

SoloSplash : A Single-Player Online Games Website

A MINI-PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this mini project “**SoloSplash : A Single-Player Online Games Website**” is the bonafide work of “**NEELA A(2116220701184)**” who carried out the project work under my supervision.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

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ABSTRACT

"SoloSplash" is an interactive single-player online gaming platform developed using HTML, CSS, Bootstrap, jQuery, and PHP for database connectivity. The platform features a collection of four games—Tic Tac Toe, Type Speed Test, Flappy Bird, and Quiz—offering users a diverse gaming experience. The website integrates a user authentication system through PHP and MySQL, enabling users to register, log in, and save their game data securely. The platform is designed with simplicity and entertainment in mind, providing a fun, casual gaming experience.

The project employs Bootstrap for responsive design, ensuring compatibility across various devices, while jQuery enhances the site's interactivity and smooth animations. With a visually appealing and intuitive interface, "SoloSplash" allows users to easily navigate between games and track their progress. Although primarily built for fun, this project demonstrates practical skills in web development, including frontend integration with backend systems. The project also highlights the importance of user-friendly design and secure database management. Future expansions may include the addition of more games and features, such as leaderboards and customizable user settings, to further enhance the gaming experience.

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CHAPTER 1

INTRODUCTION

1. INTRODUCTION

"SoloSplash" is a single-player online gaming website designed to offer users an entertaining and engaging experience through a variety of simple, web-based games. Developed using HTML, CSS, Bootstrap, jQuery, and PHP with a MySQL database, the platform includes four games: Tic Tac Toe, Type Speed Test, Flappy Bird, and Quiz. The website features a responsive and visually appealing interface, with a seamless user experience across devices. It also incorporates a login and signup system, allowing users to create accounts and securely store their game-related data. While the project was developed primarily for fun, it serves as a demonstration of integrating multiple web technologies into a cohesive and user-friendly gaming platform.

1.2 SCOPE OF THE WORK

The scope of the "SoloSplash" project encompasses the development of a single-player online gaming platform that integrates four games: Tic Tac Toe, Type Speed Test, Flappy Bird, and Quiz. The frontend is built using HTML, CSS, Bootstrap, and jQuery, ensuring a responsive, user-friendly design that adapts seamlessly to various devices. The project focuses on creating an engaging, easy-to-navigate gaming experience for users. Core features include a game selection menu, game-specific scoring, and a personalized user login system. The work also involves the implementation of Bootstrap to provide a polished, visually appealing interface. While the primary aim of "SoloSplash" is to provide entertainment, the project showcases practical skills in web

development, particularly in frontend-backend integration, responsive design, and database management.

1.3 AIM AND OBJECTIVES OF THE PROJECT

The aim of the "SoloSplash" project is to develop an engaging and interactive online platform that allows users to enjoy a variety of single-player games through a seamless and user-friendly interface. The project seeks to provide entertainment while demonstrating the integration of frontend and backend web technologies.

The key objectives of the project are:

1. Game Integration: To implement and integrate four browser-based games—Tic Tac Toe, Type Speed Test, Flappy Bird, and Quiz—with a unified platform.
2. User Authentication: To create a secure login and signup system using PHP and MySQL, enabling users to register, log in, and manage their accounts.
3. Responsive Design: To ensure that the platform is responsive and functions smoothly on different devices, utilizing Bootstrap for adaptive layouts.
4. User-Friendly Interface: To design a visually appealing, easy-to-navigate interface using HTML, CSS, Bootstrap, and jQuery, providing users with a straightforward gaming experience.
5. Security and Data Management: To securely manage user data through backend integration using PHP and MySQL, ensuring data confidentiality and integrity.

Although primarily developed for recreational purposes, the project also aims to showcase practical skills in web development and serve as a foundation for potential future enhancements, such as new games and user engagement features.

CHAPTER 2

SYSTEM SPECIFICATIONS

1. HARDWARE SPECIFICATIONS

Processor : Intel Core i3 or higher (or equivalent AMD processor)

RAM : 4 GB or more (8 GB recommended for smoother performance during development)

Storage : Minimum 10 GB of free disk space for project files, databases, and software installations

2. SOFTWARE SPECIFICATIONS

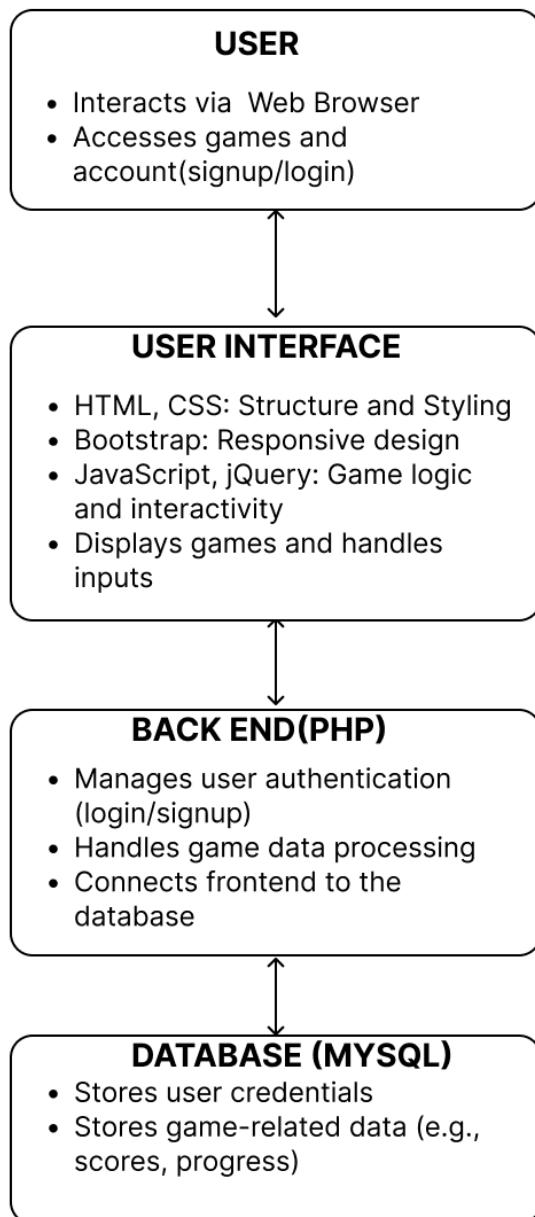
Operating System : WINDOWS 7 AND PLUS

Front – End : HTML, CSS, JAVASCRIPT

Back – End : PHP, MYSQL

CHAPTER 3

ARCHITECTURE DIAGRAM



CHAPTER 4

MODULE DESCRIPTION

4.1 User Authentication Module:

Description: This module manages user registration, login, and session management.

Functionality:

- Users can create an account by providing necessary details (username, password).
- Validates user credentials during the login process.
- Maintains user sessions to allow access to games without needing to log in repeatedly.

4.2 Frontend Module:

Description: Responsible for the visual layout and user interface of the website.

Functionality:

- Utilizes HTML, CSS, and Bootstrap for responsive design.
- Implements JavaScript and jQuery for dynamic content and interactive game elements.
- Displays available games and handles user inputs, ensuring a smooth gaming experience.

4.3 Game Modules:

Description: Each game (Tic Tac Toe, Type Speed Test, Flappy Bird, Quiz) is encapsulated within its module.

Functionality:

- ➔ Tic Tac Toe: Allows two players to compete in a grid-based game, featuring win/draw detection.
- ➔ Type Speed Test: Measures typing speed and accuracy, providing instant feedback on performance.
- ➔ Flappy Bird: A side-scrolling game where users navigate a bird through obstacles, aiming for the highest score.
- ➔ Quiz: Presents users with trivia questions, tracks correct answers, and calculates scores.

4.4 Backend Module:

Description: The server-side component that processes requests and manages data.

Functionality:

- ➔ Implements PHP for server-side scripting.
- ➔ Handles requests from the frontend, including user authentication and game data submissions.
- ➔ Connects to the database to retrieve and store user information and game results.

4.5 Database Module:

Description: A MySQL database that stores user data and game-related information.

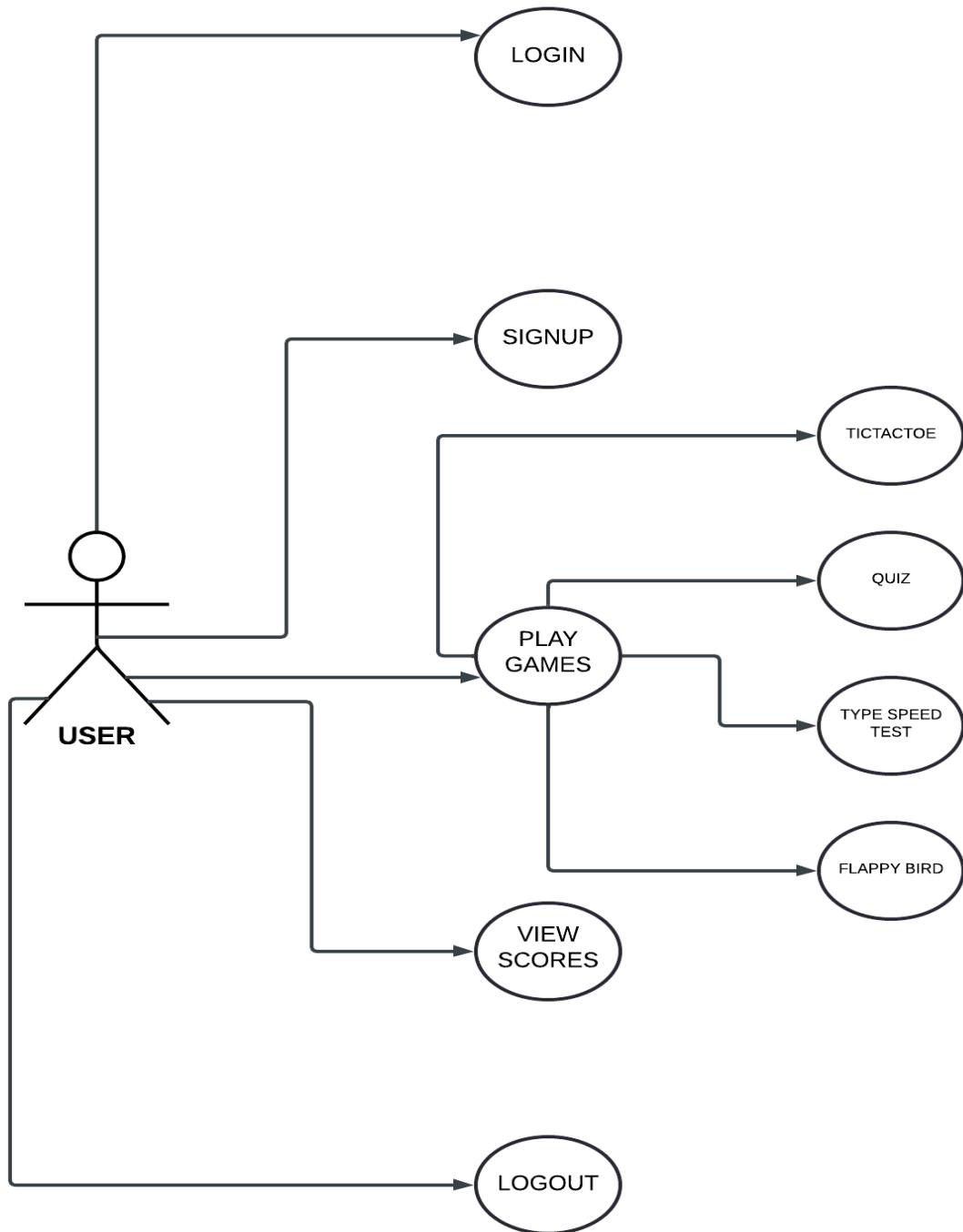
Functionality:

- ➔ Maintains user credentials securely.
- ➔ Stores game scores, progress, and other relevant data.
- ➔ Supports data retrieval for the backend to ensure smooth user interactions.

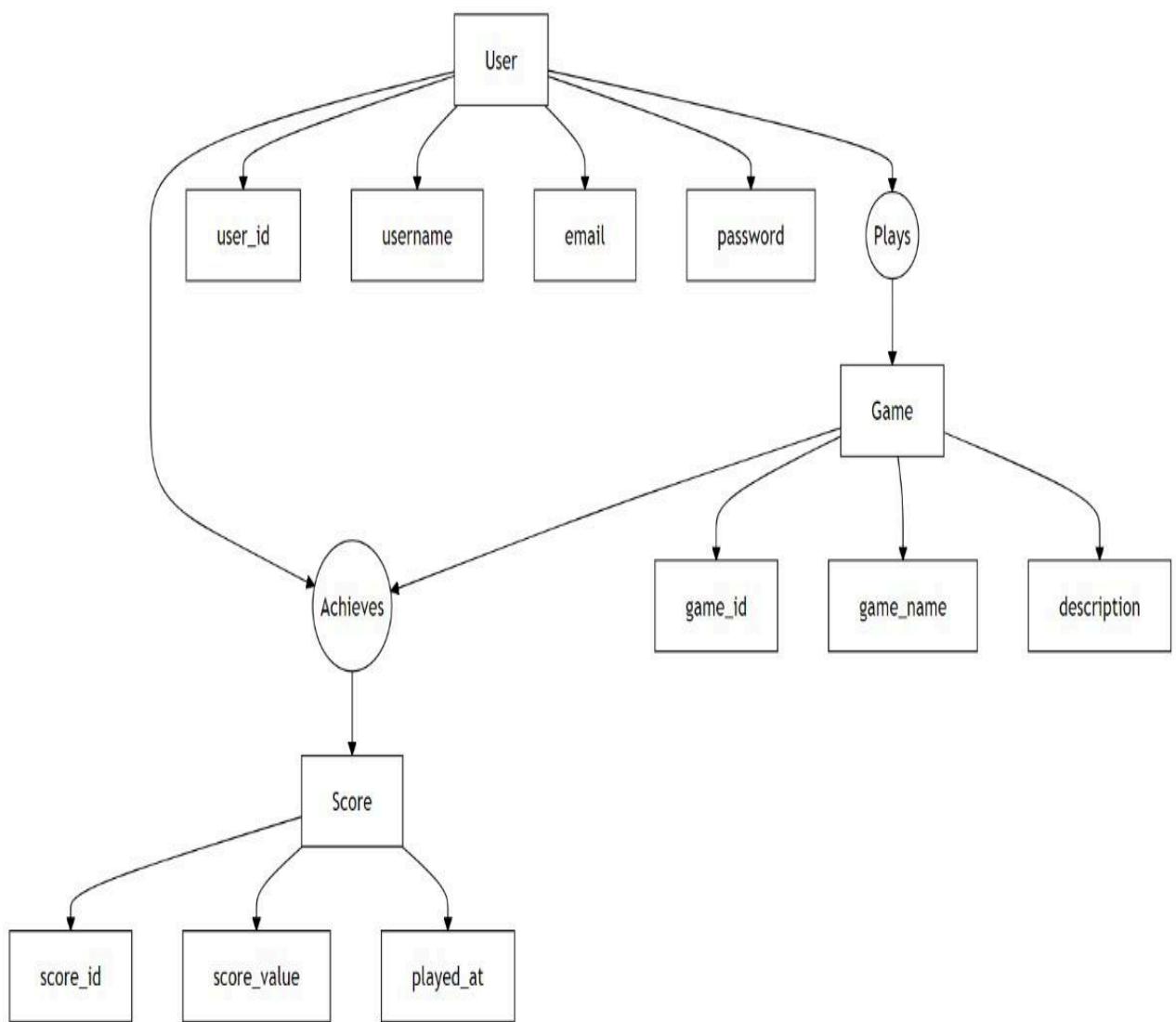
CHAPTER 5

SYSTEM DESIGN

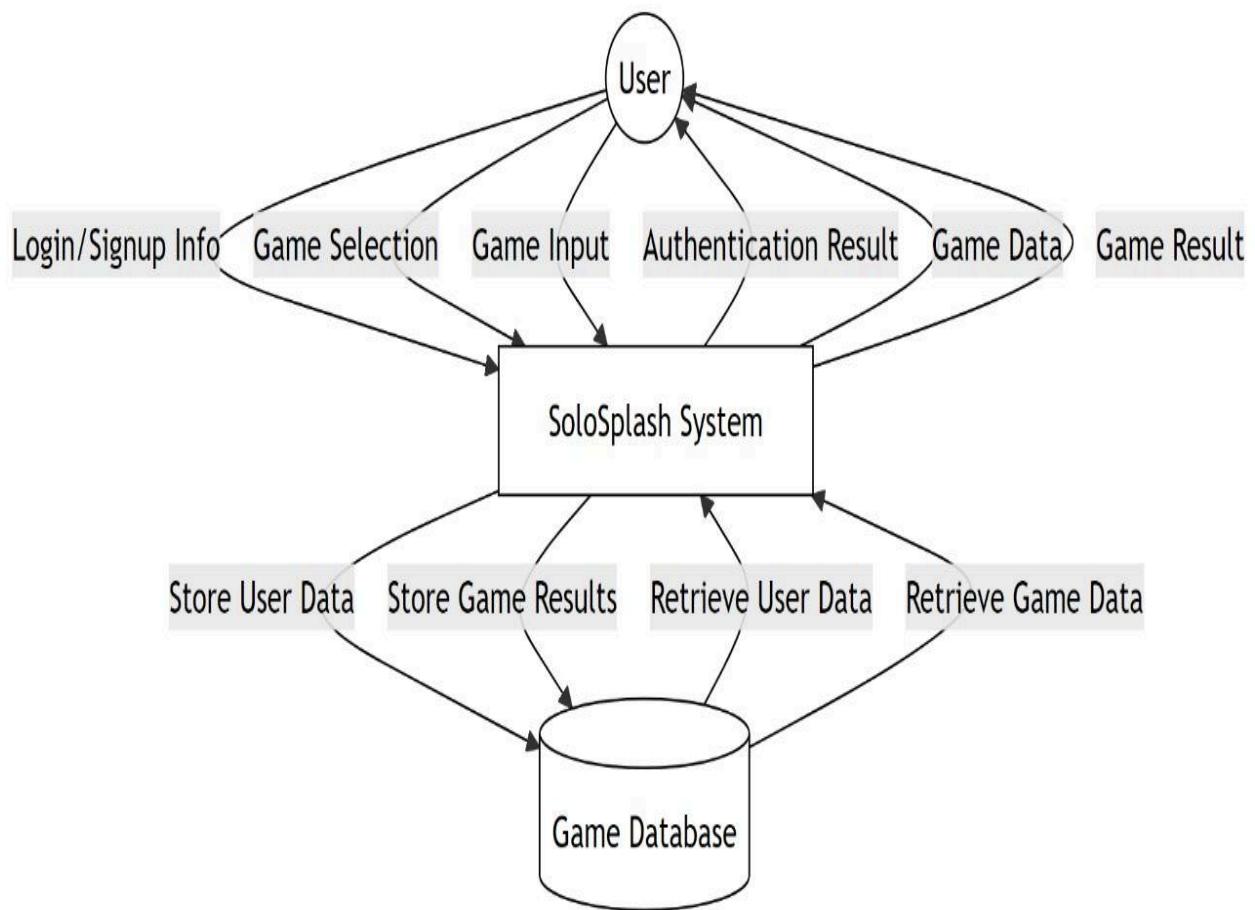
5.1 USE CASE DIAGRAM



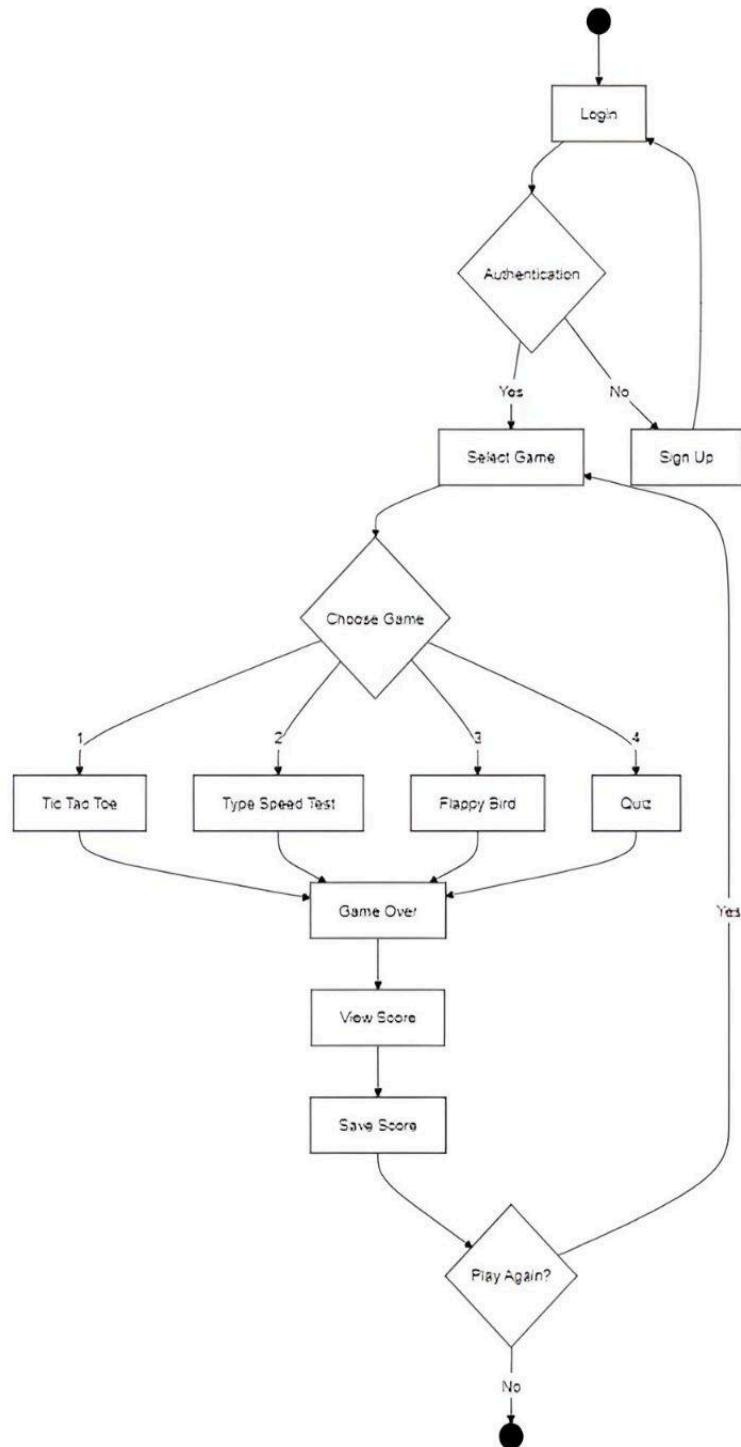
5.2 ER DIAGRAM



5.3 DATA FLOW DIAGRAM



5.4 ACTIVITY DIAGRAM



CHAPTER 6

SAMPLE CODING

HOME PAGE MODULE:

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

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>SOLOSPLASH</title>
    <link rel="stylesheet" href="css/style.css">
    <link rel="stylesheet"
        href="https://cdn.jsdelivr.net/npm/swiper@11/swiper-bundle.min.css" />
    <link rel="stylesheet"
        href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.5.1/css/all.min.css"
    >
    <script src="js/style.js"></script>

</head>

<body>
    <div id="scrollProgressBar"
        style="position:fixed;top:0;left:0;width:0;height:5px;background-color:blue;"></div>

    <div class="nav-bar">
        <div class="logo">
            
            <h1 style="font-family: playbill;">SOLOSPLASH</h1>
        </div>
        <div class="menu-containor">
            <div class="menu" id="menu">
```

```
<a href="#">HOME</a>
<a href="#games" >GAMES</a>
<a href="signup.php">REGISTER</a>
<a href="login.php">LOGIN</a>

</div>
<div class="navbar-icon">

    <i class="fa-solid fa-bars" style="color: #ffffff;" id="bars"></i>
</div>
</div>
</div>
<div id="sidebar" class="sidebar">
<a href="#" >ABOUT</a>
<a href="#" >CONTACT</a>
<a href="users.html" id="us">USERS</a>
<a href="logout.php">LOGOUT</a>
</div>
<div class="hero">

    <div class="hero-contant">
        <h3>SINGLE PLAYER</h3>
        <h1>Simple <span>but</span> Fun</h1>
        <p>SoloSplash is a single layer gaming website with simple games which haunts you!
        </p>
        <button>READ MORE</button>
    </div>
    <div class="hero-image">
        
    </div>

</div>

<div class="swiper mySwiper" id="games">
```

```
<div class="swiper-wrapper">
  <div class="swiper-slide" style="height: 150px;"></div>
  <div class="swiper-slide" style="height: 150px;"></div>
</div>
</div>
<section div class="product-content" data-aos="fade-in">
  <div class="product_wrapper" >
    <div class="product_main">
      <div class="swiper mySwiper1">
        <div class="swiper-wrapper">
          <div class="swiper-slide">
            <a href="indextictactoe.html" style="color: #fffff;"><div
class="product fade-in"
style="background-image:url(images/tictactoe.jpg);background-repeat:no-repeat;
background-size:contain">
              <div class="btn"><h4>Start</h4></div>
              <div class="product1-contant">
                <h3>TIC TAC TOE</p>
              </div>
            </a>
          </div>
        </div>
        <div class="swiper-slide">
          <a href="indexquiz.html" style="color: #fffff;"><div
class="product fade-in" style="background-image:
```

```
url(images/quiz.jpg);background-repeat:no-repeat;background-size:contain">
    <div class="btn"><h4>Start</h4></div>
    <div class="product1-contant">
        <h3>QUIZ</p>
        </div></a>
    </div>
</div>
<div class="swiper-slide">
    <a href="indextype.html" style="color: #ffffff;"> <div
class="product fade-in" style="background-image:
url(images/type.png);background-repeat:no-repeat;background-size:contain">
        <div class="btn"><h4>Start</h4></div>
        <div class="product1-contant">
            <h3>KEYSTORM</p>
            </div></a>
        </div>
    </div>
    <div class="swiper-slide">
        <a href="indexflap.html" style="color: #ffffff;"><div class="product
fade-in" style="background-image: url(images/flappy.jpg);
background-repeat:no-repeat;background-size:contain">
            <div class="btn"><h4>Start</h4></div>
            <div class="product1-contant">
                <h3>FLAPPY BIRD</p>
                </div></a>
            </div>
        </div>
    </div>
</div>
<div class="swiper-button-next"></div>
<div class="swiper-button-prev"></div>
</div>
</div>
</section>
</body></html>
```

CHAPTER 7

SCREEN SHOTS

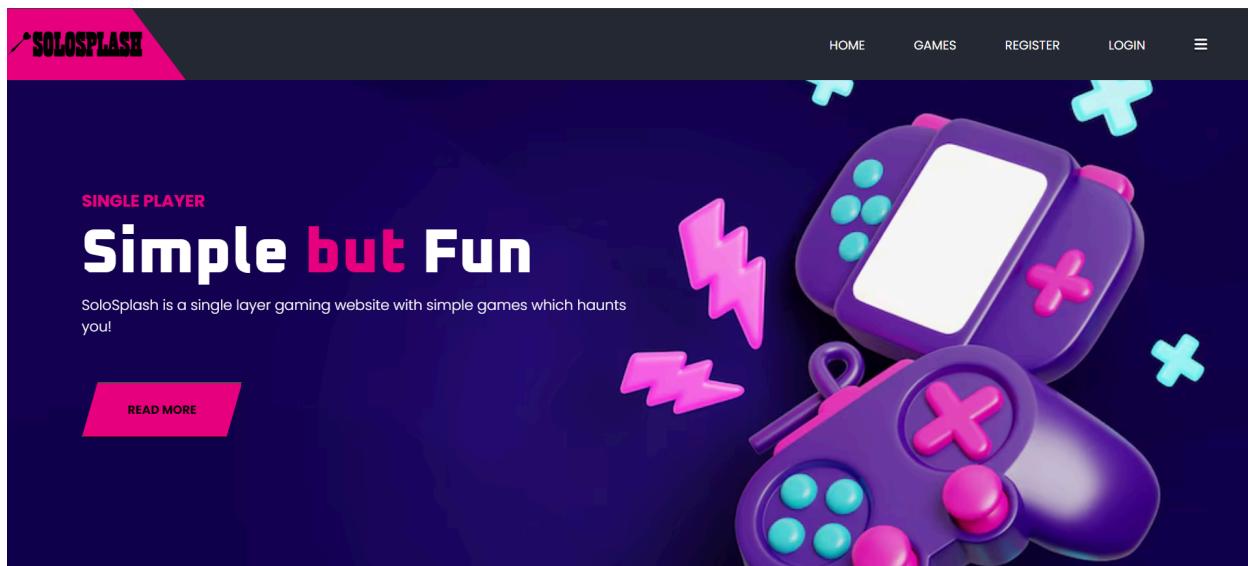


Fig 7.1 Home

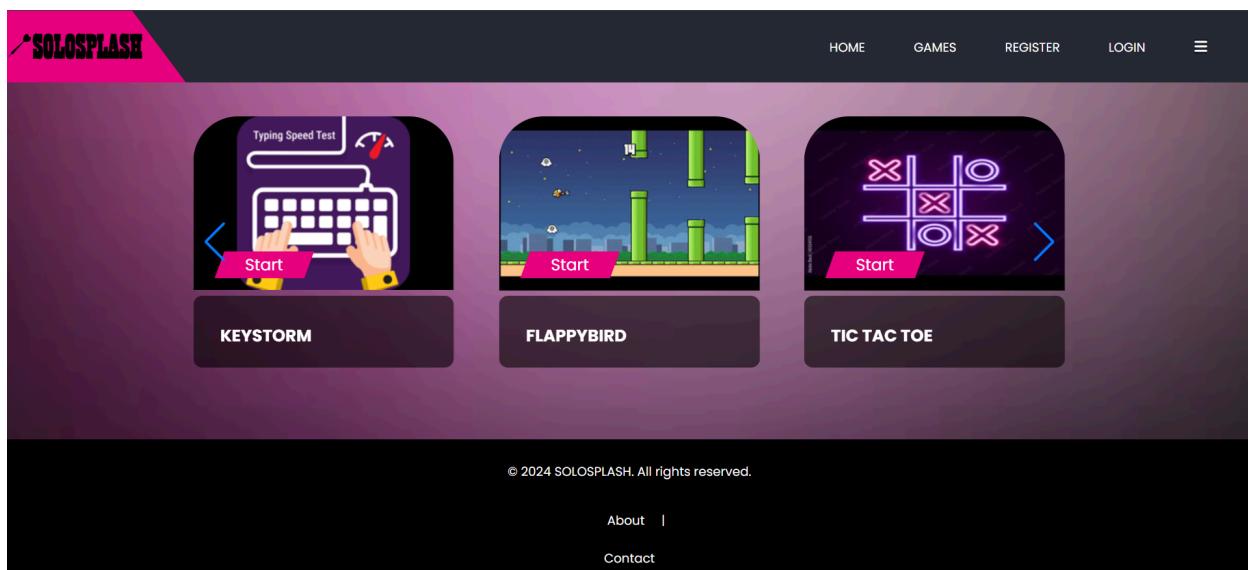


Fig 7.2 Games Section

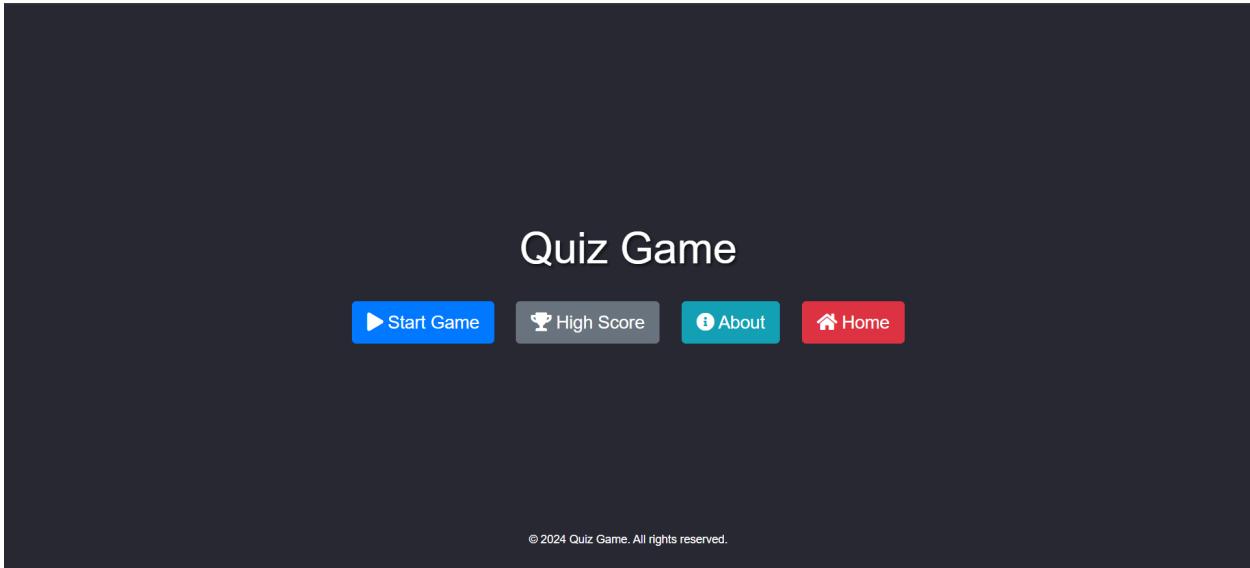


Fig 7.3 Menu

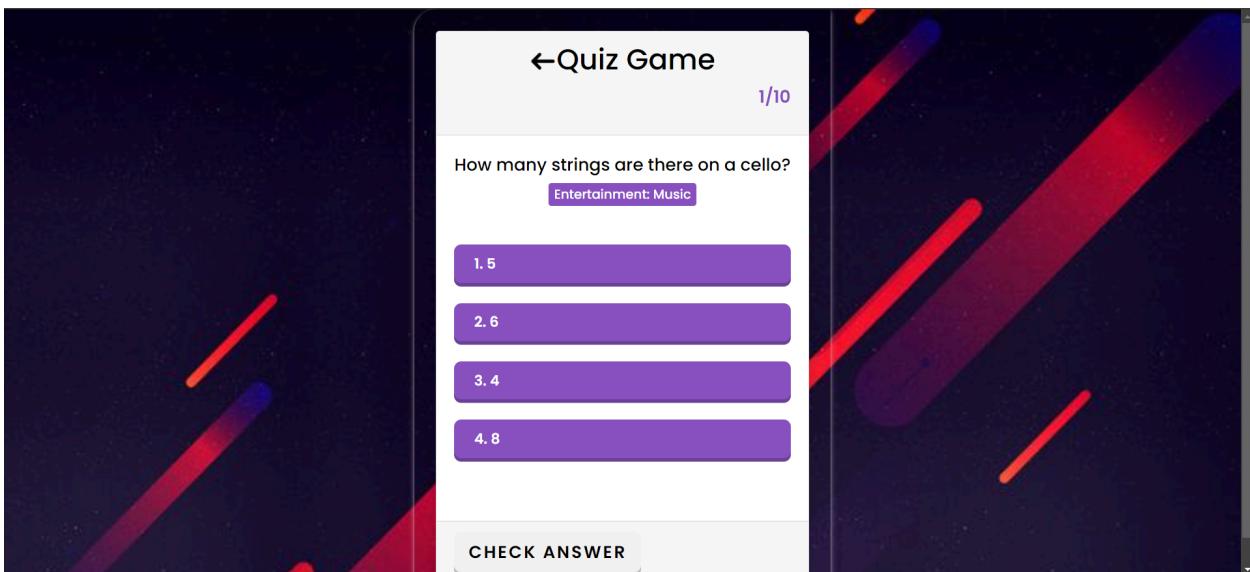


Fig 7.4 Quiz

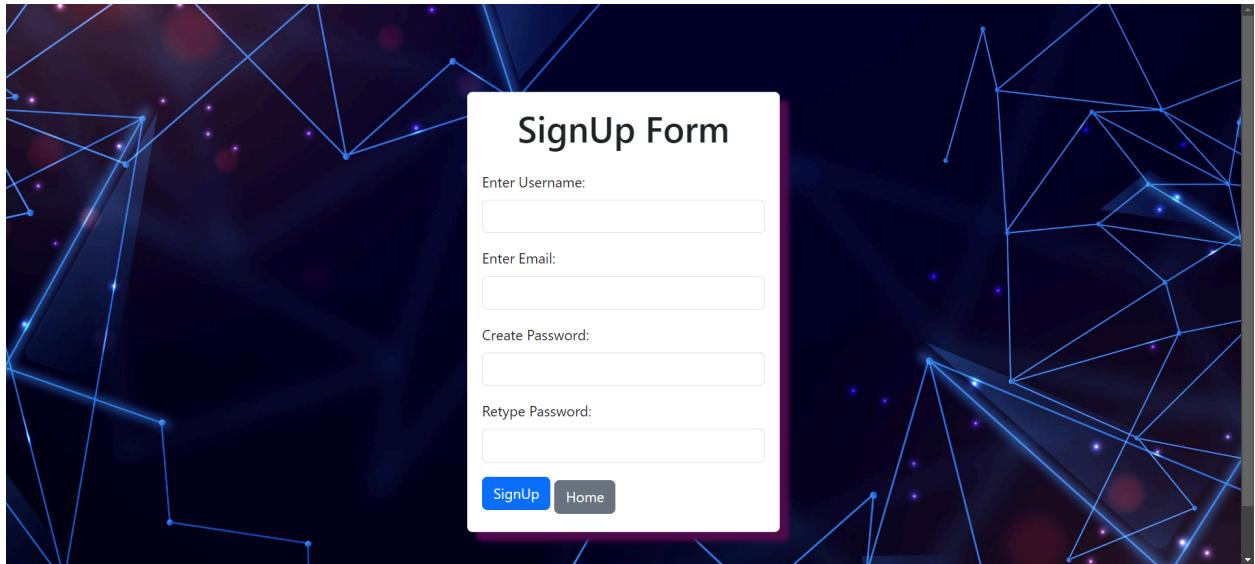


Fig 7.5 Signup Form

A screenshot of a web application showing a table titled "←Registered Users". The table has a pink gradient background with a mountain landscape at the bottom. It contains two columns: "Username" and "Email". The data rows are: Neela (akilaarun78@gmail.com), arun (neelaofficial18@gmail.com), nidar (nidarshana1045@gmail.com), sundar (sundaraspv24@gmail.com), nee (nee@gmail.com), and ant (ant@gmail.com).

Username	Email
Neela	akilaarun78@gmail.com
arun	neelaofficial18@gmail.com
nidar	nidarshana1045@gmail.com
sundar	sundaraspv24@gmail.com
nee	nee@gmail.com
ant	ant@gmail.com

Fig 7.6 Users List

CHAPTER 8

CONCLUSION

The "SoloSplash" project successfully demonstrates the creation of a dynamic, single-player online gaming website using modern web technologies such as HTML, CSS, JavaScript, PHP, MySQL, Bootstrap, and jQuery. This project integrates user authentication, game selection, and four entertaining games—Tic Tac Toe, Type Speed Test, Flappy Bird, and Quiz—into a seamless user experience.

The implementation of responsive design ensures compatibility across various devices, enhancing the platform's accessibility and usability. While the project was created primarily for fun, it showcases important web development skills, including database management, user interface design, and interaction handling. With potential for future expansion, "SoloSplash" lays a solid foundation for further development, such as adding new games, enhancing game features, or integrating social elements like leaderboards.

Through this project, essential skills in frontend and backend integration, user authentication, and dynamic content rendering have been solidified, creating an engaging and enjoyable gaming platform for users.

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