MALNAD COLLEGE OF ENGINEERING

(An Autonomous Institution under VTU, Belgaum)

HASSAN-573202

Mini Project (IS507)

IPL Cricket Database Information System

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Abstract

Indian Premier League (IPL) is the most popular sports event in India with huge amount of cash flow on and off the pitch. As IPL gains more popularity, it attracts more endorsement for each team. So, prediction of a match result is very much important for the sponsors as it will help them to put their investment in good hands. In this study we build a Logistic model by which it has been shown that for a particular team, Points table, match list, top 10 performers and the IPL trophies.

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Chapter 1

Introduction

Indian Premier League (IPL) is the most popular sports event in India with huge amount of cash flow on and off the pitch. As IPL gains more popularity, it attracts more endorsement for each team. So, prediction of a match result is very much important for the sponsors as it will help them to put their investment in good hands. In this study we build a Logistic model by which it has been shown that for a particular team, Points table, match list, top 10 performers and the IPL trophies

This software holds a well-defined RDBMS database for storing data in the bank, which is capable of handling large amount of data and frequent use of it.

Problem Statement

Aim of the project is to develop a GUI for users to access the IPL Information and for Admin to add the information of the IPL

Tools and Technologies

Tool: Eclipse 2019-06 IDE, Java Development Kit(JDK) 11
External Library: MySQL Connector(jdbc) and rs2xmal jar Library Programming language: Java (Swings)
DBMS: MySQL database

Introduction to Java Swings

Swing is a GUI widget toolkit for Java. It is part of Oracle's Java Foundation Classes (JFC) – an API for providing a graphical user interface (GUI) for Java programs. Swing was developed to provide a more sophisticated set of GUI components than the earlier Abstract Window Toolkit (AWT). Swing provides a look and feel that emulates the look and feel of several platforms, and also supports a pluggable look and feel that allows applications to have a look and feel unrelated to the underlying platform. It has more powerful and flexible components than AWT. In addition to familiar components such as buttons, check boxes and labels, Swing provides several advanced components such as tabbed panel, scroll panes, trees, tables, and lists. Unlike AWT components, Swing components are not implemented by platform-specific code. Instead, they are written entirely in Java and therefore are platform-independent. The term "lightweight" is used to describe such an element. To develop this project

we have used JDesktopPane and JInternalFrame. JDesktopPane :The JDesktopPane class, can be used to create "multi-document" applications. A multi-document application can have many windows included in it. We do it by making the contentPane in the main window as an instance of the JDesktopPane class or a subclass. Internal windows add instances of JInternalFrame to the JdesktopPane instance. The internal windows are the instances of JInternalFrame or its subclasses. JInternalFrame : JInternalFrame is a part of Java Swing . JInternalFrame is a container that provides many features of a frame which includes displaying title, opening, closing, resizing, support for menu bar, etc.

Introduction to MySQL

MySQL is the world's most popular open source database. With its proven performance, reliability and ease-of-use, MySQL has become the leading database choice for web-based applications, used by high profile web properties including Facebook, Twitter, YouTube, Yahoo! and many more. Oracle drives MySQL innovation, delivering new capabilities to power next generation web, cloud, mobile and embedded applications. MySQL name contains SQL which is abbreviated as Structured Query Language. It is used in this project for designing of backend.

Chapter 2

SYSTEM ANALYSIS

System analysis is the process of observing systems for troubleshooting or development purposes. It is applied to the information technology, where computer base systems required defined analysis according to their makeup and design.

Existing System

In existing system, already these concepts are implemented and we are recreating some of those concepts for the learning purpose.

Proposed System

The project is mainly aimed to create software which provides IPL information access to the user

Chapter 3

Software Requirements Specification

Functional Requirements

1. User

- Users shall be able to access IPL teams and their Information
- Users shall be able to access Player Information
- Users shall be able to access achievements
- Users shall be able to access each teams match results

2. Admin

- Admin shall be able to login to a system
- Admin shall be able to add match between each teams
- Admin shall be able to add New players to team
- Admin shall be able to update player details

Non Functional Requirements

Hardware Requirements:

- **Processor: Core i5 Processor**
- **Speed: 1.70 GHZ**
- **Ram: 4 GB**
- **Hard disk: 250GB or more Hard Disk Drive (HDD)**

Software Requirements:

- **Operating system: Windows 10**
- **Software: Eclipse IDE , JDK 11.0 and Windows Builder**
- **Server :Microsoft SQL server And jdbc Connector**

CHAPTER 4

SYSTEM DESIGN

Data Flow diagram - It describes the flow of data and the process that change data throughout a system. It is constructed using a set of symbols that do not imply physical implementations

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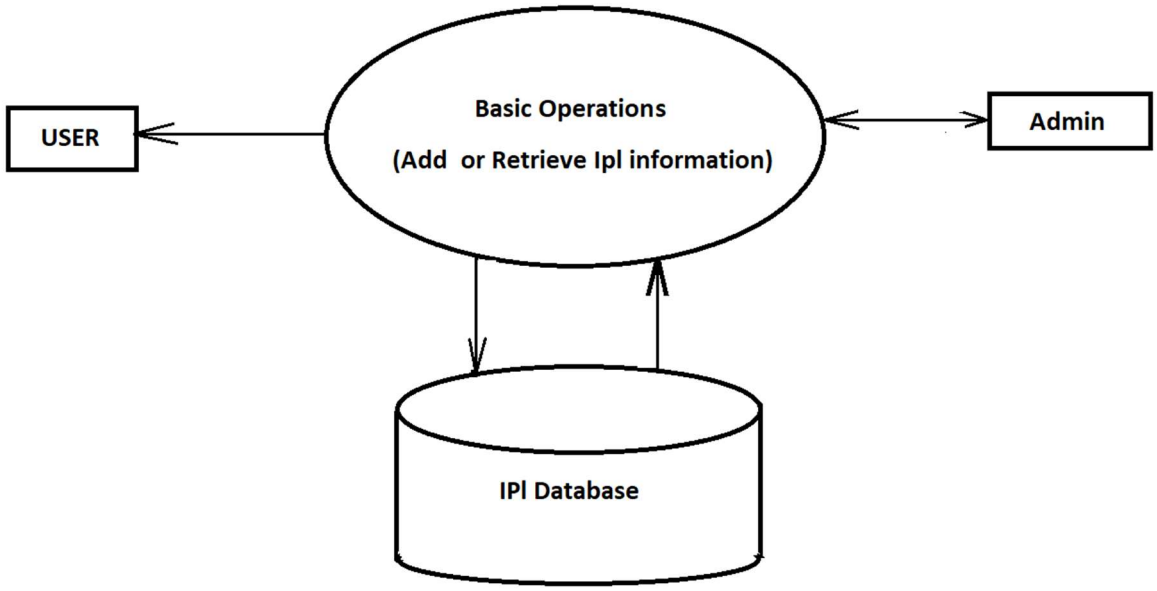
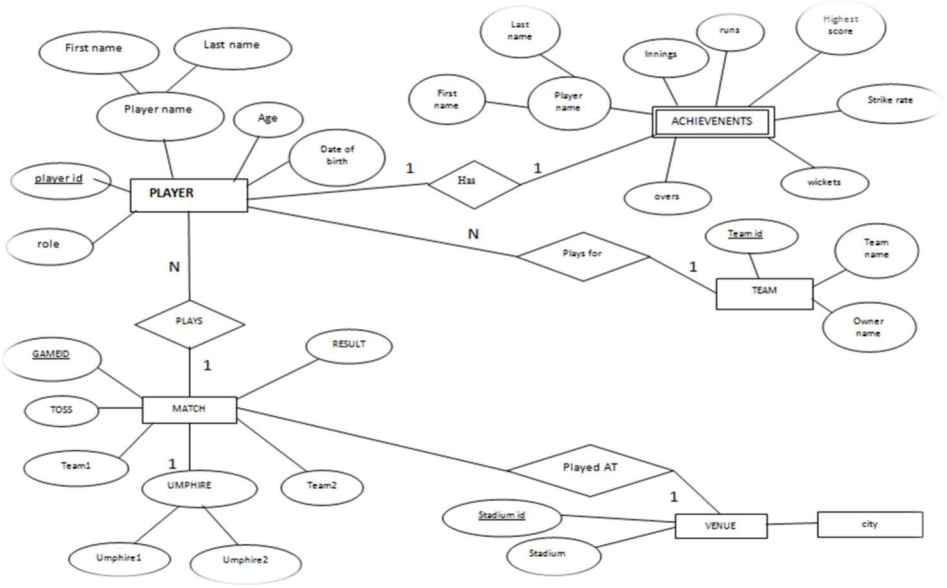


Entity Relationship(ER) Diagram



Schema Diagram

PLAYER

Player id	First name	last name	Date of birth	age	Batting style	**Game id**	**Team id**

MATCH

Game id	Toss	Team 1 squad	Team2 squad	Umphire1	Umphire2	Result

TEAM

Team id	Team name	Owner name

VENUE

Stadium id	Stadium name	City	**Game id**

ACHIEVMENTS

First name	last name	Innings	Runs	Highest runs	Strike rate	Overs	Wickets	**Player id**

Chapter 5

IMPLEMENTATION

It is the important stage where the defined procedures are transformed into control specifications with the help of computer language. Its primary goal is to write the source code and supporting documentation.

Functional Modules

Log in form: This application provides a login form for the Admin. Admin has to log in with their own valid user name and the password then they are redirected to Home page.

Main page: this module is a JDesktopPane ,the admin can able to add match, can add players and can add match results. For user, view teams information, view awards details, top players, points table and player information options are given

Code to fetch team player information from database

```
Button button = new Button("TEAM PLAYERS");
button.addActionListener(new ActionListener() {
public void actionPerformed(ActionEvent e) {
try {
String Query="select first_name ,last_name,role from ipl2.player where
team_id=(select team_id from ipl2.team where team_name=\"Royal challengers
Bangalore\");";

table.setModel(DbUtils.resultSetToTableModel(Database.Retrieve(Query)));
}catch(Exception e1) {
      JOptionPane.showMessageDialog(button, e1);}
            }
}
);
```

Code to load a data from database

```
try {
String url2="jdbc:mysql://127.0.0.1:3306/ipl2";

Class.forName("com.mysql.jdbc.Driver");

Connection conn=DriverManager.getConnection(url,"root","adwin@123");

System.out.println("connected");
```

```
return conn;

}catch(Exception e) {System.out.println(e);}
return null;
}
```

Code to add player information from database:

```
String Q3="select * from ipl2.player where player id=(select
max(player id) from ipl.player where team id=" + team id + "
);";
ResultSet rs1=Database.Retrieve(Q3);
int m=0;
while(rs1.next()) {
m=rs1.getInt(1);
}
int n=m+1;
String Q1="insert into ipl2.player values("+ n +",\""+name1 +
"\",\""+name2+" \",\""+ DOB+" \","+ age+ ",\"" + role+ "\","+
game id +","+ team id + ");";
String Q11="insert into ipl2.achievments values(\"" +name1
+"\",\""+ name2 +"\",null,null,null,null,null,"+n+");";
System.out.print(Q1);
System.out.print(Q11);
int x=Database.insertTable(Q1);
int y=Database.insertTable(Q11);
if(x==1 & y==1 )

JOptionPane.showMessageDialog(button, "Player additon
successful1");
else
JOptionPane.showMessageDialog(button, "Something went wrong");
}
catch(Exception e1) {
JOptionPane.showMessageDialog(button, "Invalid Data!");
}
```

Chapter 6

System Testing

Test Cases and Test Results

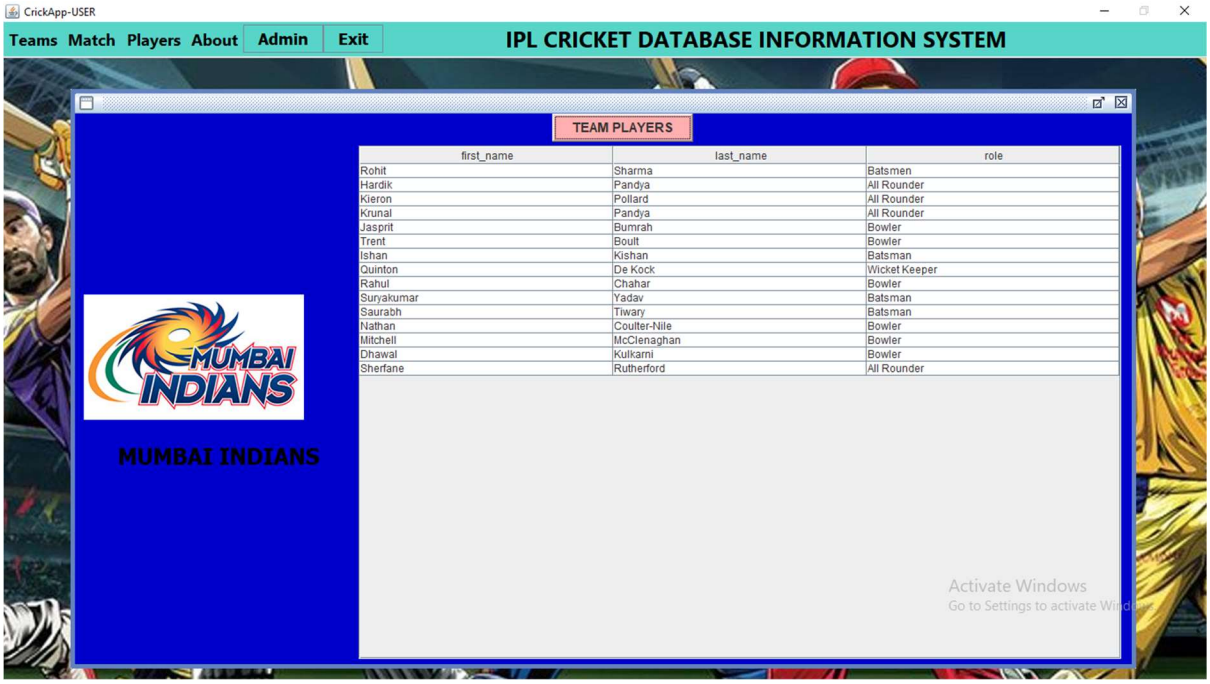
Test ID	Test Case Title And Condition	System Behaviour	Expected Result	Observed Result
T01	Primary key Integrity constraint	When Primary key is given duplicate value	Duplication not permitted	Dialog box indicating corresponding Error message.
T02	Null Value for Attributes except Primary key	When all attributes of a given row are null except primary key	Primary key Cannot be null	The rows get Inserted.
T03	Insertion	When a valid values are given to a row and insert type	One Row inserted	Information Inserted Successfully.
T04	Search	When a valid search is given	Search successfully	Result of all Accounts are given.
T05	Display	When Search Is get closed	Successfully	Close the Application.
T06	Click Exit	Application should get closed	Successfully	Closes the Application.

Chapter 7

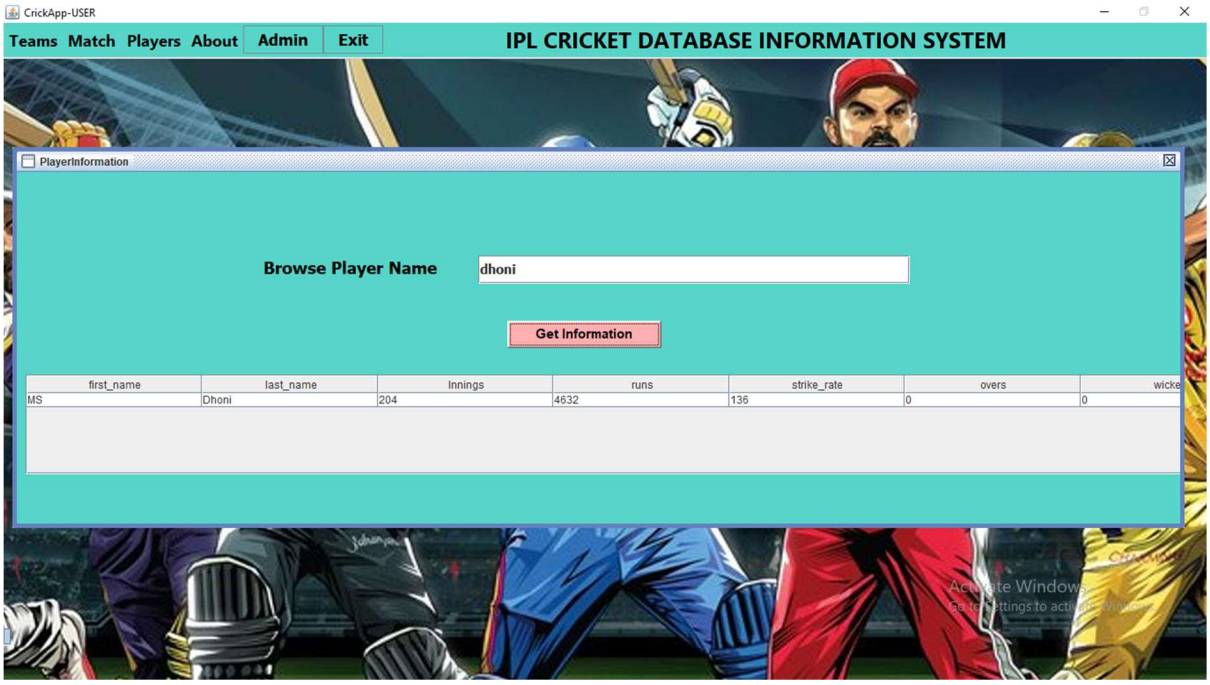
Snap shots of the Project

User Main Window

Team Player Information

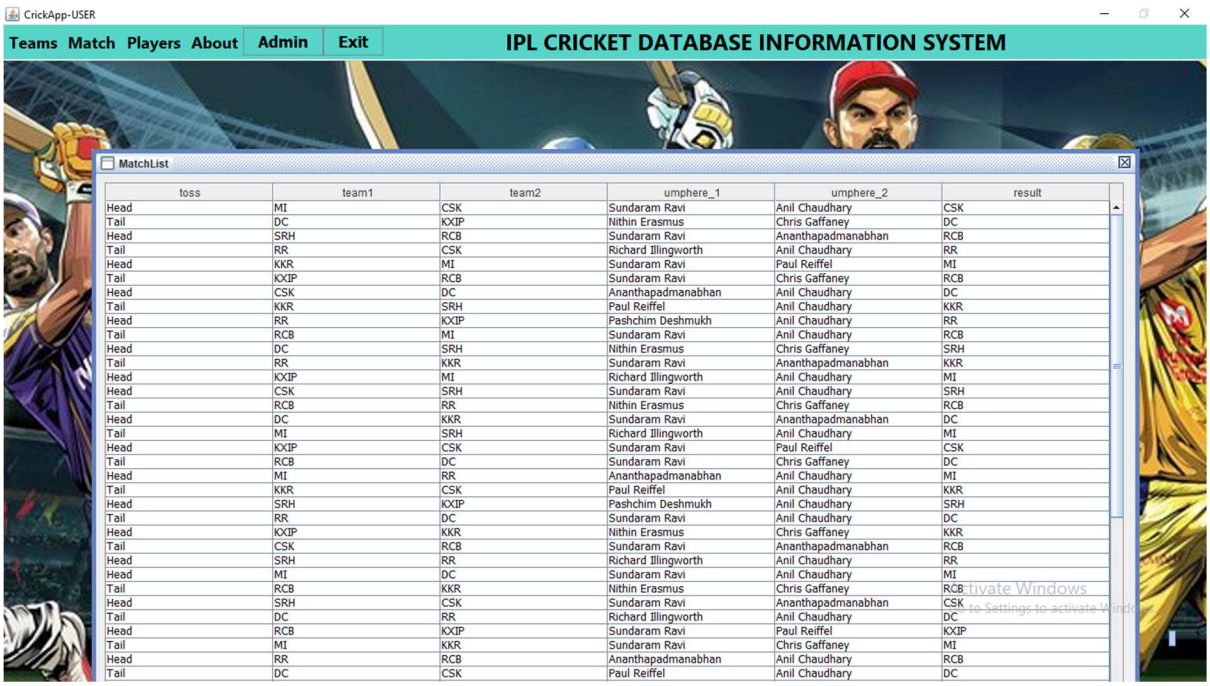


Search about players

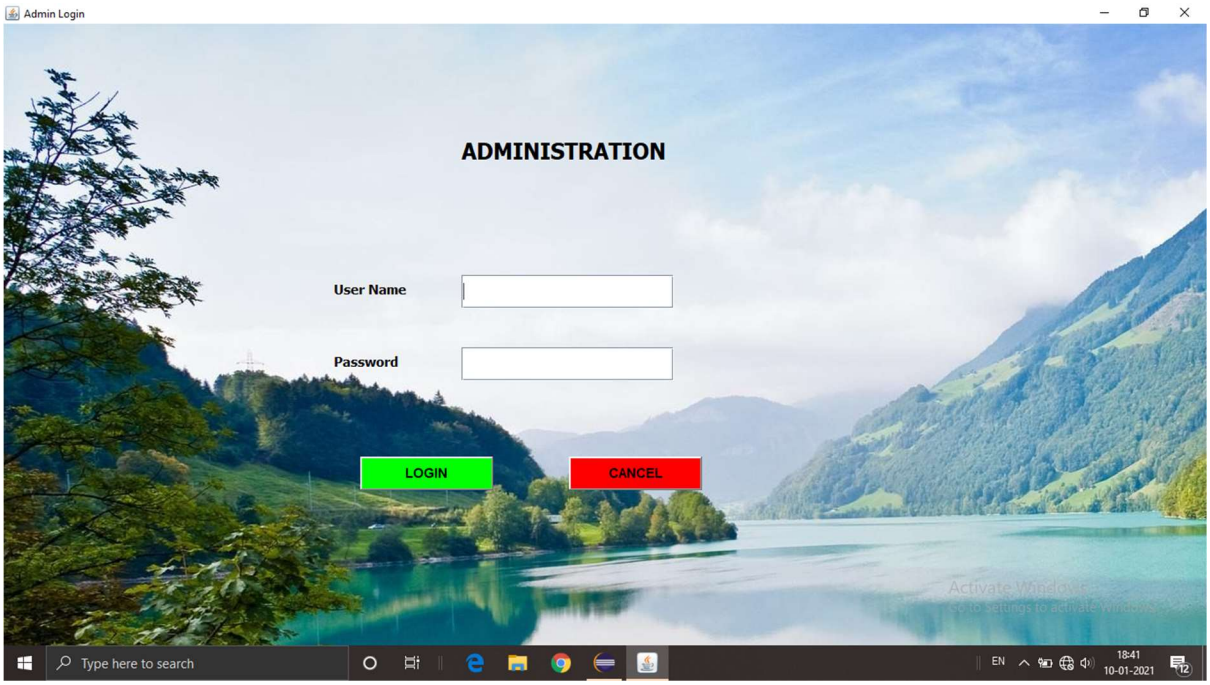


Search about Teams

View Match Results

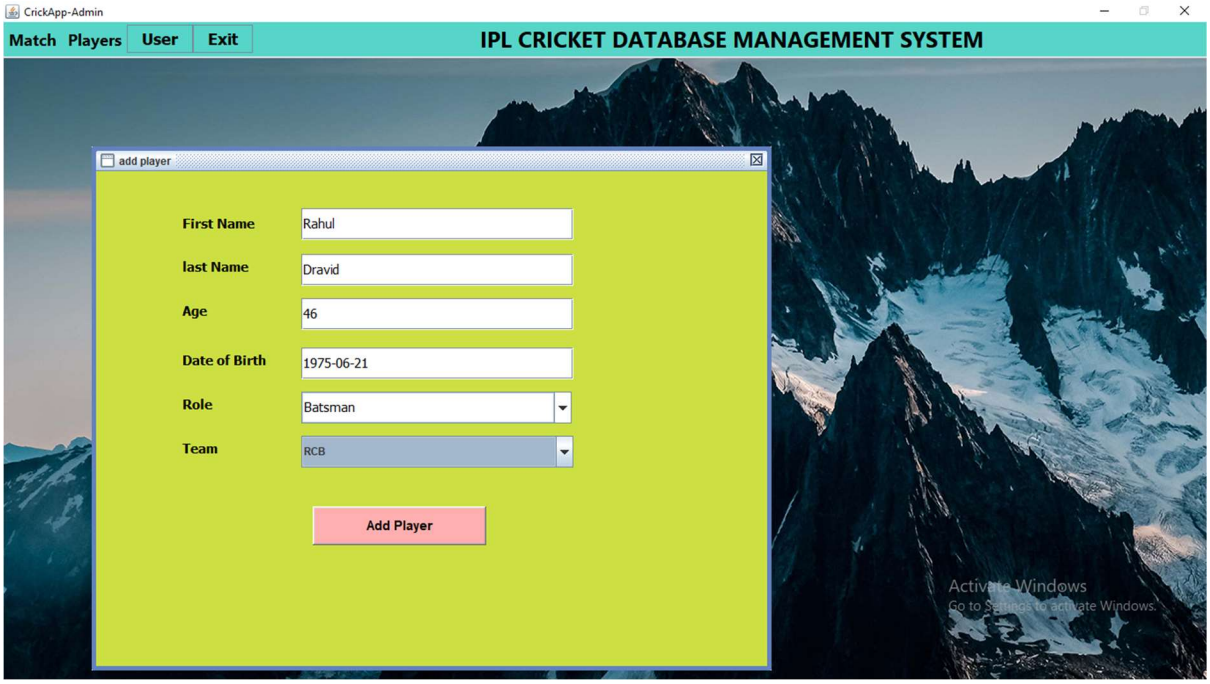


ADMIN LOGIN

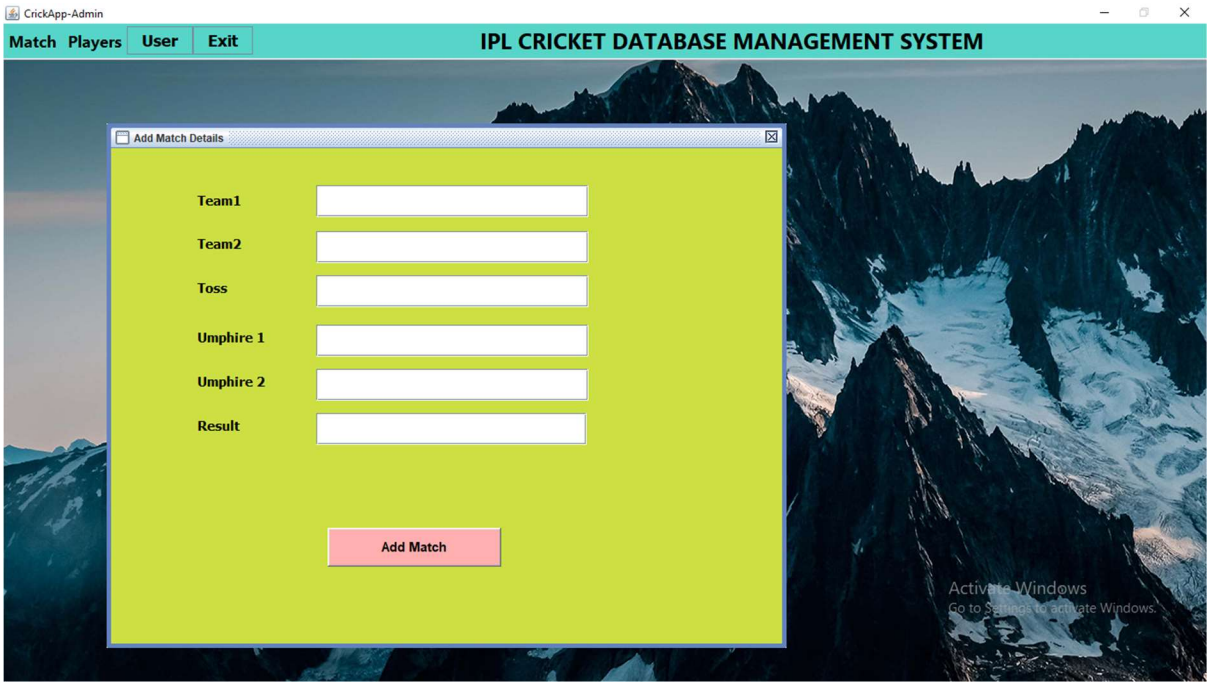


ADMIN PAGE

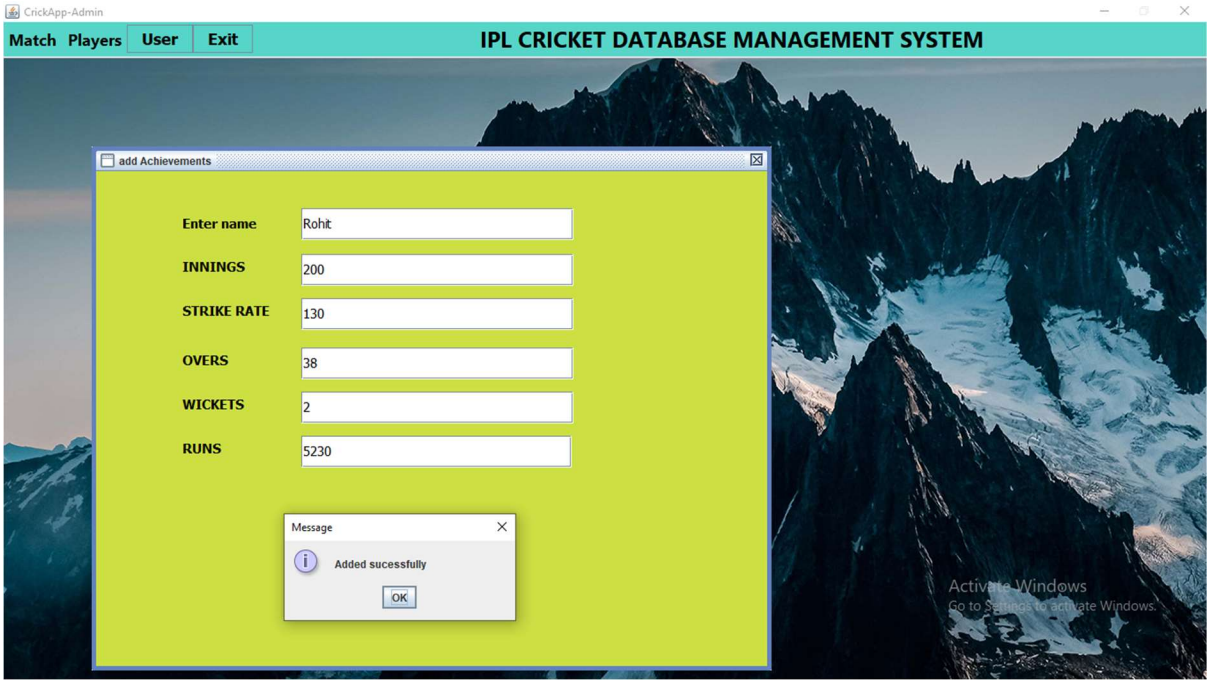
Add player



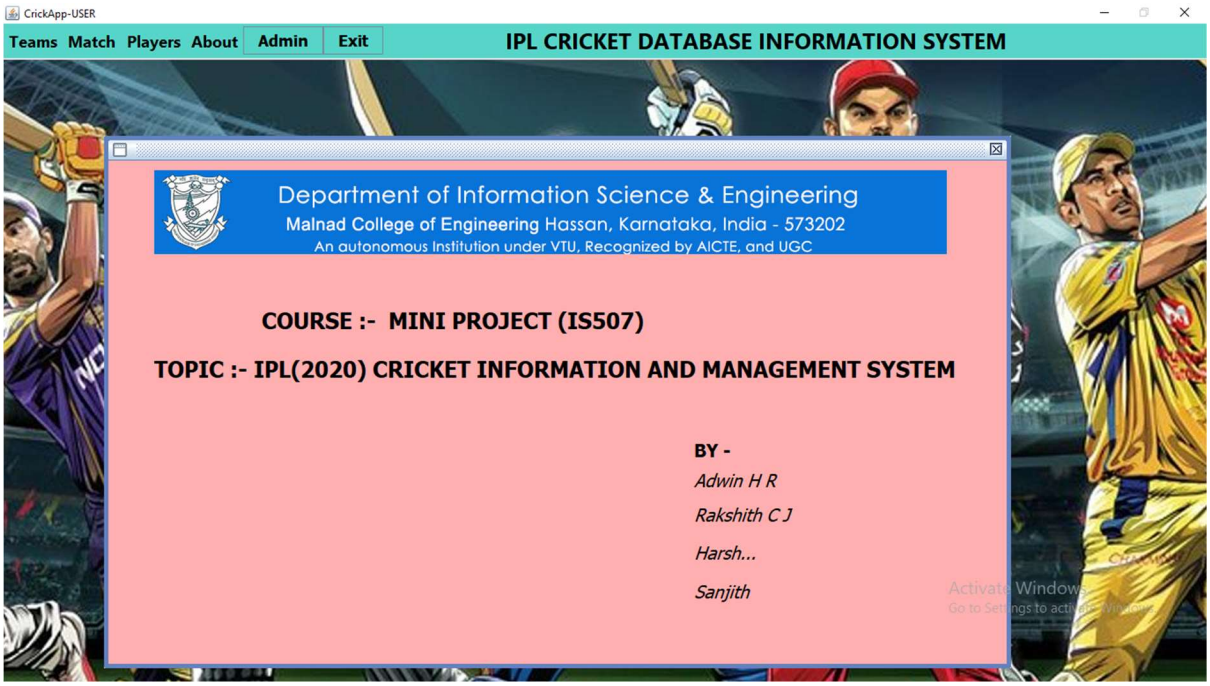
Add Match



Add achievements



About



Chapter 8

CONCLUSION

This project provides a flexible mechanism for user to access information of IPL. This project is designed to meet the requirements of the users. Therefore this helps in providing efficient information and managing the information of the IPL Cricket information. The users can access the player, matches, team information, awards of the IPL. The cricket association shares IPL information with viewers so that they can make profit

Future Scope

This application can be easily implemented. We can add new features as and when we require. We can further implement this application to work efficiently for more number of users at a time and live chat and scores can be implemented.

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Website

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