

Agame
A MINI-PROJECT REPORT

Submitted by
NISHAL I P – 2116220701187

in partial fulfilment of the award of the degree of

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IN

COMPUTER SCIENCE AND ENGINEERING



RAJALAKSHMI
ENGINEERING COLLEGE
An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai

RAJALAKSHMI ENGINEERING COLLEGE

(AUTONOMOUS) THANDALAM

CHENNAI-602105

NOV/DEC, 2024

BONAFIDE CERTIFICATE

Certified that this mini project “**Agame – Retro games** ” is the bonafide work of “ **NISHAL I P (2116220701187)**” who carried out the project work under my supervision.

SIGNATURE

Mrs. JANANEE V
Assistant Professor,
Computer Science And Engineering,
Rajalakshmi Engineering College,
(Autonomous)
Thandalam, Chennai - 602 105

Submitted for the practical examination to be held on _____

INTERNAL EXAMINER

EXTERNAL EXAMINER

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ABSTRACT

The evolution of web-based gaming has transformed the way users engage with digital content, providing easy access to thousands of games without requiring installations or downloads. This project aims to develop a web application platform for playing open-source games, inspired by popular gaming portals such as Poki and Miniclip. Our platform focuses on hosting a wide variety of games, allowing users to enjoy them seamlessly in their browsers. By utilizing open-source games, the project ensures that all game offerings are legally accessible and free, supporting the open-source community.

One of the core features of the platform is user authentication, enabling players to register, log in, and store their gaming preferences and progress securely in a database system. The application is designed to provide a personalized gaming experience, where users can maintain individual profiles and access previously played games with ease. Our database backend ensures proper management of user credentials, game data, and performance logs.

This project aims to provide an engaging, user-friendly gaming experience while promoting the value of open-source development. The platform addresses the growing demand for easily accessible online entertainment while focusing on security, usability, and performance. Additionally, we explore the potential of implementing features such as leaderboards, user points, and game progress tracking, which contribute to the gamification of the platform and increase user engagement.

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CHAPTER 1

INTRODUCTION

1. INTRODUCTION

The online gaming industry has evolved dramatically over the years, shifting from traditional console and PC gaming to web-based platforms that provide instant access to a variety of games through web browsers. This shift has led to the emergence of popular gaming portals such as Poki and Miniclip, which aggregate games from multiple developers, offering them to users without the need for installations. Users increasingly prefer these platforms due to their ease of access, minimal setup requirements, and diverse game offerings, spanning categories such as puzzles, adventure, action, and strategy..

1.2 SCOPE OF THE WORK

The scope of this project focuses on the development of a web-based gaming platform that aggregates and provides access to a collection of open-source games. The platform will offer secure user authentication through login and registration systems, allowing users to create accounts, manage profiles, and track game progress. A backend database will be implemented to store user credentials, game logs, preferences, and scores securely, ensuring personalized experiences. The project also involves designing a responsive and user-friendly interface that offers seamless gameplay across multiple devices, including desktops, tablets, and smartphones, ensuring cross-browser compatibility. Additionally, an admin panel will be provided to facilitate the management of games, user accounts, and platform settings. This project aims not only to deliver entertainment but also to promote the use of open-source games, encouraging responsible access to free, legally distributed content. Future enhancements could include multiplayer support, leaderboards, and community-driven game submissions, expanding the platform's capabilities and fostering user engagement.

1.3 AIM AND OBJECTIVES OF THE PROJECT

The primary aim of this project is to build an online gaming platform that is user-friendly, efficient, and engaging, similar to platforms like Poki and Miniclip. The platform focuses on offering a variety of open-source games, making them accessible to users through a web-based interface without requiring downloads or installations. The goal is to foster an enjoyable and competitive gaming environment where users can easily log in, track their progress, and compete on leaderboards.

Objectives:

1.Create an Accessible and Enjoyable Gaming Platform

- Develop a web-based platform that hosts multiple genres of games to appeal to a broad audience.
- Ensure the interface is intuitive so that both casual gamers and enthusiasts can easily navigate the platform.
- Optimize the system to run smoothly across browsers, requiring no additional installations.

2. Implement Secure User Authentication

- Provide login and registration functionality to allow users to create personalized accounts.
- Ensure user data security through encrypted storage of sensitive information, such as passwords.
- Enable user session management, so users can resume their gaming progress from where they left off.

3. Promote Community Engagement through Leaderboards

- Integrate leaderboards for competitive games, displaying high scores and ranks of top players.
- Encourage social interactions by allowing users to share their achievements.
- Develop features such as multiplayer support for games, where applicable, to make gaming more interactive.

4.Enable Efficient Game Management and Expansion

- Use a modular design to allow the easy addition of new games without significant changes to the platform's codebase.
- Ensure that each game integrates smoothly with user accounts and leaderboards.
- Provide an admin dashboard to manage games, monitor performance, and troubleshoot issues.

5.Leverage Open-Source Content to Reduce Costs

- Host open-source games to minimize development costs and avoid licensing fees.
- Showcase open-source contributions to promote transparency and encourage others to develop games for the platform.

CHAPTER 2

SYSTEM SPECIFICATIONS

2.1 HARDWARE SPECIFICATIONS

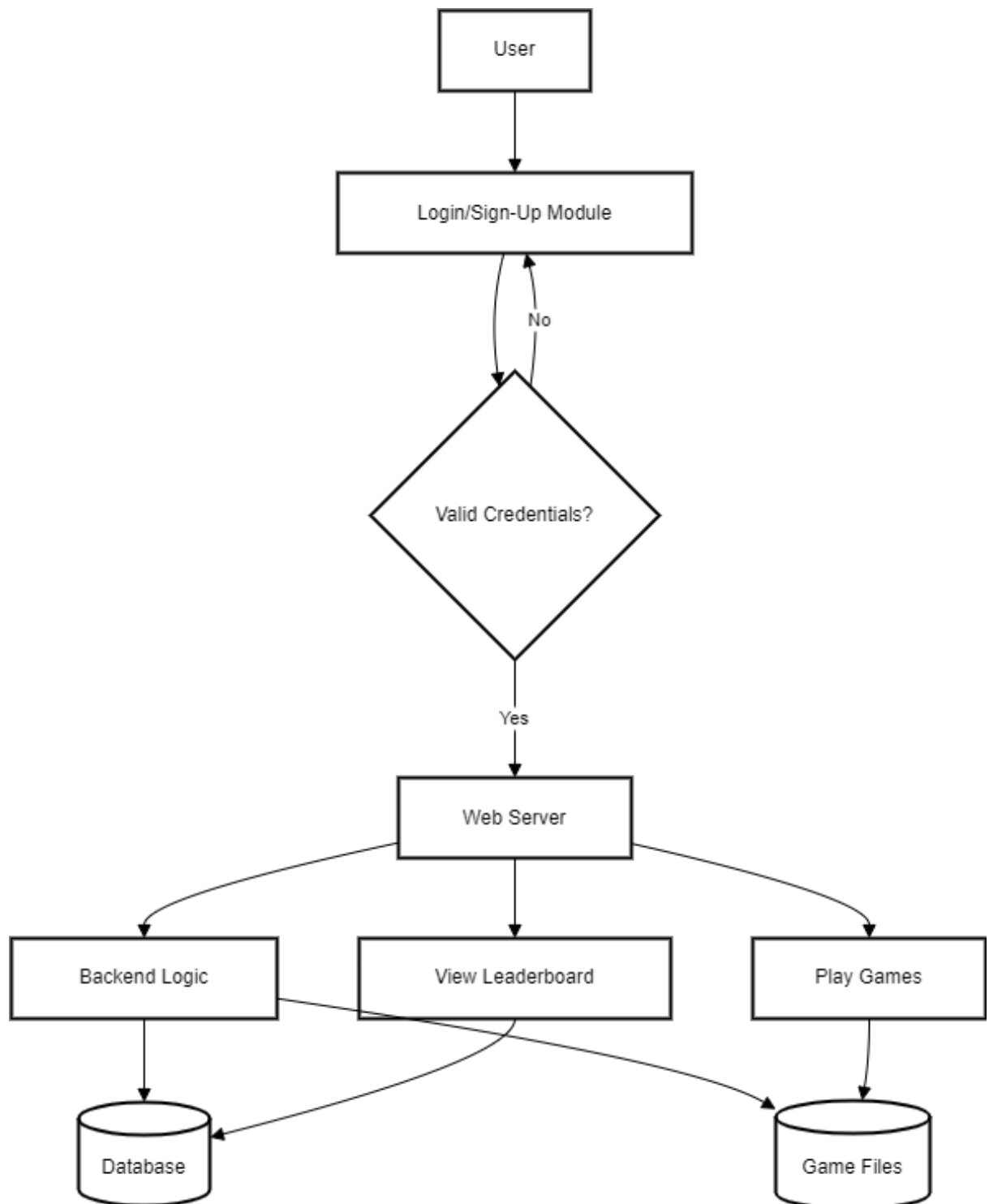
Processor	:	Pentium IV Or Higher
Memory Size	:	128 GB (Minimum)
HDD	:	40 GB (Minimum)

2.2 SOFTWARE SPECIFICATIONS

Operating System	:	WINDOWS 7 AND PLUS
Front – End	:	HTML, CSS,
Back – End	:	PHP, MYSQL

CHAPTER 3

ARCHITECTURE DIAGRAM



CHAPTER 4

MODULE DESCRIPTION

4.1 User Authentication Module:

- Handles user registration, login, and logout functionality.
- Ensures secure storage of passwords using encryption.

4.2 Game Management Module:

- Fetches and loads open-source games from the server.
- Supports multiplayer and single-player modes, where applicable.
-

4.3 User Profile Module:

- Tracks user progress, scores, and game preferences.

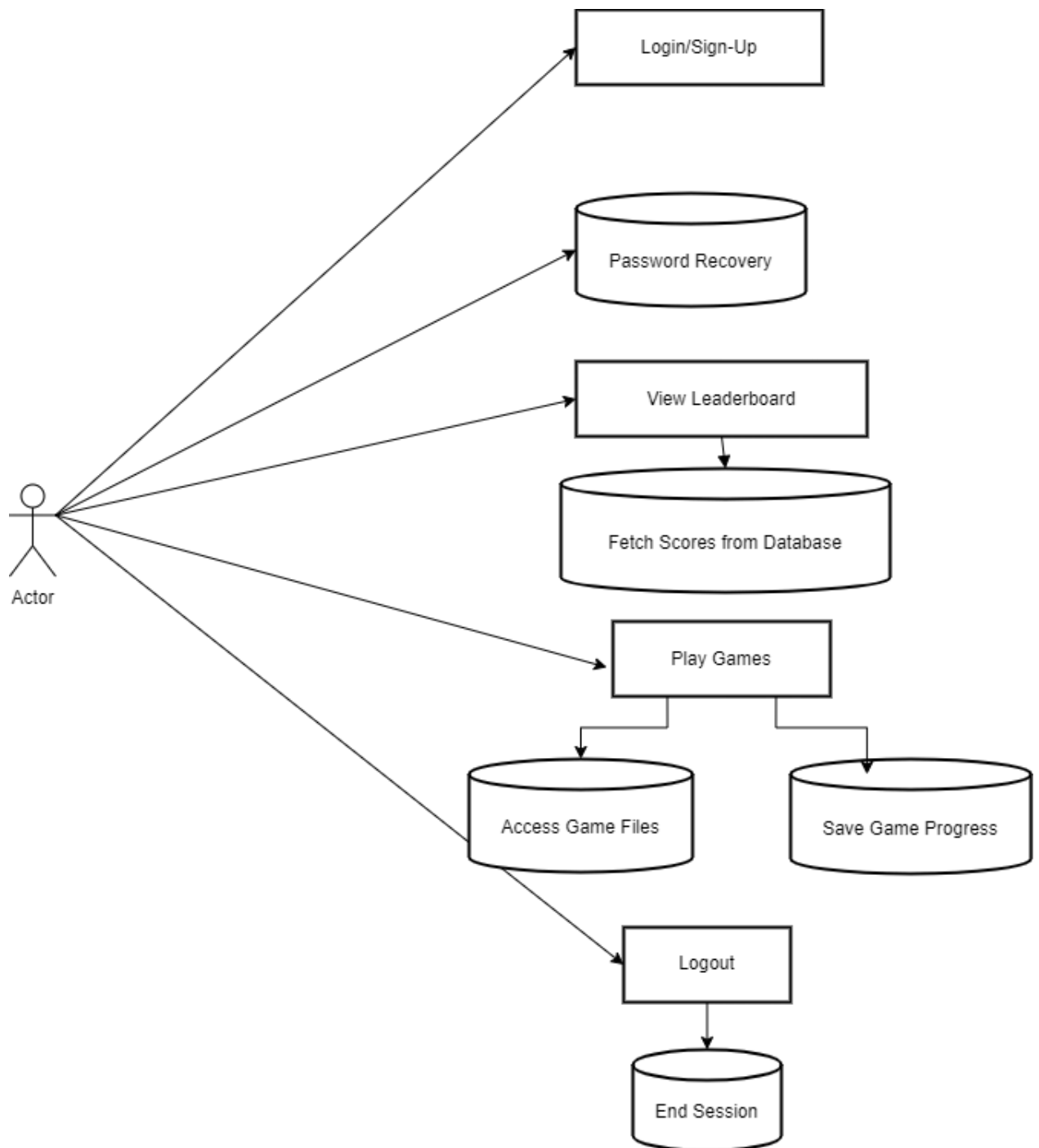
4.4 Leaderboard Module:

- Displays top scores and rankings across games, encouraging competition.

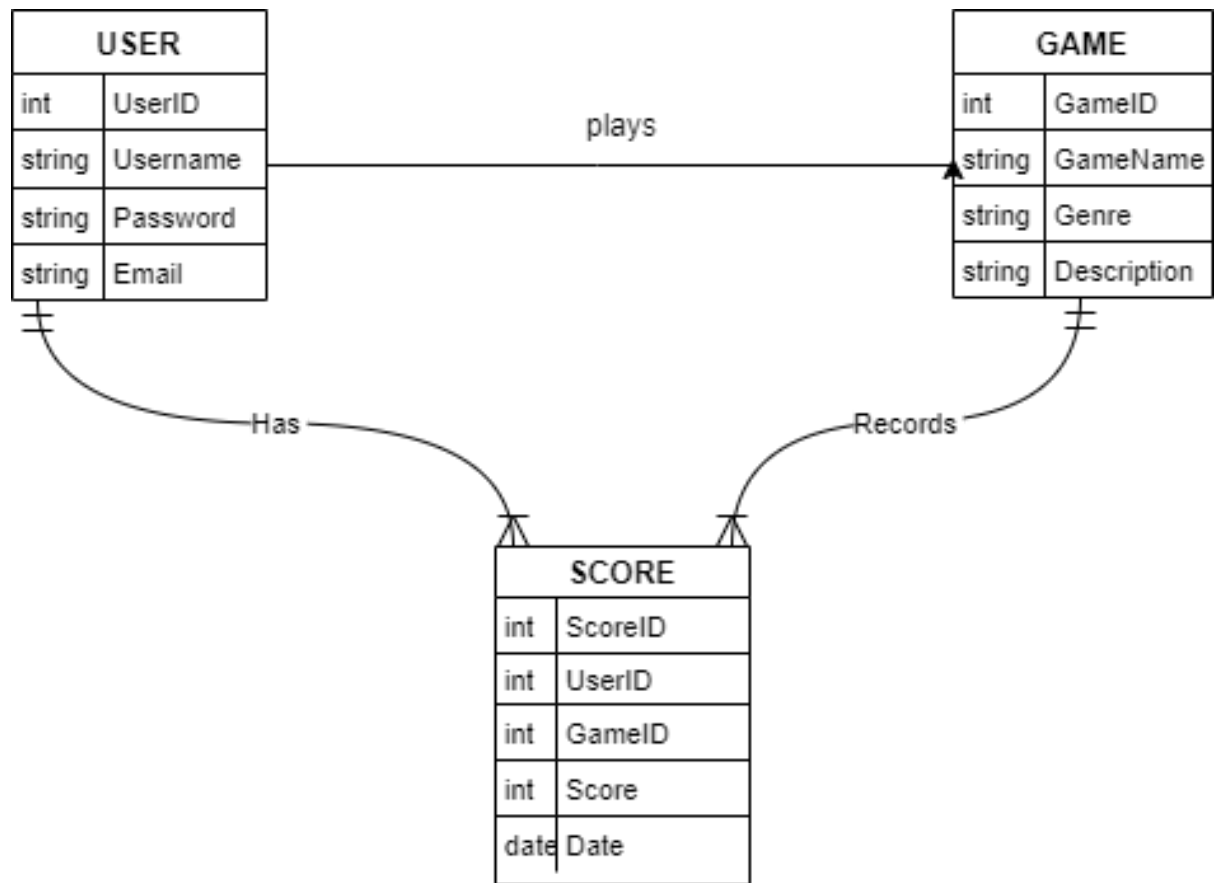
CHAPTER 5

SYSTEM DESIGN

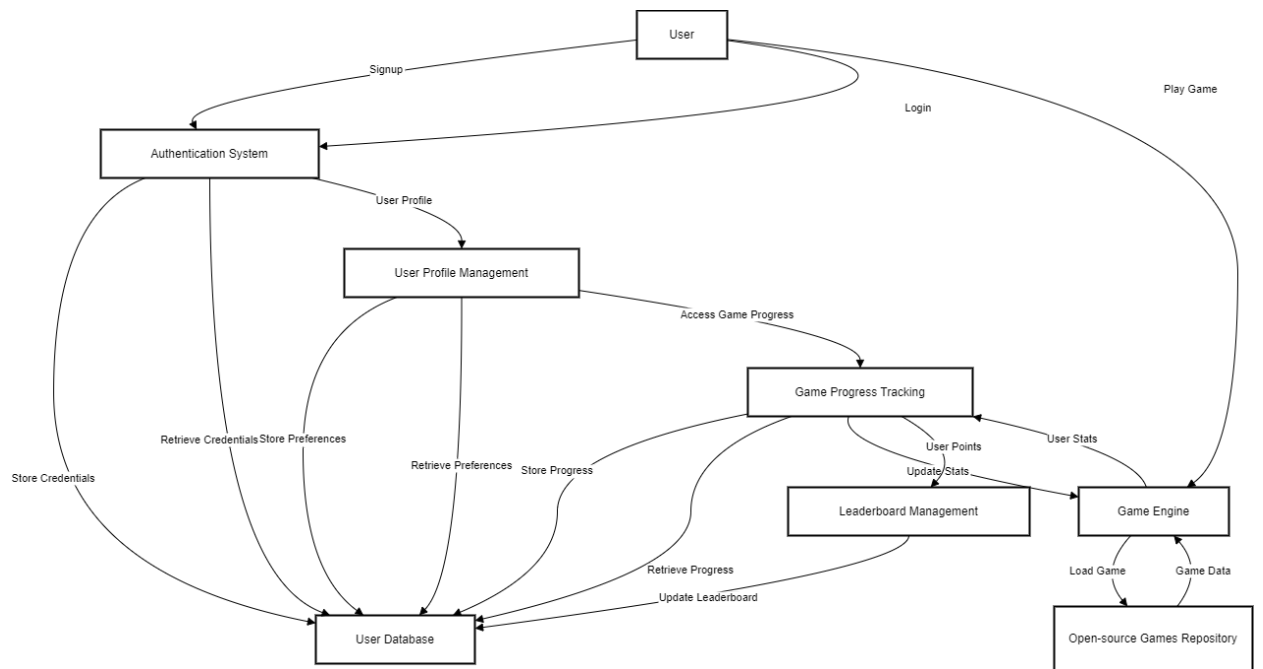
5.1 USE CASE DIAGRAM



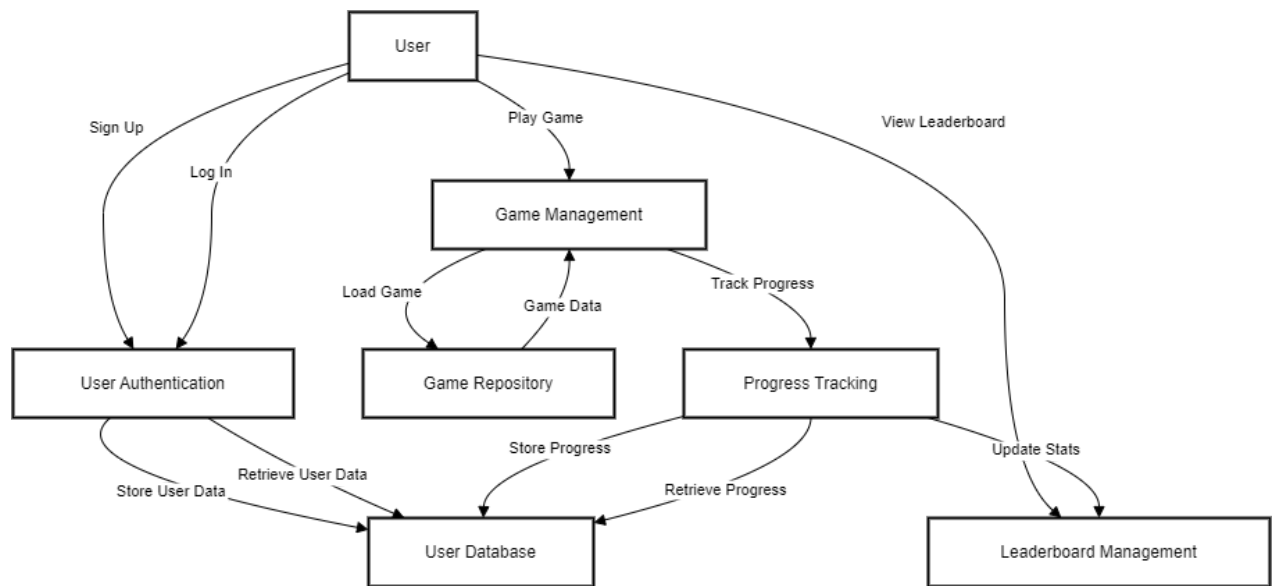
5.2 ER DIAGRAM



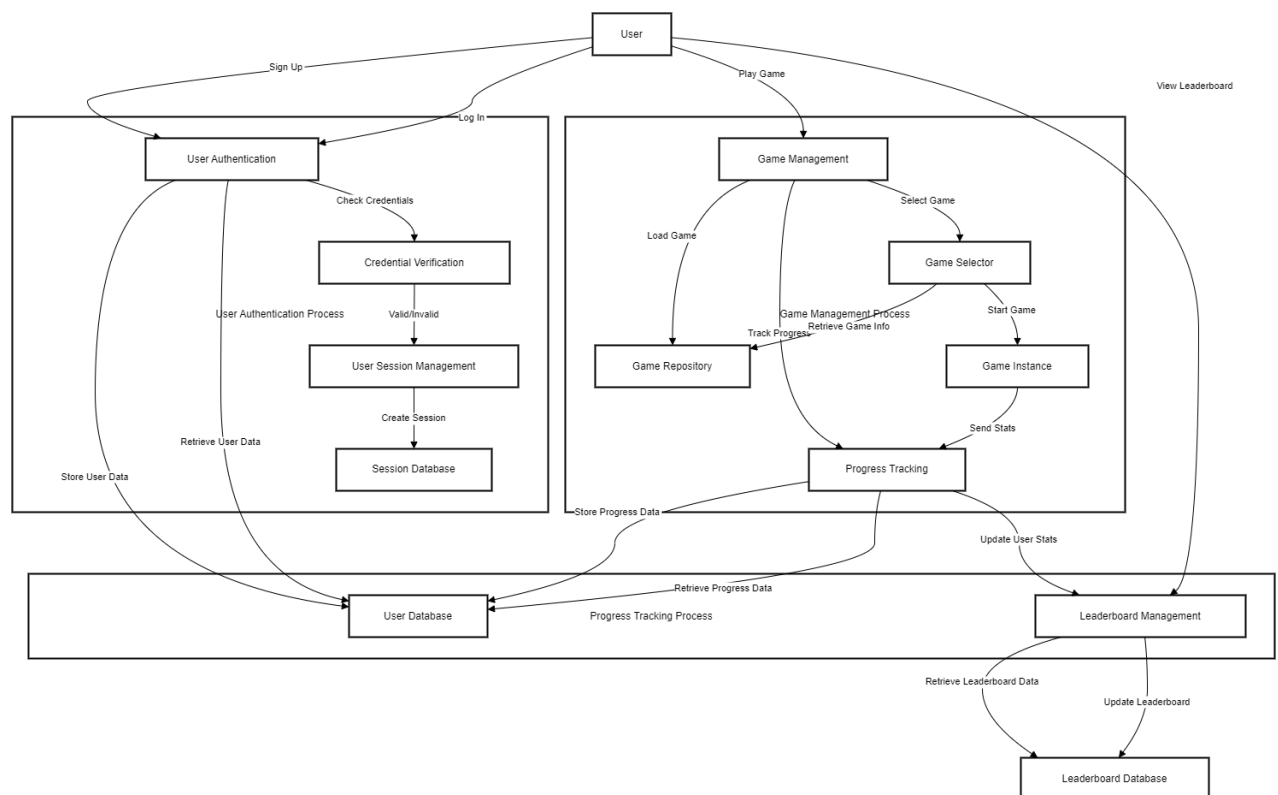
5.3. DFD DIAGRAM



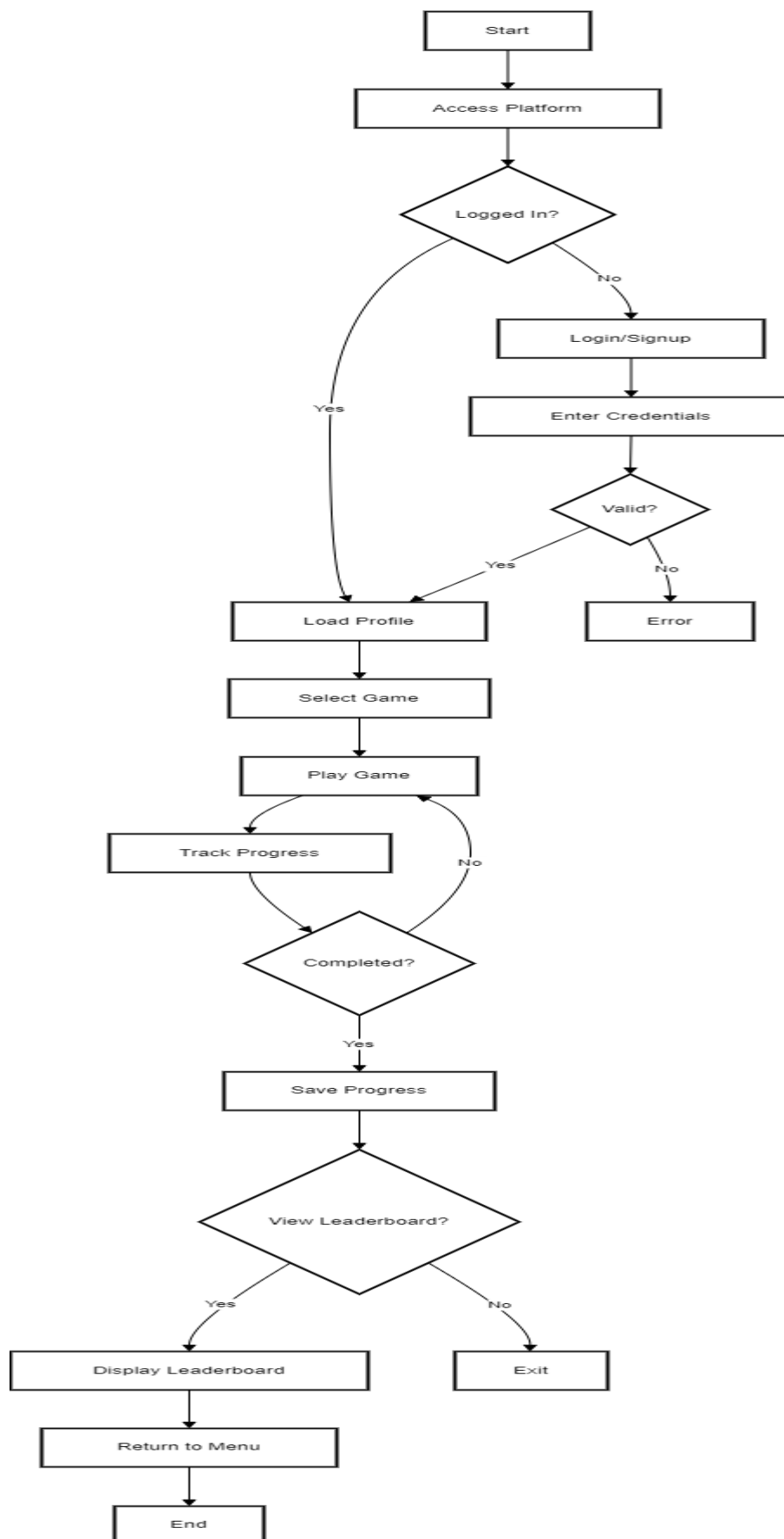
5.3.1. FIRST LEVEL DFD



5.3.2. SECOND LEVEL DFD



5.4. ACTIVITY DIAGRAM



CHAPTER 6

SAMPLE CODING

HERO.html

```
<!DOCTYPE html>
<html lang="es">

<head>
  <meta charset="UTF-8">
  <title>A-GAME</title>
  <link rel="stylesheet" href="./hero.css">

</head>

<body>

  <div class="header">
    <h2>Nishal IP</h2>
    <div class="mid-spot"
onclick="document.body.classList.toggle('gold');"></div>
    <button class="contact-btn" onclick="location.href='login.html'">
      <span class="glow"></span>
      <span class="contact-btn-content">Log In</span>
    </button>

    <div class="spotlight">
      <div></div>
      <div></div>
      <div></div>
    </div>
  </div>

  <canvas id="particleCanvas"></canvas>
```

```

<div class="accent-lines">
  <div>
    <div></div>
    <div></div>
    <div></div>
    <div></div>
    <div></div>
  </div>
  <div>
    <div></div>
    <div></div>
    <div></div>
    <div></div>
  </div>
</div>
<div class="heroSubP">
  <p>Introducing</p>
</div>
<div class="hero">
  <div class="heroT">
    <h2>A-Game</h2>
    <h2>A-Game</h2>
  </div>
</div>
<p class="heroP"> <br>Website of Entertainment<br>
  Space of Games.</p>
<div class="mountains">
  <div></div>
  <div></div>
  <div></div>
</div>
<div class="hero-spacer"></div>

<div class="content-section">
  <div class="content-acc">
    <div></div>
    <div></div>
  </div>
  <p class="subt">Designed By Nishal IP</p>
  <h3 class="title">Competition. Contest.<br>
    Sport. Fun.</h3>
  <p class="subp">A Place where everything combines into one emotion.
<br>Introducinng A-Games the Entertainment Madness</p>

```

```
</div>
<!-- partial -->
<script src="./script.js"></script>
```

```
</body>
```

```
</html>
```

INDEX.html

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Attogram Games</title>
  <style>
    body {
      font-family: sans-serif;
      margin: 0;
      background: linear-gradient(27deg, #151515 5px, transparent 5px) 0 5px,
        linear-gradient(207deg, #151515 5px, transparent 5px) 10px 0px,
        linear-gradient(27deg, #222 5px, transparent 5px) 0px 10px,
        linear-gradient(207deg, #222 5px, transparent 5px) 10px 5px,
        linear-gradient(90deg, #1b1b1b 10px, transparent 10px), linear-gradient(#1d1d1d
        25%, #1a1a1a 25%, #1a1a1a 50%, transparent 50%, transparent 75%, #242424
        75%, #242424);
      background-color: #131313;
      background-size: 20px 20px;
    }

    a,
    a:visited {
      color: darkblue;
      text-decoration: none;
    }

    a:hover {
      background-color: greenyellow;
      color: black;
    }
  </style>
</head>
```

```
img {
  border: 1px solid darkgrey;
}

.headline {
  background-color: rgba(0, 0, 0, 0.60);
  color: honeydew;
  font-size: 120%;
  font-weight: bold;
  margin: 0;
  text-align: center;
}

.list {
  display: flex;
  flex-wrap: wrap;
  justify-content: center;
  margin: 0;
}

.game {
  background-color: white;
  border: 1px solid black;
  margin: 5px;
  padding: 10px 5px 0 5px;
  text-align: center;
  width: 118px;
}

.game:hover {
  background-color: greenyellow;
}

.platform {
  background-color: transparent;
  color: grey;
  font-size: small;
  padding: 2px;
  text-align: right;
}

footer {
  background-color: rgba(0, 0, 0, 0.70);
  color: slategrey;
```

```

        font-family: monospace;
        font-size: small;
        font-style: italic;
        padding: 20px;
    }

    footer a,
    footer a:visited {
        color: lightblue;
    }

    footer a:hover {
        background-color: darkblue;
    }
</style>
</head>

<body>
    <div class="headline">Attogram Games</div>
    <div class="list"><a href="hextris-lite/">
        <div class="game"><br />Hextris<br /><small>hexagonal tetris</small><br
/>
        <div class="platform">&#9000; &#128241;</div>
    </div>
</a><a href="pond/">
    <div class="game"><br />The
    Pond<br /><small>eat, swim, love</small><br />
    <div class="platform">&#9000; &#128241;</div>
</div>
</a><a href="2048-lite/">
    <div class="game"><br />2048<br /><small>2, 4, 8, swipe</small><br />
    <div class="platform">&#9000; &#128241;</div>
</div>
</a><a href="taptaptap/play/">
    <div class="game"><br />Tap Tap
    Tap<br /><small>tap the blue</small><br />
    <div class="platform">&#9000; &#128241;</div>
</div>
</a><a href="particle-clicker/">

```

```

        <div class="game"><br />Particle Clicker<br /><small>be like
CERN</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
</a><a href="tower/">
        <div class="game"><br />Tower<br /><small>build up</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
</a><a href="hexgl-lite/">
        <div class="game"><br />HexGL<br /><small>racing pod</small><br />
        <div class="platform">&#9000; </div>
    </div>
</a><a href="3d.city/">
        <div class="game"><br />3d.city<br /><small>be the mayor</small><br />
        <div class="platform">&#9000; </div>
    </div>
</a><a href="clumsy-bird/">
        <div class="game"><br />Clumsy
        Bird<br /><small>flappy happy</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
</a><a href="fire-n-ice/">
        <div class="game"><br />Fire 'n
        Ice<br /><small>move the ice</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
</a><a href="paint-run/">
        <div class="game"><br />Paint
        Run<br /><small>paint it all blue</small><br />
        <div class="platform">&#9000; </div>
    </div>
</a><a href="hyperspace-garbage-collection/">
        <div class="game"><br />Hyperspace G<br /><small>collect
garbage</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
</a><a href="pacman-lite/">
        <div class="game"><br />pacman<br /><small>another
pacman</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
</a><a href="the-house/">
        <div class="game"><br />The
        House<br /><small>Explore your home</small><br />
        <div class="platform">&#9000; </div>
    </div>
</a><a href="dead-valley/">
        <div class="game"><br />Dead
        Valley<br /><small>survival</small><br />
        <div class="platform">&#9000; </div>
    </div>
</a><a href="classic-pool/">
        <div class="game"><br />Pool<br /><small>classic 8-ball</small><br />
        <div class="platform">&#9000; </div>
    </div>
</a><a href="twisty-polyhedra/">
        <div class="game"><br />Twisty
        P<br /><small>polyhedra turning</small><br />
        <div class="platform">&#9000; </div>
    </div>
</a><a href="raging-gardens/">
        <div class="game"><br />Raging Gardens<br /><small>farting
ninja rabbits</small><br />
        <div class="platform">&#9000; </div>
    </div>
</a><a href="underrun/index-debug.html">
        <div class="game"><br />Underrun<br /><small>run &
fight</small><br />
        <div class="platform">&#9000; </div>
    </div>
    </a><a href="snakisms/">
        <div class="game"><br />Snakisms<br /><small>philosophy
snake</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
    </a><a href="html5-hearts/">
        <div class="game"><br />Hearts<br /><small>card game</small><br />
        <div class="platform">&#9000; </div>
    </div>
    </a><a href="EightQueens/">
        <div class="game"><br />Eight
        Queens<br /><small>chess puzzle</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
    </a><a href="/chess">
        <div class="game"><br />Chess<br /><small>e2
        to e4</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
    </a><a href="mah-jongg/">
        <div class="game"><br />Mah-jongg<br /><small>Tianjin 天津麻将
</small><br />
        <div class="platform">&#9000; </div>
    </div>
    </a><a href="html5-asteroids/">
        <div class="game"><br />Asteroids<br /><small>retro
asteroids</small><br />
        <div class="platform">&#9000; </div>
    </div>
    </a><a href="missile-game/">

```



```

        <div class="game"><br />Missile Game<br /><small>fly thru
it</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
    </a><a href="ns-shaft/">
        <div class="game"><br />NS-Shaft<br /><small>fall safely</small><br
/>
        <div class="platform">&#9000; &#128241;</div>
    </div>
    </a><a href="colorful-life/">
        <div class="game"><br />Colorful Life<br /><small>life with
color</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
    </a><a href="life/">
        <div class="game"><br />Life<br /><small>conway's game</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
    </a><a href="javascript-piano/">
        <div class="game"><br />Piano
        J<br /><small>synthy javascript</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
    </a><a href="virtual-piano/">
        <div class="game"><br />Piano
        V<br /><small>virtually classic</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
    </a><a href="chordomatic/app/chord-player.html">
        <div class="game"><br />Chordomatic<br /><small>guitar
strumming</small><br />
        <div class="platform">&#9000; &#128241;</div>
    </div>
    </a></div>

```

```
<footer>
    <p>Nishal oda games</p>
</footer>
</body>
</html>
```

LOGIN.php

```
<?php
// Database connection
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "game";

$conn = new mysqli($servername, $username, $password, $dbname);

if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

// Get form values
$user = $_POST['user-id'];
$pass = $_POST['password'];

// Check if username exists
$sql = "SELECT * FROM users WHERE username='$user'";
$result = $conn->query($sql);

if ($result->num_rows > 0) {
    $row = $result->fetch_assoc();
    // Verify the password
    if (password_verify($pass, $row['password'])) {
        // Redirect to home.html if login is successful
        header('Location: main.html');
        exit();
    } else {
        echo "Invalid password.";
    }
} else {
    echo "No user found with that username.";
}

$conn->close();
?>
```

CHAPTER 7

SCREEN SHOTS

Fig. 7.1. About

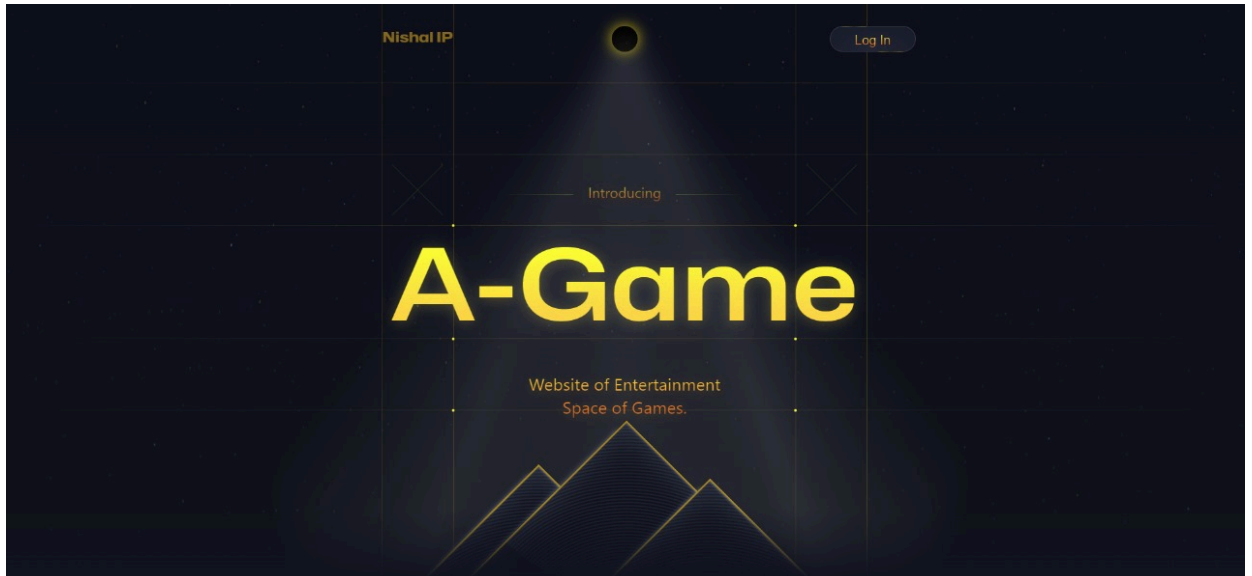


Fig.7.2.Login Page

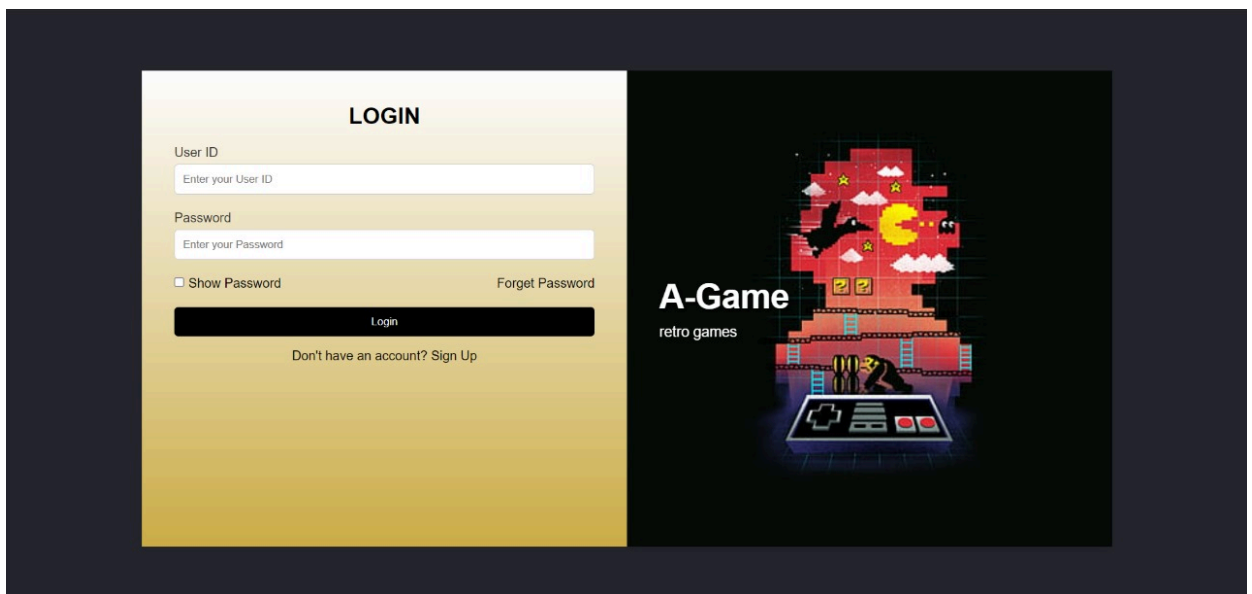


Fig.7.3. Game Page

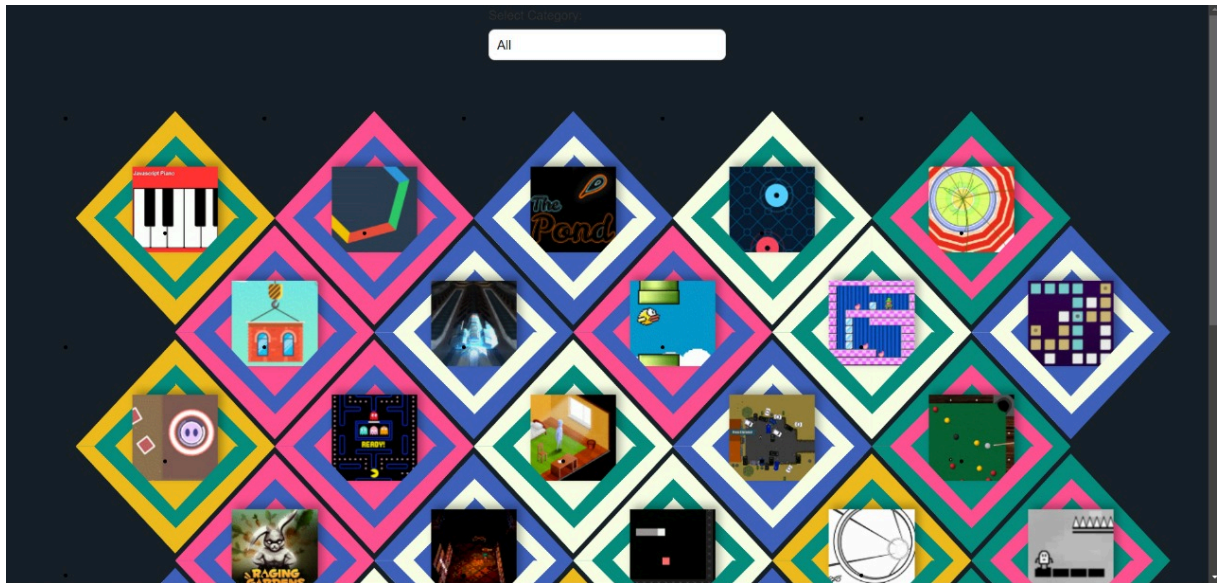


Fig.7.4 Game Page(Categories)

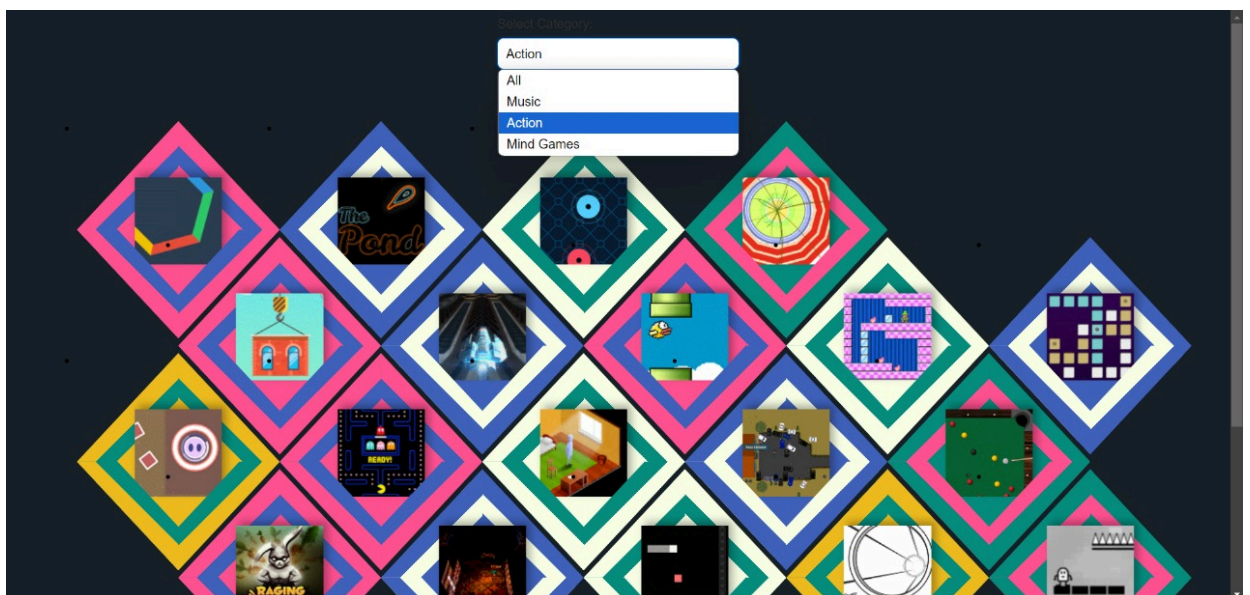
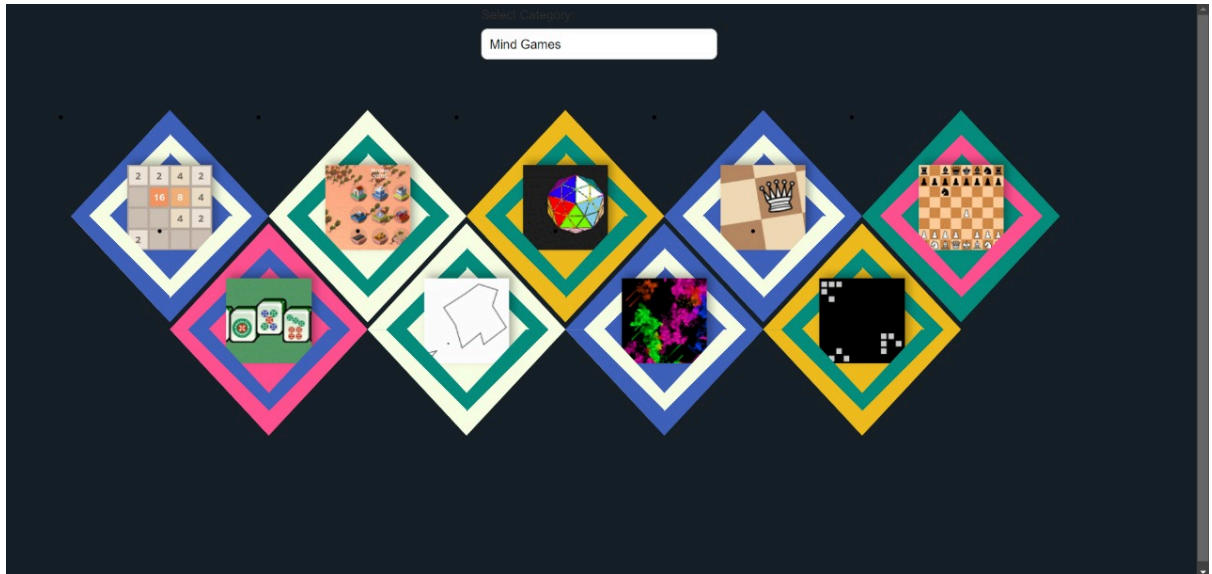


Fig.7.3 Mind Games



CHAPTER 8

CONCLUSION

This project demonstrates the development of a web application that allows users to access a range of open-source games. With its user-friendly login and personalized profiles, the platform offers a robust gaming experience. The use of open-source games not only reduces development efforts but also aligns with the spirit of community-driven development. Future improvements could include adding a wider variety of games, supporting real-time multiplayer functionality, and developing a mobile app version for on-the-go gaming.

REFERENCES

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3. Product Details– www.amazon.in
4. Carousel Slider – www.glidejs.com
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7. PHP Mailer - <https://github.com/PHPMailer/PHPMailer>
8. SweetAlert2 - <https://sweetalert2.github.io/v10.html>