

Chapter 1

INTRODUCTION

1.1 Background

A database represents some aspect of the real world, sometimes called the miniworld or the universe of discourse (UoD). Changes to the miniworld are reflected in the database. A database is a logically coherent collection of data with some inherent meaning. A random assortment of data cannot correctly be referred to as a database. 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 (DBMS) is a collection of programs that enables users to create and maintain a database. The DBMS is a general-purpose software system that facilitates the processes 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 miniworld, and generating reports from the data. Sharing a database allows multiple users and programs to access the database simultaneously.

1.2 Introduction About The Project

A belief to create a playground where you can fit-in with other fellow misfits, where access is not limited by narrow memberships walls.

A belief that you can play when you want...where you want...how you want, and not have to suffer the agony of wait. A belief to create a world where you can lose yourself and yet rediscover yourself, where you can be both the victor and the vanquished and laugh at being both. A belief...that happiness is a dish best served on the field. This fairytale, like all fairytales, started with a few dudes in distress. One was lamenting his dear departed tennis partner, the second grieving for the badminton racquet left behind, the third desolate after another football weekend that never happened, the fourth broke and gymless from another membership waylaid,

and the fifth just bored to death. Alas, unlike in other fairytales, no fair damsel came to their rescue and they wallowed for a while in their sorrow and so they finally did what all forsaken souls do...start building their very own Neverland, a place for all restless adrenaline junkies like themselves...and thus a thought, nay a belief called Playzone was sown.

We warmly welcome you to Playzone, your singular destination for sports, fitness, fun and all things recreational. Come, relive those cherished childhood moments when you exchanged high fives or wept as one for a loss. Time to get your lovable varsity jersey out and give your neighbour a shout or go challenge your colleague better still make a new friend. Get Addicted to Play and create your own happily ever after.

1.3 HISTORY OF DBMS

In 1959, the TX-2 computer was developed at MIT's Lincoln Laboratory. The TX-2 integrated a number of new man-machine interfaces. A light pen could be used to draw sketches on the computer using Ivan Sutherland's revolutionary Sketchpad software. Using a light pen, Sketchpad allowed one to draw simple shapes on the computer screen, save them and even recall them later. The light pen itself had a small photoelectric cell in its tip. This cell emitted an electronic pulse whenever it was placed in front of a computer screen and the screen's electron gun fired directly at it. By simply timing the electronic pulse with the current location of the electron gun, it was easy to pinpoint exactly where the pen was on the screen at any given moment. Once that was determined, the computer could then draw a cursor at that location. Also in 1961 another student at MIT, Steve Russell, created the first video game, E. E. Zajac, a scientist at Bell Telephone Laboratory (BTL), created a film called "Simulation of a two-giro gravity attitude control system" in 1963.

In the 1980s, artists and graphic designers began to see the personal computer, particularly the Commodore Amiga and Macintosh, as a serious design tool, one that could save time and draw more accurately than other methods. In the late 1980s, SGI computers were used to create some of the first fully computer-generated short films at Pixar. The Macintosh remains a highly popular tool for computer graphics among graphic design studios and businesses. Modern computers, dating from the 1980s often use graphical user interfaces (GUI) to present data and information with symbols, icons and pictures, rather than text. Graphics are one of the five key elements of multimedia technology.

3D graphics became more popular in the 1990s in gaming, multimedia and animation. In 1996, Quake, one of the first fully 3D games, was released. In 1995, Toy Story, the first full-length computer-generated animation film, was released in cinemas worldwide. Since then, computer graphics have only become more detailed and realistic, due to more powerful graphics hardware and 3D modelling software.

1.4 APPLICATION OF DBMS

Applications where we use Database Management Systems are:

- **Telecom:** There is a database to keep track of the information regarding calls made, network usage, customer details etc. Without the database systems it is hard to maintain that huge amount of data that keeps updating every millisecond.
- **Industry:** Where it is a manufacturing unit, warehouse or distribution centre, each one needs a database to keep the records of ins and outs. For example distribution centre should keep a track of the product units that supplied into the centre as well as the products that got delivered out from the distribution centre on each day; this is where DBMS comes into picture.
- **Banking System:** For storing customer info, tracking day to day credit and debit transactions, generating bank statements etc. All this work has been done with the help of Database management systems.
- **Education sector:** Database systems are frequently used in schools and colleges to store and retrieve the data regarding student details, staff details, course details, exam details, payroll data, attendance details, fees details etc. There is a hell lot amount of inter-related data that needs to be stored and retrieved in an efficient manner.
- **Online shopping:** You must be aware of the online shopping websites such as Amazon, Flipkart etc. These sites store the product information, your addresses and preferences, credit details and provide you the relevant list of products based on your query. All this involves a Database management system.

Chapter 2

Entity Relationship Diagram and Schema Diagram

2.1 Entity-relationship Diagram

An entity relationship diagram (ERD), usually referred to as an E-R diagram represents the relationships of entity sets stored in a database. An entity in this context is a component of data. In other words, ER diagrams illustrate the logical structure of databases. At first glance an entity relationship diagram looks very much like a flowchart. It is the specialized symbols, and the meanings of those symbols, that make it unique.

There are five main components of an ERD:

- **Entities**, which are represented by rectangles. An entity is an object or concept about which you want to store information.



- **Actions**, which are represented by diamond shapes, show how two entities share information in the database.



- **Attributes**, which are represented by ovals. A key attribute is the unique, distinguishing characteristic of the entity.



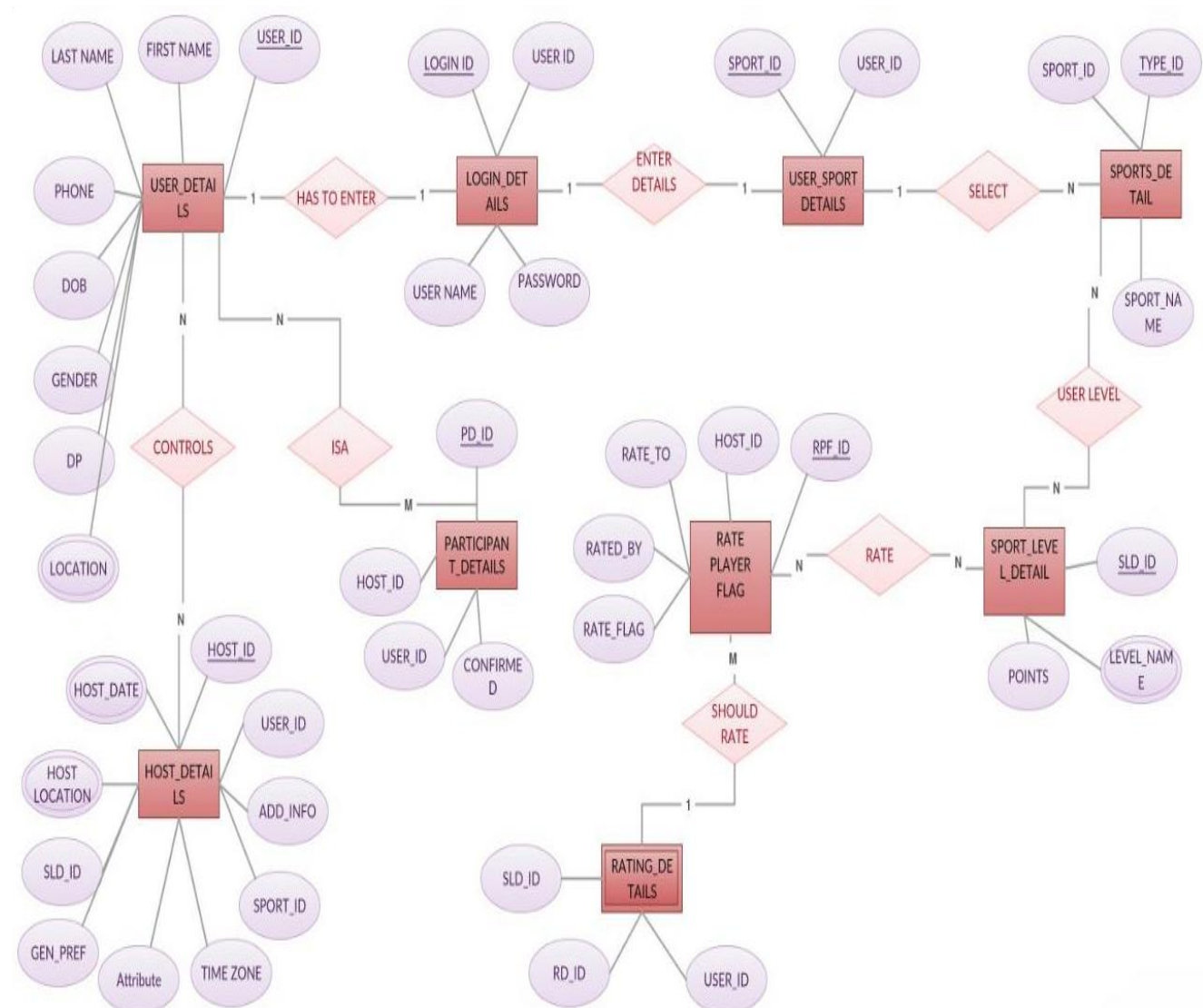


Figure 2.1 E-R Diagram

Schema diagram

A database schema is the skeleton structure that represents the logical view of the entire database. It defines how the data is organized and how the relations among them are associated. It formulates all the constraints that are to be applied on the data.

A database schema defines its entities and the relationship among them. It contains a descriptive detail of the database, which can be depicted by means of schema diagrams. It's the database designers who design the schema to help programmers understand the database and make it useful.

SCHEMA DIAGRAM



Figure 2.2 Schema Diagram

A database schema is the skeleton structure that represents the logical view of the entire database.

Chapter 3

SYSTEM DESIGN

3.1 Tables description

There are 10 tables in the project. The description of the tables is described as below:

+	Table of contents
---	-------------------

- 1 host_details
- 2 login_details
- 3 participant_details
- 4 rate_player_flag
- 5 rating_details
- 6 sports_levels_details
- 7 sport_details
- 8 sport_type_details
- 9 user_details
- 10 user_sport_details

1 host_details

Column	Type	Attributes	Null	Default	Extra	Links to
host_id	int(10)		No		auto_increment	
user_id	int(10)		No			-> user_details.user_id ON UPDATE CASCADE ON DELETE CASCADE
sport_id	int(10)		No			-> sport_details.sport_id ON UPDATE CASCADE ON DELETE CASCADE
host_date	date		No			
time_zone	varchar(30)		No			
host_location	varchar(1500)		No			
gen_pref	varchar(5)		No			
add_info	varchar(500)		Yes	NULL		
sld_id	int(10)		No			
game_end	varchar(10)		No			

2 login_details

Column	Type	Attributes	Null	Default	Extra	Links to
login_id	int(10)		No		auto_increment	
user_id	int(10)		No			-> user_details.user_id ON UPDATE CASCADE ON DELETE CASCADE
username	varchar(20)		No			
password	varchar(20)		No			

3 participant_details

Column	Type	Attributes	Null	Default	Extra	Links to
pd_id	int(10)		No		auto_increment	
host_id	int(10)		No			-> host_details.host_id ON UPDATE CASCADE ON DELETE CASCADE
user_id	int(10)		No			-> user_details.user_id ON UPDATE CASCADE ON DELETE CASCADE
confirmed	varchar(10)		No			

4 rate_player_flag

Column	Type	Attributes	Null	Default	Extra	Links to
rpf_id	int(10)		No		auto_increment	
host_id	int(10)		No			-> host_details.host_id ON UPDATE CASCADE ON DELETE CASCADE
rate_to	int(10)		No			
rated_by	int(10)		No			
rate_flag	varchar(10)		No			

5 rating_details

Column	Type	Attributes	Null	Default	Extra	Links to
rd_id	int(10)		No		auto_increment	
usd_id	int(10)		No			-> user_sport_details.usd_id ON UPDATE CASCADE ON DELETE CASCADE
sld_id	int(10)		No			-> sports_levels_details.sld_id ON UPDATE CASCADE ON DELETE CASCADE

6 sports_levels_details

Column	Type	Attributes	Null	Default	Extra	Links to
sld_id	int(10)		No		auto_increment	
level_name	varchar(30)		No			
points	int(10)		No			

7 sport_details

Column	Type	Attributes	Null	Default	Extra	Links to
sport_id	int(10)		No		auto_increment	
type_id	int(10)		No			-> sport_type_details.type_id ON UPDATE CASCADE ON DELETE CASCADE
sport_name	varchar(20)		No			

8 sport_type_details

Column	Type	Attributes	Null	Default	Extra
type_id	int(10)		No		auto_increment
type_name	varchar(200)		No		

9 user_details

Column	Type	Attributes	Null
user_id	int(10)		No
first_name	varchar(30)		No
last_name	varchar(30)		No
location	varchar(150)		No
phone	varchar(15)		No
sec_ans	varchar(200)		No
dob	Date		No
gender	varchar(1)		No
dp	varchar(40)		No

10 user_sport_details						
Column	Type	Attributes	Null	Default	Extra	Links to
usd_id	int(10)		No		auto_increment	
user_id	int(10)		No			-> user_details.user_id ON UPDATE CASCADE ON DELETE CASCADE
sport_id	int(10)		No			-> sport_details.sport_id ON UPDATE CASCADE ON DELETE CASCADE

Chapter 4

IMPLEMENTATION

Hardware Requirements

Processor	pentium i3,i5 or more
RAM	2GB or Higher
Disk Space	10GB

Software Requirements

Operating System	Windows 7,8,10
Language	PHP,HTML,CSS,
Database	MySQL
Tools	XAMPP

4.1 Front end and back end used

MySQL

MySQL can be used for a variety of application, but it is most commonly found on Web servers. A Website that uses MySQL may includes Web pages that access information from a database. These pages are often referred to as “dynamic,” meaning the content of each page is generated from a database as the page loads. Website that use dynamic Web pages are often referred to as database-driven websites.

Many database-driven websites that use MySQL also use a web scripting languages like Php to access information from the database. MySQL commands can be incorporated into the Php code, allowing part or all of a web page to be generated from database information. Because both MySQL and Php are open source, the Php/MySQL combination has become a popular choice for database-driven websites.

MySQL is used as back end. MySQL is a powerful Relational Database Management System (RDBMS) which we will use to learn the basic principles of database using Structured Query Language (SQL) statement. SQL is a database language that is used to retrieve, insert, delete, update store data. This is achieved by constructing conditional statements that conform to a specific syntaxes.

How does MySQL works

MySQL is a database server program and as such is installed on the machine, but can be used as a 'server' for the database to a variety of location. Figure 4.1 shows the working of MySQL

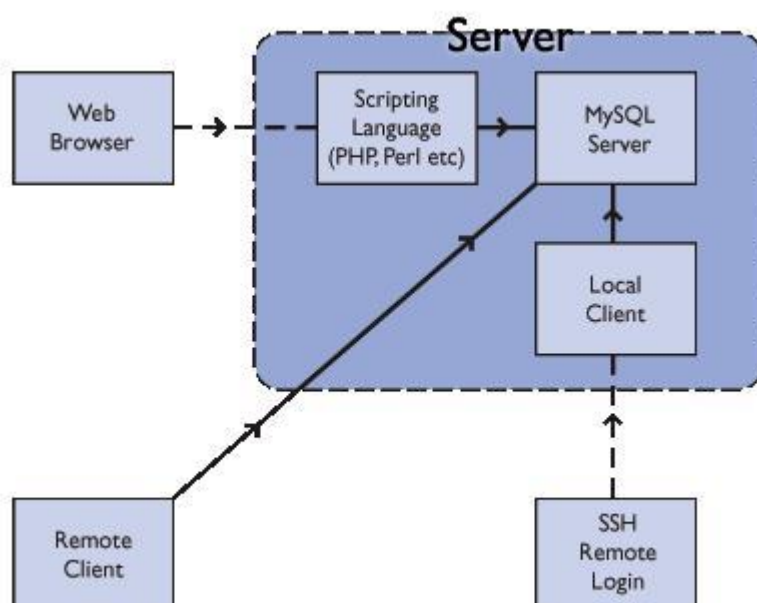


Figure 4.1 MySQL Server

The MySQL Server is installed on a Server and can be accessed directly via various client interfaces, which send SQL statements to the server and then display the results to a user. Some of these are:

A Local Client - a program on the same machine as the server. An example of this is the command line MySQL client software we will be using in the rest of the MySQL workshops (although there are other programs including graphical interfaces).

A Scripting Language - can pass SQL queries to the server and display the result.

A Remote Client - a programme on a different machine that can connect to the server and run SQL statements.

You can also use two more indirect methods.

Remote Login - You may be able to connect to the Server Machine to run one of its local clients.

Web Browser - you can use a web browser and scripts that someone has written (we're going to use this method for the rest of the workshop).

PHP

PHP stands for Hypertext Pre-processor. It is a scripting language designed to fill the gap between SSI(Server side includes) and Perl, intended for the web environment. Its principle application is the implementation of web pages having dynamic content. PHP has gained quite a following in recent times, and it is one of the frontrunners in the open source software movement. Its open popularity derives from its C-like syntax, and its simplicity. The newest version of PHP is 7.0 and it is heavily recommended to always use the newest version for better security performance and of course features.

HTML

HTML is the standard markup language for creating Web pages. HTML stands for Hyper Text Markup Language. Hypertext means that the document contains links that allow the reader to jump to other places in the document or to another document altogether. HTML describes the structure of Web pages using markup. HTML elements are the building blocks of HTML pages.

CSS

CSS stands for Cascading Style Sheets. It is a language used for describing the presentation of the document written in markup language like HTML. It is used for describing the presentation of Web pages, including colors, layouts and fonts. It allows one to adapt the presentaion to different types of devices, such as large screens, small screens, or printers. CSS is independent of HTML and can be used with any XML-based Markup Language.

XAMPP

XAMPP stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P). It is a free and open-source cross-platform web server solution stack package developed by Apache friends. It is simple, light weighted Apache server that makes it extremely easy for developers to create a local http server with just few clicks. It provides solid and a reliable foundation for building a web applications. It is basically a localhost or local server. This localhost works on our own desktop or computer. The Cross-platform usually means that it can run on any computer with any operating system. MariaDB is the most famous database server and it is developed by MySQL team. PHP usually provides a space for web development. PHP is a server side scripting language.

4.2 Discussion of Code Segments

MAIN PAGE :

```
#mainpage{
color:white;
}
input[type=text],
input[type=password],input[type=date] {
width: 100%;
padding: 12px 20px;
margin: 8px 0;
display: inline-block;
border: 1px solid #ccc;
box-sizing: border-box;
}
```

```
button {
background-color: #4CAF50;
color: white;
padding: 14px 20px;
margin: 8px 0;
border: none;
cursor: pointer;
width: 100%;
```

```
}
#RegBtn{
display:none;
}
.s{
background-color: #4CAF50;
color: white;
padding: 14px 20px;
margin: 8px 0;
border: none;
cursor: pointer;
width: 100%;
}

.footer {
position: relative;
left: 0;
bottom: 0;
height:10%;
width: 100%;
background-color: black;
color: white;
}

a#h>img:hover {
opacity:0.5;
}
</style>
</head>
<body>
<nav class="navbar navbar-default navbar-fixed-top">
<div class="container-fluid"> <div class="navbar-
header">
<button type="button" class="navbar-toggle" data-toggle="collapse" data-
target="#myNavbar">
<span class="icon-bar"></span>
<span class="icon-bar"></span>
<span class="icon-bar"></span>
</button>
<a class="navbar-brand" href="#">

</a>
</div>
```

```

<div class="collapse navbar-collapse" id="myNavbar">
<ul class="nav navbar-nav"> <li class="active
navactive">
<a href="home.php">Home</a>
</li>
</ul>
</div>
</div>
</nav>
<div id="myCarousel" class="carousel slide" data-
ride="carousel"> <!-- Indicators -->
<ol class="carousel-indicators">
<li data-target="#myCarousel" data-slide-to="0" class="active"></li>
<li data-target="#myCarousel" data-slide-to="1"></li> </ol>

<!-- Wrapper for slides -->
<div class="carousel-inner" role="listbox">
<div class="item active">

<div class="carousel-caption">
<h3>Badminton</h3>
</div>
</div>
<div class="item">

<div class="carousel-caption">
<h3>Football</h3>
</div>
</div>
</div>

```

LOG IN :

```

<?php
if(isset($_POST['SubmitLog']))
{
$username=$_POST['LogUserName'];
$password=$_POST['LogPswd'];
$servername = "localhost";
$username = "root";
$password = "";
$dbname="playzonedb";
$error="";

```



```
$conn = new mysqli($servername, $username, $password,$dbname);
if ($conn->connect_error) {
die("Connection failed:" . $conn->connect_error); }
$result=$conn->query("select user_id,username from login_details where
username='$uname' and password='$psw'");
if ($result->num_rows > 0) {
while($row = $result->fetch_assoc())
{
session_start();
$_SESSION['user_id']=$row["user_id"];
$user_id=$row["user_id"];
$_SESSION['username']=$row["username"];
$result1=$conn->query("select gender from user_details where
user_id=$user_id"); if ($result1->num_rows > 0) {
while($row1 = $result1->fetch_assoc())
$_SESSION['gender']=$row1['gender'];
}
echo "<html><script> window.location.href='home.php'; </script></html>";
}
}
else {
echo "<html><script> alert('Invalid Details'); window.location.href='MainPage.php';
</script></html>";
}
$conn->close();
}
?>
```

4.3 Applications of Project Work

- Many athletes do better academically. Playing a sport requires a lot of time and energy.
- Sports teach teamwork and problem-solving skills.
- Physical health benefits of sports.
- Sports boost self-esteem.
- Reduce pressure and stress with sports.
- Various Games needs good strategies for a better performance and teamwork, so it increases our thinking ability and teaches us the power of teamwork and to find a way out of difficult situations.

4.4 Discussion of the Results

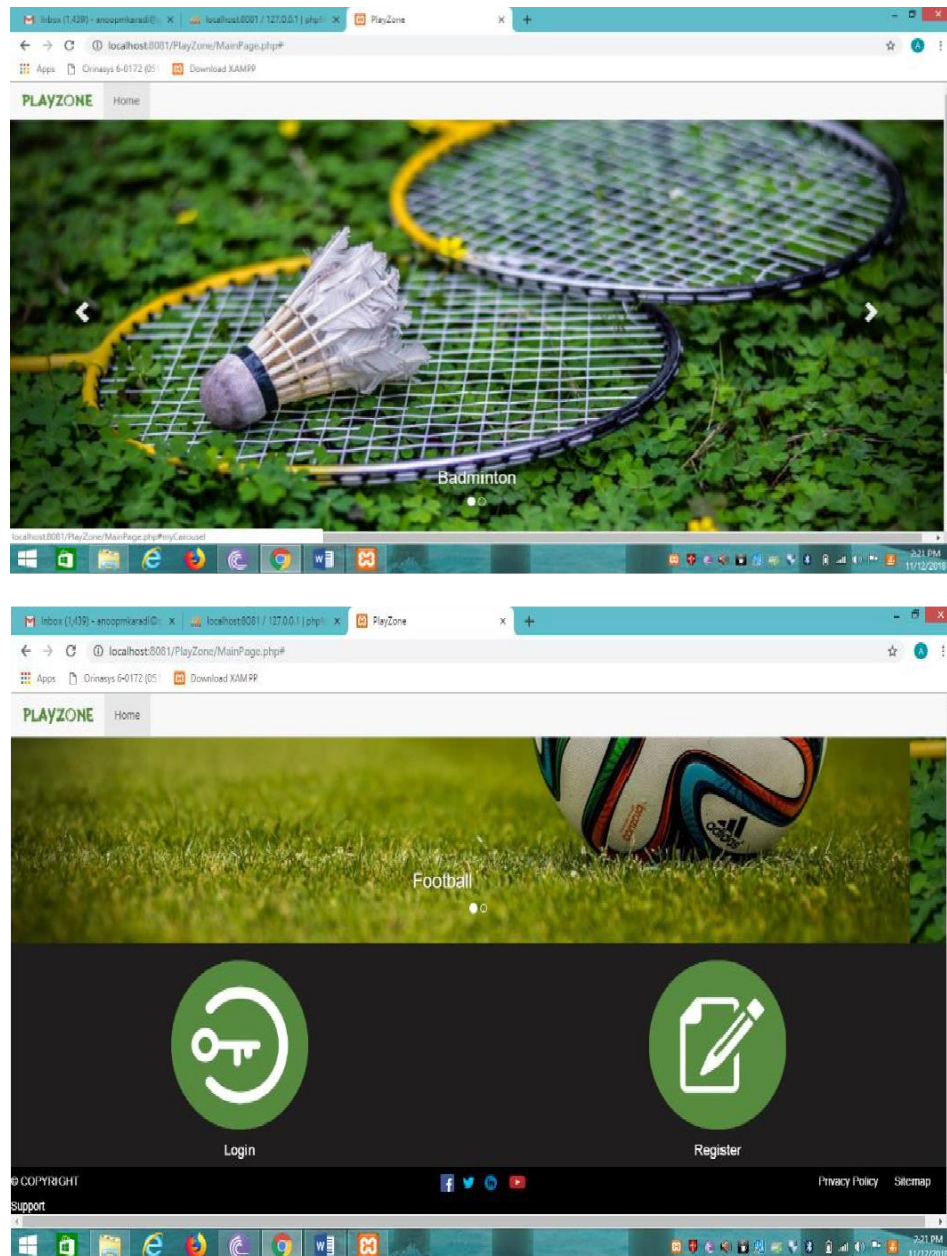


Figure 4.4 Login Page

The ADMIN is required to enter their respective Login_ID's and password for them to login into their respective portals. In login page it allows the admin to enter his username and password as shown in Figure 4.4

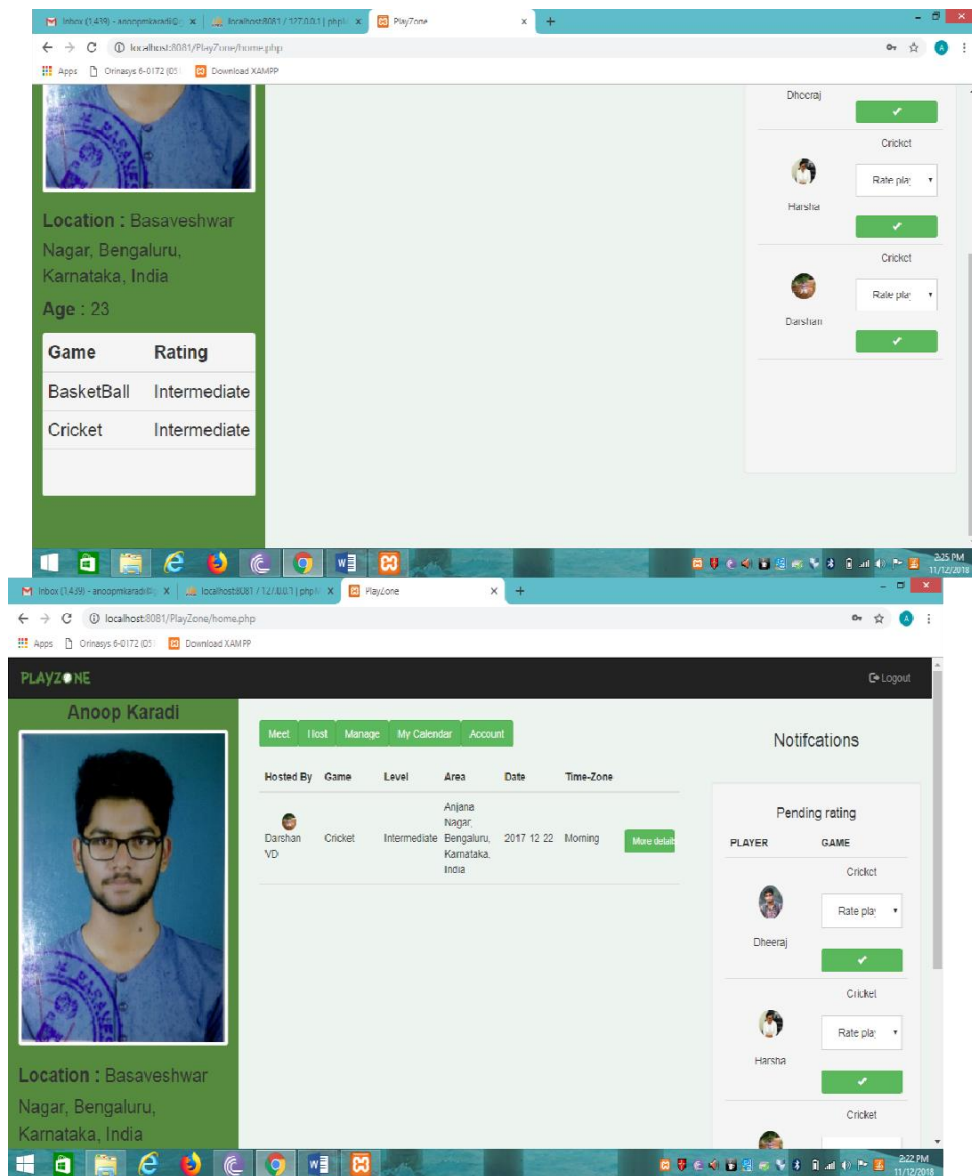


Figure 4.5 After Login

Where player manages the games and meet other hosts. It has a dropdown menu where we have to insert the details and when we click on submit it shows the member list as shown in Figure 4.5

Host game

Select game :

Date :

Select time zone :
☒ Morning (5 AM to 10 AM)
☐ Day (10 AM to 4 PM)
☐ Evening (4 PM to 8 PM)
☐ Night (8 PM to 12 AM)

Gender preference :
☒ Male
☐ Female
☐ Don't care

Host location:

Additional information (optional)

Pending rating

PLAYER	GAME	RATING
Dheeraj	Cricket	<input type="text" value="Rate play"/> <input checked="" type="button" value="✓"/>
Harsha	Cricket	<input type="text" value="Rate play"/> <input checked="" type="button" value="✓"/>
Darshan	Cricket	<input type="text" value="Rate play"/> <input checked="" type="button" value="✓"/>

User Profile:
 Location : Basaveshwar Nagar, Bengaluru, Karnataka, India
 Age : 23

Game	Rating
BasketBall	Intermediate
Cricket	Intermediate

Select time zone :
☐ Day (10 AM to 4 PM)
☐ Evening (4 PM to 8 PM)
☐ Night (8 PM to 12 AM)

Gender preference :
☒ Male
☐ Female
☐ Don't care

Host location:

Game info :

Pending rating

PLAYER	GAME	RATING
Dheeraj	Cricket	<input type="text" value="Rate play"/> <input checked="" type="button" value="✓"/>
Harsha	Cricket	<input type="text" value="Rate play"/> <input checked="" type="button" value="✓"/>
Darshan	Cricket	<input type="text" value="Rate play"/> <input checked="" type="button" value="✓"/>

User Profile:
 Location : Basaveshwar Nagar, Bengaluru, Karnataka, India
 Age : 23

Game	Rating
BasketBall	Intermediate
Cricket	Intermediate

Figure 4.6 Host Page

Where player host their games and accept other players. You can host the game and you can see the place who are interested in your event and u can accept or reject by seeing their rating.

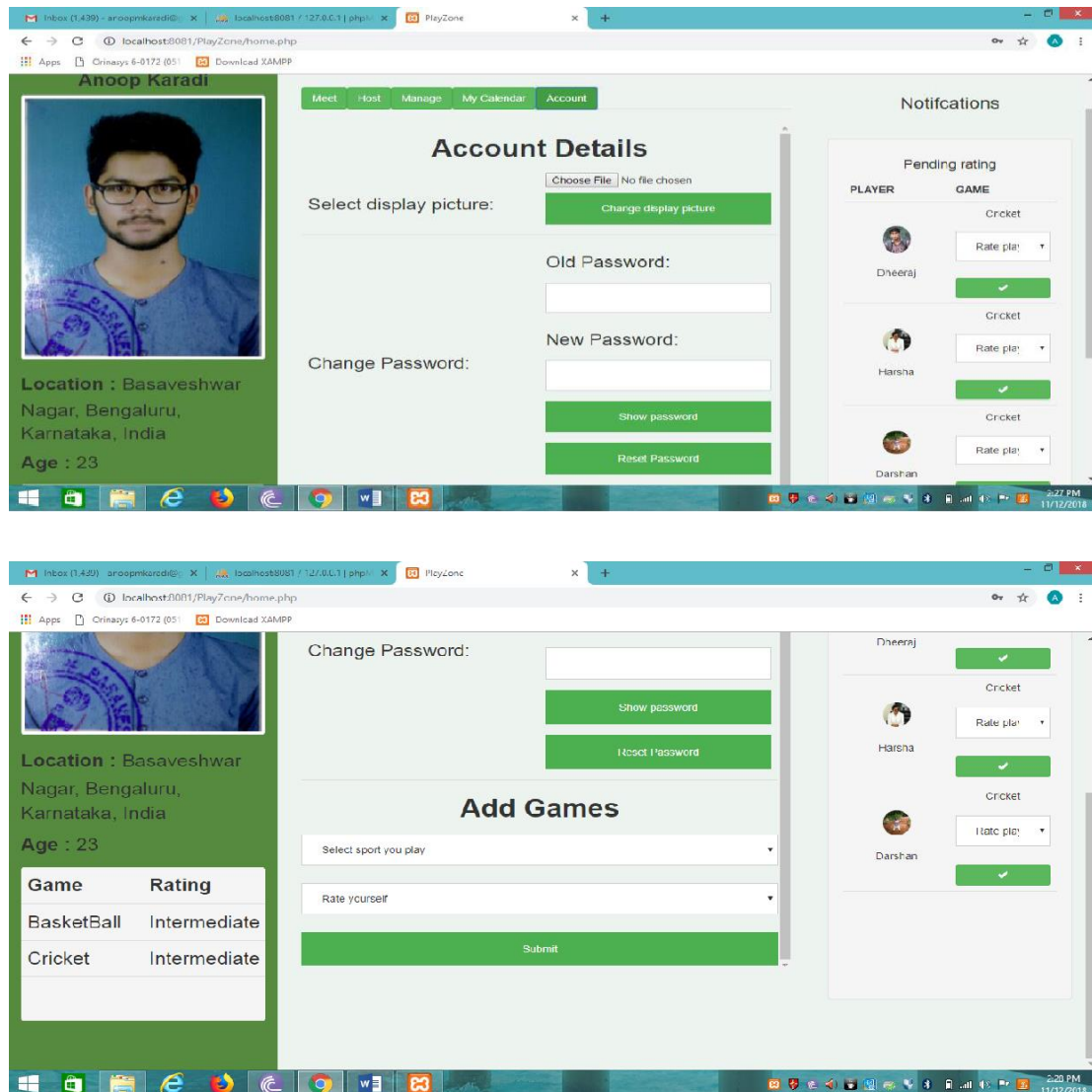


Figure 4.7 Account Details

Where the players manages their accounts and add their interested games.

Chapter 5

CONCLUSION AND FUTURE ENHANCEMENTS:

In conclusion, Outdoor games are very useful. They give us all benefits of physical exercise. Outdoor games are open air games. So, we breathe in plenty of fresh air. We breathe in plenty for oxygen. Hence, our blood circulation works very well. Outdoor games are necessary for health and happiness and achieving a high sense of discipline. Hence, they should be made popular with all the children of our country. We can play a good role in it. We can open new teams in our own hamlets. We can encourage the new-comers to play with us.

FUTURE ENHANCEMENTS:

- The project can be implemented on intranet in future.
- Improve Graphical Representation.
- Extending it to Web Support.
- Take user response in website and produce web rank list.

REFERENCES

Books

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2. RamezElmasri and Shamkant B. Navathe , Fundamentals of Database Systems , Pearson , 7th Edition
3. Herbert Schildt ,Java:The Complete Reference , McGRAW HILL , 7th Edition.

WebPage Links

1. [Stackoverflow.com](https://stackoverflow.com)
2. [W3schools.com](https://www.w3schools.com)
3. [Technotip.com](https://www.technotip.com)
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