

Project Report
for
PKL Database Management System

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ABSTRACT

PKL Database Management System is a kabaddi based application designed especially for the game of Kabaddi. The Application consists of schedules, team information, records of players, feasibility for creating new schedules, searching about players, it also displays rank tables for teams and players. Here the database works completely under the admin, where he/she has the access to make changes in the database so the admin can add players, schedules, and venues as well as can remove them from the database. Features like searching for specific players and retrieving the players of a particular match are also available. Admin also has the right to update the ratings of the teams and other particulars like raid points and tackle points in this database.

There are also features like creating an account, player-search for players' information, rankings, teams, schedules, and venues associated with the user's login window. Users can fetch the details of the schedules with their respective venues.

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Chapter 1

INTRODUCTION

1.1 INTRODUCTION TO DBMS

Databases and database technology have a major impact on the current day scenario because of the growing use of computers. We can undoubtedly say that databases play a critical role in almost all areas where computers are used. The word database is so commonly used that the user must begin by defining what a database is.

Database: A database is a well-organized collection of inter-related data. For example, the university database is an organized data about students, faculty, admin staff, etc. which helps in the efficient retrieval, insertion, and deletion of data from it.

A database has the following implicit properties:

- A database represents some aspect of the real world, sometimes called the mini world. Changes to the inworld are reflected in the database.
- A database is a logically coherent collection of data with some inherent meaning.
- A database is designed, built, and populated with data for a specific purpose. It has an intended group of users and some preconceived applications in which these users are interested.

Database Management System: A collection of programs that work with the data to create and maintain a database

- A general-purpose software system that facilitates the process of defining, constructing, manipulating, and sharing databases among various users and applications

Defining a database involves specifying the data types, structures, and constraints of the data to be stored in the database. The database definition or descriptive information is also stored by the DBMS in the form of a database catalog or dictionary; it is called **meta-data**. Constructing the database is the process of storing the data on some storage medium that is controlled by the DBMS. Manipulating a database includes functions such as querying the database to retrieve specific data, updating the database to reflect changes in the inworld, and generating reports from the data.

1.2 Theory and Concepts

Data Abstraction: Data abstraction refers to, providing only essential information to the outside world and hiding their background details, i.e., to represent the needed information in the program without presenting the implementation details.

1.3 Overview of the project

PKL Database Management system is a user-friendly application that is based on HTML and CSS which helps members to schedule and manage various Kabaddi matches and also to manage the records of various players involved. The application uses HTML and CSS as a front end for interacting with the user and PHP for connection. At the backend, we used MySQL for the database.

1.4 Xampp server

XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, Maria DB database, and interpreters for scripts written in the PHP and Perl programming languages. It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing and deployment purposes. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server extremely easy as well.

Chapter 2

Requirements Specification

2.1 Specific Requirements

The specific requirements of the PKL Database Management System are stated as follows:

2.1.1 Hardware Requirement

The section of hardware configuration is an important task as insufficient RAM may affect adversely on the speed and efficiency of the entire system. The process should be powerful to handle the entire operations. The hard disk should have sufficient capacity in order to store the file and application.

Processor	:	Intel PentiumT4200/ Intel Core Duo 2.0 GHz / more
RAM	:	Minimum 1 GB RAM capacity
Hard disk	:	Minimum 40 GB ROM capacity

2.1.2 Software Requirement

A major element in building a system is the section of compatible software. Selected software should be acceptable by the firm and user as well as it should be feasible for the system.

This document gives a detailed description of the software requirement specification. The study of requirement specification is focused especially on the functioning of the system. It allows the developer or analyst to understand the system, functions to be carried out, the performance level to be obtained and corresponding interfaces to be established.

Front End	:	HTML,CSS,PHP (Hypertext preprocessor)
Back End	:	XAMPP server, My SQL
Operation System	:	Windows 7 /more latest versions

2.2 Technologies used

- **HTML** is integrated here in **PHP**. It provides a means to structure text-based information in a document. It allows users to produce web pages that include text, graphics, and hyperlinks.
- **CSS** (Cascading Style Sheets) is a style sheet language used for describing the presentation of a document written in a mark-up language.
- **MYSQL** is the language used to manipulate relational databases. It is tied closely with the relational model. It is issued for the purpose of data definition and data manipulation. The program runs as a server providing multi-user access to a number of databases. MySQL is a multithreaded, multi-user SQL database management system (DBMS). It includes facilities to add, modify or delete data from the database, ask questions (or queries) about the data stored in the database, and produce reports summarizing selected contents.
- **PHP** is a scripting language originally designed for producing dynamic web pages. PHP is a general-purpose scripting language that is especially suited for web development. PHP generally runs on a web server, taking PHP code as its input and creating web pages as output. It can also be used for command-line scripting and client-side GUI applications. PHP can be deployed on most web servers, many operating systems, and platforms, and can be used with many relational database management systems. PHP has hundreds of base functions and thousands more from extensions. These functions are well documented on the PHP site. It requires a MySQL connection between the front end and back end components to write to the database and fetch required data.

Chapter 3

SYSTEM DESIGN

3.1 Input Design

The Home page contains two links for Admin and User sections.

3.1.1 Admin

The Admin can do different functions with help of two navigation bars one at the top and one at the bottom

- can Add and Delete Players.
- can Add and Delete venues.
- can Add and Delete Schedules.
- can also search for player information.
- can view venues, rankings, schedules, and teams.

3.1.2 User Information

After the admin logins into the database and adds information, the user can fetch the information as follows. It contains one navigation bar that allows to

- view venues, rankings, schedules, and teams.
- can also search for player information.

3.2 Database design

The data in the system has to be stored and retrieved from the database. Designing the database is part of the system design.

Data elements and data structures to be stored have been identified at the analysis stage. They are structured and put together to design the data storage and retrieval system. A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make database access easy, quick, inexpensive, and flexible for the user. Relationships are established between the data items and unnecessary data items are removed. Normalization is done to get an internal consistency of data and to have minimum redundancy and maximum stability.

3.3 Relational Schema

The overall design of the database is called the database schema. It corresponds to the variable declarations along with associated type definitions.

Relation schema defines the design and structure of a relation

The term **schema** refers to the organization of data as a blueprint of how the database is constructed like how it is divided into tables in the case of relational databases. The formal definition of a database schema is a set of formulas called integrity constraints imposed on a database. A relational schema shows references among fields in the database. When a primary key is referenced in another table in the database, it is called a foreign key. This is denoted by an arrow with the head pointing at the referenced key attribute. A schema diagram helps organize values in the database. It also gives an idea of what order the tables should be created. The following diagram shows the schema diagram for the database.

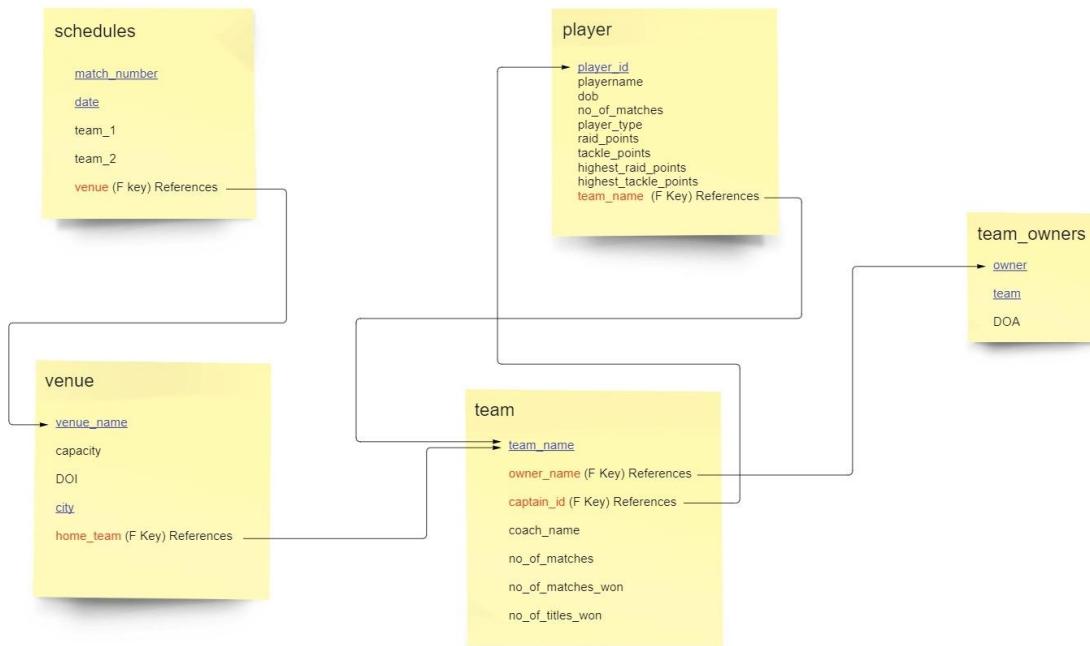


Figure 3.1: Relational schema

Note: blue colour represents primary keys and red colour represents foriegn keys.

3.4 ER Diagram

It is a high-level data model used to define the data elements and relationship. It develops a conceptual design for the database and provides a very simple and easy to design view of data. The database structure is represented as a diagram called an entity-relationship diagram. The ER model describes data as entities, relationships, and attributes. An entity is a thing or object in the real world with an independent existence.

An ER model is usually the result of systematic analysis to define and describe what is important to processes. It is usually drawn in a graphical form as boxes which are entities that are connected by relationships which express the associations and dependencies between entities. Entities may be characterized not only by relationships, but also by additional properties called as attributes which include identifiers called **primary keys**.

While useful for organizing data that can be represented by a relational structure, an ER diagram can't sufficiently represent semi-structured or unstructured data. Three main components of an Entity Relationship Diagram are the entities, the relationship between those entities, and the cardinality, which defines that relationship in terms of numbers. Cardinality notations define the attributes of the relationship between the entities. Cardinalities can denote that an entity is optional.

The four main cardinal relationships are:

- One-to-one (1:1)
- One-to-many (1: N)
- Many-to-one (N: 1)
- Many-to-many (M: N)

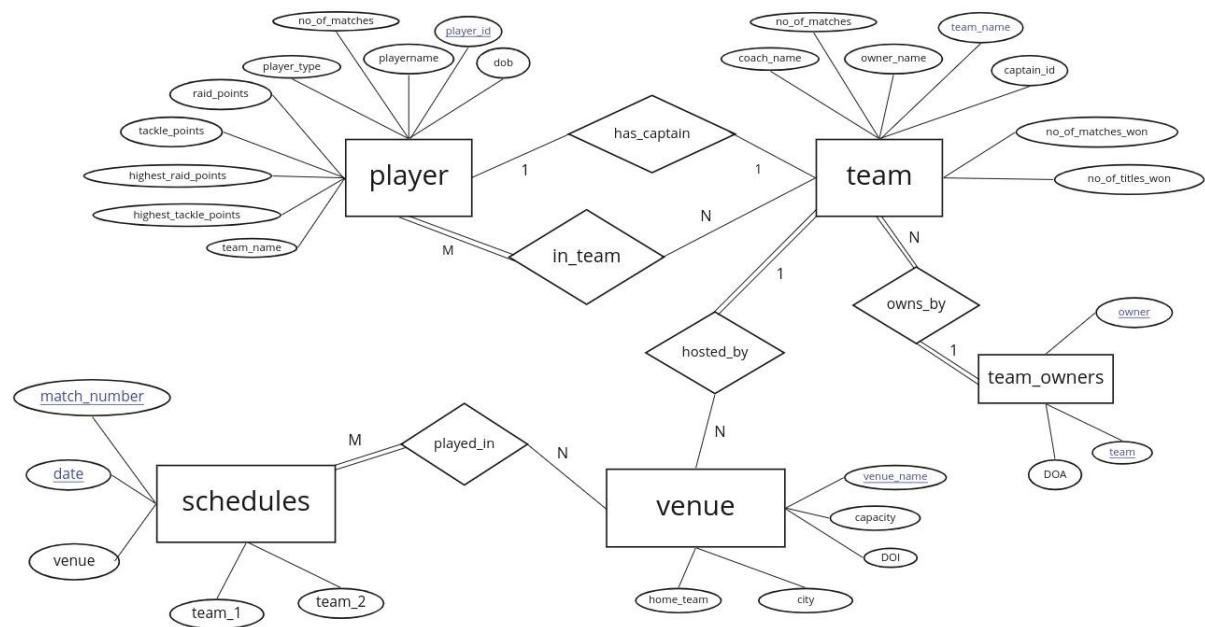


Figure 3.2: ER-Diagram.

3.5 Output Design

The output designing should proceed in an organized and a well throughout manner. When we design an output, we must identify that the specific output that is needed to meet the requirements. Once the output requirements are determined, the system designer can decide what are to be included in the system and how to structure it. The output must be concerned to the overall performance and the system's working. It consists of developing specifications and procedures for data preparation, those steps necessary to put the inputs and the desired output, which is considered to be maximum user friendly. Proper messages and appropriate directions showed or given can control errors committed by users. The output design is the key to the success of any system. User should be never left with the confusion about what is happening which is an indication of successful output. Even when an unknown person can operate the system without knowing anything about the system it proves to really easy to understand, user friendly and finally successful.

This project has mainly four views which displays the details for

- Schedules
- Rankings
- Venues
- Teams
- Player Information

Chapter 4

System Implementation

4.1 Implementation

Implementation is the stage in the project where the theoretical design is turned into a working system and is giving confidence on the new system for the users that it will work efficiently and effectively. It involves careful planning , constraints implementation, an evaluation of change over methods etc. Implementation is considered to be the most important phase. The most critical stage in achieving a successful new system is giving the users confidence that the new system will work and be effective. And to be more precise security is also considered to be important. The system developed should always be secured and protected from possible hazards. Security measures are to be taken to prevent unauthorized access of the database at various levels.Simple procedures to prevent the unauthorized access are provided to the users. Here we used passwords as protection in our system. The system allows the user to enter the system only through proper user name and password.

4.2 Create a connection to a database

Before accessing data in a database, a connection must be created to the database. In PHP, the following is done with the `getconnection()` function.

```
<?php
    $con=mysqli_connect("localhost","root","","kabaddi");
?>
```

4.3 Closing a Connection

The connection will be closed automatically when the script ends. Inorder to close the connection before, the `close()` function is used:

```
<?php
    mysqli_close($con);
?>
```

4.4 Result

The resulting system is able to:

- Authenticate user credentials during login (admin credentials also) .
- Allows user to quickly and easily look for details of particular required data.
- The user can see the details what he is searching for.
- Gives accurate information which was saved and updated by the admin.

Chapter 5

Snapshots

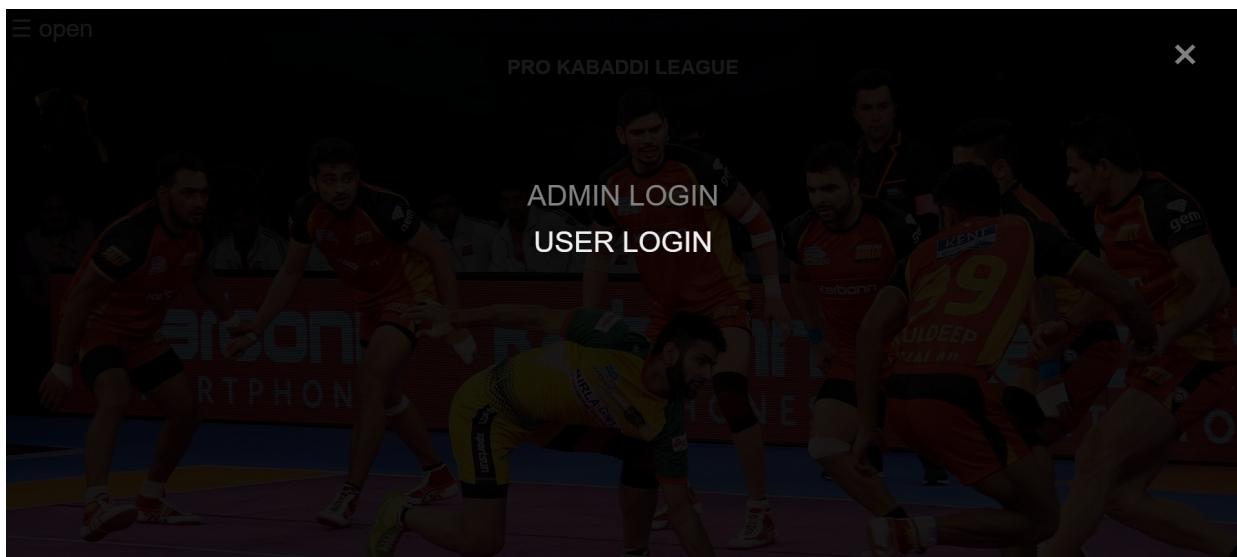
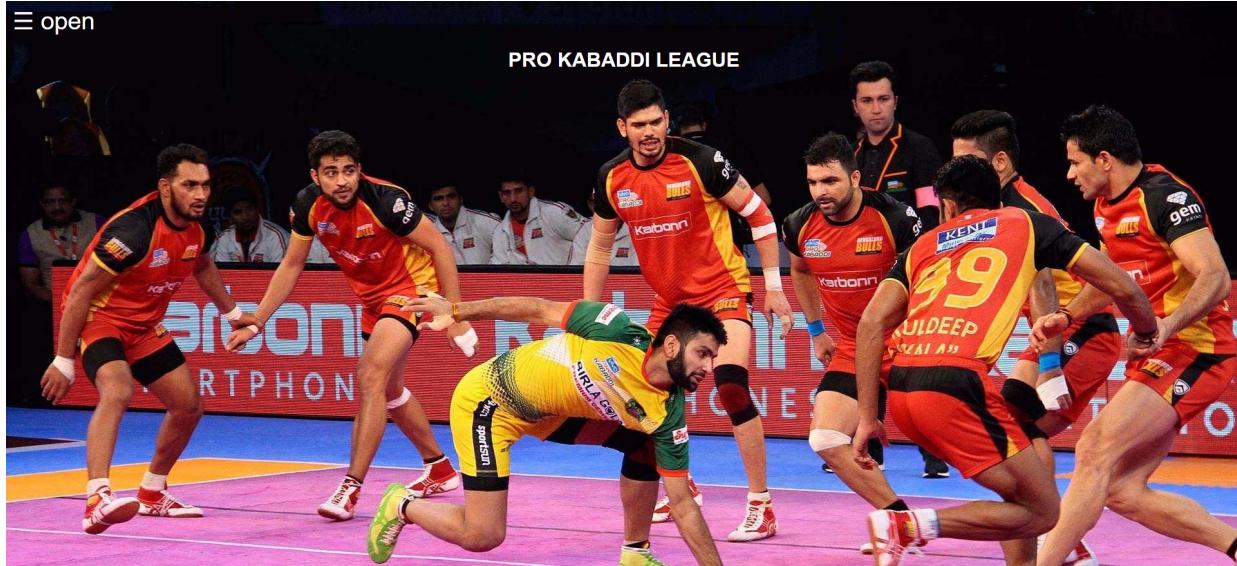
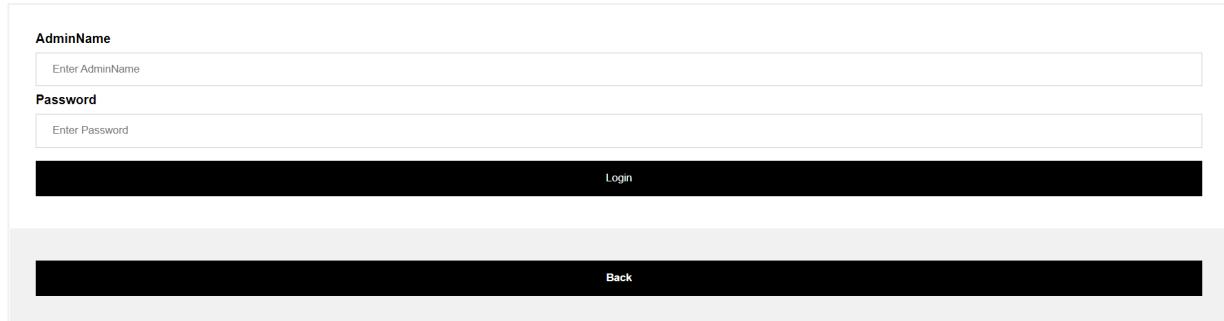


Figure 5.1 and 5.2 Home page

In the above Figures, It shows Home Page which allows to login as admin and as a user.

PKL Database Management System

Admin Login



The screenshot shows the Admin Login page. It features two input fields: 'AdminName' and 'Password', each with a placeholder text ('Enter AdminName' and 'Enter Password' respectively). Below these fields is a black rectangular button labeled 'Login'. At the bottom of the page is another black rectangular button labeled 'Back'.

Figure 5.3 Admin Login Page

In the above Figure 5.3, It shows admin login page which gives authentication to enter into the Admin page.

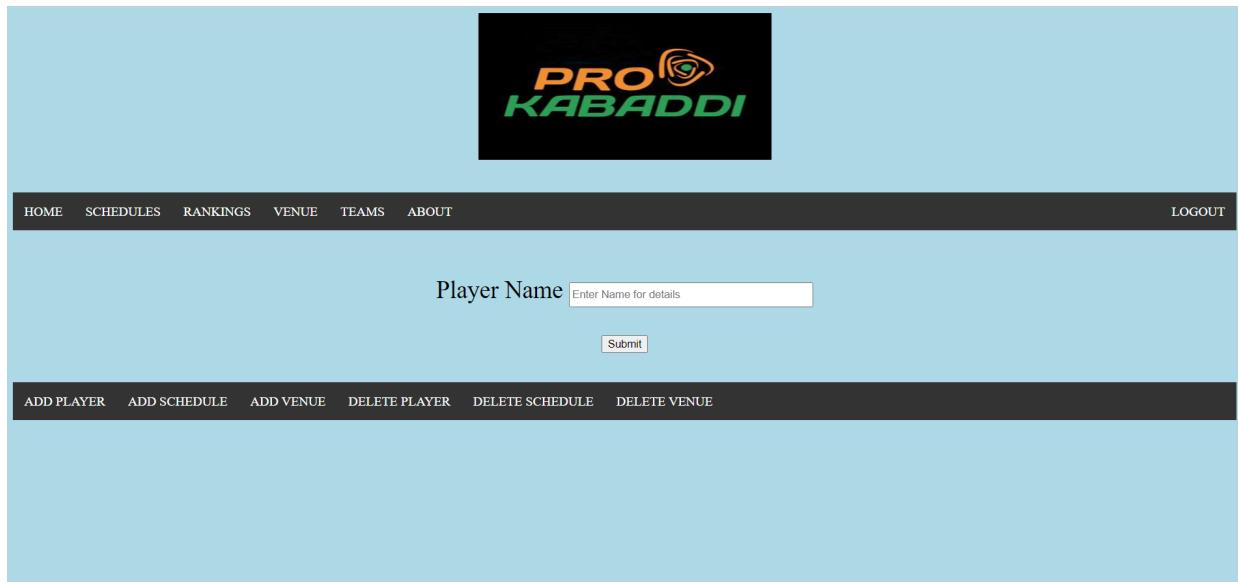


Figure 5.4 Admin's Home Page

In the above Figure 5.4, shows window which allows to add and delete of players, venues, schedules and can view schedules, rankings, venues, teams and about PKL.Even player information can be retrieved.

PKL Database Management System

The screenshot shows a web-based form titled 'Add Player'. The form includes fields for Player ID (with placeholder 'Player ID.'), Player Name (with placeholder 'Enter Player Name.'), Team Name (with placeholder 'Team Name..'), DOB (with placeholder 'dd-mm-yyyy'), raid_points (with placeholder 'Player Raid points.'), tackle_points (with placeholder 'Player Tackle Points.'), Player Type (a dropdown menu currently set to 'Batsman'), No of Matches (with placeholder 'Number of Matches Played.'), Highest Raid Points (with placeholder 'Player's Best.'), and Highest Tackle Points (with placeholder 'Player's Best.'). There is also a file input field for 'Insert Player's Image here' with a '(e.g.) .png' placeholder. A 'Submit' button is located at the bottom left.

Figure 5.5 Add player

In the above Figure 5.5, It shows window which allows admin to add player by his bio-data like player id, player name, team name, DOB, raid points, tackle points, player type, Number of matches played, highest raid points,highest tackle points and his image.

The screenshot shows a web-based form titled 'Add Schedule'. The form includes fields for Team1 Name (with placeholder 'e.g., srft.'), Team2 Name (with placeholder 'e.g., mi.'), Date (with placeholder 'dd-mm-yyyy'), Venue (with placeholder 'Venue..'), and Match No (with placeholder 'Match number.'). A 'Submit' button is located at the bottom left.

Figure 5.6 Add schedule

In the above Figure 5.6, it shows window which allows admin to Add schedules for the matches in future by the teams name, date and match number and venue.

PKL Database Management System

The screenshot shows a web-based application window titled "Add Venue". At the top right are "Back" and "Logout" buttons. The main area contains five input fields: "Venue Name" (placeholder: "Enter venue Name.."), "DOI" (placeholder: "DOI.."), "City" (placeholder: "Enter city.."), "Home Team" (placeholder: "Team.."), and "Capacity" (placeholder: "Capacity .."). A "Submit" button is located at the bottom left of the form area.

Figure 5.7 Add venue

In the above Figure 5.7, It shows window which allows admin to add venue with venue name, DOI,city,home team and Capacity.

The screenshot shows a web-based application window titled "Delete Player". At the top right are "Back" and "Logout" buttons. The main area contains a single input field labeled "Enter Player ID to delete" with a placeholder of "Enter Player ID to delete" and a "Submit" button below it.

Figure 5.8 Delete player

In the above Figure 5.8, it shows window which allows admin to delete a player by his player id..

PKL Database Management System

The screenshot shows a light blue header bar with 'Back' and 'Logout' buttons. Below it is a white content area with a form. The form has a text input field labeled 'Enter Match Number to delete' and a 'Submit' button.

Enter Match Number to delete :

Figure 5.9 Delete schedule

In the above Figure 5.9, it shows window which allows admin to Delete a schedule by its match number.

The screenshot shows a light blue header bar with 'Back' and 'Logout' buttons. Below it is a white content area with a form. The form has a text input field labeled 'Enter venue Name to delete' and a 'Submit' button.

Enter venue Name to delete :

Figure 5.10 Delete venue

In the above Figure 5.10, it shows window which allows admin to Delete venue by its name

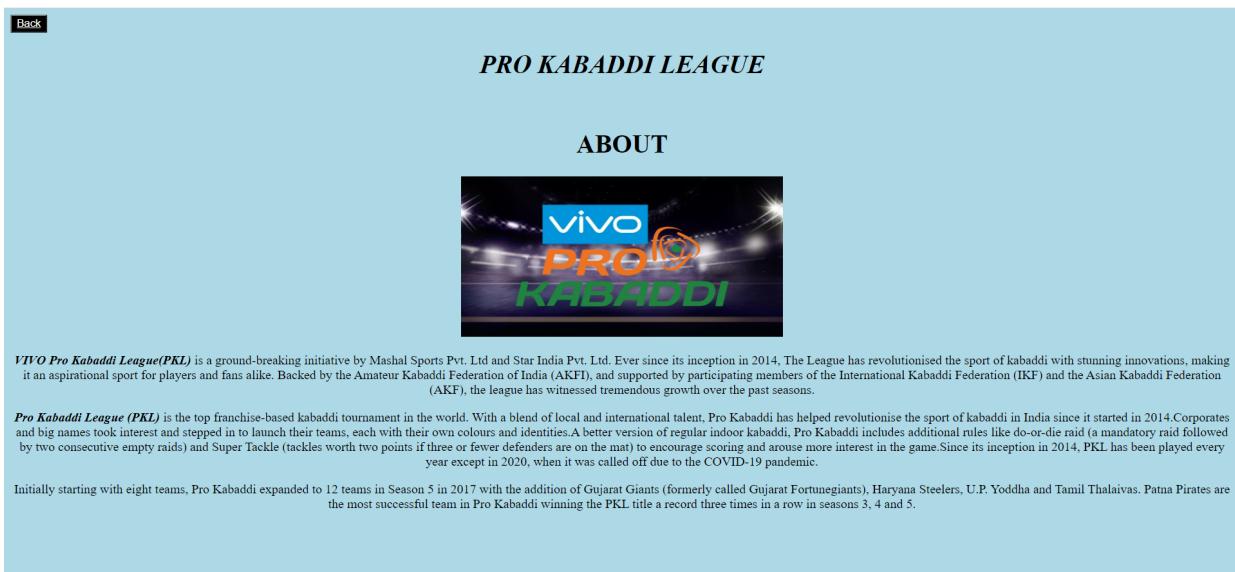


Figure 5.11 About PKL

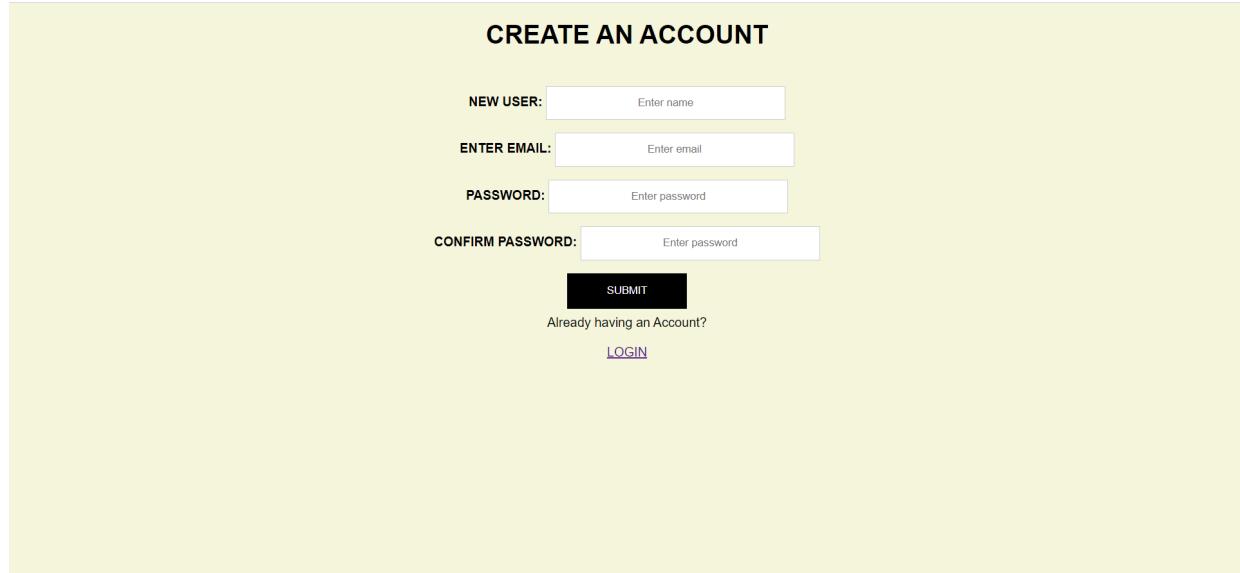
As shown in the figure 5.11, it is directed when we click on about in admin and user home page

User Login

A screenshot of a user login form. The form is titled "User Login". It contains two input fields: "Username" and "Password", both with placeholder text "Enter Username" and "Enter Password" respectively. Below the password field is a "Login" button. Further down the page is a "CREATE AN ACCOUNT" link. At the bottom of the page is a "Back" button.

Figure 5.12 User login page

In the above Figure 5.12, It shows window which allows user to authenticate into user's login page.



The image shows a 'CREATE AN ACCOUNT' form. It has four input fields: 'NEW USER:' (placeholder 'Enter name'), 'ENTER EMAIL:' (placeholder 'Enter email'), 'PASSWORD:' (placeholder 'Enter password'), and 'CONFIRM PASSWORD:' (placeholder 'Enter password'). Below these is a 'SUBMIT' button. At the bottom left is a link 'Already having an Account?' and a 'LOGIN' link.

Figure 5.13 create an account page

In the above Figure 5.13, it shows window which allows new users to Create an account.

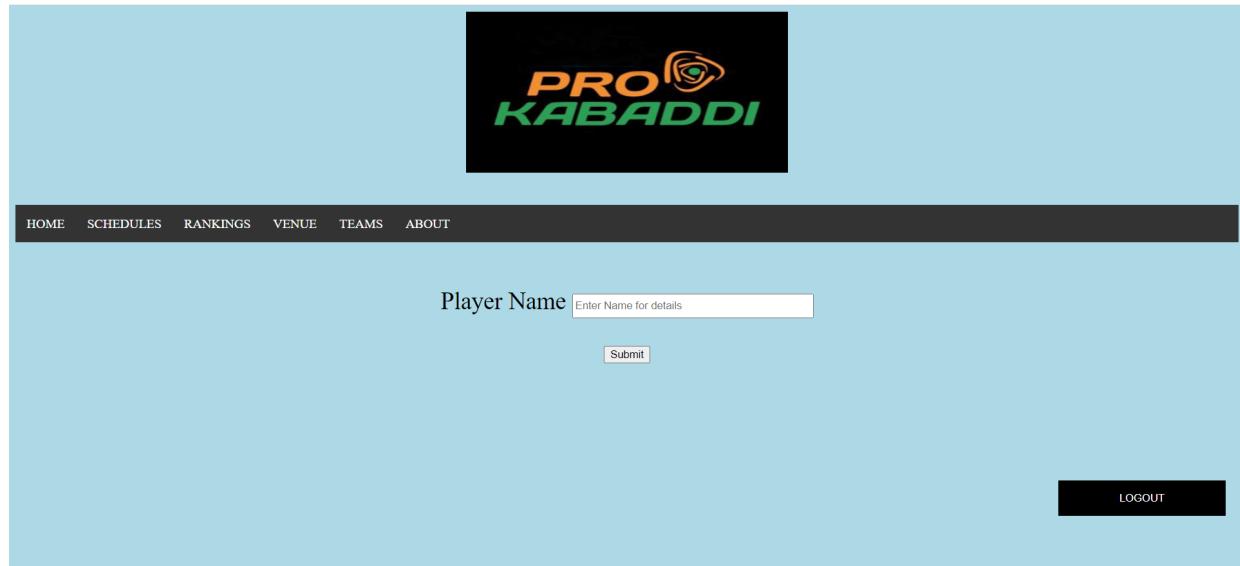
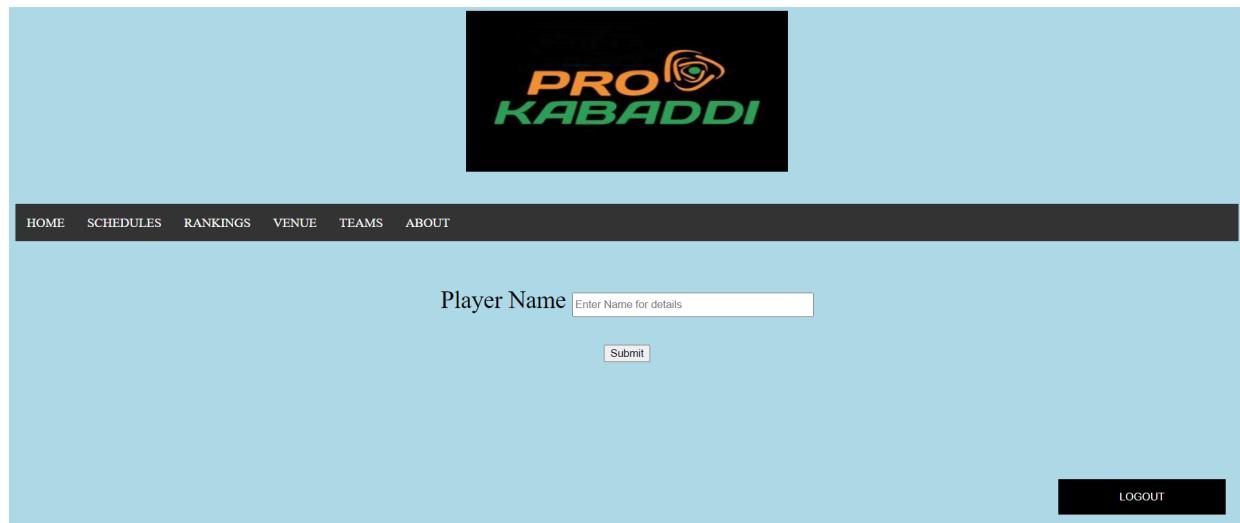


Figure 5.14 Home page for users

In the above Figure 5.14, It shows window showing Home page for users and it contains to search player's information, schedules, rankings, venue, teams and about PKL.

Information about all the tables can be retrieved from user home page and admin home page for example if user clicks on venue in the top navigation bar he gets all the details about the venue



[Back](#)

venue_name	capacity	DOI	city	home_team
Babu Banarsi Das Indoor Stadium	6000	2011-09-15	Lucknow	UP Yoddha
Dome NSCI SVP Stadium	5400	2012-08-30	Mumbai	U Mumba
EKA Arena	4500	2015-03-17	Ahmedabad	Gujarat Fortune Giants
Gachibowli Indoor Stadium	5500	2016-02-22	Hyderabad	Telugu Titans
Jawaharlal Nehru Stadium	6000	2014-04-15	Chennai	Tamil Thalaivas
Kanteerava Indoor Stadium	4000	2013-11-29	Bengaluru	Bengaluru Bulls
Motilal Nehru School of Sports	5000	2015-01-05	Sonepat	Haryana Steelers
Netaji Indoor Stadium	12000	2010-05-11	Kolkata	Bengal Warriors
Patliputra Sports Complex	20000	2016-12-27	Patna	Patna Pirates
Sawai Mansingh Indoor Stadium	4000	2014-09-21	Jaipur	Jaipur Pink Panthers
Shree Shiv Chhatrapati Sports Complex	4400	2014-09-10	Pune	Puneri Paltan
Thyagraj Sports Complex	4410	2016-10-13	New Delhi	Dabang Delhi KC

Figure 5.15 venue details

In the above Figure 5.15, it shows window giving details about venues.

PKL Database Management System

The screenshot shows the MySQL Workbench interface. On the left, the database schema is visible with the 'kabaddi' database selected. The 'Tables' section contains a 'player' table. The main pane displays the results of the SQL query: 'SELECT * FROM `player`;'. The results show 24 rows of player data, including columns like player_id, playername, dob, no_of_matches, player_type, raid_points, tackle_points, highest_raid_points, highest_tackle_points, team_name, and image.

player_id	playername	dob	no_of_matches	player_type	raid_points	tackle_points	highest_raid_points	highest_tackle_points	team_name	image
1001	Pradeep Narwal	1990-05-10	131	Raider	1348	15 31	02	UP Yoddha	img/profile.png	
1002	Manninder Singh	1993-10-17	101	Raider	993	27 23	03	Bengal Warriors	img/profile.png	
1003	Pawan Kumar Shrawat	1995-11-25	104	Raider	986	45 34	04	Bengaluru Bulls	img/profile.png	
1004	Deepak Niwas Hoddle	1996-07-11	140	Allrounder	973	173 19	06	Jaipur Pink Panthers	img/profile.png	
1005	Rahul Chaudhari	1990-03-07	129	Raider	968	45 23	04	Puneri Paltan	img/profile.png	
1006	Ajay Thakur	1987-02-05	120	Raider	794	56 17	03	Dabang Delhi KC	img/profile.png	
1007	Rohit Kumar	1992-09-29	99	Raider	682	78 32	05	Telugu Titans	img/profile.png	
1008	Naveen Kumar	1998-12-23	62	Raider	673	17 31	02	Dabang Delhi KC	img/profile.png	
1009	Rishank Devadiga	1993-05-19	122	Raider	625	64 27	03	Bengal Warriors	img/profile.png	
1010	Sachin Tanwar	1996-02-14	86	Raider	605	50 19	03	Patna Pirates	img/profile.png	
1011	Manjeet Chhillar	1982-02-12	111	Defender	350	326 11	09	Dabang Delhi KC	img/profile.png	
1012	Ravinder Pahal	1990-08-13	115	Defender	43	312 03	08	Gujarat Fortune Giants	img/profile.png	
1013	Sandeep Narwal	1993-07-13	128	Allrounder	311	288 12	07	Dabang Delhi KC	img/profile.png	
1014	Fazeli Atchrali	1991-03-20	108	Defender	37	298 03	10	U Mumba	img/profile.png	
1015	Sureet Narwal	1991-01-04	97	Defender	43	270 04	11	Tamil Thalaivas	img/profile.png	
1016	Dharamraj Cherathala	1980-02-21	119	Allrounder	143	235 08	06	Jaipur Pink Panthers	img/profile.png	
1017	Surendra Nada	1993-08-17	98	Defender	34	267 02	09	Haryana Steelers	img/profile.png	
1018	Girish Maruti Emak	1997-04-11	0	109	23	254 02	10	Gujarat Fortune Giants	img/profile.png	
1019	Meraj Sheykh	1995-12-11	87	Allrounder	311	154 12	06	Haryana Steelers	img/profile.png	
1020	Rajesh Narwal	1996-02-12	103	Allrounder	285	120 13	06	Tamil Thalaivas	img/profile.png	
1021	Monu Goyat	1992-06-19	73	Raider	475	15 20	01	Patna Pirates	img/profile.png	
1022	Jang Kun Lee	1990-03-23	106	Raider	471	10 21	01	Haryana Steelers	img/profile.png	
1023	Siddharth Sinish Desai	1995-04-04	43	Raider	471	30 29	02	Telugu Titans	img/profile.png	
1024	Suklesh Hedge	1994-07-12	100	Raider	413	40 16	03	U Mumba	img/profile.png	
1025	Vishal Bharadwaj	1996-01-07	72	Defender	26	204 03	06	Tamil Thalaivas	img/profile.png	

Figure 5.16 query execution _ 1

In the above Figure 5.16, a quey select * from' player' is executed.

The screenshot shows the MySQL Workbench interface. The database schema is the same as Figure 5.16. The main pane displays the results of the SQL query: 'SELECT * FROM `player` WHERE team_name = 'Dabang Delhi KC';'. The results show 5 rows of player data from the Dabang Delhi KC team, including columns like player_id, playername, dob, no_of_matches, player_type, raid_points, tackle_points, highest_raid_points, highest_tackle_points, team_name, and image.

player_id	playername	dob	no_of_matches	player_type	raid_points	tackle_points	highest_raid_points	highest_tackle_points	team_name	image
1006	Ajay Thakur	1987-02-05	120	Raider	794	56 17	03	Dabang Delhi KC	img/profile.png	
1008	Naveen Kumar	1998-12-23	62	Raider	673	17 31	02	Dabang Delhi KC	img/profile.png	
1011	Manjeet Chhillar	1982-02-12	111	Defender	350	326 11	09	Dabang Delhi KC	img/profile.png	
1013	Sandeep Narwal	1993-07-13	128	Allrounder	311	288 12	07	Dabang Delhi KC	img/profile.png	

Figure 5.17 query execution _ 2

In the above Figure 5.17, a quey select * from' player' where team_name = 'Dabang Delhi KC' is executed.

Conclusion

The project, developed using PHP and MySQL is based on the requirement specification of the user and the analysis of the existing system, with flexibility for future enhancement. This PKL database management system is designed for people who want to learn and know about various particulars and is done by recording them in the database. As various records and particulars get increased day-by-day the other related things are also going to be increased. Thus there is a lot of strain on the person who are watching the PKL to know the records done by various players and getting details about them. This system helps to do it on fingertips. The GUI used here is also very simple and user-friendly.

Future Enhancements

The current project is just based on taking the existing information and storing it in respective data tables and representing the information in the different required forms and providing the ability to search. There always exists need for the enhancements to make it more easy and user friendly. Some of them which can be implemented further are as follows:

- Make this system for players also.
- Information about different seasons of PKL can be added.
- Information about coaches and their success can be added.