**Software Design Abstract: ProTrack**

**Introduction**

The ProTrack Web Application is designed to serve the needs of a collegiate athletic program, facilitating comprehensive performance tracking and analysis. The primary users of this software are the athletes and the coaching staff, consisting of three coaches. The application aims to enhance the athletes' performance through detailed data collection and analysis, encompassing in-game performance, sleep patterns, and nutritional intake.

**Objectives**

* **In-Game Performance Recording**: Allow athletes to input their performance metrics during games, including statistics such as scores, play-by-play actions, and other relevant data points.
* **Health and Nutrition Monitoring**: Enable athletes to log their sleep data and nutritional information on a regular basis, providing a holistic view of their well-being.
* **Data Analysis and Reporting**: Provide coaches with tools to analyse the collected data, identify trends, and generate reports to support informed decision-making regarding training and recovery strategies.
* **Communication and Feedback**: Facilitate communication between athletes and coaches through the application, allowing for timely feedback and recommendations.

**Existing System**

The ProTrack Web Application does not have an existing application to be replaced. This is an application focuses on needs of a college football team to analyse the performance of each player with a minimum cost. The tracking system used by FIFA footballers, which require more equipment’s like GPS technology trackers is more costly and cannot be affordable for a collage purpose. This system replaces this GPS technology by entering data’s manually, which results in less cost.

Another feature of this application is to collect pre-workout and post-workout data from each player for providing workloads. Till now this was done by calculating data’s manually with a pen and paper or entering data in Google Docs and calculating manually. This application collects data from each player by providing a facility to enter their amount of sleep, wellness, food intake etc. and the amount of work load he could take in one session. This helps the trainer to calculate the amount of work load that should be given to a player by this application to prevent injuries.

**PROPOSED SYSTEM**

The ProTrack Web Application is designed to serve the needs of a collegiate athletic program, facilitating comprehensive performance tracking and analysis. The primary users of this software are the athletes and the coaching staff, consisting of three coaches. The application aims to enhance the athletes' performance through detailed data collection and analysis, encompassing in-game performance, sleep patterns, and nutritional intake.

**ADVANTAGES OF PROPOSED SYSTEM**

1. **User-Friendly Interface**: A streamlined interface that caters to both athletes and coaches, ensuring ease of use for logging and accessing data.
2. **Performance Data Entry**: Tools for athletes to record detailed in-game performance metrics, which are stored in a central database.
3. **Health and Nutrition Log**: Features for athletes to input daily sleep and nutrition information, enabling comprehensive tracking of their routines.
4. **Analytics Dashboard**: An advanced analytics dashboard for coaches to visualize data trends, generate reports, and customize assessments based on individual or team performance.
5. **Security and Privacy**: Robust security measures to ensure the confidentiality and integrity of the data, complying with relevant privacy regulations.
6. **Enhanced Performance Tracking**: Provides a comprehensive view of an athlete’s performance and well-being, facilitating targeted improvements.
7. **Informed Coaching Decisions**: Empowers coaches with data-driven insights to tailor training programs and interventions.
8. **Improved Athlete Well-being**: Supports athletes in maintaining a balanced lifestyle by tracking critical health metrics.
9. **Efficient Communication**: Streamlines communication between athletes and coaches, promoting a proactive approach to performance management.

**Conclusion**

The ProTrack Web Application is poised to revolutionize the way athletic performance is tracked and analysed at the collegiate level. By integrating performance metrics with health and nutrition data, the application provides a holistic approach to athlete development, fostering a more informed and effective coaching strategy.

**Tables**

1. Table name: tbl\_admin

Description: For admin details

Primary key: admin\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Admin\_id | Int |  | Id of admin |
| Admin\_name | varchar | 50 | Name of Admin |
| Admin\_email | varchar | 50 | Email of admin |
| Admin\_password | varchar | 50 | Password of admin |

2. Table name: tbl\_coach

Description: To insert coach details

Primary key: coach\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Coach\_id | int |  | Id of coach |
| Coach\_name | Varchar | 50 | Name of coach |
| Coach\_email | Varchar | 50 | Email of coach |
| Coach\_password | Varchar | 50 | Password of coach |
| Coach\_address | Varchar | 50 | Address of coach |
| Coach\_proof | Varchar | 50 | Proof of coach |
| Coach\_status | varchar | 50 | Status of coach |

3. Table\_name: tbl\_student

Description: To insert student details

Primary key: student\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Student\_id | Int |  | Id of student |
| Student\_name | Varchar | 50 | Name of student |
| Student\_email | Varchar | 50 | Email of Student |
| Student\_password | varchar | 50 | Password of student |

4. Table name: tbl\_game

Description: To insert game data

Primary key: game\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Game\_id | Int |  | Id of game |
| Game\_date | Varchar | 50 | Date of game play |
| Game\_starttime | Varchar | 50 | Time when game start |
| Game\_endtime | Varchar | 50 | Time when game ends |

5. Table name: tbl\_position

Description: To enter position details

Primary key: position\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Position\_id | Int |  | Id of position |
| Position\_name | varchar | 50 | Position of the player |

6. Table name: tbl\_assignposition

Description: to assign position for each player

Primary key: assign\_position\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Assign\_position\_id | int |  | Id for assign position |
| Game\_id | Int |  | game id |
| Student\_id | int |  | Student id |

7. Table\_name: tbl\_action

Description: to enter the action performed by player

Primary key: action\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Action\_id | Int |  | Id for action table |
| Action\_name | Varchar | 50 | Action performed by player |

8. Table name: tbl\_livereport

Description: to insert live report of players

Primary key: livereport\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Livereport\_id | Int |  | Id for livereport table |
| Livereport\_details | Varchar | 50 | Details of livereport |
| Livereport\_time | Varchar | 50 | Time event occurs |
| Student\_id | Int |  | Foreign key of student |
| Game\_id | Int |  | Foreign key of game |
| Coach\_id | Int |  | Foreign key of coach |
| Action\_id | Int |  | Foreign key of action |
| Livereport\_rate | int |  | Rating of the event |

9. Table name: tbl\_dailyreport

Description: to enter daily report details

Primary key: dailyreport\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Dailyreport\_id | Int |  | Id for daily report table |
| Dailyreport\_date | varchar | 50 | Date when report is entered |

10. Table name: tbl\_dailyreportsub

Description: substitution table for daily report

Primary key: dailyreportsub\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Dailyreportsub\_id | int |  | Id for dailyreportsub table |
| Dailyreport\_id | Int |  | Foreign key of tbl\_dailyreport |
| Student\_id | Int |  | Foreign key of student table |
| Dailyreportsub\_details | Varchar | 50 | Daily Details of student |
| Dailyreportsub\_sleep | Varchar | 50 | Sleep details of student |
| Dailyreportsub\_foodamount | Varchar | 50 | Food details of student |
| Coach\_id | Int |  | Foreign key of coach table |
| Dailyreportsub\_review | varchar | 50 | Coach review about daily report |

11. Table name: tbl\_complaint

Description: to insert complaint details

Primary key: complaint\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Complaint\_id | Int |  | Enter complaint id |
| Complaint\_title | Varchar | 50 | Enter complaint title |
| Complaint\_content | Varchar | 500 | To enter the complaint |
| Complaint\_date | Varchar | 50 | Date of complaint |
| Complaint\_reply | varchar | 500 | Complaint reply |
| User\_id | int |  | Enter the user id |

12. Table name: tbl\_feedback

Description: To enter feedback

Primary key: feedback\_id

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Data Type** | **Size** | **Description** |
| Feedback\_id | Int |  | Id of feedback table |
| Feedback\_content | varchar | 500 | Enter the content |