GYM MANAGEMENT SYSTEM

A PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF REQUIREMENT
FOR THE AWARD OF THE DEGREE

MASTER OF COMPUTER APPLICATIONS (MCA)

OF

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

BY

SILJI K SAJI
Reg No: 22PMC155

MARIAN COLLEGE
KUTTIKKANAM
(AUTONOMOUS)

MAKING COMPLETE

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Peermade, Kerala – 685 531

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Under the guidance of
Sr. Italia Joseph Maria
Assistant Professor
PG Department of Computer Applications
Marian College Kuttikkanam (Autonomous)

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PG DEPARTMENT OF COMPUTER APPLICATIONS

Marian College Kuttikanam (Autonomous)

[MAHATMA GANDHI UNIVERSITY, KOTTAYAM]

KUTTIKKANAM – 685 531, KERALA.

CERTIFICATE

This is to certify that the project work entitled

"GYM MANAGEMENT SYSTEM"

is a bonafide record of work done by

SILJI K SAJI

Reg. No: -22PMC155

In partial fulfillment of the requirements for the award of Degree of

MASTER OF COMPUTER APPLICATIONS [MCA]

During the academic year 2022 - 2023.

Sr. Italia Joseph Maria

Assistant Professor

PG Department of Computer Applications
Marian College Kuttikkanam (Autonomous)

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External Examiner

External Examiner

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SILJI K SAJI

ABSTRACT

The system enables online users to access premium workout videos after making payments, purchase gym supplements through the website, while offline users can mark their attendance and choose their preferred trainers. The system also provides an administrative interface allowing the admin to add trainer details, supplement information, and share relevant links.

The online user module facilitates seamless access to a wide range of workout videos that are available after successful payment. Users can browse through various fitness categories, select their desired videos, and enjoy the workouts at their convenience. The system incorporates secure payment gateways to ensure smooth transactions. The e-commerce module allows users to browse and purchase gym accessories.

The offline user module focuses on providing convenience and personalization for users visiting the gym. Users can mark their attendance electronically, replacing traditional manual methods. Additionally, users have the flexibility to select their preferred trainers from a list populated by the admin. This feature ensures a customized workout experience based on individual preferences.

In conclusion, the Gym Management System described in this abstract combines the convenience of online access, e-commerce functionality, and personalization for offline users. By integrating features such as video access, e-commerce, attendance tracking, and trainer selection, the system aims to streamline gym operations, enhance user satisfaction, and simplify administrative tasks.

OBJECTIVE AND SCOPE

OBJECTIVE

The objective of the Gym Management System is to provide a comprehensive platform that facilitates various functionalities for both online and offline users. The primary objectives of the system include:

- Online Video Access: Allow online users to access workout videos after payment.
- E-commerce Integration: Enable users to purchase gym supplements from the website.
- Attendance Tracking: Provide a system for offline users to mark their attendance.
- Trainer Selection: Allow users to select their preferred trainers.
- Admin Management: Provide administrative tools to manage trainers, supplements, and associated details.

SCOPE

The scope of the Gym Management System includes the following functionalities:

- User Registration and Authentication: Users can register and log in securely.
- Video Access and Payment: Online users can access workout videos after making payments.
- E-commerce Functionality: Users can purchase gym accessories from the website.
- Attendance Tracking: Offline users can mark their attendance through the system.
- Trainer Management: Admin can add, edit, and manage trainer details.
- Supplement Management: Admin can add, edit, and manage supplement details.
- Link Provision: Admin can provide relevant links for trainers and supplements.

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1. INTRODUCTION

1.1 PROBLEM STATEMENTS

Lack of a centralized platform for online users to access workout videos after making payments. Inconvenient process for online users to purchase gym supplements without an integrated e-commerce system. Manual attendance tracking methods for offline users, leading to errors and inefficiencies. Absence of a user-friendly system for offline users to select their preferred trainers. Tedious and time-consuming process for the admin to add and manage trainer details, supplement information, and relevant links.

1.2 PROPOSED SYSTEM

The proposed Gym Management System aims to provide an integrated platform where online users can access videos after payment, purchase gym supplements, and allow offline users to mark attendance and select preferred trainers. The admin will have the authority to add trainer details, manage supplements, and provide relevant links for seamless management and user experience.

1.3 FEATURES OF THE PROPOSED SYSTEM

- Online Video Access: Online users can securely access a wide range of workout videos after completing the payment process.
- E-commerce Integration: Users can conveniently browse and purchase gym accessories directly from the website.
- Attendance Tracking: Offline users can mark their attendance electronically, eliminating the need for manual methods.
- Trainer Selection: Users have the flexibility to select their preferred trainers from a list provided by the admin.
- Admin Management: The admin can easily add and manage trainer details, supplement information, and relevant links.

- User Authentication: Secure registration and login functionality for users to access the system.
- Seamless Payment Processing: Integration of secure payment gateways for smooth transaction processing.
- User-Friendly Interface: An intuitive interface that ensures easy navigation and enhances user experience.

2. FUNCTIONAL REQUIREMENTS

FUNCTIONAL REQUIREMENTS

- User Registration: Users should be able to register their accounts with required details.
- User Authentication: Users should be able to securely log in to their accounts.
- Video Access: Online users should be able to browse and view workout videos after completing the payment process.
- E-commerce Functionality: Users should be able to browse and purchase gym supplements through the website.
- Payment Processing: The system should securely process payments for video access.
- Attendance Marking: Offline users should have a feature to mark their attendance electronically.
- Trainer Selection: Offline users should be able to select their preferred trainers from a provided list.
- Admin Dashboard: The admin should have a dashboard to manage trainer details, supplement information, and links.
- Trainer Management: The admin should be able to add, edit, and remove trainer details.
- Supplement Management: The admin should have the ability to add, edit, and remove supplement details.

3. NON-FUNCTIONAL REQUIREMENTS

NON-FUNCTIONAL REQUIREMENTS

The non-functional requirements for this website are:

- ***Usability***: The proposed website is simple, provides enough insight about features and packages, interactive, lets user select packages and schedule pick-ups and all this data is stored in the database.
- ***Reliability***: The system must perform without failure in 95 percent of use cases during a month.
- ***Maintainability***: The mean time to restore the system (MTTRS) following a system failure must not be greater than 10 minutes. MTTRS includes all corrective maintenance timeand delay time.
- ***Availability***: Describes how likely the system is accessible to a user at a given point in time. A user-friendly system with global accessibility should be available around-the clock. In the event that the database is corrupted or the hardware fails, a replacement page will appear. Additionally, a database backup should be kept in case of hardware failure or database corruption.
- ***Security***: Database should be backed up every hour. Under failure, system should be able to come back at normal operation under an hour. All data must be stored, protected, or protectively marked.

4.FEATURES AND HIGHLIGHTS

FEATURES AND HIGHLIGHTS

- ***Online Access to Premium Workout Videos:*** Users can conveniently access a diverse selection of premium workout videos after payment.
- ***E-commerce Functionality:*** The system includes an e-commerce module, enabling users to conveniently shop for gym accessories directly from the website
- ***Attendance Tracking for Offline Users:*** Offline users can electronically mark their attendance, eliminating manual tracking and improving efficiency
- ***Customized Trainer Selection:*** Offline users can customize their workout experience by choosing their preferred trainers from a list provided by the admin.
- ***Streamlined Gym Operations:*** The Gym Management System combines online and offline functionalities to streamline gym operations, including video access, e-commerce, attendance tracking, and trainer selection, for improved efficiency.
- ***Enhanced User Satisfaction:*** The gym management system aims to enhance user satisfaction by providing online video access, convenient e-commerce options, and personalized trainer selection
- ***Simplified Administrative Tasks:*** The system streamlines administrative tasks by offering an intuitive interface for managing trainers, supplements, and related information.
- ***Admin Control and Management:*** The administrative interface enables seamless system management for the admin. They have the authority to effortlessly add and update trainer details, including qualifications, experience, and availability.

4. THIRD PARTY LIBRARIES

THIRD-PARTY LIBRARIES

Third-party applications and libraries in Django are pre-built components or packages developed by the community or other companies that you can use to extend the functionality of your Django projects. These libraries provide pre-built solutions for common tasks, saving developers time and effort in implementing certain features from scratch. They are designed to seamlessly integrate with Django and follow its best practices.

Third-party libraries can be installed using package managers like pip, and they usually come with their own documentation and examples to guide developers in their usage. These libraries can cover a wide range of functionalities.

The third-party libraries used in this project are:

1.Stripe API: The Stripe API provides a wide range of functionalities, making it easy to handle various payment-related tasks programmatically. It is a popular payment gateway that allows businesses to accept online payments securely and efficiently.
2.**Django Jazzmin :** a drop in app to jazz up your Django admin site, with plenty of things you can easily customize, including a built-in UI customizer.
3. Pillow: It refers to a popular Python imaging library that provides support for image processing tasks within Django web applications.
4.Bootstrap: Bootstrap is the most popular CSS Framework for developing responsive and mobile-first websites.

5. DATABASE DESIGN

DATABASE DESIGN

The general theme behind a database is to handle information as an integrated whole. It is a collection of interrelated data stored with minimum redundancy to serve many users quicklyand efficiently. The general objective is to make information access easy, quick, inexpensiveand flexible for the user. It is the most widely used relational database. It offers various features and provides users with many niceties. Computer databases can store data in differentforms from simple lines of text to complex data structure that includes pictures, sounds or video images. Data management involves creating, modifying, deleting and adding data in files and using this data to generate reports. The software that allows performing this functionis known as a database management system.

CONTACT TABLE

```
class Contact(models.Model):
   name=models.CharField(max_length=25)
   email=models.EmailField()
   phonenumber=models.CharField(max_length=12)
   description=models.TextField()
```

USER_DETAILS TABLE

```
class user_details(models.Model):
    FullName=models.CharField(max_length=25)
     Email=models.EmailField()
     Gender=models.CharField(max_length=25)
     PhoneNumber=models.CharField(max_length=12)
      DOB=models.CharField(max_length=50)
       Address=models.TextField()
      timeStamp=models.DateTimeField(auto_now_add=True,blank=True,)
```

TRAINER TABLE

```
class Trainer(models.Model):
    name=models.CharField(max_length=55)
    gender=models.CharField(max_length=25)
    phone=models.CharField(max_length=25)
    salary=models.IntegerField()
    trainer_img = models.ImageField(upload_to='gallery',null=True)
    timeStamp=models.DateTimeField(auto_now_add=True,blank=True)
```

ATTENDANCE TABLE

```
class Attendance(models.Model):
    Selectdate=models.DateTimeField(auto_now_add=True)
    phonenumber=models.CharField(max_length=15)
    SelectWorkout=models.CharField(max_length=200)
    TrainedBy=models.CharField(max_length=200)
```

SUPPLIMENTS TABLE

```
class Suppliments(models.Model):
    item=models.CharField(max_length=200)
    image=models.FileField()
    price=models.IntegerField()
    details=models.CharField(max_length=200, null=True)
```

VIDEO_CATEGORY TABLE

```
class video_category(models.Model):
    category = models.CharField(max_length=100)
```

PAYMENT_USER TABLE

```
class Payment_user(models.Model):
    card_no=models.CharField(max_length=20)
    card_date=models.CharField(max_length=20)
    card_cvv=models.CharField(max_length=20)
    card_name=models.CharField(max_length=30)
    status=models.BooleanField()
    card_mobile=models.CharField(max_length=30)
```

VIDEOS TABLE

```
class videos(models.Model):


    video_title=models.CharField(max_length=100)
    category=models.ForeignKey(video_category,on_delete=models.CASCADE,null=True)
    video=models.FileField(upload_to='videos/')
    payment = models.IntegerField()
```

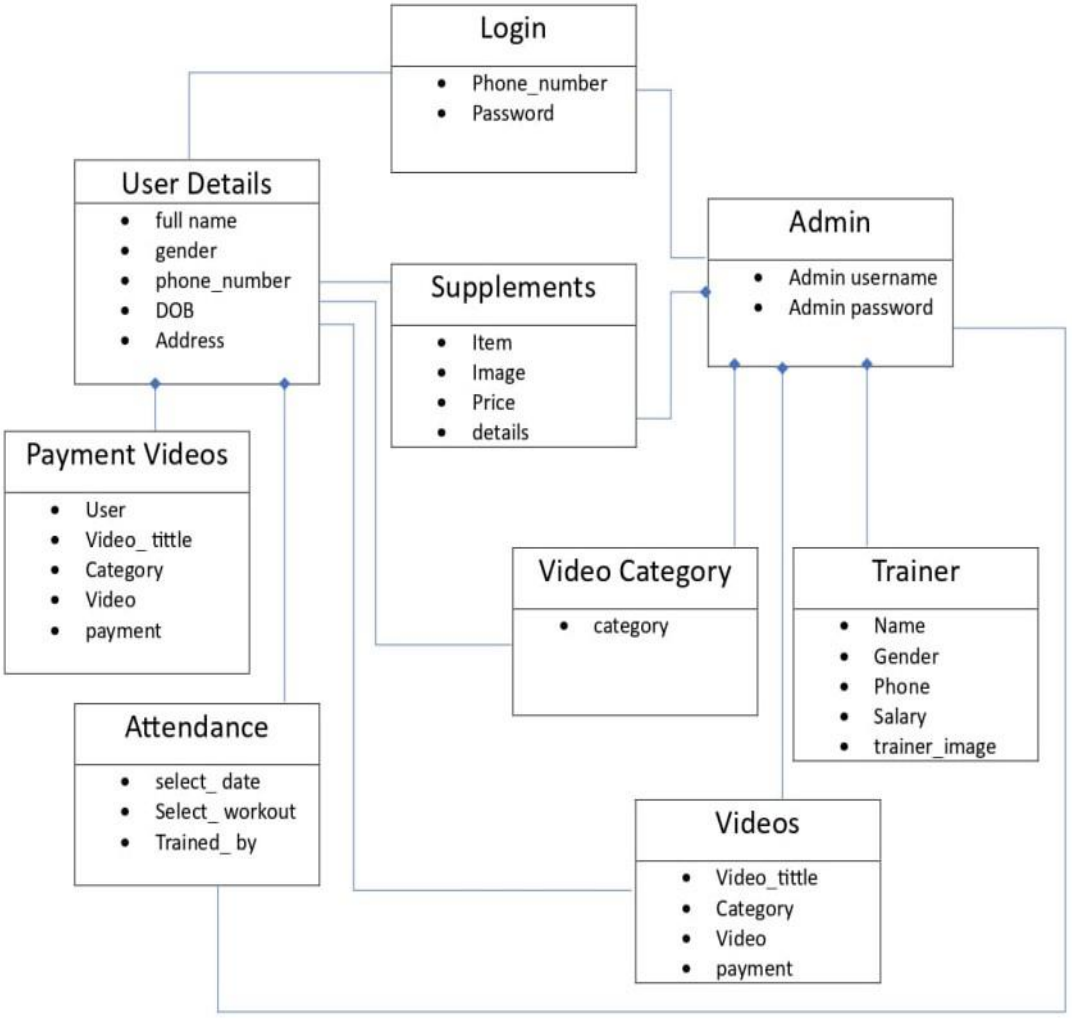
PAYMENT_VIDEOS TABLE

```
class payment_videos(models.Model):
    user=models.CharField(max_length=100)
    video_title=models.CharField(max_length=100)
    category=models.CharField(max_length=100)
    video=models.FileField(upload_to='videos/')
    payment = models.IntegerField()
```

VIEW_VIDEO TABLE

```
class view_video(models.Model):
    user=models.CharField(max_length=100)
    video_title=models.CharField(max_length=100)
    category=models.CharField(max_length=100)
    video=models.FileField(upload_to='videos/')
```

6.1.CLASS DIAGRAM



7. CHALLENGES

CHALLENGES FACED

The challenges faced during the project:

- Handling checkout and secure payment.
- Creating a user-friendly interface that is intuitive and easy to navigate.
- I had faced difficulties in using and learning about the third-party libraries. Had to refer to different documentations to get a good understanding about these libraries.

8.FUTURE ENHANCEMENTS

FUTURE ENHANCEMENTS

1.*product purchase:* The users will be able to purchase supplements from the site itself. The products will be added by admin.

2.*OTP Verification :* After the successful registration process , It generate a unique verification code to the user's provided email address or phone number.

3.*Mobile Application :* Enhancing user-friendliness can be achieved by introducing a mobile application as part of the gym management system.

9.CONCLUSION

CONCLUSION

Gym management system offers a robust platform for enhancing the gym experience. Overcoming the traditional method of marking attendance, the offline users can do that in the website while online users can view videos after paying for it. The gym supplements can be purchased using the site . Admin adds the trainers and users can select the preferred trainers. Online users can manage their profile by modifying it whenever needed. These features collectively enhance convenience, efficiency, and personalization, elevating the overall gym experience for both online and offline users.

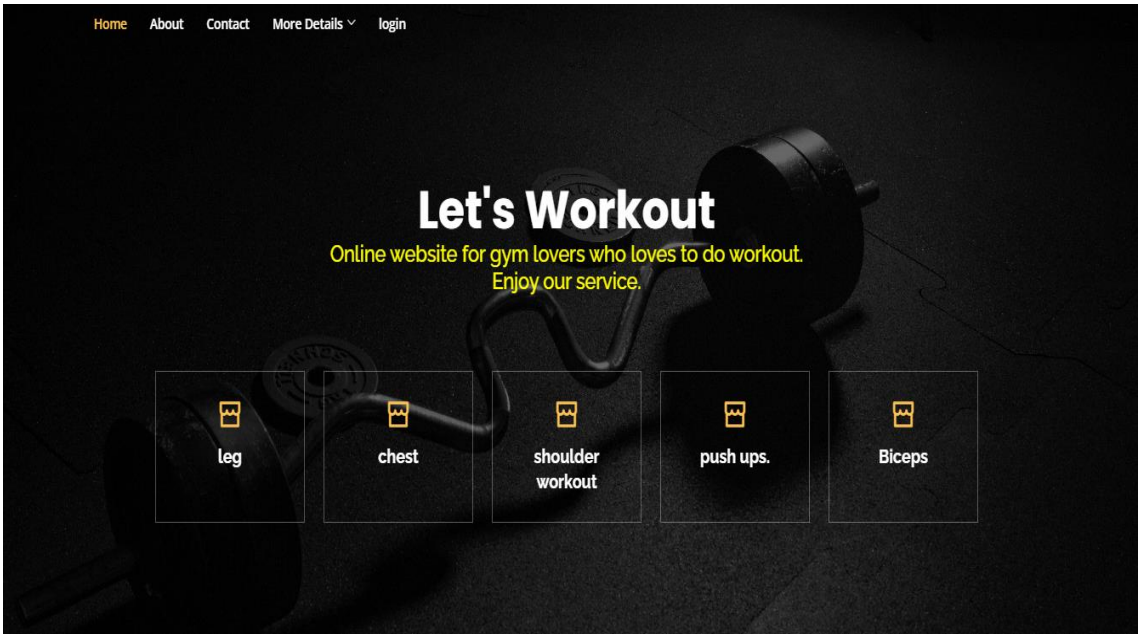
10.REFERENCES

REFERENCES

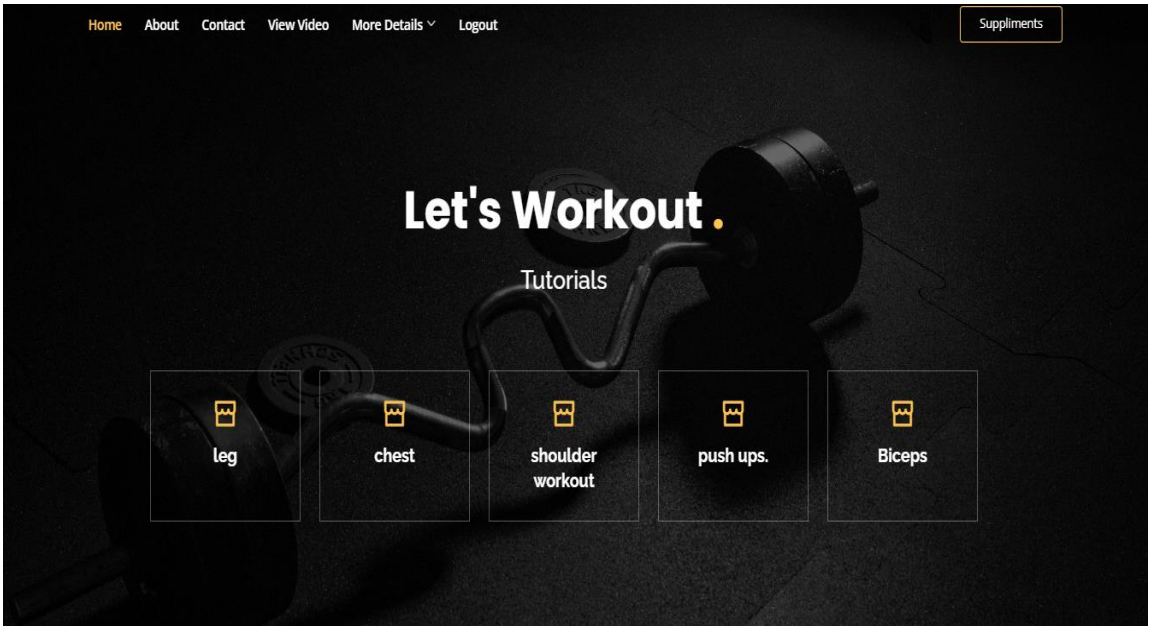
- **https://www.gymmaster.com/**
- **https://gymdesk.com/**
- **https://www.exercise.com/**

11.ANNEXURE

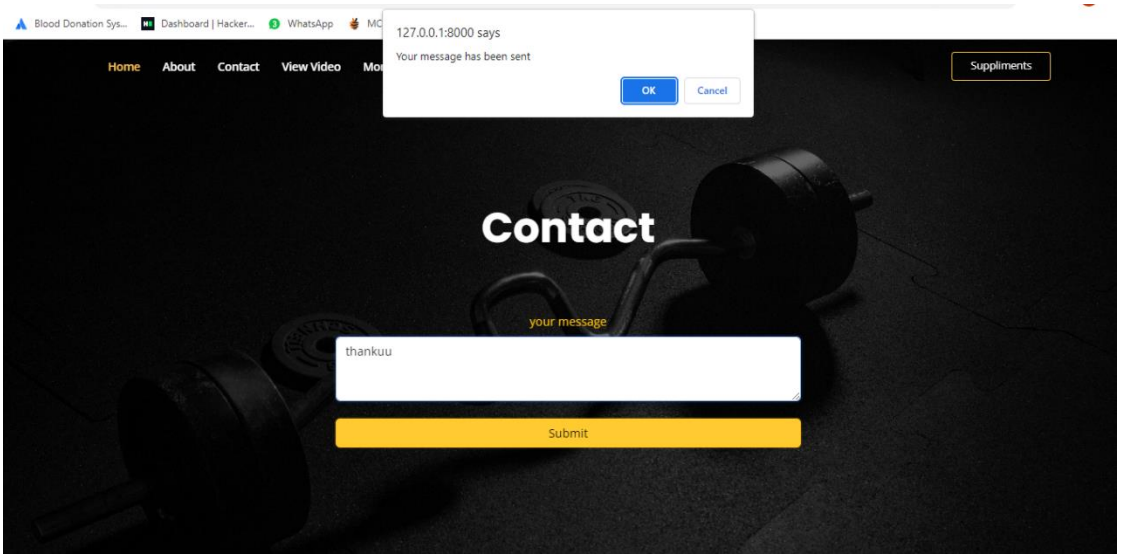
1.GUEST USER HOME



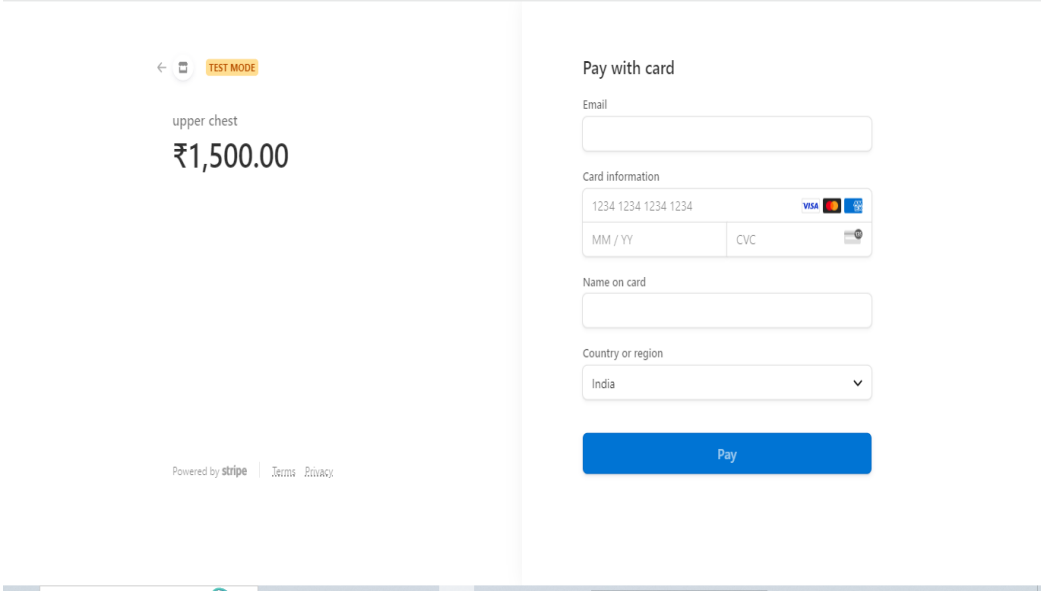
2.USER HOME



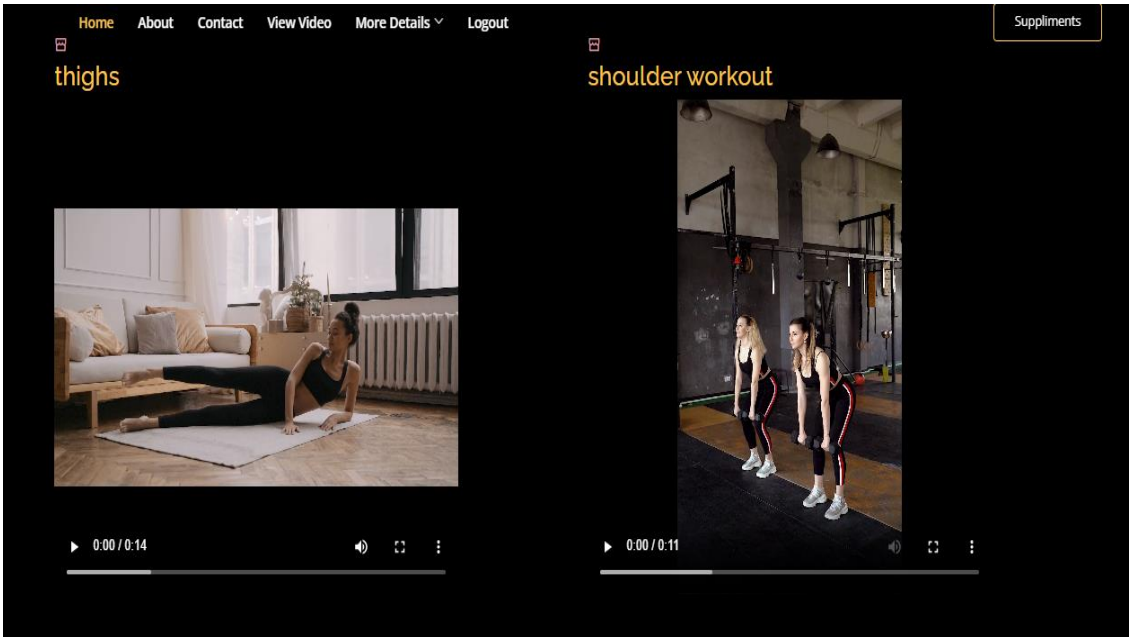
3.CONTACT



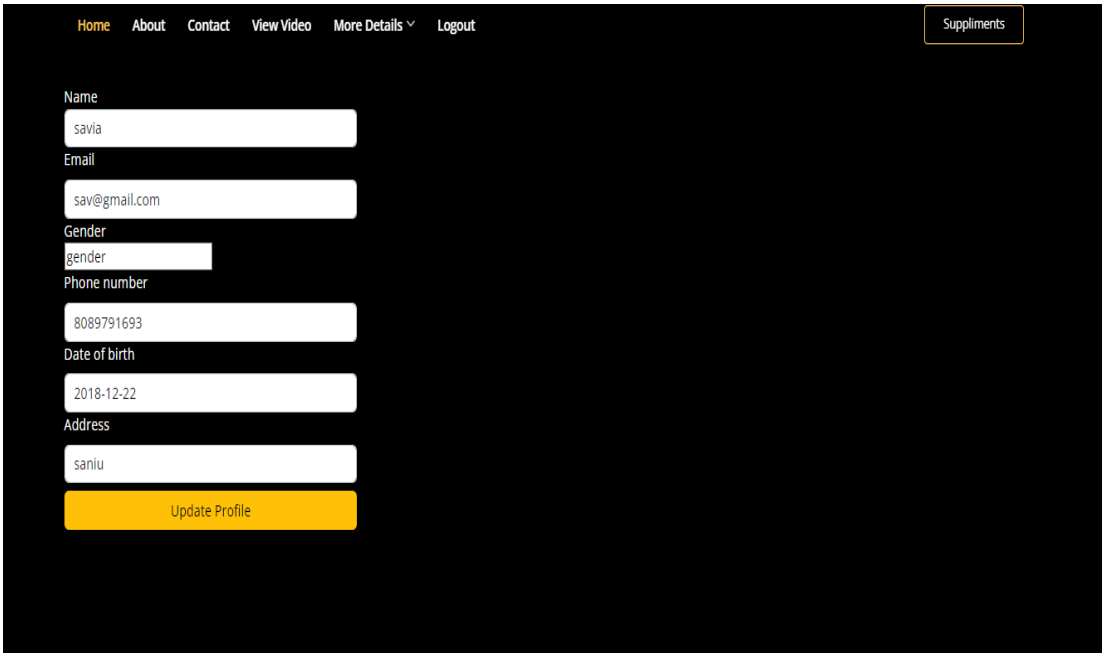
4.PAYMENT



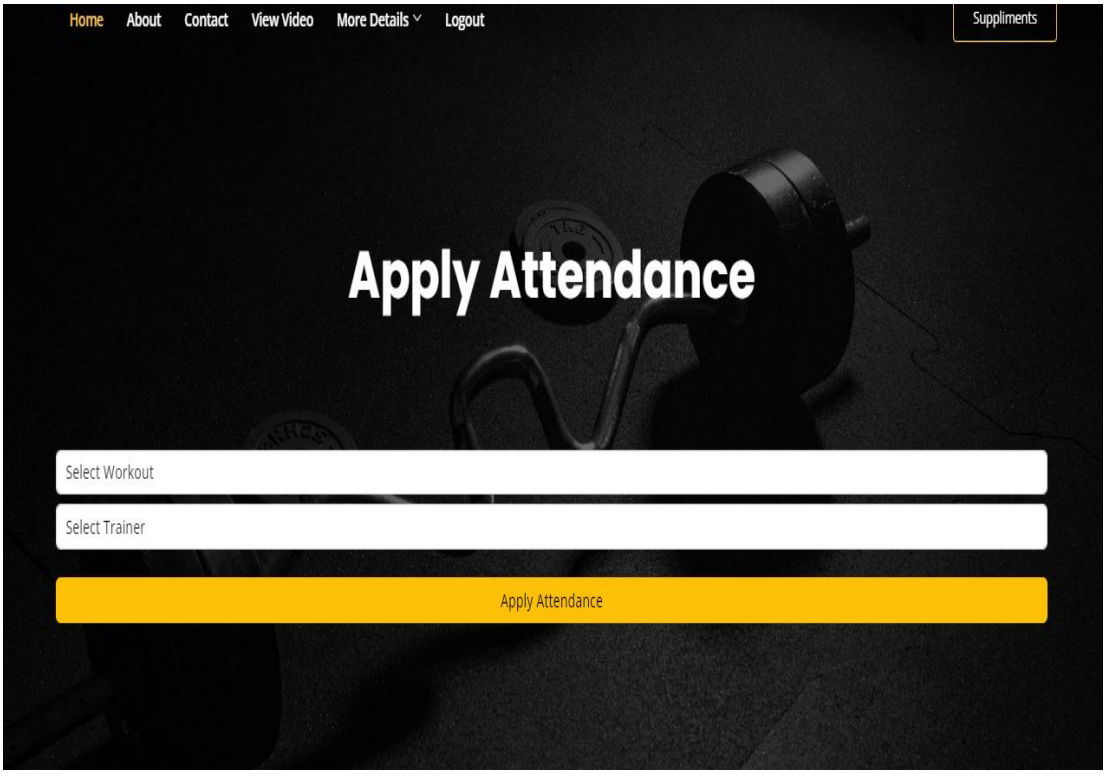
5.VIEW VIDEO



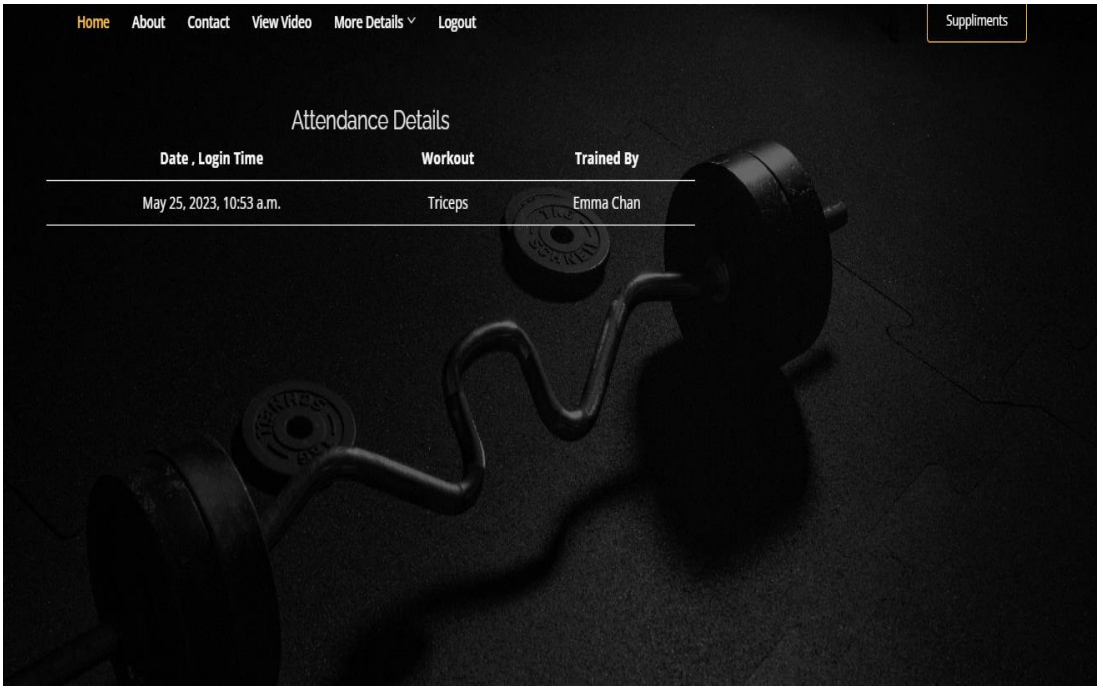
6.PROFILE



7.APPLY ATTENDANCE



8.ATTENDANCE DETAILS



9.SUPPLEMENTS