



MANIPAL

ACADEMY of HIGHER EDUCATION

(Institution of Eminence Deemed to be University)

MINI-PROJECT REPORT - WEB TECHNOLOGIES LAB

DEPARTMENT OF DATA SCIENCE & COMPUTER APPLICATIONS

WeFit

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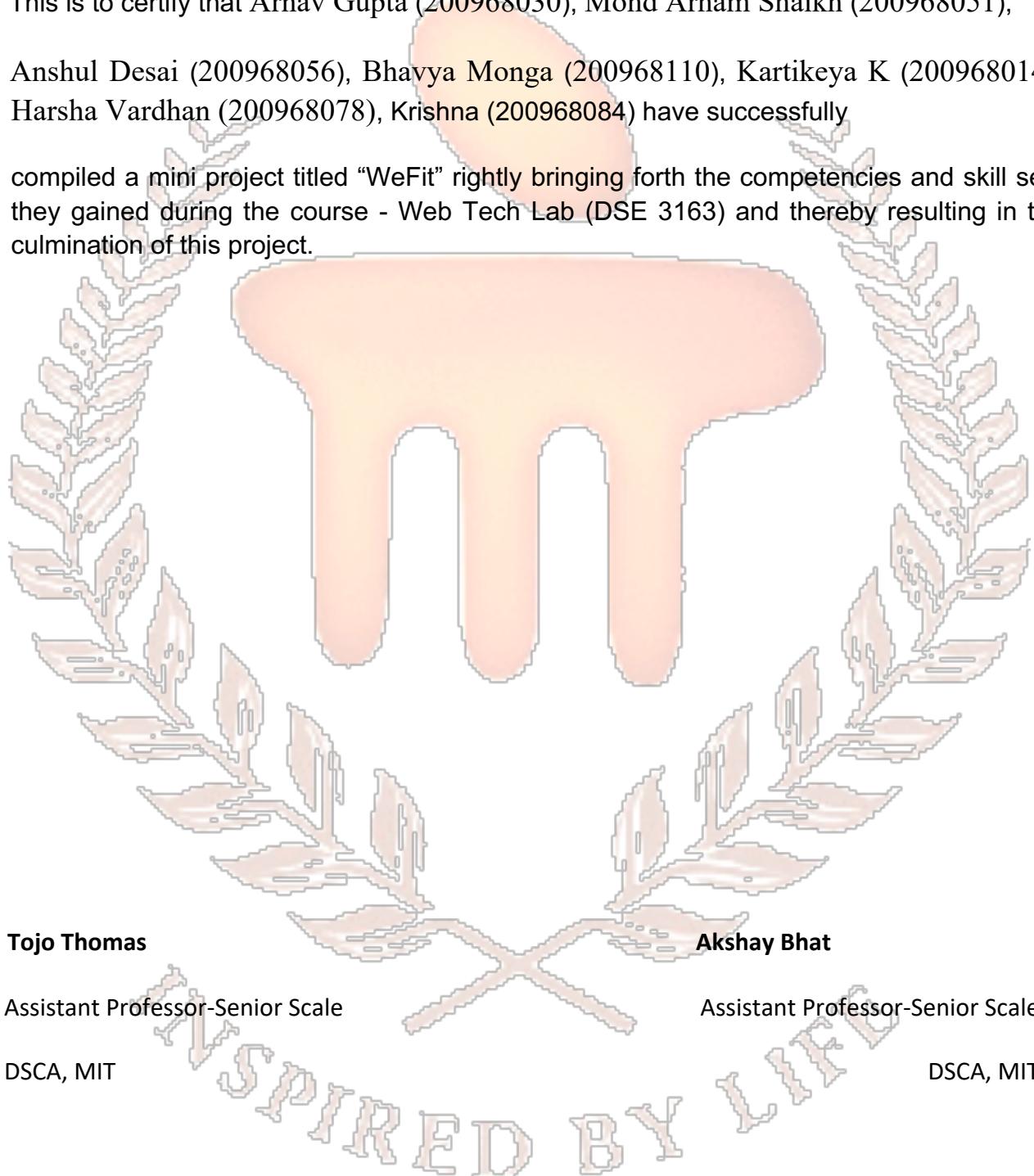
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CERTIFICATE

This is to certify that Arnav Gupta (200968030), Mohd Arham Shaikh (200968051), Anshul Desai (200968056), Bhavya Monga (200968110), Kartikeya K (200968014) , Harsha Vardhan (200968078), Krishna (200968084) have successfully compiled a mini project titled “WeFit” rightly bringing forth the competencies and skill sets they gained during the course - Web Tech Lab (DSE 3163) and thereby resulting in the culmination of this project.



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INTRODUCTION

After the pandemic in 2020, people are becoming more and more health conscious nowadays, a significant increase can be seen among the members at various Fitness & Health Clubs. However, many of them have very minimal knowledge about fitness and diet. But they have the will and motivation to achieve their fitness goals.

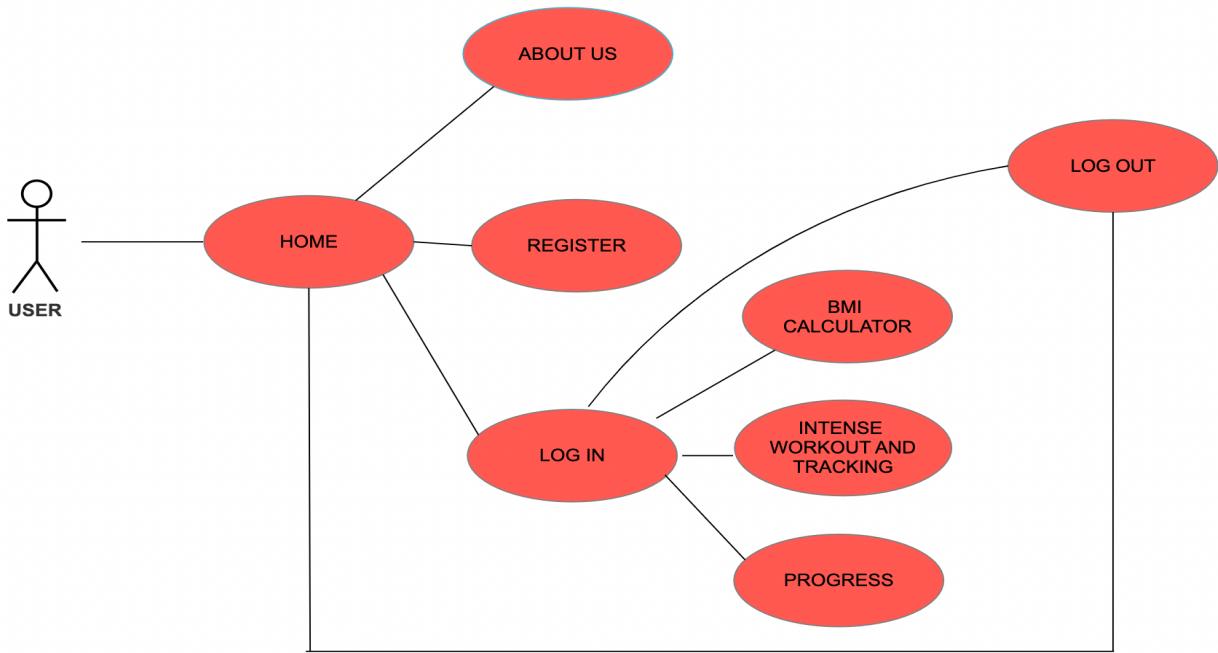
WeFit is a one stop website where any gym enthusiast, be it a beginner or a professional, who wants to bring a change in their overall health and fitness can use the resources on our website to achieve them.

WeFit will have a home page/login or register page. The user will have to either register or login if already registered to use our website's resources.

Once logged in, the user can use the BMI module to provide his details such as height & weight to calculate their Body Mass Index (BMI) , they can also check out various workout videos and check progress.

Based on their BMI, we will suggest different few exercises video links for male and female.

UML USE CASE DIAGRAM



MOTIVATION

Today, in this fast-moving world, everyone is so busy with their day-to-day work that they don't get time to focus on their health and diet. But with the help of our website all these people can make use of our one stop website to find everything they need to start their fitness/healthy journey. And also, for the people who are not comfortable to go to the gym or whatsoever reason can make use of the online tutorials video and start doing home workouts.

After the disastrous phase of Covid-19 and multiple quarantines. People around the globe became lazy and lost the will to work and pay heed to their own health. Some lost weight whereas some gained, whilst both the groups need to maintain wellness, in their own ways; cutting or bulking, we at WeFit give them a platform to motivate and lead them to a healthier lifestyle.

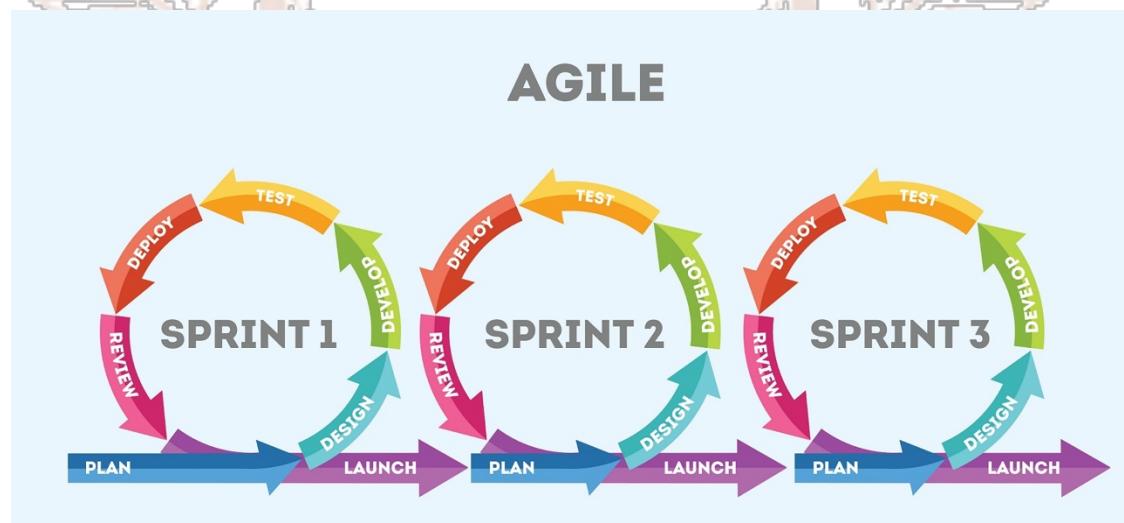
OBJECTIVES

- To make sure the user knows his Body Mass Index (BMI)
- To guide users who don't know the correct form of a particular exercise
- To let users track their progress in their fitness journey

METHODOLOGY

AGILE

Agile is a structured and iterative approach to project management and product development. It is an alternative to waterfall or traditional sequential development. It is a time-focused philosophy that allows creating a project incrementally, dividing it into small pieces. One of the main benefits is the ability to adapt and change at any step of the project. When we use an agile approach, we work on “sprints”. They are a set amount of time within which a task should be completed. After the completion of each sprint, we analyse and assess the changes that are needed and we can introduce new ideas ahead of the next sprint. We can introduce new ideas ahead of the next sprint.



ROLE DESCRIPTION

Names	Roles
Arnav Gupta	Front end , Documentation
Mohd Arham Shaikh	Documentation ,Content management
Anshul Desai	Back end
Bhavya Monga	Research
Kartikeya	Frontend
Krishna	Template designing
Harsha vardhan	Backend debugging

SOFTWARE REQUIREMENTS

> VS Code

VS Code is an open-source, cross-platform source code editor, particularly in the web development community. It is fast, extensible, customizable, and has tons of features. This editor is used to write, run, and debug the HTML, CSS and JavaScript code required for building our project.

> MySQL

MySQL is one of the most recognizable technologies in the modern big data ecosystem. Often called the most popular database and currently enjoying widespread, effective use regardless of industry, it's clear that anyone involved with enterprise data or general IT should at least aim for a basic familiarity of MySQL. It is used for creating the database .

➤ **Bootstrap**

Bootstrap is a free, open-source front-end development framework for the creation of websites and web apps. Designed to enable responsive development of mobile-first websites, Bootstrap provides a collection of syntax for template designs that are customizable and easy to use. [2]

LANGUAGES USED

➤ **Html**

HTML stands for Hyper Text Markup Language. It is the standard markup language for creating Web pages. It describes the structure of a Web page. It consists of a series of elements. Its elements tell the browser how to display the content [5]

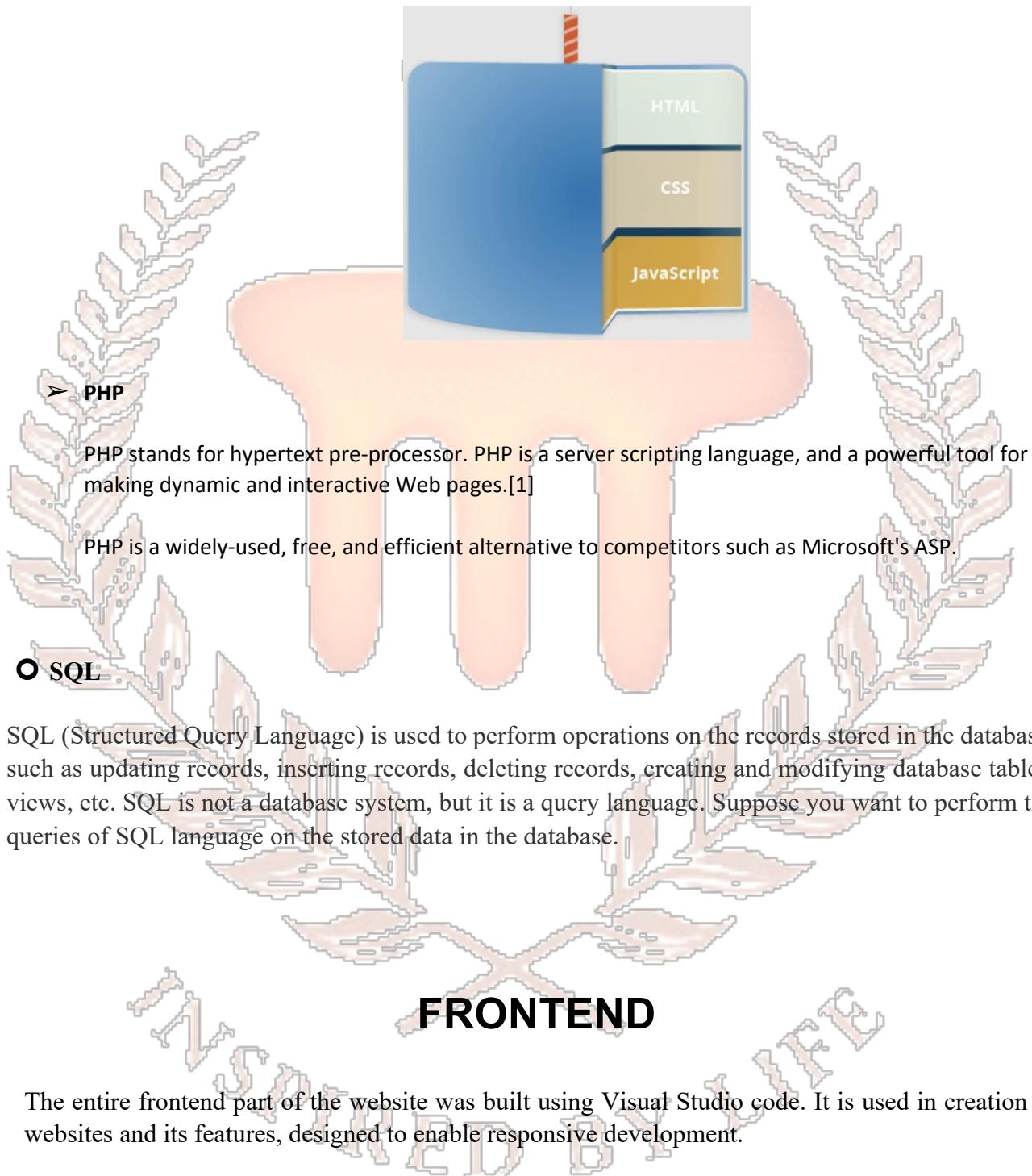
➤ **CSS**

CSS stands for Cascading Style Sheets. It describes how HTML elements are to be displayed on screen, paper, or in other media. It saves a lot of work and can control the layout of multiple web pages all at once. External stylesheets are stored in CSS files. It is used for designing the layout style for the majority part of the web page. [6]

➤ **Java Script**

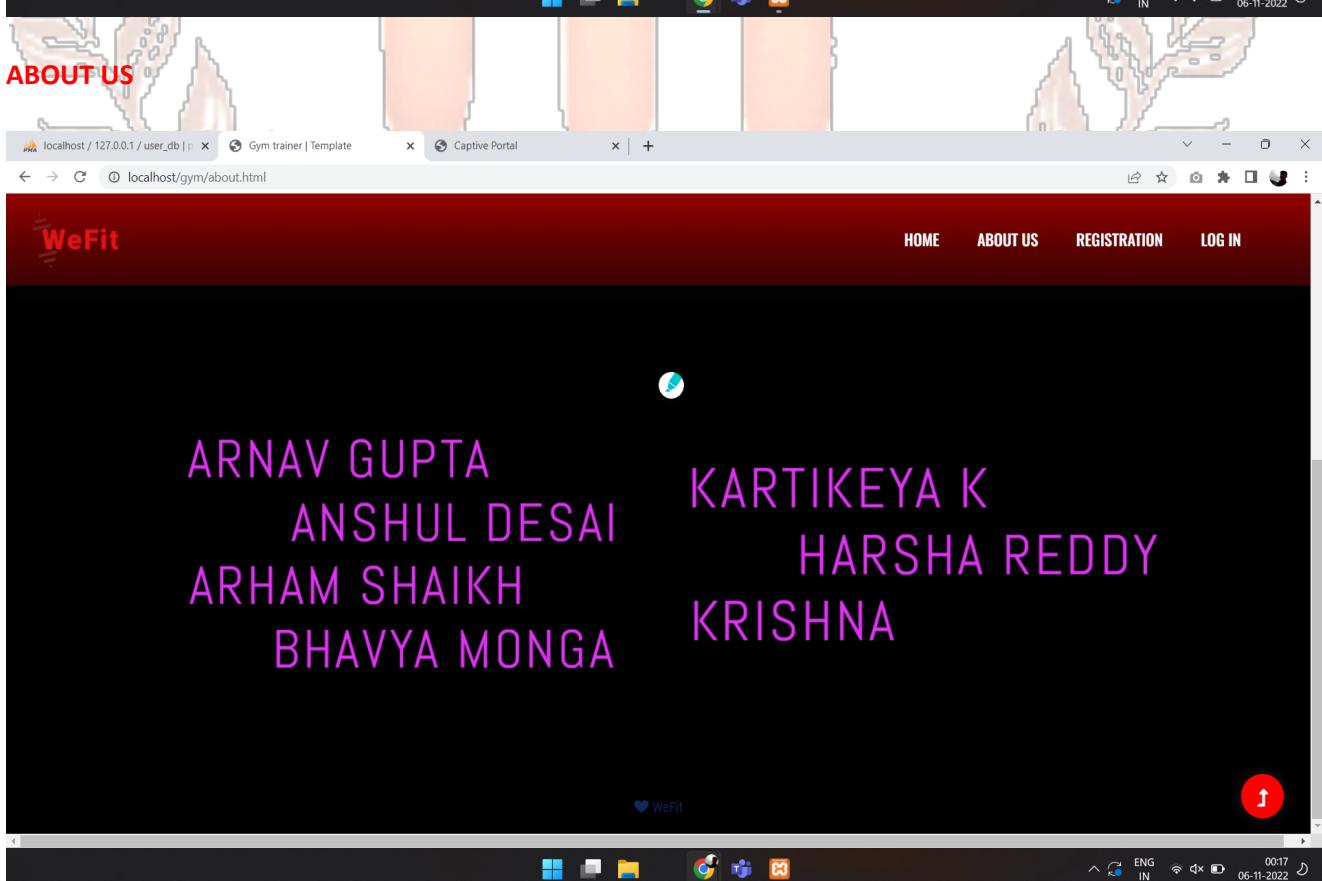
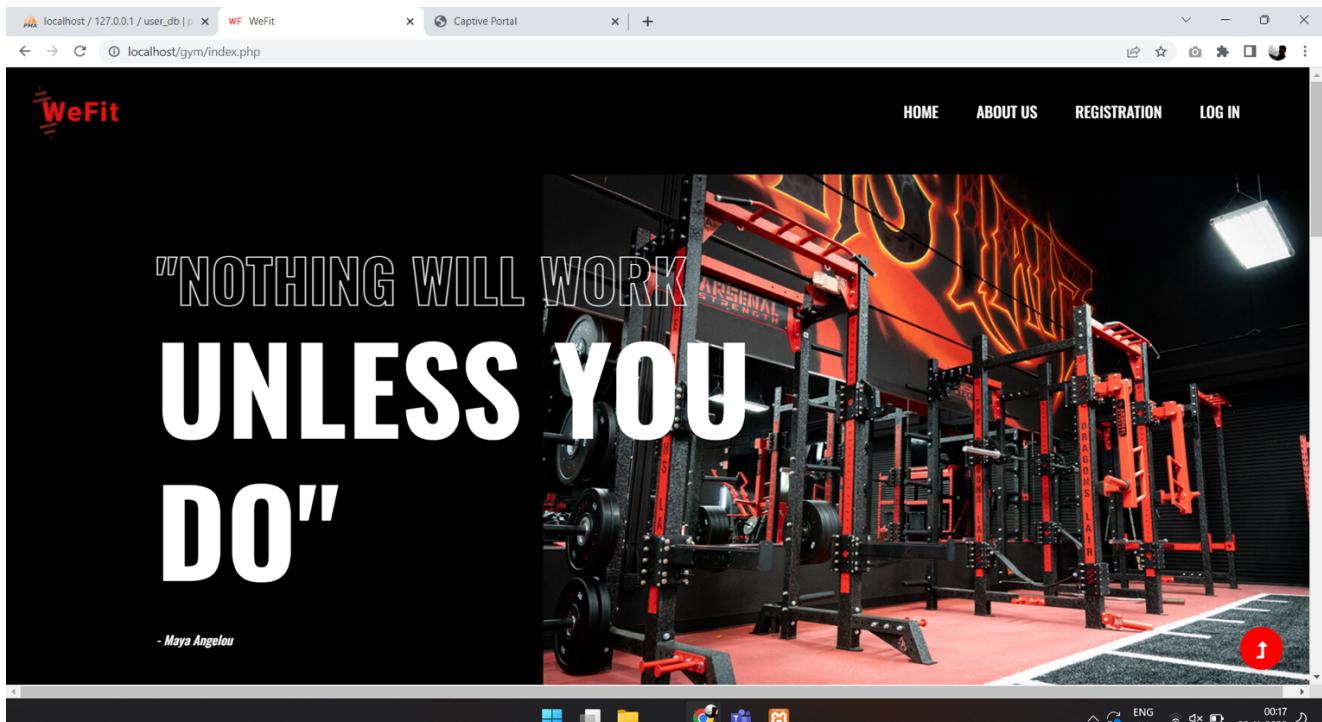
JavaScript[4] is a scripting or programming language that allows you to implement complex features on web pages — every time a web page does more than just sit there and display static information for you to look at — displaying timely content updates, interactive maps, animated

2D/3D graphics, scrolling video jukeboxes, etc. — you can bet that JavaScript is probably involved. It is the third layer of the layer cake of standard web technologies. [7]

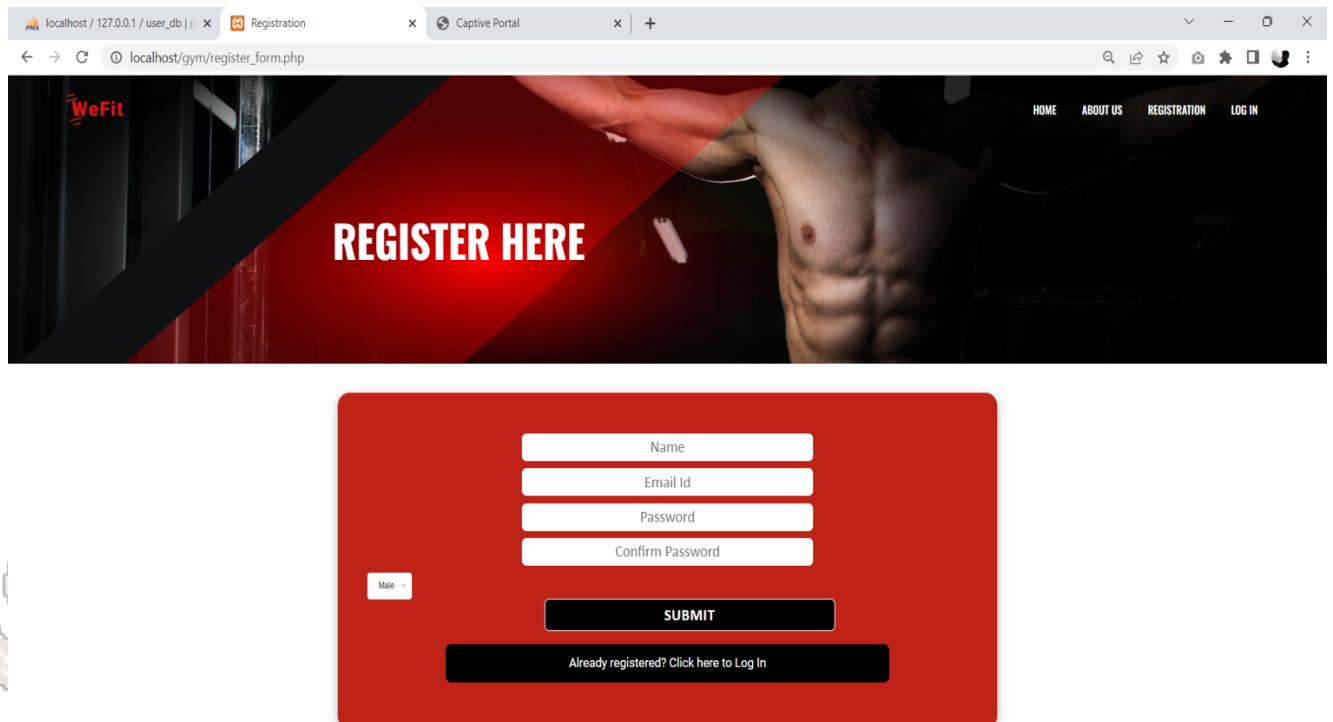


And this code is integrated with the backend by just connecting the html files with the anchor tags in the html code in bootstrap.

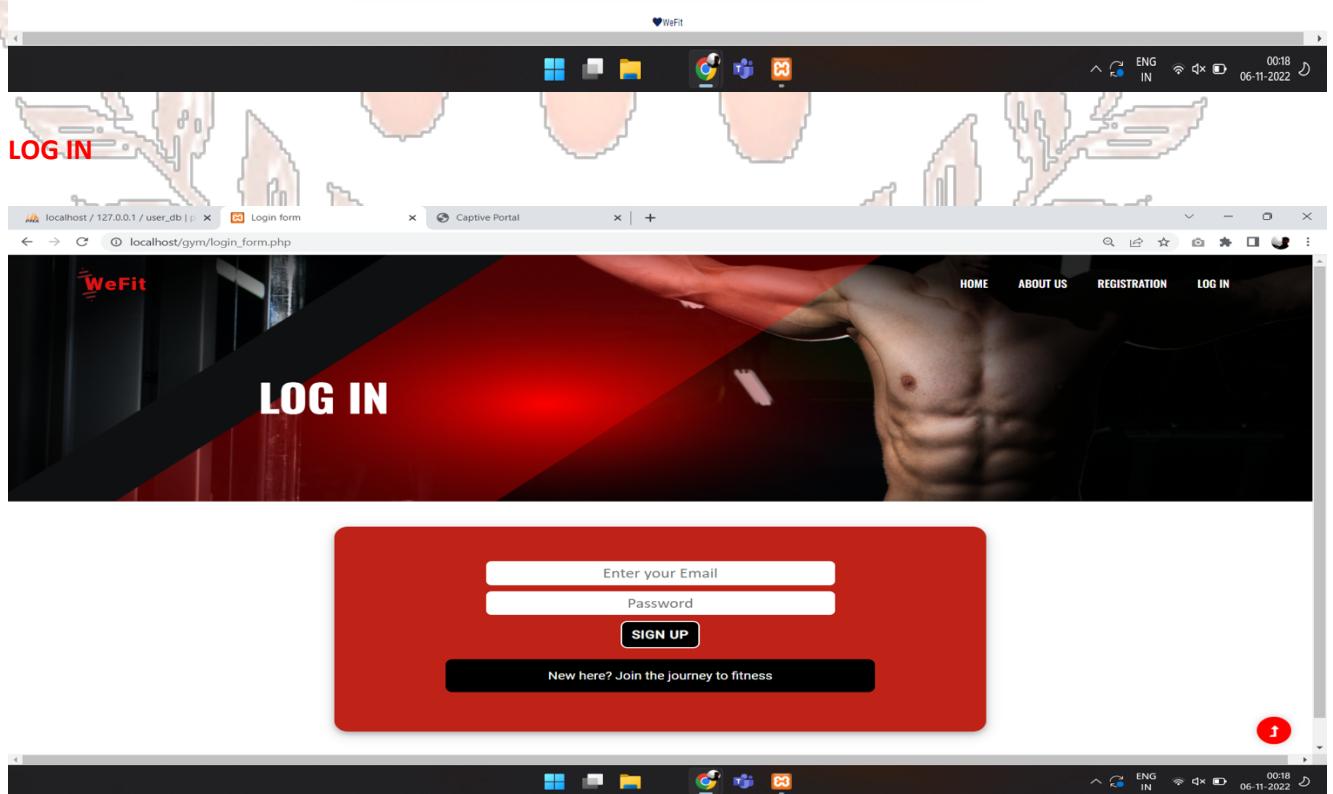
HOME PAGE



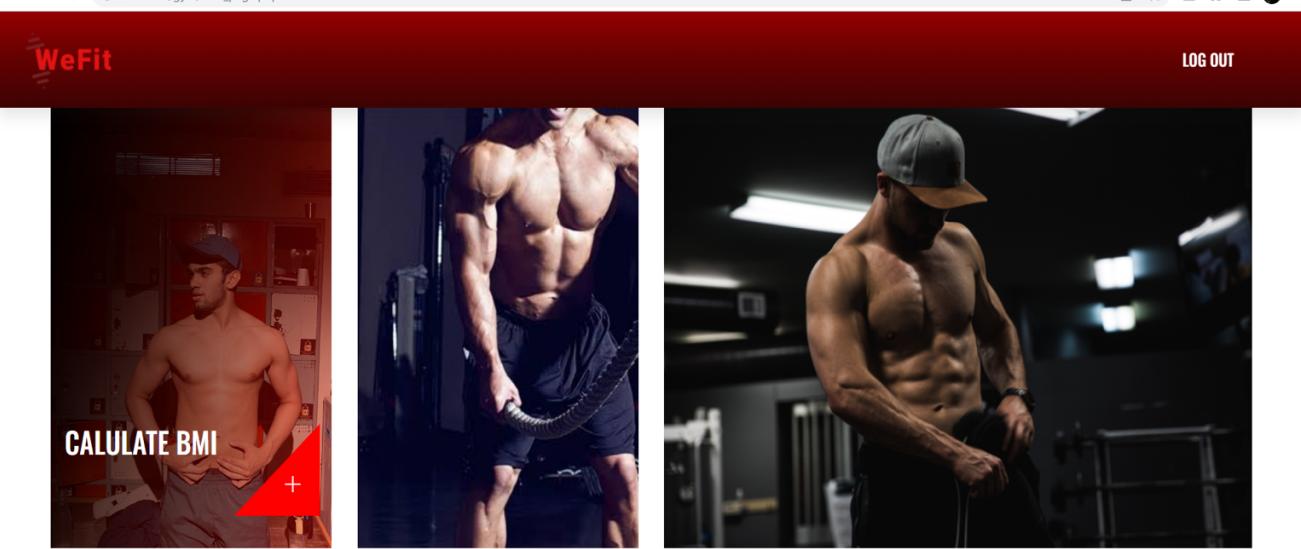
REGISTRATION



A screenshot of a web browser showing the registration form for a fitness website. The page has a red header with the text "REGISTER HERE". Below the header is a large input field for "Name". There are also fields for "Email Id", "Password", and "Confirm Password". A gender selection dropdown shows "Male". A "SUBMIT" button is at the bottom, and a link "Already registered? Click here to Log In" is also present.



A screenshot of a web browser showing the login form for the same fitness website. The page has a red header with the text "LOG IN". Below the header is a large input field for "Enter your Email". There is also a "Password" field and a "SIGN UP" button. A link "New here? Join the journey to fitness" is at the bottom. The browser taskbar shows the URL "localhost/gym/login_form.php".



WeFit

LOG OUT

CALCULATE BMI



localhost/gym/bmi.html

heart WeFit



WeFit

LOG OUT

BODY MASS INDEX



localhost / 127.0.0.1 / user... x Logged In x youtube - Google Search x | workout tracking - YouTube x | W3Schools Tryit Editor x | How To Create a Scroll Back x +

172

110

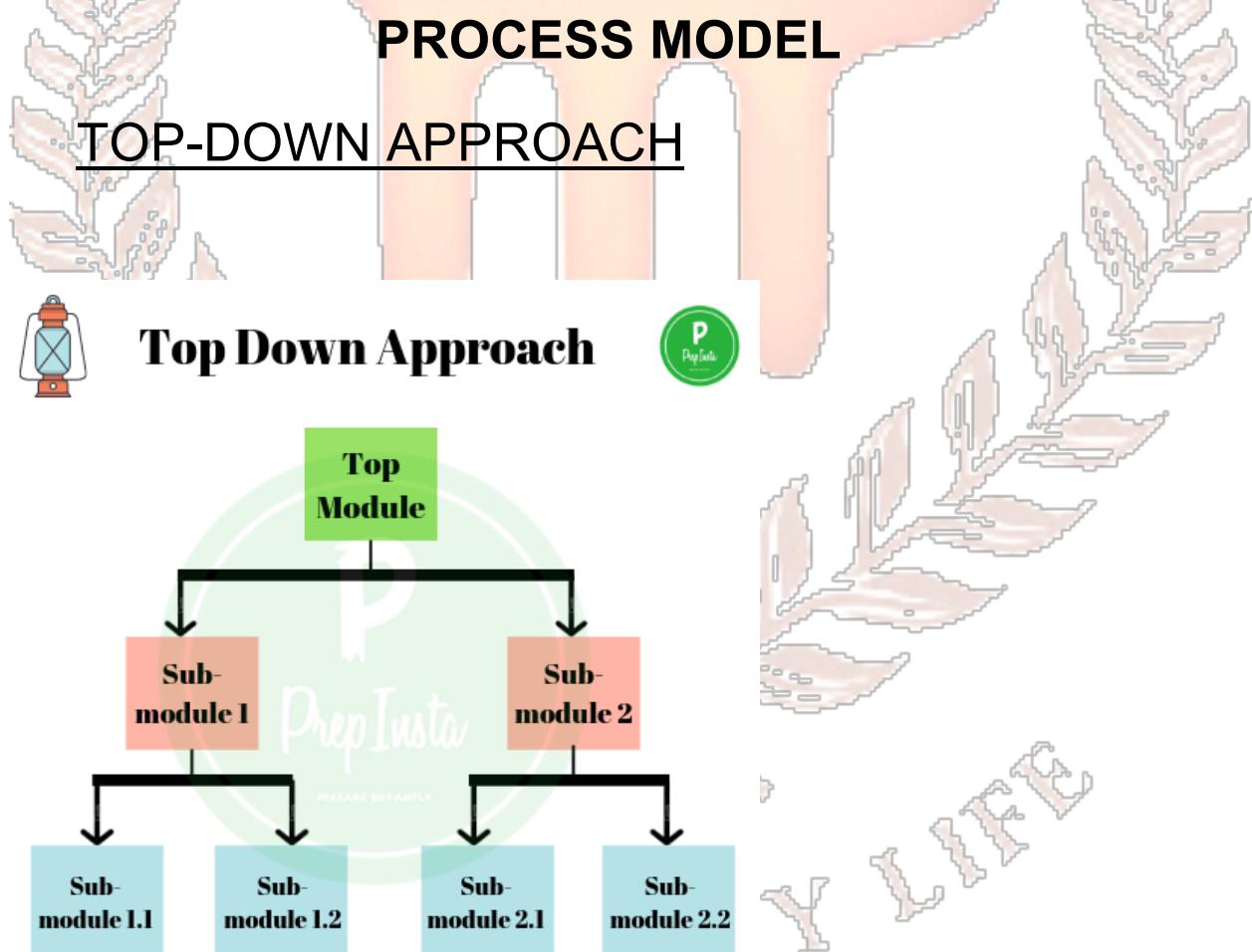
37.2 (Obese)

Recommended exercise : Intense workout

CALCULATE

BACKEND

MySQL and XAMPP are the frameworks used in the backend for most of the part, for creating the database and integrating other with other frameworks and tools wherever required. For the registration page, we created a database using XAMPP and stored the users data there. We fetched the data from online websites and displayed them in our website by applying styling using CSS. For the remaining part of the website, we used PHP to integrate MySQL into our website for storing the data and make connections. And we used another middleware, for the user validation and authentication.



Top-down planning traditionally involves the definition of corporate goals and their subdivision into specific goals, which are then dealt with in phases. Top-down planning or retrograde planning is an approach that aims to gradually move from the top to the bottom level of a particular hierarchy.

The top module in our website is the Home page. On the home page we have a navbar which leads the user to 3 other sub modules namely Login page, Register page, and About Us page.

After registering and logging in with the credentials the user will be directed to another sub-sub module where the user can see various forms of exercises , calculate their BMI and check their progress.

DATABASE

The database used in this project is MySQL. It is a document database used to build highly available and scalable internet applications and store unstructured data in JSON-like format. We've used XAMPP[3] and PHP to connect our database to the website. There are 3 entity sets in our database namely , login page , register page and

BMI calculator. The email id of the register page database is a foreign key in login page which will help to store the BMI details of the particular users email id.

MODULES

- † **Home** - this is the main section which consists of navbar link to other sections.
- † **About Us** - here the user can see about
- † **Registration** - a new user will have to give their details to make an account
- † **Log In** - already registered user can use their login credentials here . After registering and logging in with the credentials the user will be directed to another sub-sub module where the user can see various forms of exercises , calculate their BMI and check their progress.

SCHEMA DIAGRAM

REGISTER PAGE

NAME	Char(50)
EMAIL ID	Varchar2(20)
PASSWORD	Char(5)

BMI CALCULATOR

HEIGHT	Int(3)
WEIGHT	Int(3)

CONCLUSION

The platform serves as a one-stop destination for the users to start their fitness journey by knowing their BMI and learning how to correctly perform the various exercises suggested based on their BMI and give a head start to themselves.

The final outcomes are :

- Successfully established a connection with the MySQL database
- Created a BMI module
- Created a Progress page where users can track their goals
- Created hyperlinks which is directed to video tutorials of forms of various exercises
- Came across many new tools and technologies as part of this project and learnt to work collaboratively as a team by splitting total work among ourselves and communicate with each other trying to achieve the same final output

FUTURE SCOPE

- Can try to improve the user experience by providing them a diet plan based on their goals
- Can add a module which can calculate body fat percentage
- Recommend various gyms and fitness clubs in their locality
- Try to implement the authentication using other options like using Google, Twitter, Facebook etc.
- Deploy the website on a cloud platform
- Connect users having similar end goals and experiences to share and learn from each other's journey

LEARNING CURVE

- Implementing frontend and backend together
- Deep-diving into HTML/CSS properties and different ways to apply it
- Basic utilization of JavaScript
- Basic utilization of PHP
- Team building and time management

REFERENCES

- [1] <https://www.javatpoint.com/php-form>
- [2] https://www.youtube.com/watch?v=qfEOE4vtxE&ab_channel=freeCodeCamp.org
- [3] <https://www.geeksforgeeks.org/how-to-install-xampp-on-windows/>
- [4] https://www.w3schools.com/jquery/jquery_syntax.asp
- [5] https://www.w3schools.com/cssrefsel_hover.php
- [6] https://www.w3schools.com/css/css_website_layout.asp
- [7] <https://www.javatpoint.com-wow-is>