**Game Portal Website Documentation**

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**1. Introduction**

**1.1 Purpose**

The purpose of this document is to provide a comprehensive overview of the Game Portal Website, detailing its features, functionality, and technical aspects.

**1.2 Scope**

This documentation covers the design, development, and deployment of the website, focusing on three main games: Classic Snake, Catch the Falling Balls, and the Language Game.

**1.3 Audience**

This document is intended for developers and testers involved in the creation and maintenance of the Game Portal Website.

**1.4 Document Overview**

The document is organized into sections, each addressing a specific aspect of the project. It includes system overviews, game descriptions, technical architecture, development environments, testing procedures, deployment processes, and user documentation.

**2. System Overview**

**2.1 Description**

The Game Portal Website is an online gaming platform that features three distinct games, providing users with an engaging and diverse gaming experience.

**2.2 Features**

* Three games: Classic Snake, Catch the Falling Balls, and Language Game
* User registration and authentication
* Scoring system for each game
* Responsive and user-friendly design

**2.3 Technologies Used**

* Frontend: HTML, CSS
* Backend:
* Database: MySQL

**3. Game Descriptions**

**3.1 Classic Snake Game**

The Classic Snake Game is a nostalgic experience where users control a snake to eat food, growing longer with each consumed item. The objective is to achieve the highest possible score without colliding with the snake's own body or the game boundaries.

**3.2 Catch the Falling Balls**

In this game, users must move a paddle horizontally to catch balls falling from the top of the screen. Each caught ball adds to the player's score, and the goal is to achieve the highest score while avoiding missed balls.

**3.3 Language Game**

The Language Game challenges users to translate displayed English words into Hungarian. It serves as an entertaining and educational language-learning experience, with points awarded for each correct translation.

**4. Functionality**

**4.1 Game Selection**

The website allows users to choose among the three games, each offering distinct gameplay experiences.

**4.2 Game Controls**

Each game has intuitive controls, detailed in the respective game sections of the user documentation.

**4.3 Scoring System**

Each game features a scoring system, tracking and displaying the user's performance.

**5. Technical Architecture**

**5.1 Frontend**

The frontend is built using HTML, CSS, and JavaScript, ensuring a responsive and visually appealing user interface.

**5.2 Backend**

Node.js and Express handle server-side logic, managing user accounts, game data, and communication with the database.

**5.3 Database**

MySQL stores the necessary words for the language game.

**6. Development Environment**

**6.1 Tools Used**

* Visual Studio Code
* Git for version control

**6.2 Programming Languages**

* JavaScript (frontend and backend)
* HTML
* CSS

**6.3 Frameworks and Libraries**

* Node.js
* Express
* MongoDB Atlas

**7. Testing**

**7.1 Unit Testing**

Individual components of the website are thoroughly tested to ensure their proper functioning.

**7.2 Integration Testing**

The integration of frontend and backend components is rigorously tested to identify and resolve any issues.

**7.3 User Acceptance Testing**

Users are involved in testing to verify that the website meets their expectations and requirements.

**8. Deployment**

**8.1 Deployment Process**

The deployment process involves pushing updates to the hosting environment, ensuring minimal downtime and a smooth user experience.

**8.2 Hosting Details**

The website is hosted on AWS, with details provided in the hosting documentation.

**9. Maintenance and Support**

**9.1 Bug Tracking**

A bug tracking system is implemented to identify, prioritize, and resolve any reported issues.

**9.2 Future Enhancements**

Plans for future enhancements include additional games, improved user interfaces, and language support.

**10. Security**

**10.1 User Data Protection**

User data is securely stored and encrypted to prevent unauthorized access.

**10.2 Secure Connections**

HTTPS is implemented to secure data transmission between users and the website.

**10.3 Game Security Measures**

Anti-cheat measures are implemented to ensure fair gameplay and prevent exploits.

**11. User Documentation**

**11.1 Registration**

Step-by-step instructions for user registration are detailed in the user documentation.

**11.2 Gameplay Instructions**

Each game has its section providing users with clear instructions on how to play.

**11.3 Scoring System Explanation**

Users are informed about how scores are calculated and displayed for each game.

**12. Conclusion**

This documentation provides a comprehensive overview of the Game Portal Website, covering its features, functionality, and technical aspects. It serves as a guide for development, testing, deployment, and ongoing maintenance.

**Main purpose**  
The user will get an English word and have to translate it to Hungarian. If it’s correct, then the player will advance to the next word and gets a point. The goal of the game is to get as many points as you can or play until there are no words.

**Project scope:**

This project includes the development and creation of an online language game.

**Development:**

Week 1: Coming up with the idea of the project, discussing.

Week 2: Collecting words and uploading to a database,

Week 3: Implementing PHP and CSS

Week 4: Implementing JavaScript

**System overview:**

This system will help users practice their language skills or learn new words.

**Testing:**

Trying as many words as possible