CHAPTER-1 COMPANY PROFILE

Company Name : EZ Trainings and Technologies Pvt. Ltd.

Introduction:

EZ Trainings and Technologies Pvt. Ltd. is a dynamic and innovative organization dedicated to providing comprehensive training solutions and expert development services. Established with a vision to bridge the gap between academic learning and industry requirements, we specialize in college trainings for students, focusing on preparing them for successful placements. Additionally, we excel in undertaking development projects, leveraging cutting-edge technologies to bring ideas to life.

Mission:

Our mission is to empower the next generation of professionals by imparting relevant skills and knowledge through specialized training programs. We strive to be a catalyst in the career growth of students and contribute to the technological advancement of businesses through our development projects.

Services:

College Trainings:

- Tailored training programs designed to enhance the employability of students.
- Industry-aligned curriculum covering technical and soft skills.
- Placement assistance and career guidance.

Development Projects:

- End-to-end development services, from ideation to execution.
- Expertise in diverse technologies and frameworks.
- Custom solutions to meet specific business needs.

Locations: Hyderabad | Delhi NCR

At EZ Trainings and Technologies Pvt. Ltd., we believe in transforming potential into excellence

CHAPTER-2

Day to Day Activities

SL.NO	Date	Content Covered
1	28/04/24	Project plan and setup
2	29/04/24	Code plan
3	30/04/24	Code plan,GUI implementations
4	02/05/24	Implementing graphs

CHAPTER-3

ABSTRACT

In the realm of modern healthcare, efficient appointment scheduling systems are crucial for enhancing patient satisfaction and optimizing clinic operations. This report focuses on the development of a specialized appointment scheduler tailored for sports clinics. The aim is to streamline the process of scheduling appointments for athletes and individuals seeking sports-related healthcare services.

The proposed system incorporates advanced features to accommodate the unique needs of sports clinics, including athlete-specific scheduling parameters, injury severity categorization, and integration with sports performance data systems. Leveraging emerging technologies such as artificial intelligence and cloud computing, the scheduler optimizes appointment allocation, minimizes wait times, and enhances overall clinic efficiency.

Key components of the system include a user-friendly interface for patients and clinic staff, real-time availability updates, automated reminders, and seamless integration with electronic health records (EHR) systems. By harnessing data analytics, the scheduler also offers insights into appointment patterns, resource utilization, and patient preferences, enabling continuous optimization of clinic operations.

Through the implementation of the Sports Clinic Appointment Scheduler, clinics can improve patient access, reduce administrative burdens, and deliver personalized care experiences tailored to the unique needs of athletes. This report explores the development process, technical architecture, and potential benefits of the scheduler, highlighting its significance in advancing healthcare delivery within the realm of sports medicine.

CHAPTER-3

INTRODUCTION OF THE PROJECT

Athletes and active individuals often require specialized care that addresses their unique needs, ranging from injury prevention to rehabilitation and performance optimization. However, accessing timely appointments and managing clinic schedules can be challenging for both patients and healthcare providers.

To address these challenges, the development of a Sports Clinic Appointment Scheduler emerges as a pivotal solution. This report delves into the conceptualization, design, and implementation of such a scheduler, aimed at revolutionizing the way sports clinics manage appointments and deliver care.

The significance of efficient appointment scheduling cannot be overstated in the context of sports medicine. Athletes often operate within tight schedules, where every moment counts towards their training regimen or competitive performance. Delays in accessing healthcare services can not only impede their progress but also exacerbate injuries, leading to prolonged recovery periods or even career-threatening consequences.

Furthermore, sports clinics face unique operational challenges compared to traditional healthcare settings. The dynamic nature of sports injuries, varying degrees of urgency, and the need for specialized treatments necessitate a scheduling system that is agile, adaptable, and athlete-centric. Traditional appointment scheduling software may fall short in meeting these requirements, highlighting the necessity for a tailored solution designed specifically for sports medicine practices.

In response to these challenges, the proposed Sports Clinic Appointment Scheduler aims to streamline the appointment booking process, optimize resource utilization, and enhance the overall patient experience. By leveraging cutting-edge technologies and incorporating athlete-specific parameters, the scheduler promises to revolutionize the way sports clinics operate and deliver care.

This report provides an in-depth exploration of the development journey of the Sports Clinic Appointment Scheduler, from conceptualization to implementation. It delves into the technical architecture, key features, and potential benefits of the scheduler, illustrating its transformative potential in the realm of sports medicine. Additionally, it examines the broader implications of efficient appointment scheduling on patient outcomes, clinic efficiency, and the advancement of sports healthcare services.

CHAPTER-4

MODULE DESCRIPTION

Imports: The code starts with importing necessary libraries such as Pandas for data manipulation, Streamlit for building web applications, datetime for handling date and time operations, and matplotlib.pyplot for data visualization.

Function Definitions:

add_id(id_number): This function reads athlete progress data from an Excel file, appends a new row with the provided ID number, and then writes the updated data back to the Excel file.

pa(id_number, progress_value): This function is used to update the progress of an athlete. It reads athlete and progress data from Excel files, checks if the athlete ID exists, increments the count of progress records for the athlete, and updates the progress value for the corresponding athlete ID in the progress Excel file. If the athlete ID doesn't exist, it prints an error message.

Streamlit Application:

The Streamlit application is divided into several sections based on the selected menu option.

Create Record: Allows users to input athlete details and adds a new record to the athlete_data.xlsx file. It also calls the add_id function to add the athlete's ID to the progress Excel file.

Read Records: Displays all records from the athlete_data.xlsx file.

Update Record: Enables users to update an existing record by providing the athlete ID. It updates the record in the athlete_data.xlsx file.

Delete Record: Lets users delete a record by providing the athlete ID. It removes the record from the athlete_data.xlsx file.

Manage Medical Appointment: Users can search for an athlete by ID and enter progress values. Upon clicking the search button, it calls the pa function to update the progress in the progress Excel file.

Track Health and Recovery Progress: Users can track the health and recovery progress of athletes. It displays the count of progress records for a specific athlete ID and visualizes the progress data using matplotlib.

Data Loading: The load_data function is defined but not used in the provided code. It's intended for loading athlete data, but Pandas read_excel is used directly in the Streamlit application instead.

User Interface: Streamlit is used to create an interactive web application with various input fields, buttons, and data displays for managing athlete records and tracking progress.

CHAPTER-5

ALGORITHM

Algorithm for add_id(id_number) Function:

1. **Input**: id_number (ID of the athlete to be added)
2. **Output**: None
3. Read data from 'progress.xlsx' into a DataFrame df.
4. Create a new row with the provided id_number.
5. Append the new row to DataFrame df.
6. Write DataFrame df back to 'progress.xlsx'.

Algorithm for pa(id_number, progress_value) **Function:**

1. **Input**: id_number (ID of the athlete), progress_value (value of progress)
2. **Output**: None
3. Read athlete data from 'athlete_data.xlsx' into DataFrame df_athlete.
4. Read progress data from 'progress.xlsx' into DataFrame df_progress.
5. Check if id_number exists in df_athlete:
    - If yes:
        1. Get index of athlete record in df_athlete.
        2. Increment the 'Count' value for the athlete.
        3. Convert progress_value to float.
        4. Update progress value in df_progress for corresponding athlete ID and count.
    - If no:
        1. Print error message: "Athlete ID not found in athlete_data.xlsx".
6. Write DataFrames df_progress and df_athlete back to their respective Excel files.

Algorithm for Streamlit Application:

a. Data Loading (load_data()**):**

1. Attempt to read athlete data from 'athlete_data.xlsx'.
2. If the file is not found:
    1. Create an empty DataFrame with columns: 'Id', 'Name', 'Age', 'Gender', 'Weight', 'Height', 'Sport', 'Reason', 'Date', 'Time', 'Count'.
3. Return the DataFrame.

CHAPTER-6

b. Create Record:

1. Display input fields for athlete details.
2. On clicking 'Add':
    1. Create a DataFrame with the new record.
    2. Read existing athlete data from 'athlete_data.xlsx'.
    3. Concatenate the new record with existing data.
    4. Write the updated DataFrame back to 'athlete_data.xlsx'.
    5. Call add_id(id_number) function to add the athlete's ID to 'progress.xlsx'.
    6. Display success message: "Record added successfully.".

c. Read Records:

1. Read athlete records from 'athlete_data.xlsx' into a DataFrame.
2. If the DataFrame is empty:
    - Display message: "No records found.".
3. Otherwise:
    - Display the DataFrame containing athlete records.

d. Update Record:

1. Display input fields to enter the ID of the record to update.
2. On providing the ID and clicking 'Update':
    1. Read athlete data from 'athlete_data.xlsx' into DataFrame.
    2. Find the index of the record to update.
    3. Update the record with new values.
    4. Write the updated DataFrame back to 'athlete_data.xlsx'.
    5. Display success message: "Record updated successfully.".

e. Delete Record:

1. Display input fields to enter the ID of the record to delete.
2. On clicking 'Delete':
    1. Read athlete data from 'athlete_data.xlsx' into DataFrame.
    2. Remove the record with the provided ID.
    3. Write the updated DataFrame back to 'athlete_data.xlsx'.
    4. Display success message: "Record deleted successfully.".

CHAPTER-7

f. Manage Medical Appointment:

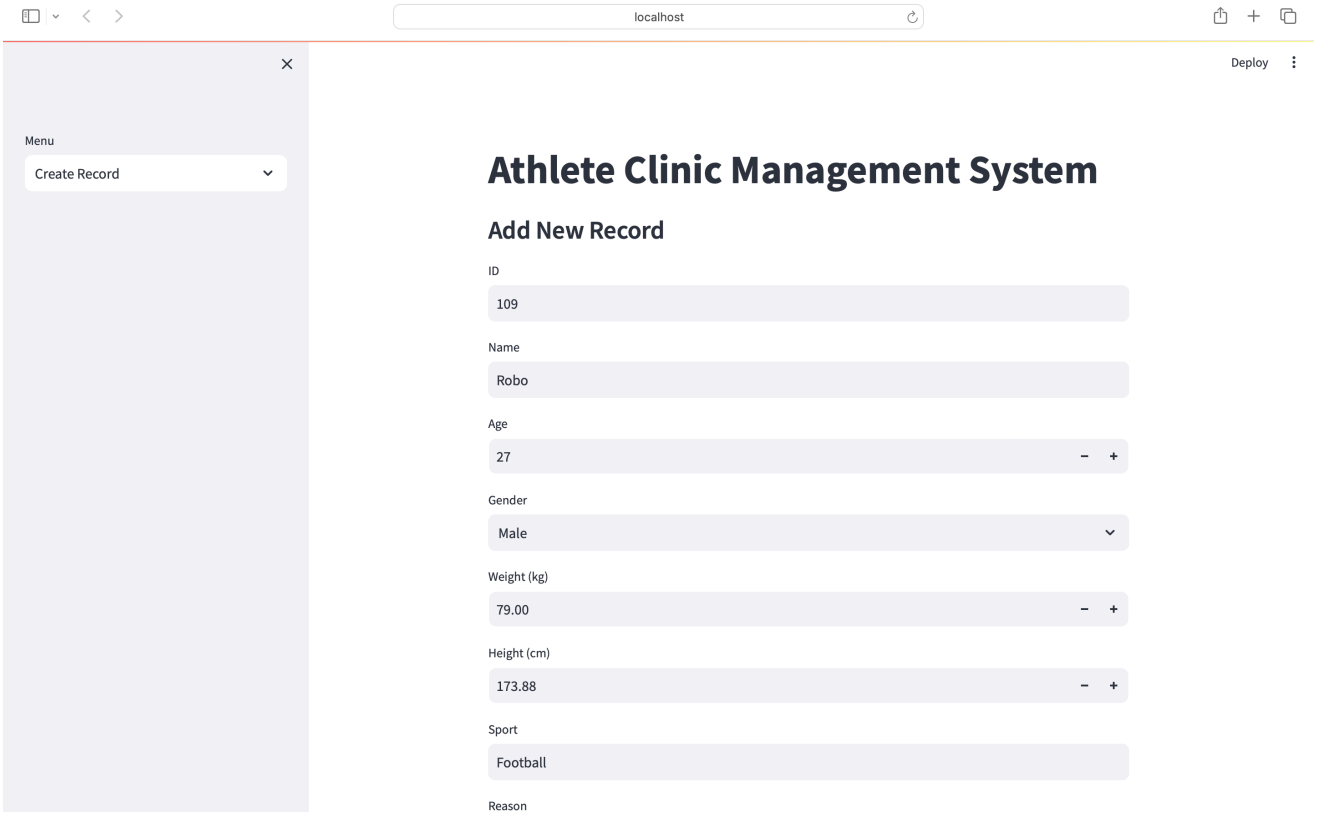
1. Display input fields to enter athlete ID and progress value.
2. On clicking 'Search':
    1. Call pa(id_number, progress_value) function to update progress in 'progress.xlsx'.
    2. Display success message: "Progress updated successfully.".

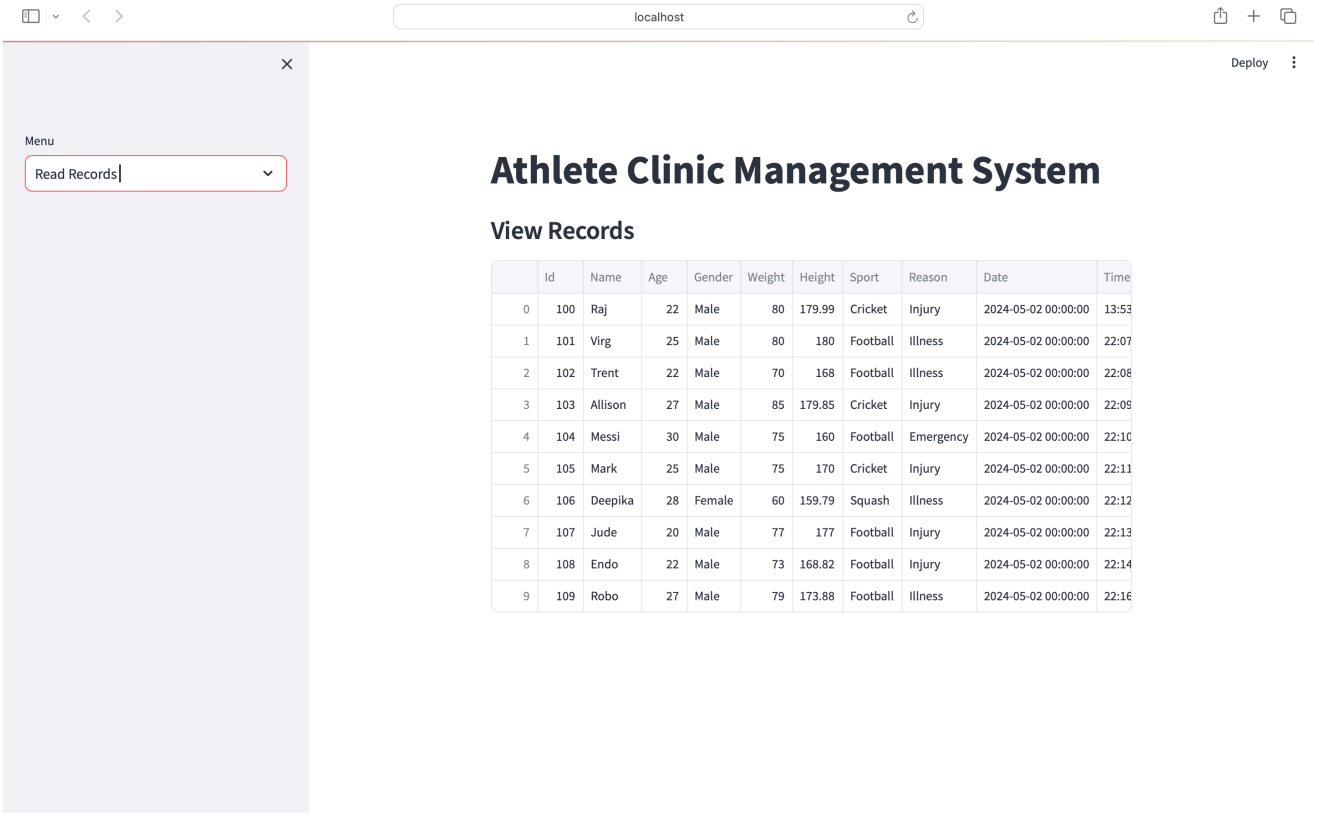
g. Track Health and Recovery Progress:

1. Display input field to enter athlete ID.
2. On clicking 'Search':
    1. Check if athlete ID exists in athlete data.
    2. If ID exists:
        - Display count of progress records.
        - If count >= 3:
            - Visualize progress data using matplotlib.
        - If count < 3:
            - Display message: "The data is still being tracked.".
    3. If ID doesn't exist:
        - Display error message: "Athlete ID not found in athlete_data.xlsx".

CHAPTER-8

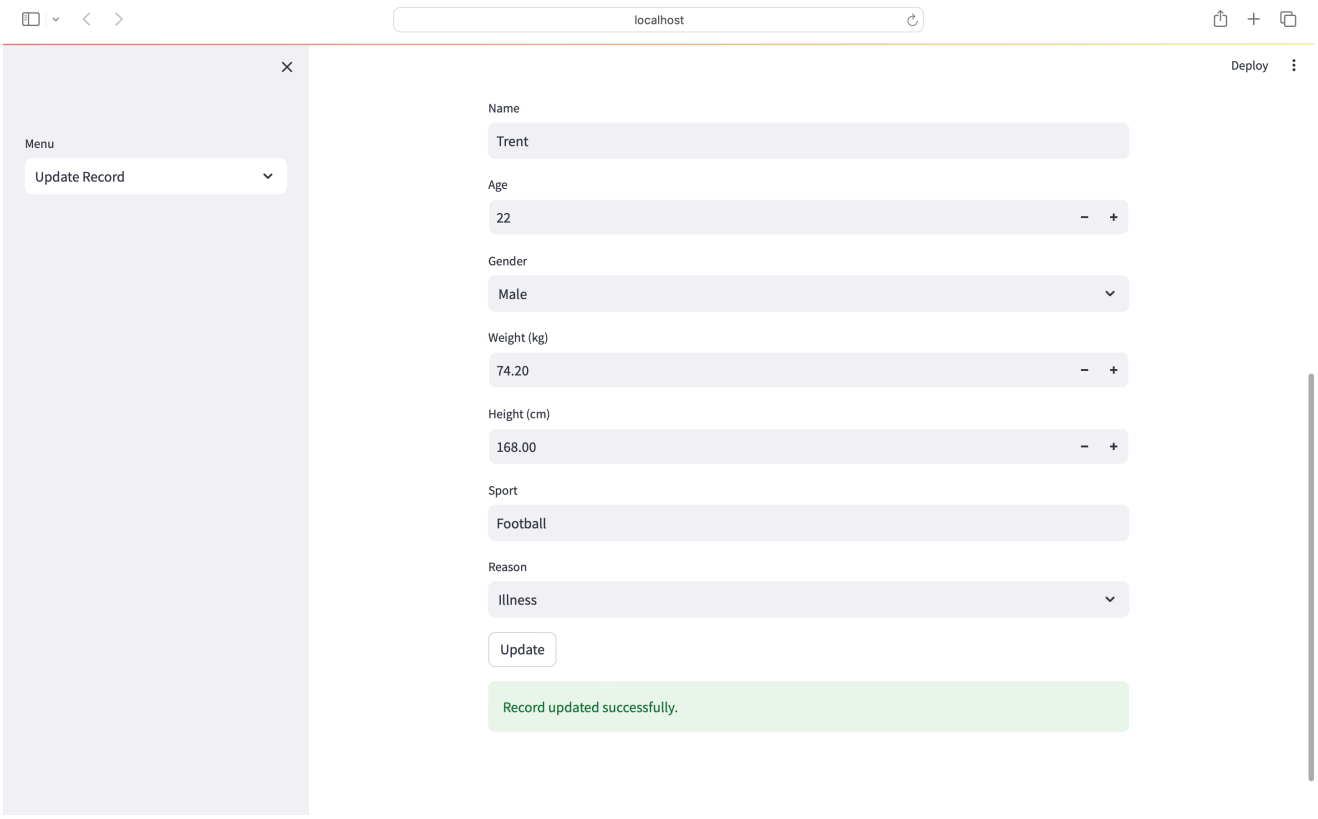
OUTPUT

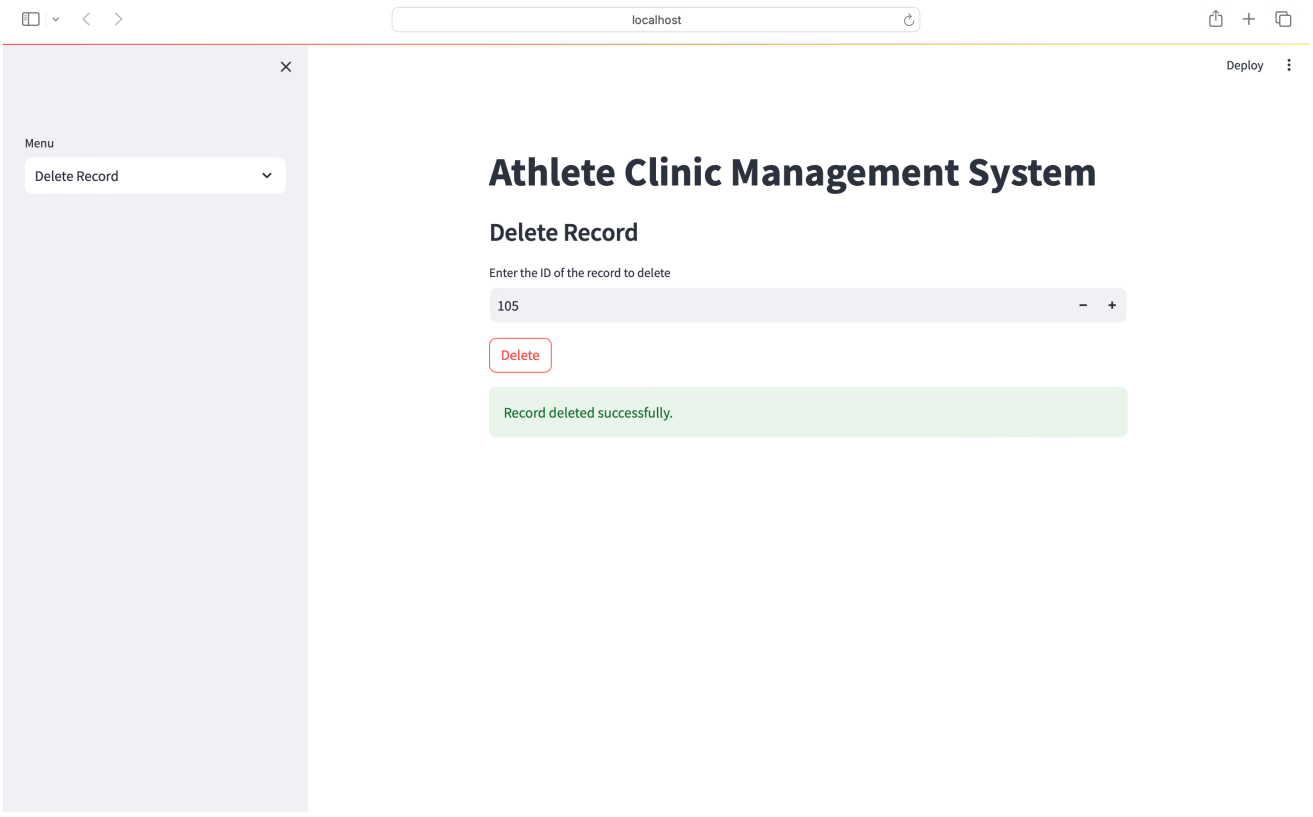




	Id	Name	Age	Gender	Weight	Height	Sport	Reason	Date	Time
0	100	Raj	22	Male	80	179.99	Cricket	Injury	2024-05-02 00:00:00	13:53
1	101	Virg	25	Male	80	180	Football	Illness	2024-05-02 00:00:00	22:07
2	102	Trent	22	Male	70	168	Football	Illness	2024-05-02 00:00:00	22:08
3	103	Allison	27	Male	85	179.85	Cricket	Injury	2024-05-02 00:00:00	22:09
4	104	Messi	30	Male	75	160	Football	Emergency	2024-05-02 00:00:00	22:10
5	105	Mark	25	Male	75	170	Cricket	Injury	2024-05-02 00:00:00	22:11
6	106	Deepika	28	Female	60	159.79	Squash	Illness	2024-05-02 00:00:00	22:12
7	107	Jude	20	Male	77	177	Football	Injury	2024-05-02 00:00:00	22:13
8	108	Endo	22	Male	73	168.82	Football	Injury	2024-05-02 00:00:00	22:14
9	109	Robo	27	Male	79	173.88	Football	Illness	2024-05-02 00:00:00	22:16

CHAPTER-9


localhost
Deploy
Menu
Update Record
Name
Trent
Age
22
Gender
Male
Weight (kg)
74.20
Height (cm)
168.00
Sport
Football
Reason
Illness
Update
Record updated successfully.


localhost
Deploy
Menu
Delete Record
Athlete Clinic Management System
Delete Record
Enter the ID of the record to delete
105
Delete
Record deleted successfully.

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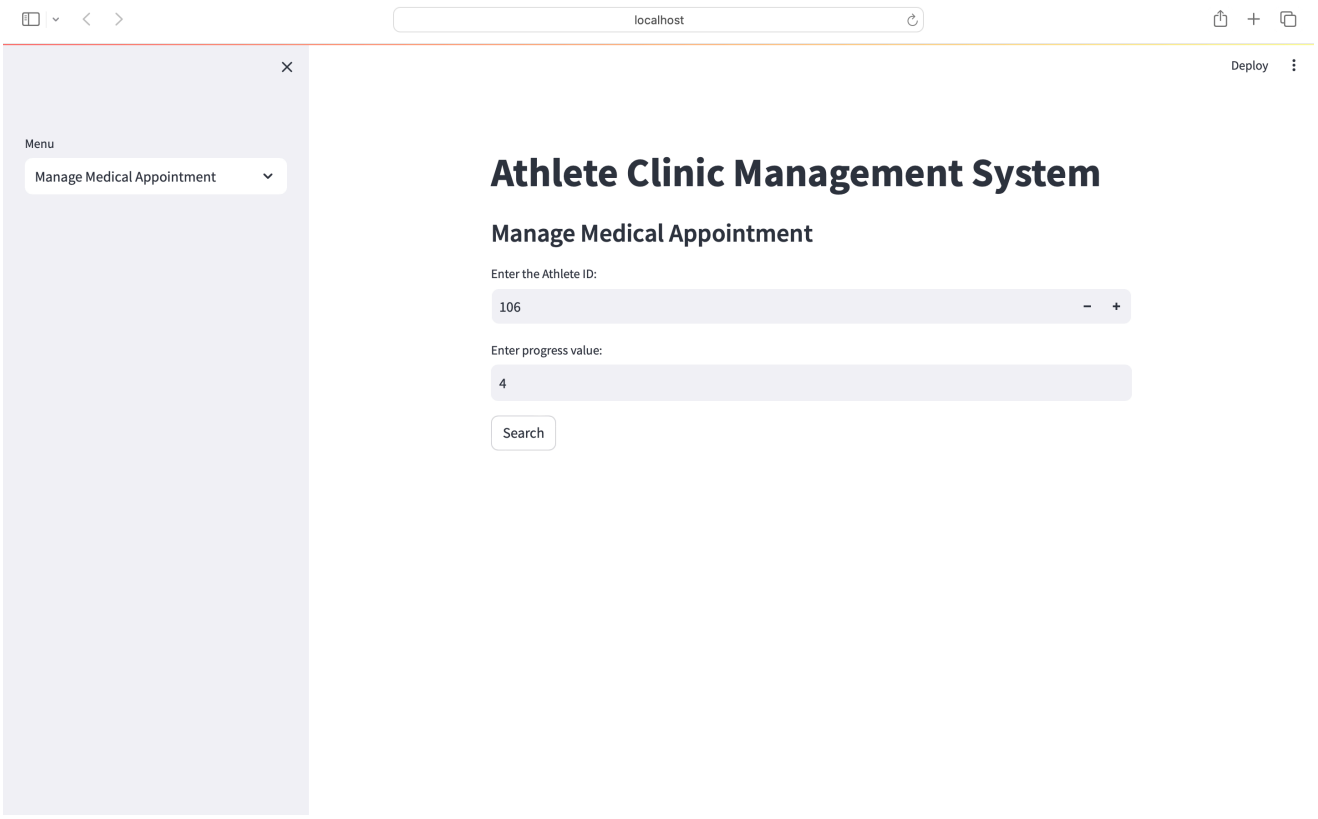
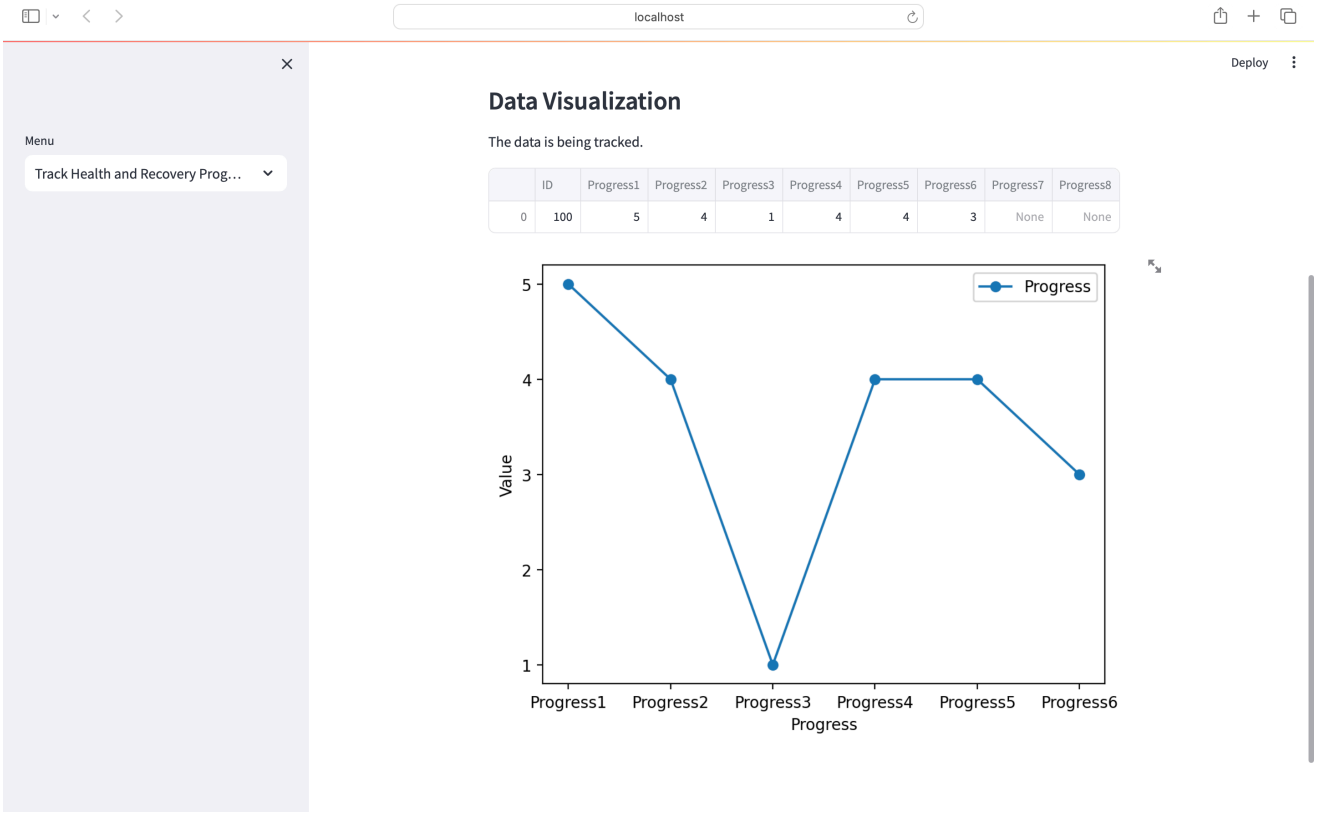

localhost
Deploy
Menu
Manage Medical Appointment
Athlete Clinic Management System
Manage Medical Appointment
Enter the Athlete ID:
106
Enter progress value:
4
Search


localhost
Deploy
Menu
Track Health and Recovery Prog…
Data Visualization
The data is being tracked.
ID Progress1 Progress2 Progress3 Progress4 Progress5 Progress6 Progress7 Progress8
0 100 5 4 1 4 4 3 None None
Progress
Value
Progress1 Progress2 Progress3 Progress4 Progress5 Progress6
Progress

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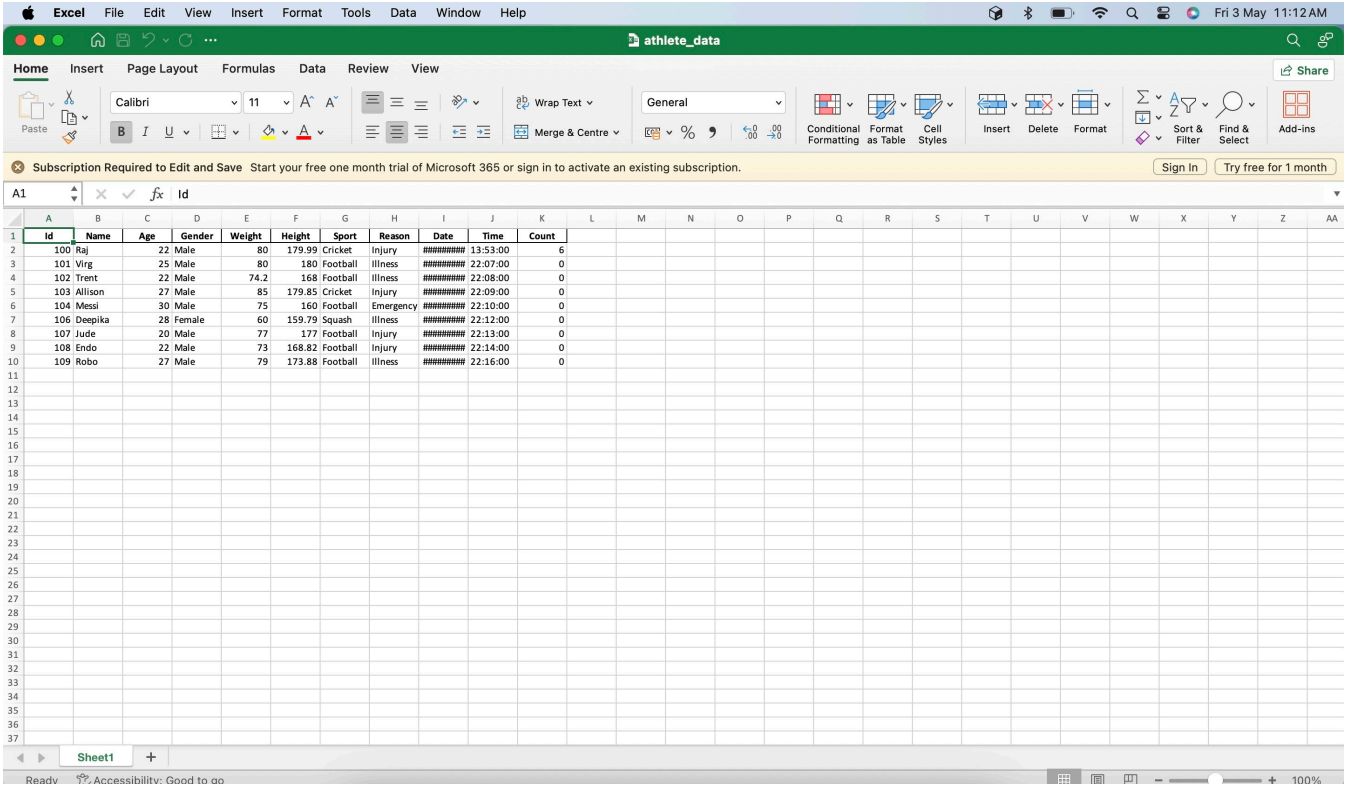

Id	Name	Age	Gender	Weight	Height	Sport	Reason	Date	Time	Count
100	Raj	22	Male	80	179.99	Cricket	Injury	##########	13:53:00	6
101	Virg	25	Male	80	180	Football	Illness	##########	22:07:00	0
102	Trent	22	Male	74.2	168	Football	Illness	##########	22:08:00	0
103	Allison	27	Male	85	179.85	Cricket	Injury	##########	22:09:00	0
104	Messi	30	Male	75	160	Football	Emergency	##########	22:10:00	0
106	Deepika	28	Female	60	159.79	Squash	Illness	##########	22:12:00	0
107	Jude	20	Male	77	177	Football	Injury	##########	22:13:00	0
108	Endo	22	Male	73	168.82	Football	Injury	##########	22:14:00	0
109	Robo	27	Male	79	173.88	Football	Illness	##########	22:16:00	0

CHAPTER-

CONCLUSION

The Sports Clinic Appointment Scheduler project provides a comprehensive solution for managing athlete records and tracking their health and recovery progress. By leveraging Streamlit for the user interface and Pandas for data manipulation, the application offers an intuitive and efficient platform for sports clinic administrators to streamline their workflow.

In conclusion, the Sports Clinic Appointment Scheduler project offers a valuable tool for sports clinic administrators to efficiently manage athlete records and monitor their health and recovery progress. With its user-friendly interface and robust functionality, the application contributes to the overall efficiency and effectiveness of sports clinic operations. Additionally, the modular and scalable nature of the project allows for future enhancements and customization to meet the evolving needs of sports clinics and their athletes.

CHAPTER-

REFERENCE

https://chat.openai.com/c/7b7d698d-aee4-4b87-aa23-3af929c8936d

https://chat.openai.com/c/0cb3103a-37a8-4779-8a2b-806da30ed86c

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