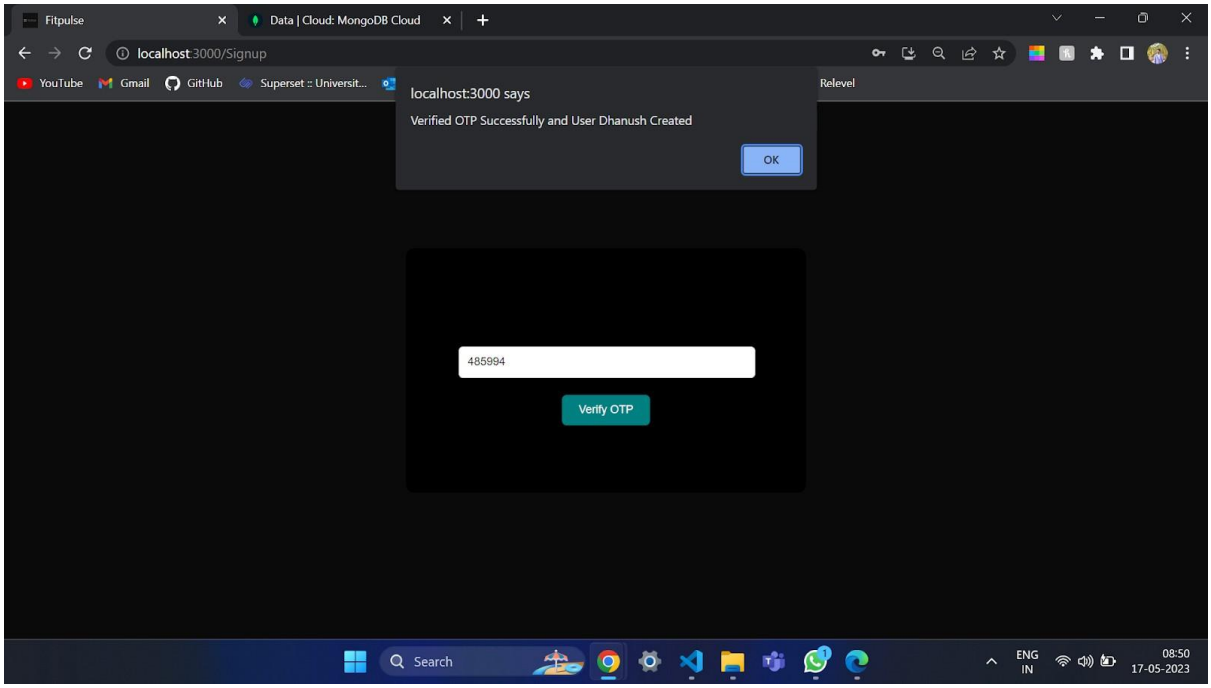

Fig 10.1.2: OTP verification on sign-up

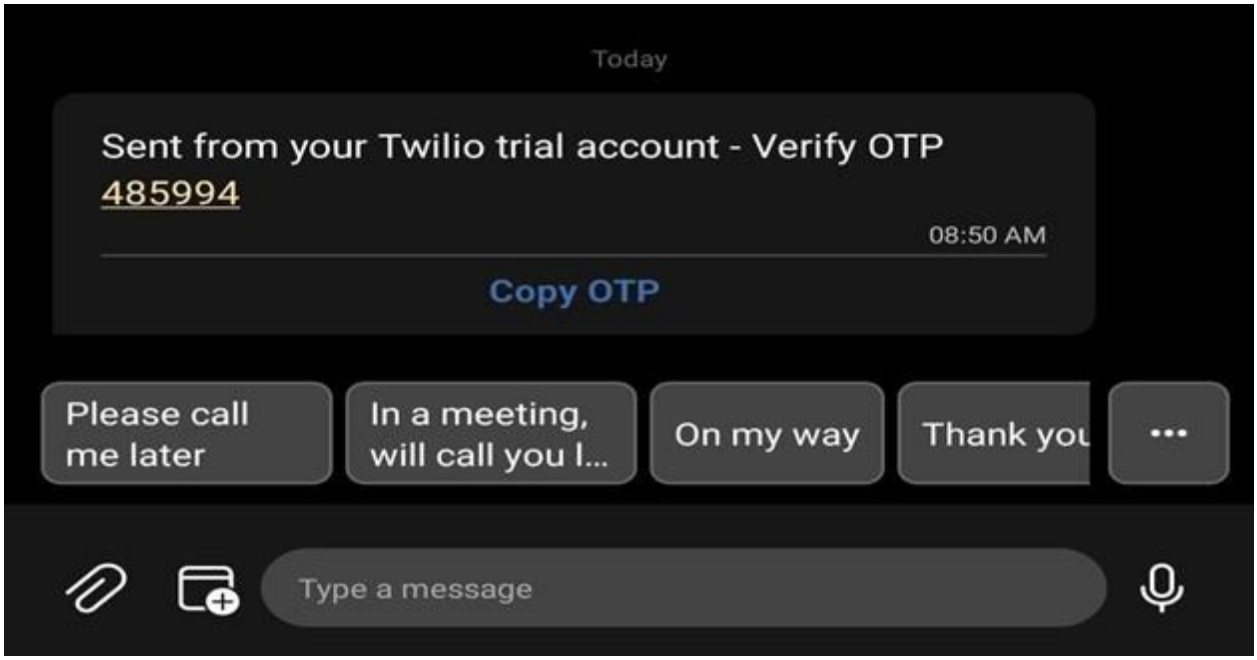

Fig:10.1.3: OTP message

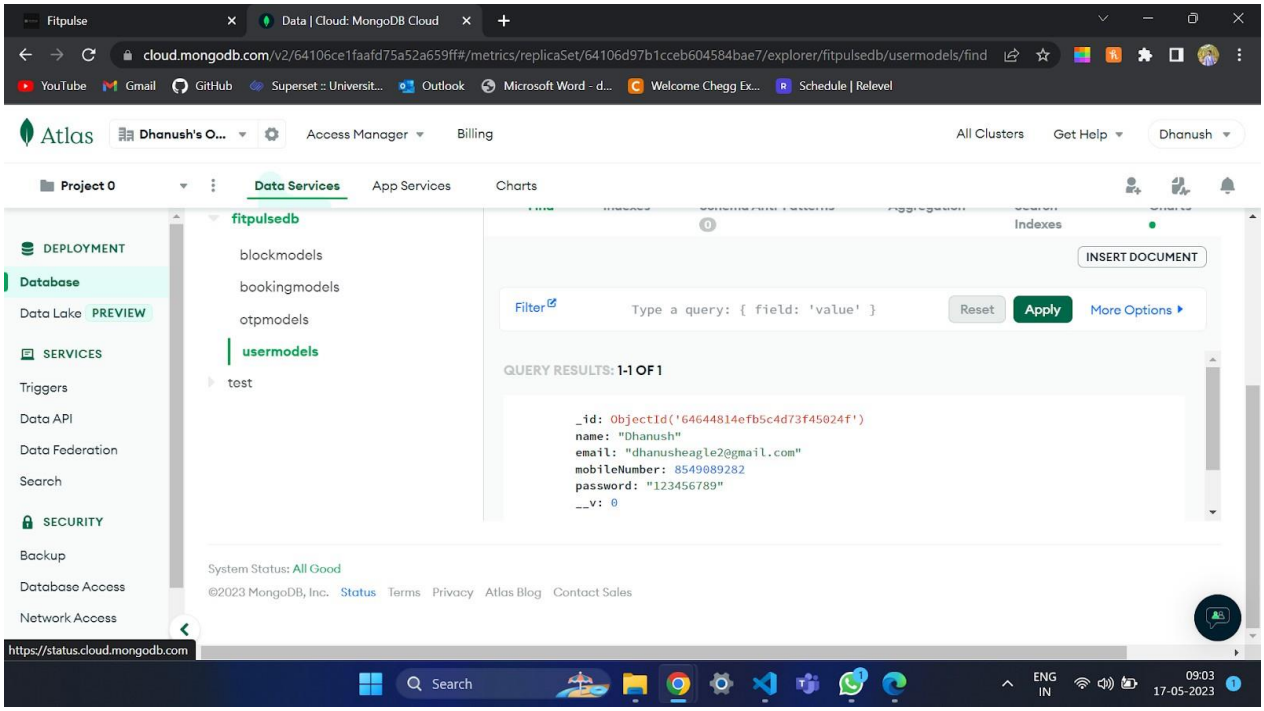

Fig 10.1.4: Database

Test Scenario	Expected Result	Result	Outcome
Test for entering an incorrect OTP and verifying the failure of verification and three wrong entries showing maximum limit for OTP failures shown	Incorrect OTP Prompt to be shown to the user and Maximum limit reached for wrong OTPs to be shown	Incorrect OTP prompt shown and Maximum limit reached prompt to shown	**PASS**

Table 10.1.2: User creation fails on the wrong OTP

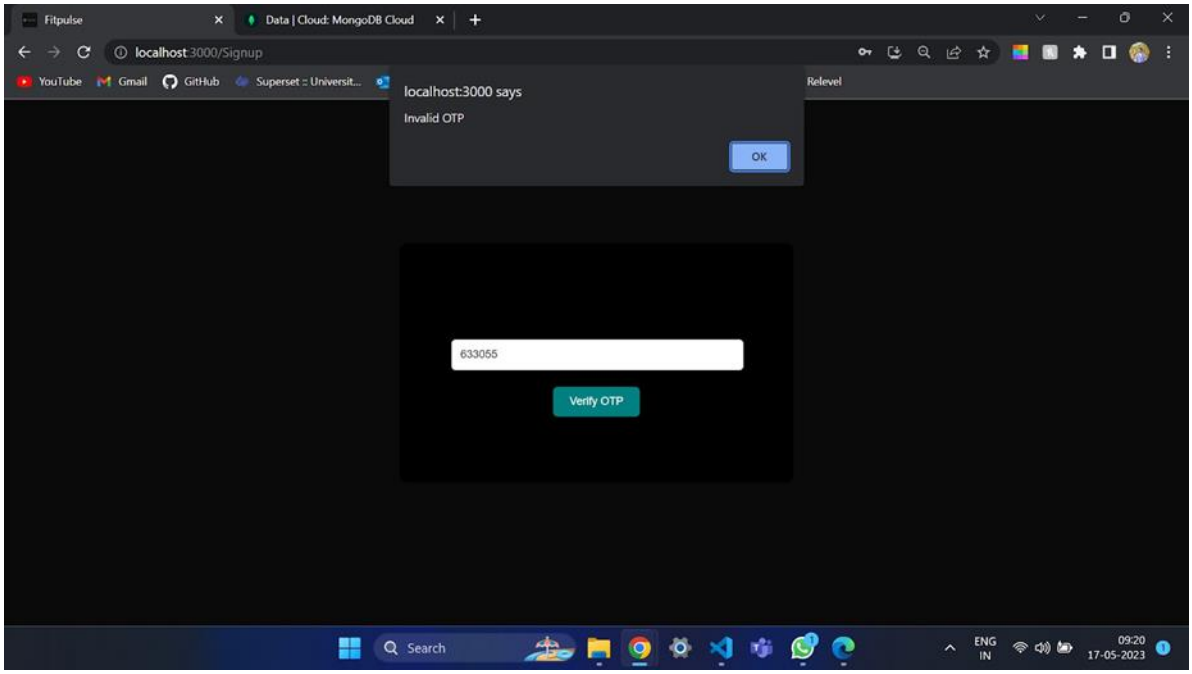

Fig 10.1.5: Invalid OTP alert

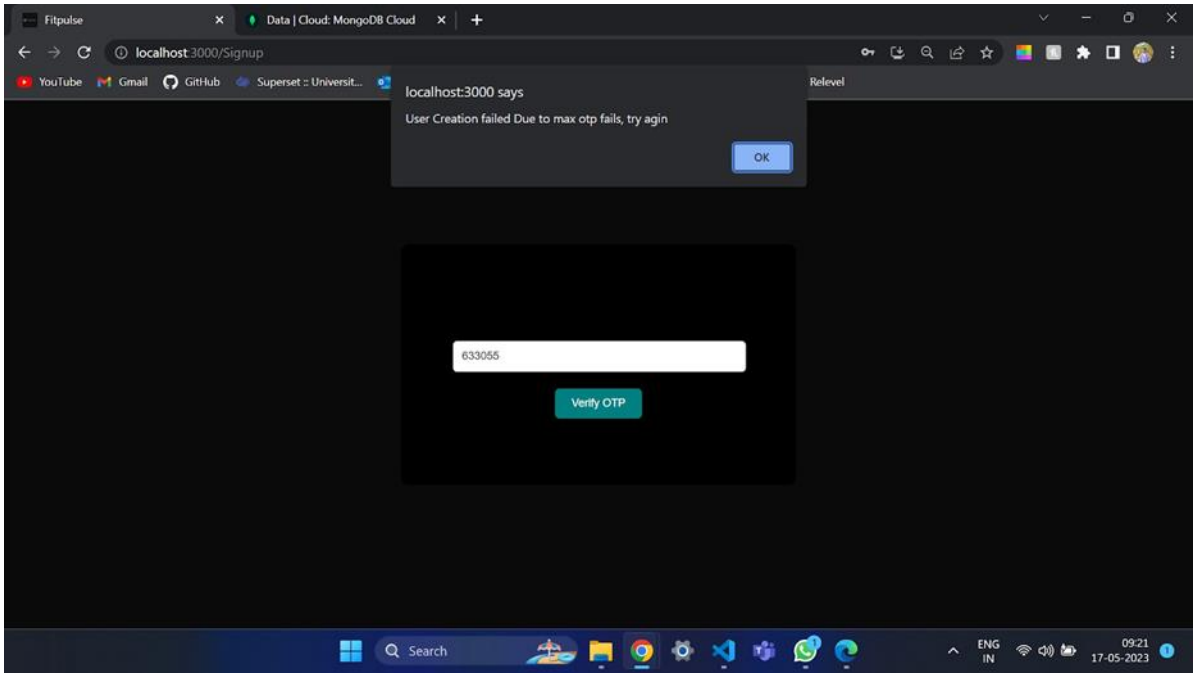

Fig 10.1.6: Maximum OTP fails alert

Test Scenario	Expected Result	Result	Outcome
Test for not allowing the user to create multiple accounts	Account already exists prompt to be shown to the user	account already exists prompt shown to the user	**PASS**

Table 10.1.3: User duplicate account

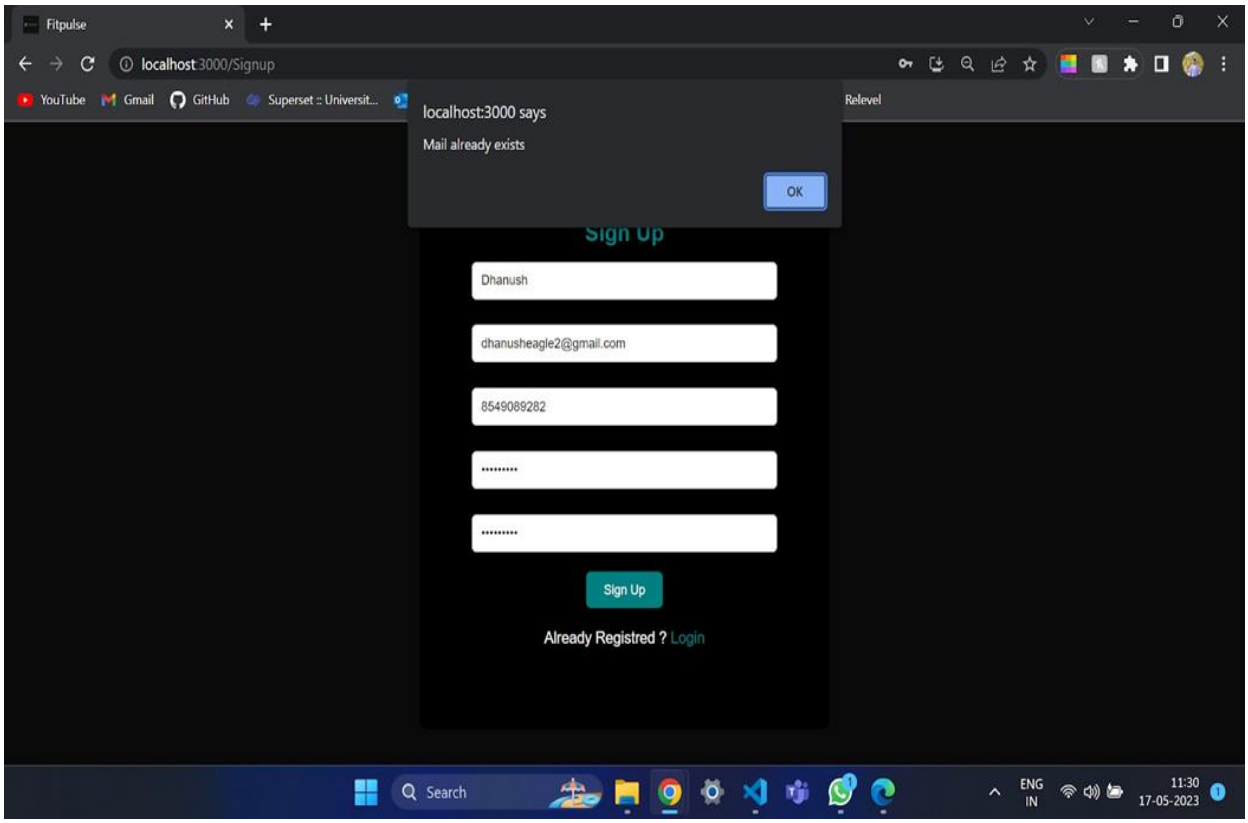

Fig 10.1.7: User mail id already exists

10.2.2 User Login

Test Scenario	Expected Result	Result	Outcome
Checking for user login when correct details are entered by the user and verifying OTP sent to user registered mobile number	Successful login and redirecting to the home page	Successfully login in and the user is redirected to the home page	**PASS**

Table 10.1.4: User login on OTP verification

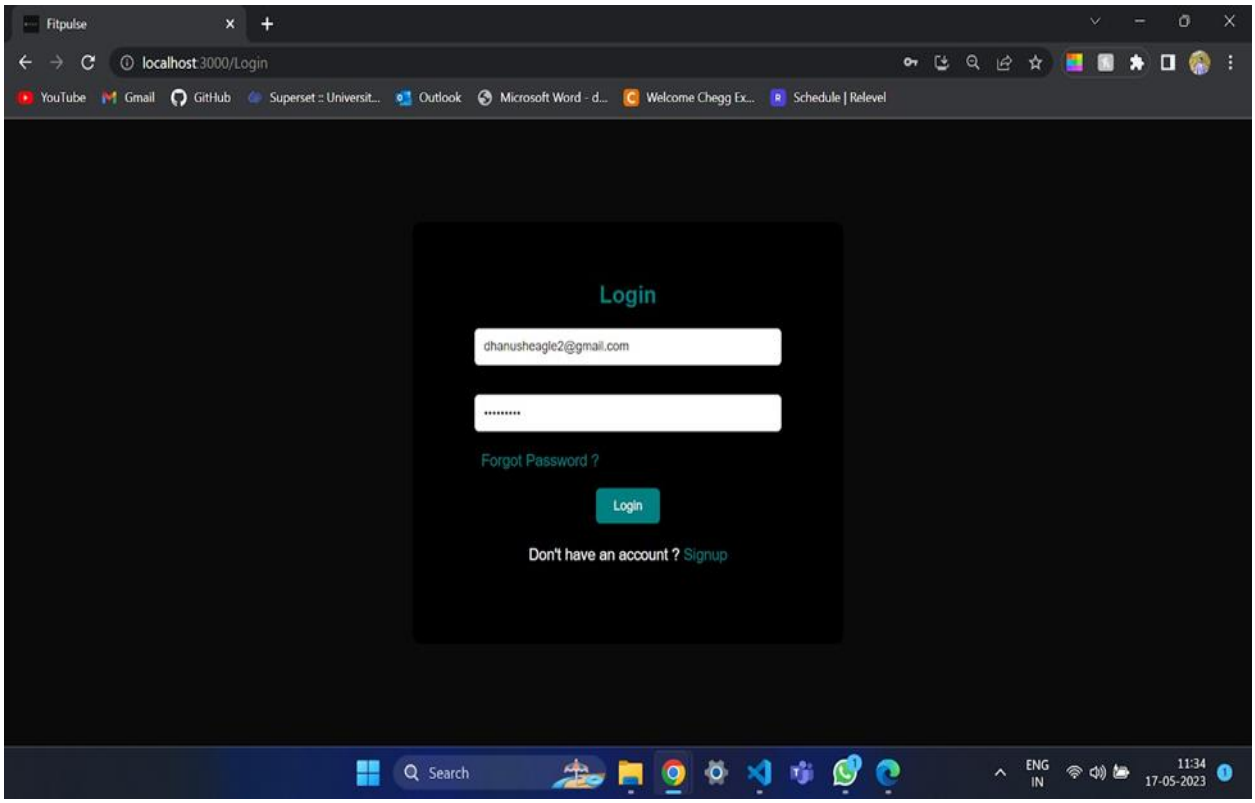

Fig 10.1.8: User login

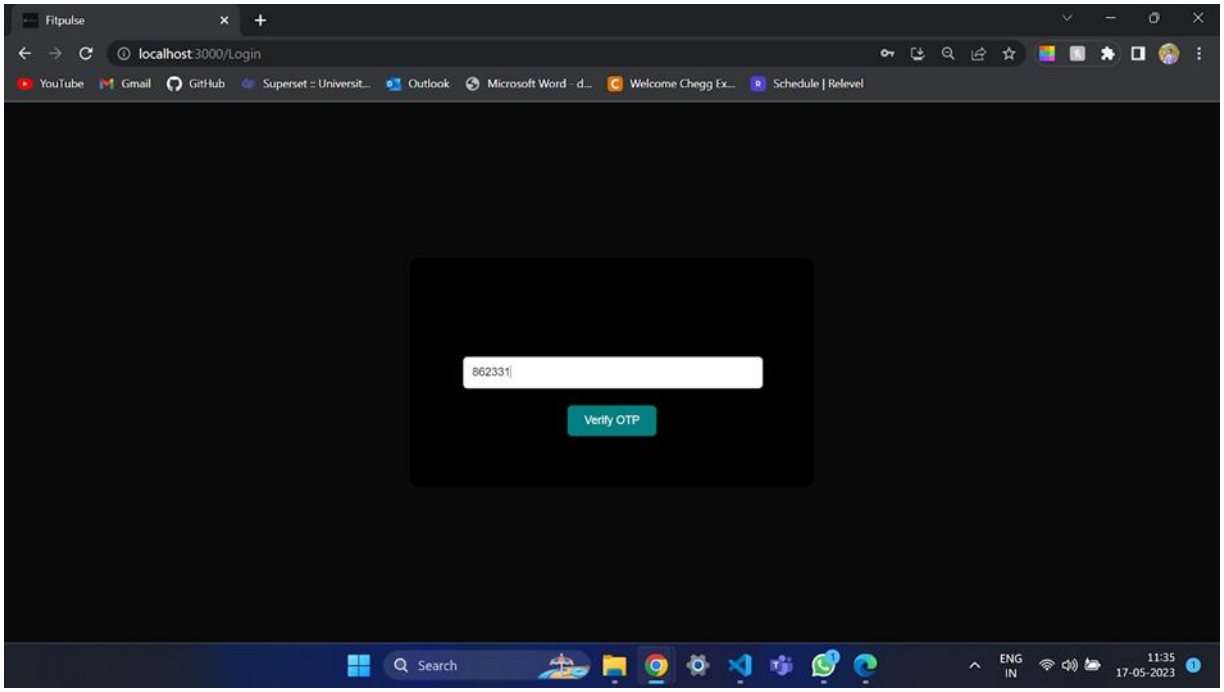

Fig10.1.9: User login OTP

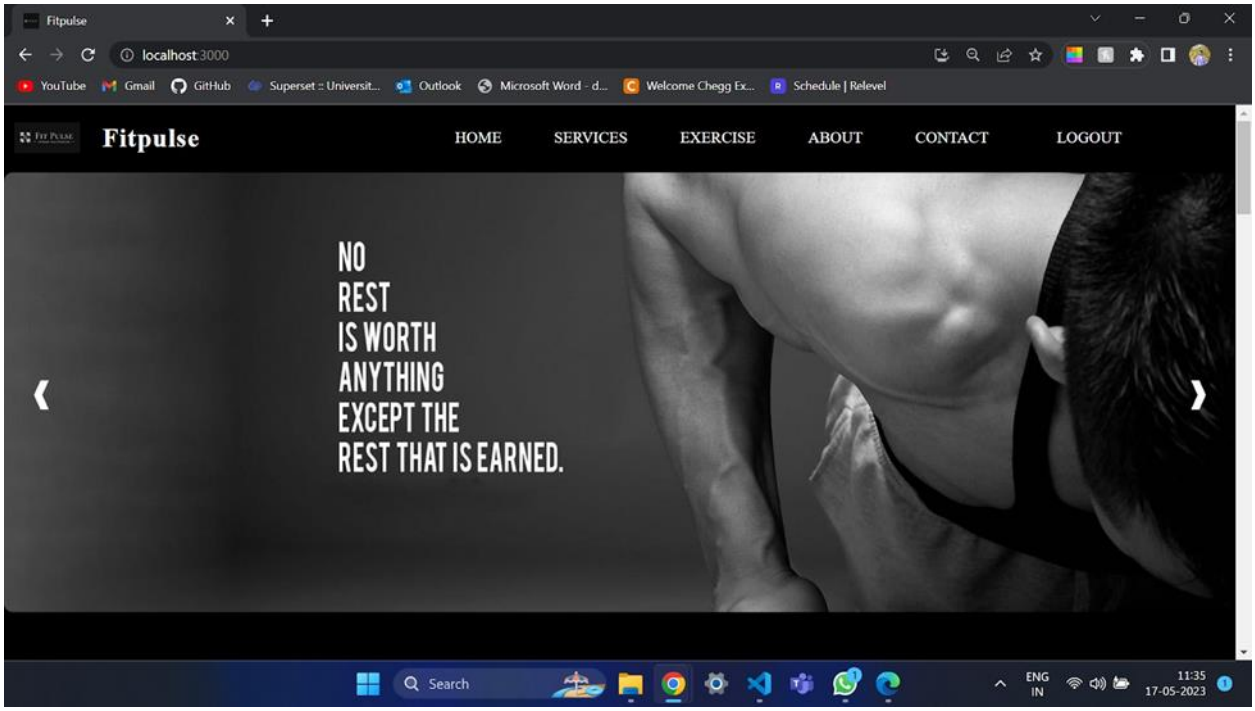

Fig 10.1.10: Home Page

Test Scenario	Expected Result	Result	Outcome
Test for not allowing the user to login when invalid details entered by the user	Invalid details prompt to be shown to the user	Invalid details prompt showed to the user	**PASS**

Table 10.1.5: Invalid details for login

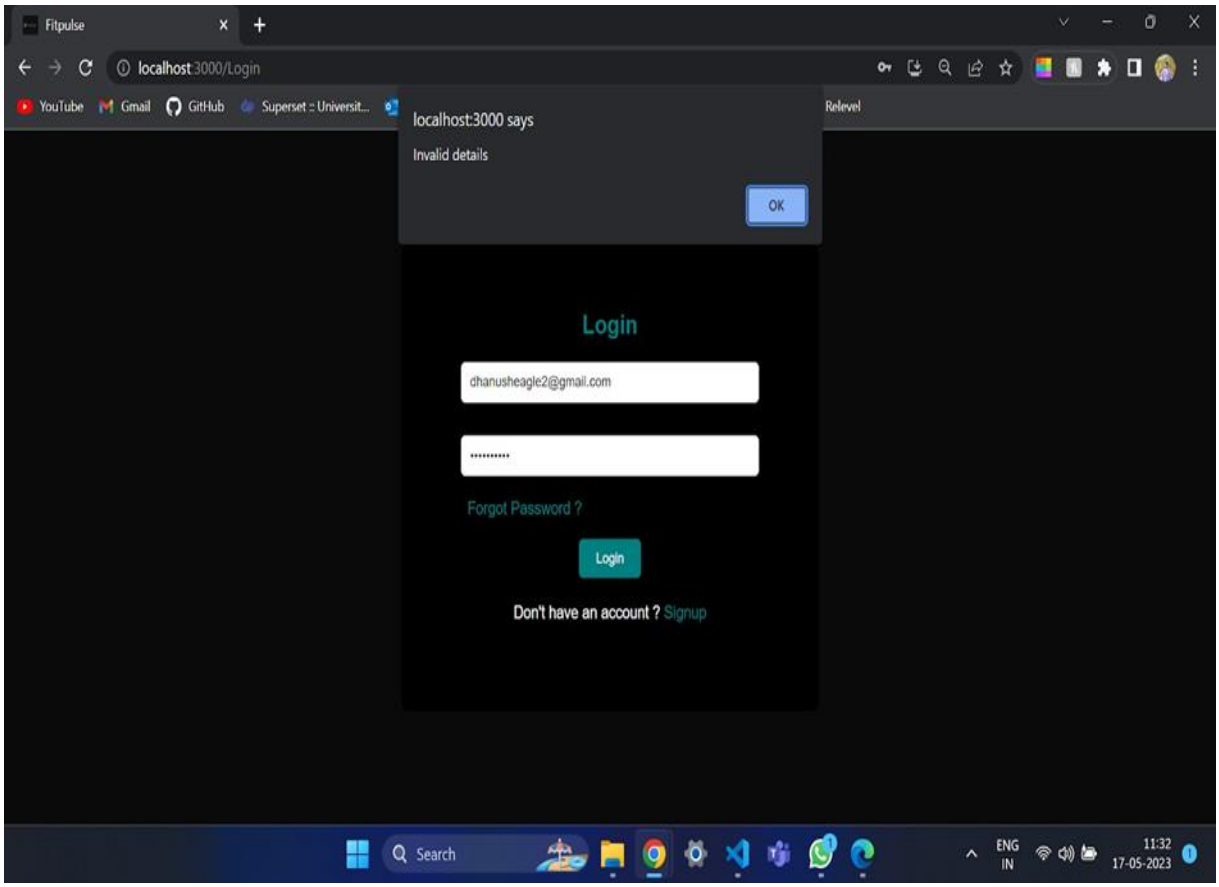

Fig 10.1.11: Invalid login details

Test Scenario	Expected Result	Result	Outcome
Test for Blocking the user on maximum OTP fails and not allowing the user to login for next four hours	User blocked the prompt to be shown and not allowing the user to login	User blocked prompt shown and the user is not allowed to login	**PASS**

Table 10.1.6: Blocking the user on maximum OTP fails

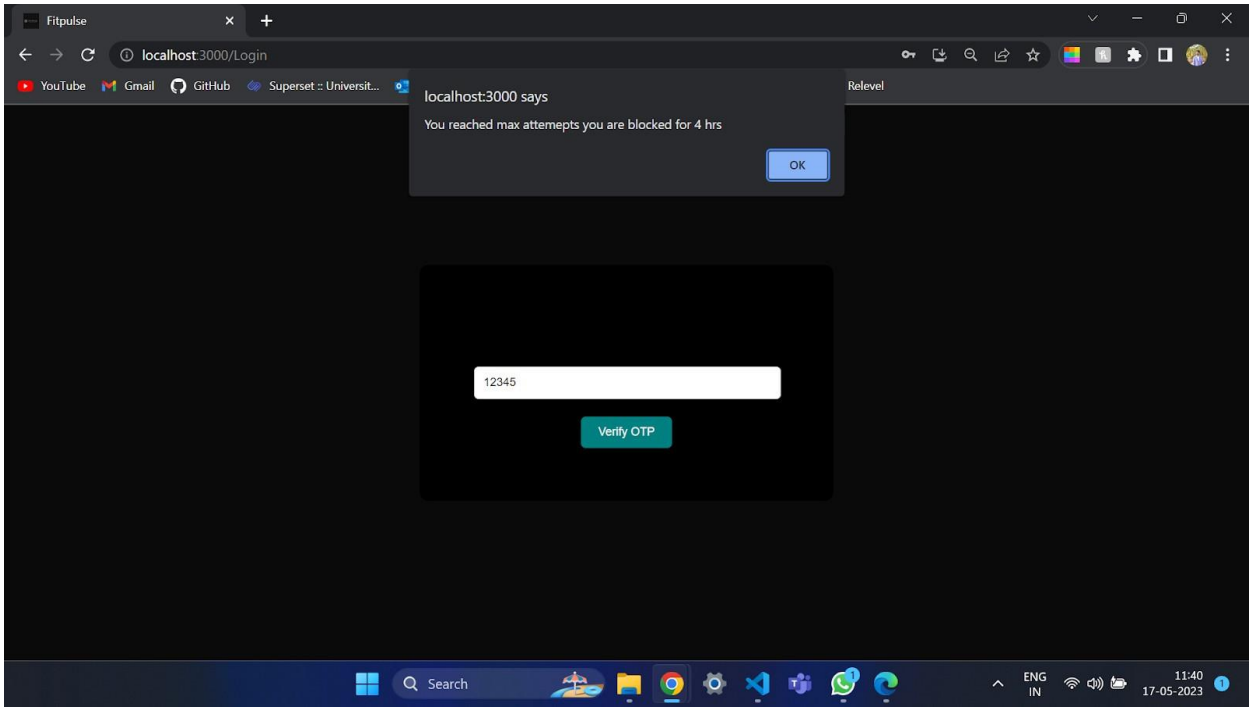

Fig10.1.12: Maximum attempts OTP fails and Blocking user Prompt

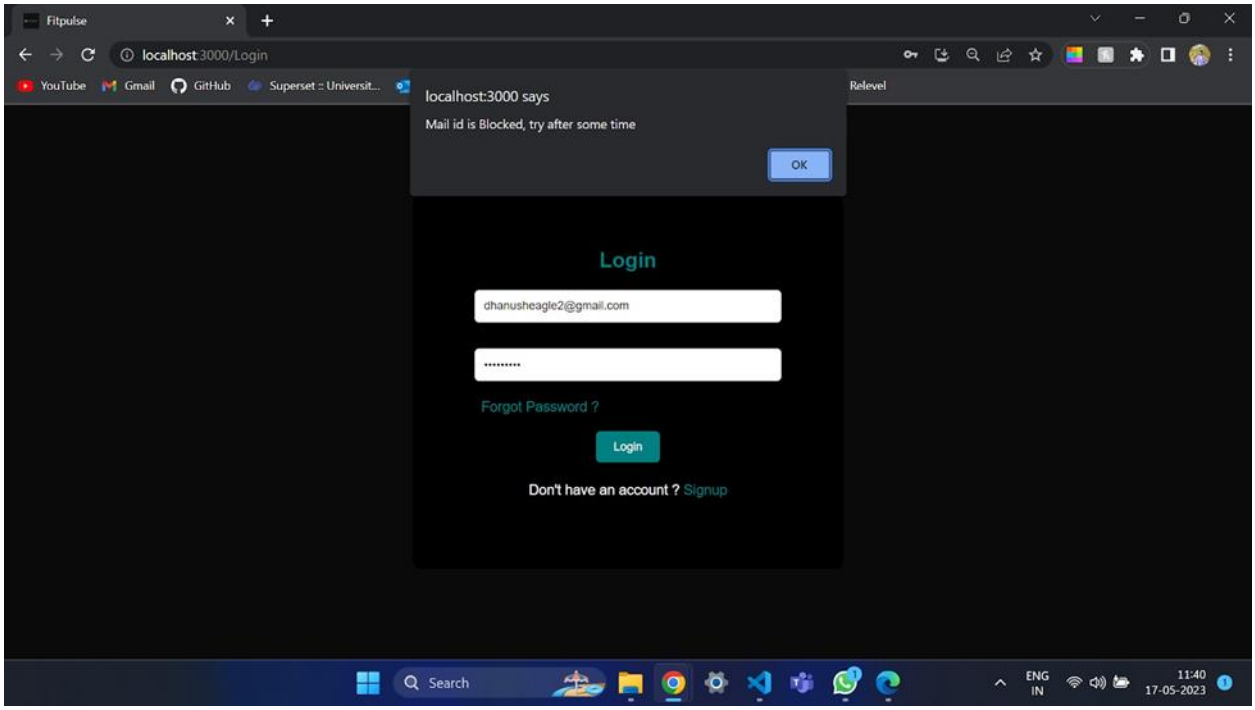

Fig 10.1.13: User Blocked prompt when blocked user trying to login

10.1.1 Gym Booking

Test Scenario	Expected Result	Result	Outcome
Test for successfully booking the gym membership with all details filled and OTP verification	User to be redirected Booking confirmation page	user is redirected to confirmation page	**PASS**

Table 10.1.7: Gym Booking Confirmation

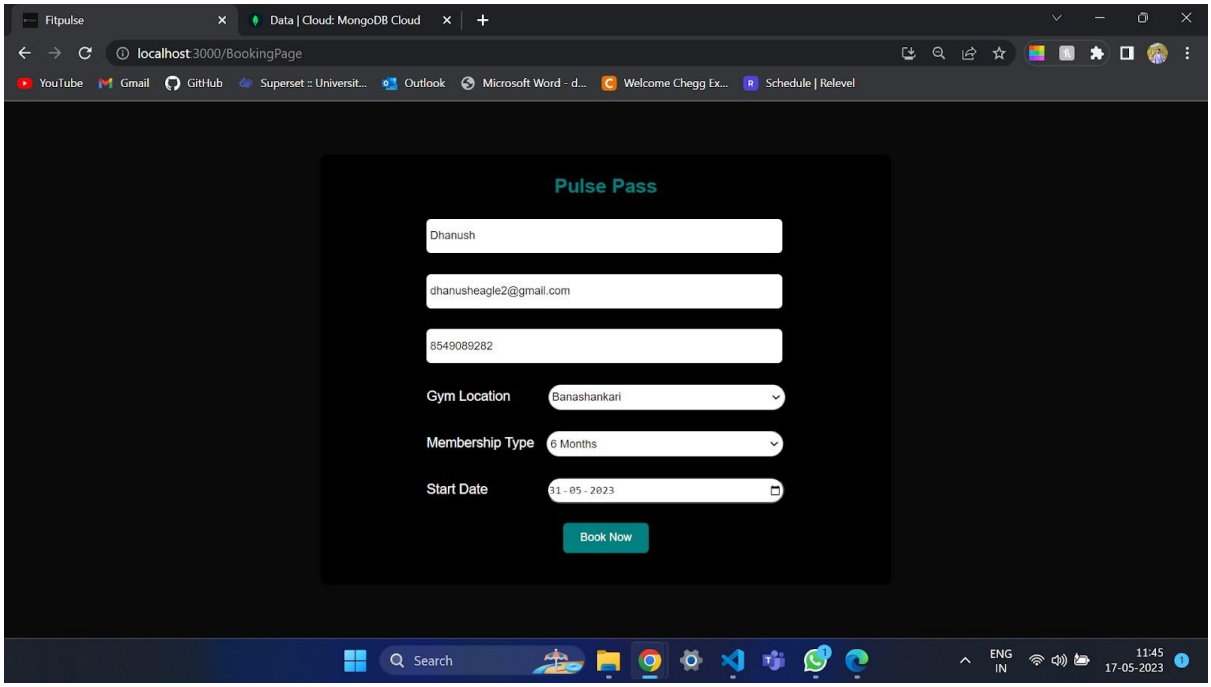

Fig 10.1.14: Gym Booking Page

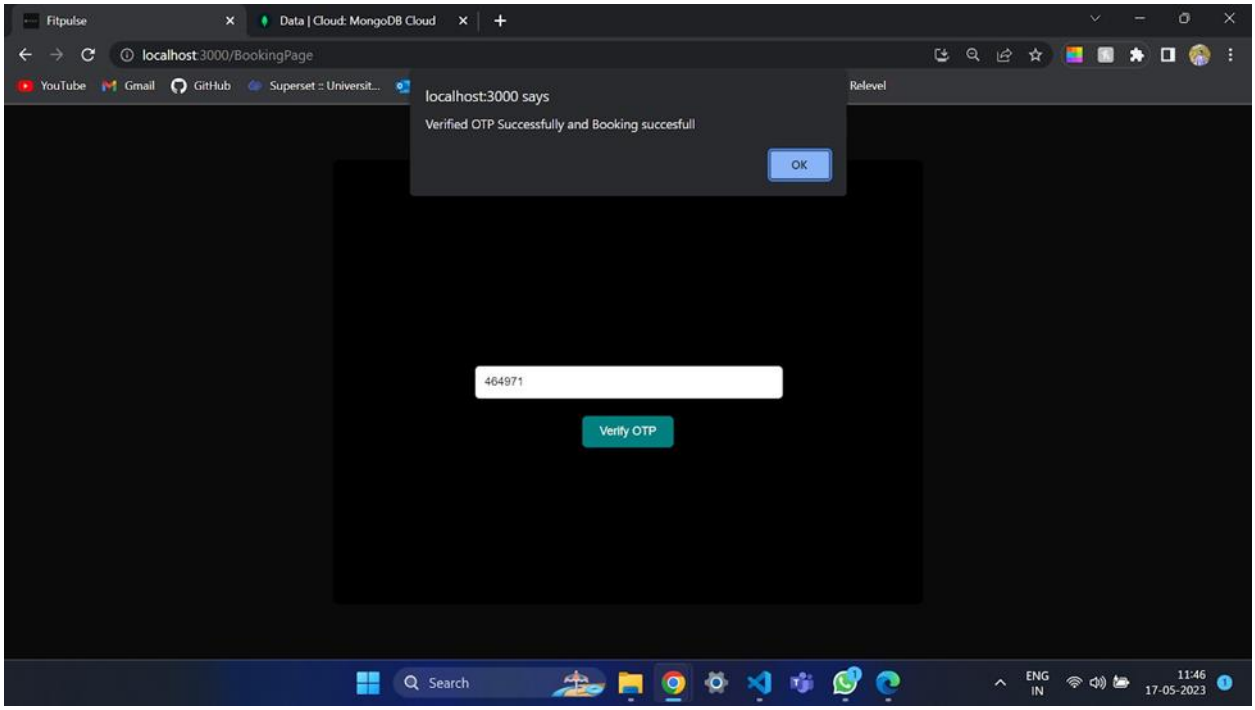

Fig 10.1.15: OTP verification for Gym Booking

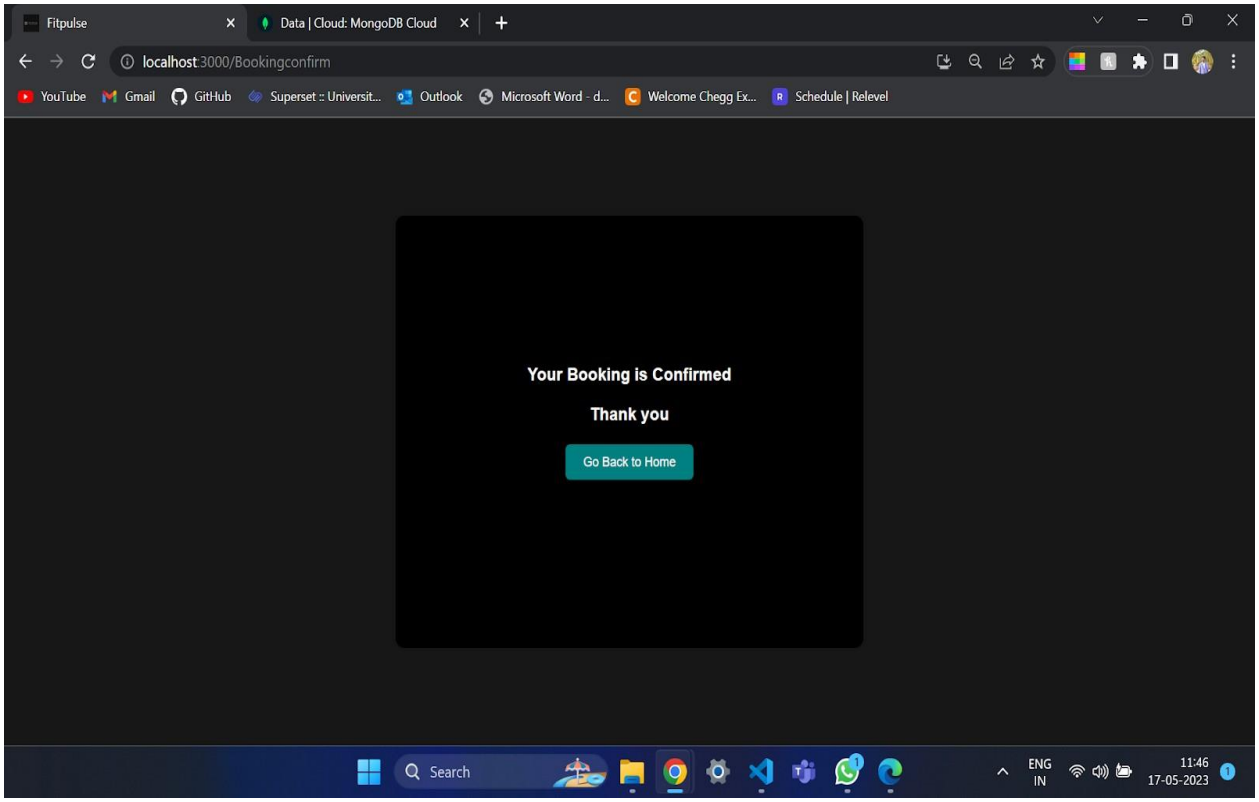

Fig 10.1.16: Booking Confirmation Page

Test Scenario	Expected Result	Result	Outcome
Test for not allowing the user to take multiple memberships	Booking already exists prompt to be shown to the user	Booking already exists prompt shown to the user	**PASS**

Table 10.1.8: Booking Already Exists

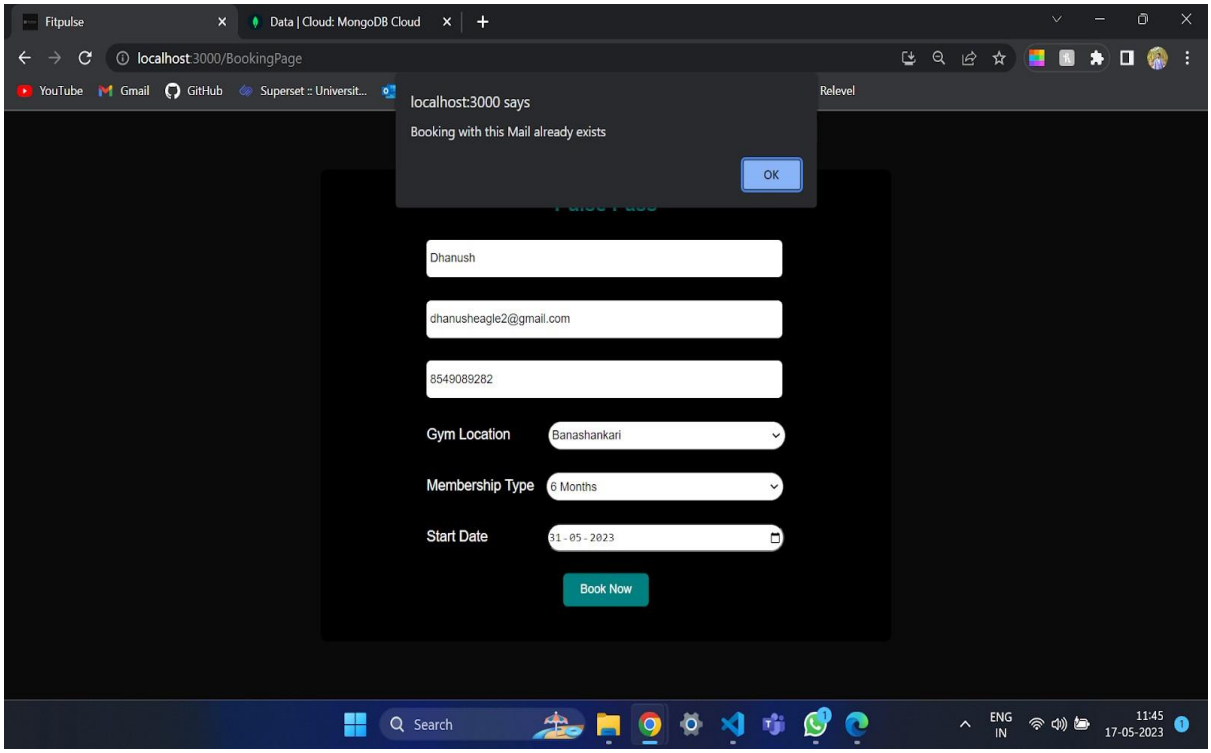

Fig 10.1.17: Booking Already Exists Prompt

10.1.2 Contact Us

Test Scenario	Expected Result	Result	Outcome
Test for Checking user contact mail	Contact mail to be received to fitpulse mail id	Contact Mail Received	**PASS**

Table 10.1.9: User Contact us

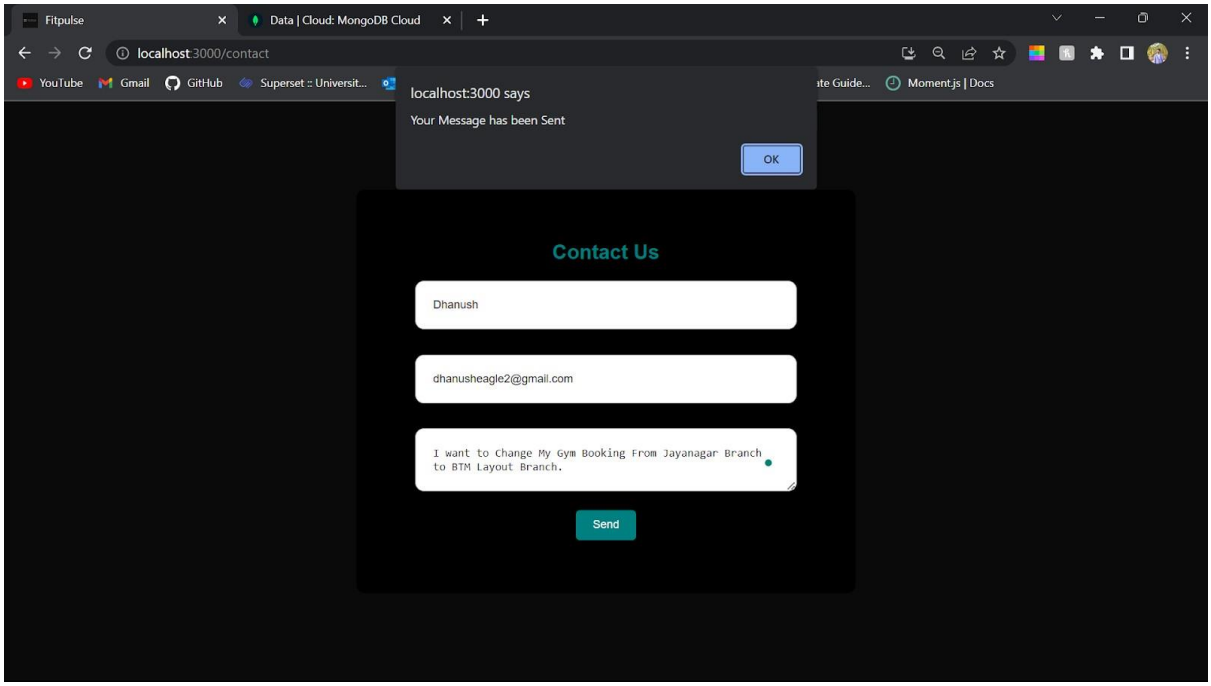

Fig 10.1.18: Contact Us Page

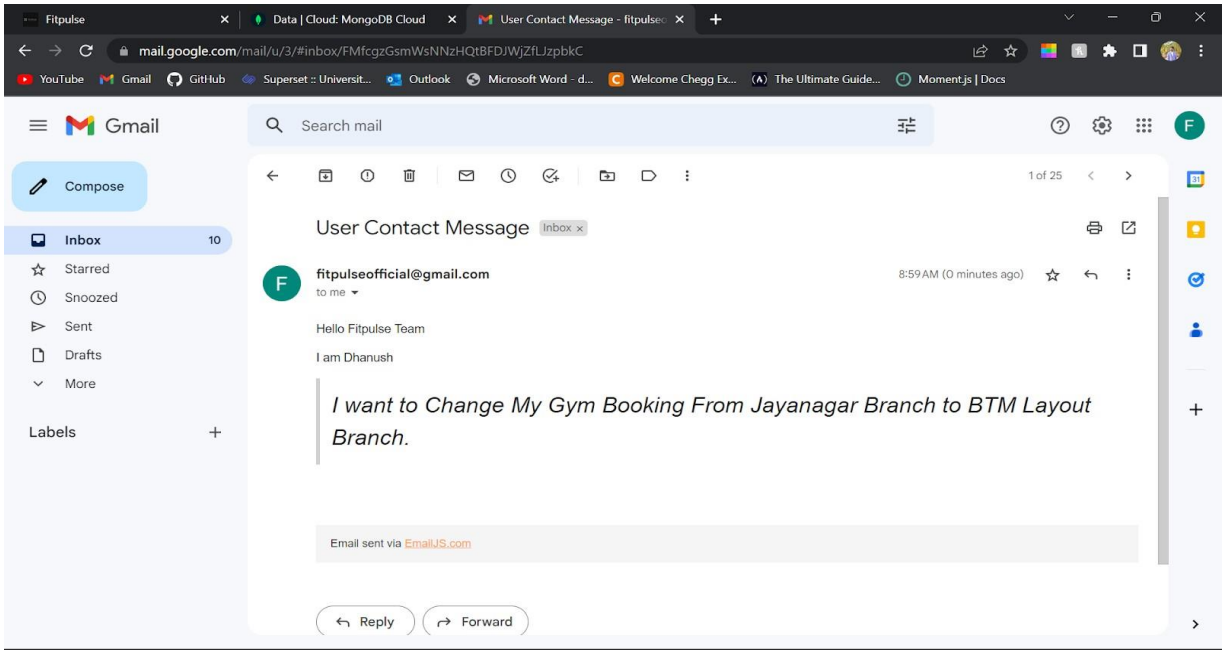

Fig 10.1.19: User Contact Mail

10.1.1 Forgot Password

Test Scenario	Expected Result	Result	Outcome
Test for Checking Forgot Password functionality	Password to be reset inside the database	Password updated inside database	**PASS**

Table 10.1.10: Forgot Password

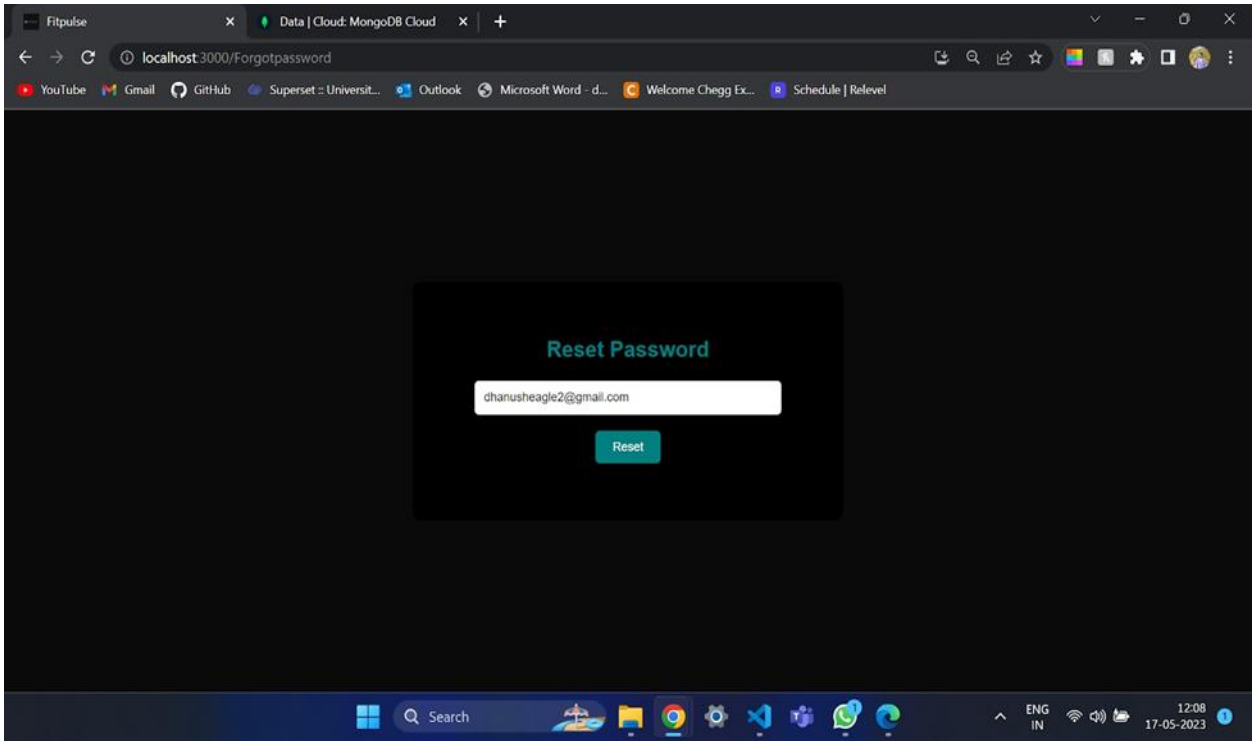

Fig 10.1.20: Reset Password Page

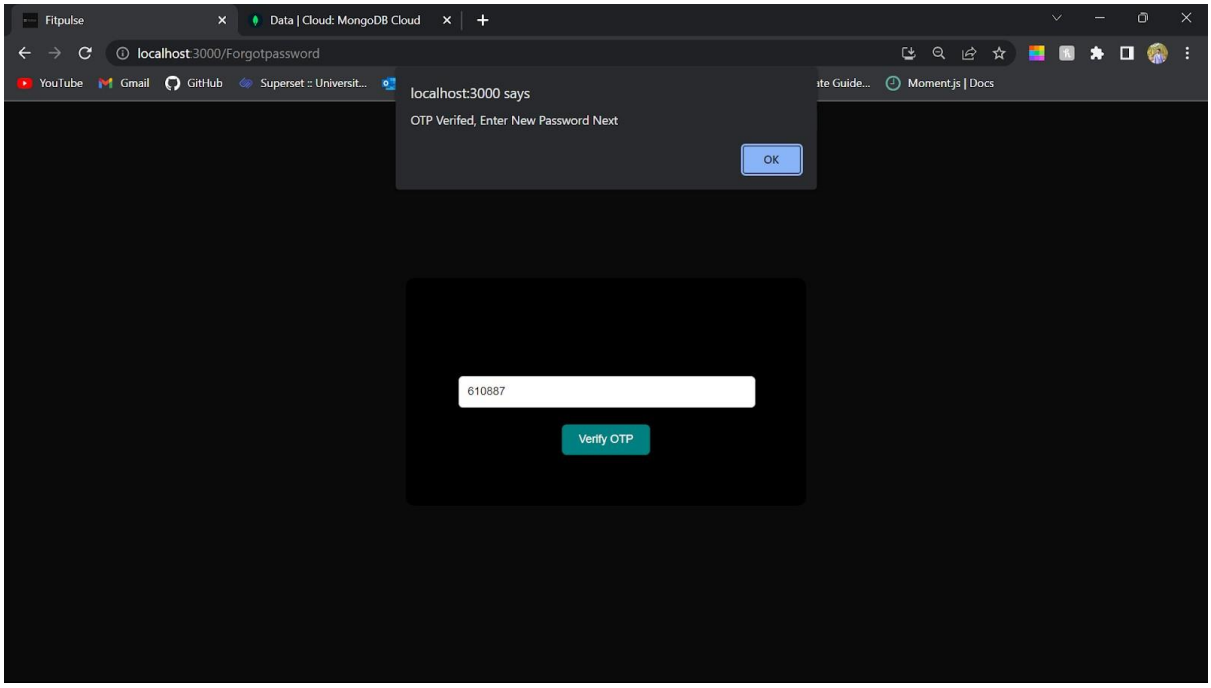

Fig 10.1.21: OTP verified for Resetting Password

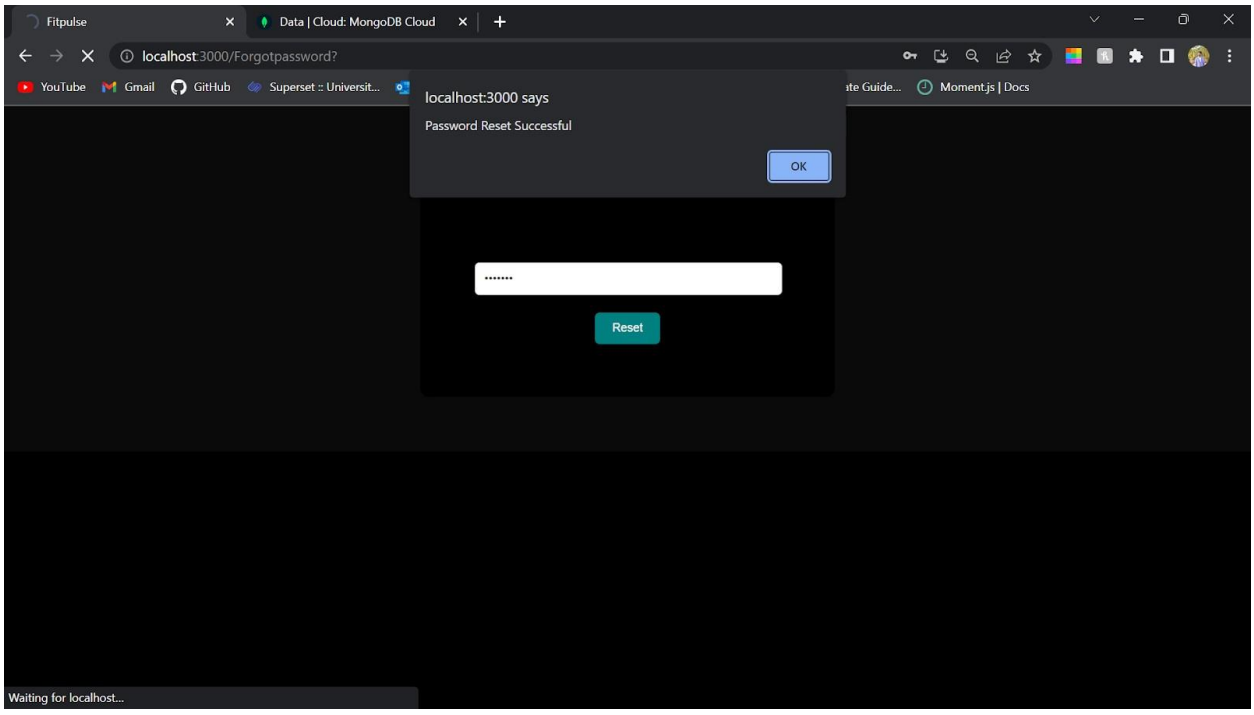

Fig 10.1.22: New password page

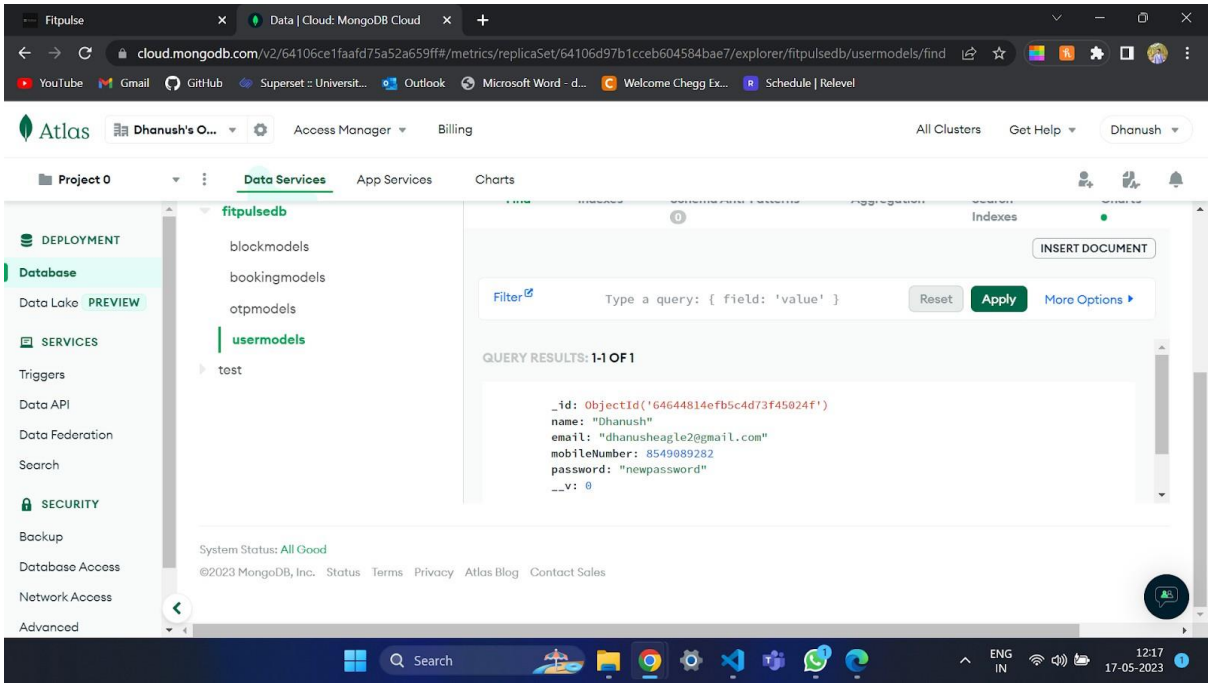

Fig 10.1.23: User Details inside Database after Password Updated

Chapter-11

CONCLUSION

In conclusion, Fitpulse is a comprehensive fitness and gym website that offers a wide range of resources, tools, and services to support individuals in their fitness journey. The website provides users with convenient access to various fitness programs, workouts, and nutrition plans tailored to their specific needs and goals. With its user-friendly interface and intuitive navigation, Fitpulse makes it easy for individuals of all fitness levels to find the information and resources they need. Whether someone is a beginner looking to start a fitness routine or an experienced fitness enthusiast seeking to elevate their training, Fitpulse caters to their requirements. One of the key advantages of Fitpulse is its versatility. Users have the flexibility to choose between home-based workouts or gym-based exercises, allowing them to adapt their fitness routines to their preferences and circumstances. Fitpulse offers guidance and tips for both settings, ensuring that users can achieve their fitness goals regardless of where they choose to work out. Additionally, Fitpulse fosters a sense of community and support through various features. Users can connect with like-minded individuals, share their progress, and seek motivation and inspiration from others. Fitpulse also provides opportunities for users to engage in group challenges, virtual fitness events, and discussion forums, promoting interaction and camaraderie among its users. Moreover, Fitpulse stands out by providing access to expert trainers and coaches who offer personalized guidance, workout plans, and nutritional advice. This professional support enhances the effectiveness and safety of users' fitness journeys, helping them optimize their results and avoid common pitfalls. Overall, Fitpulse is a valuable resource for individuals seeking to improve their fitness and overall well-being. Whether users prefer the convenience of home workouts or the comprehensive amenities of a gym, Fitpulse equips them with the knowledge, tools, and community support they need to succeed. By promoting a balanced approach to fitness, Fitpulse empowers individuals to make positive lifestyle changes and embark on a sustainable path to health and wellness.

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PLAGIARISM REPORT

Fitpulse - A fitness and Gym website using OTP consent widget library

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