A

Project Report

On

**THE HANGMAN GAME**

Submitted in partial fulfillment of the requirement for the III semester

**Bachelor of Computer Science**

By

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**2023- 2024**

**STUDENT’S DECLARATION**

We Utkarsh joshi , Harshita Joshi , Bhumika Pandey here by declare the work, which is being presented in the project, entitled “The Hangman Game” in partial fulfillment of the requirement for the award of the degree **B.Tech** in the session **2023-2024**, is an authentic record of my own work carried out under the supervision of “**Mr. Ravindra Koranga”, Assistant Professor, Department of CSE, Graphic Era Hill University, Bhimtal.**

The matter embodied in this project has not been submitted by us for the award of any other degree.

Date:

Utkarsh joshi

Harshita joshi

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**CERTIFICATE**

**The project report entitled “The Hangman Game” being submitted by,** Utkarsh joshi , Harshita joshi , Bhumika pandey **to Graphic Era Hill University Bhimtal Campus for the award of bonafide work carried out by them. They have worked under my guidance and supervision and fulfilled the requirement for the submission of report.**

**(Mr. Ravindra Koranga) (Dr. Ankur Bisht)**

**Project Guide (HOD, CSE Dept.)**

**ACKNOWLEDGEMENT**

We take immense pleasure in thanking Honorable **“Mr. Ravindra Koranga”** (**Assistant** **Professor,** **CSE, GEHU Bhimtal Campus**) for permitting me and carrying out this project work with his excellent and optimistic supervision. This has all been possible due to his novel inspiration, able guidance and useful suggestions that helped me to develop as a creative researcher and complete the research work, in time.

Words are inadequate in offering my thanks to GOD for providing me everything that we need. We again want to extend thanks to our President **“Prof. (Dr.) Kamal Ghanshala”** for providing us all infrastructure and facilities to work in need without which this work could not be possible.

Many thanks to Professor **“Dr. Manoj Chandra Lohani”** (Director Gehu Bhimtal),

other faculties for their insightful comments, constructive suggestions, valuable advice, and time in reviewing this thesis.

Finally, yet importantly, we would like to express my heartiest thanks to our beloved parents,

for their moral support, affection and blessings. We would also like to pay our sincere thanks to all our friends and well-wishers for their help and wishes for the successful completion of this research.

Utkarsh joshi

Harshita joshi

Bhumika Pandey

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**PROJECT ABSTRACT**

The "Hangman Game" mini-project is a classic word-guessing game implemented in a digital format. It offers a fun and interactive experience for players while honing their vocabulary and problem-solving skills. The game challenges players to decipher a hidden word by guessing individual letters within a limited number of attempts. It combines elements of wordplay, logic, and strategy to create an engaging gaming experience. The project also introduces additional features such as category selection, hint options, and a scoring system, making it an enjoyable and educational pursuit for players of all ages. This Hangman game serves as an exemplary illustration of how traditional games can be transformed into digital entertainment that is not only entertaining but also educational. It's a testament to the enduring appeal of timeless word games in a modern, interactive context.

**INTRODUCTION**

**Welcome to the Hangman Game Mini-Project!**

Embark on a journey into the captivating world of web development and game design with our Hangman Game Mini-Project. Hangman, a timeless classic, serves as the canvas for your exploration into the realms of HTML, CSS, and JavaScript, transforming code into an interactive and immersive gaming experience.

Hangman, a game of wit and words, has been captivating players for generations. It combines the thrill of unraveling hidden mysteries with the challenge of strategic guessing. As the player, you'll face the ever-present gallows, challenging your linguistic prowess and strategic thinking.

**OBJECTIVE**

**Skill Enhancement:** This mini-project serves as a hands-on opportunity to enhance your web development skills. From structuring content with HTML and implementing dynamic gameplay with JavaScript, every step contributes to your growth as a developer.

**Interactive Learning:** Immerse yourself in the principles of user interface design and user experience. Through interactive prompts and dynamic updates, you'll create an engaging and user-friendly game that captivates players from start to finish.

**PROBLEM STATEMENT**

Overview

Design and implement a Hangman Game using HTML and JavaScript. The Hangman Game is a classic word-guessing game where players attempt to uncover a hidden word by suggesting letters. The game should incorporate essential web development concepts, including user interface design, event handling, and dynamic content updates.

Requirements

Game Structure:

1. The game should consist of a single HTML page that includes the game interface and a "Start Game" button.
2. Upon clicking the "Start Game" button, the game should dynamically select a word from predefined categories (e.g., fruits, animals, colors).

User Interface:

1. Design a simple and intuitive user interface using HTML. Focus on clarity and ease of use.
2. Display the chosen word as a series of underscores, representing the number of letters in the word.

Gameplay:

1. Implement gameplay logic using JavaScript.
2. Allow users to guess letters by interacting with the interface.
3. Provide real-time feedback on each guess, revealing correct letters and updating the hangman's gallows for incorrect guesses.

Categories and Themes:

1. Include at least three-word categories (e.g., fruits, animals, colors).
2. Allow users to choose a category before starting the game, shaping the theme of the hidden word.

Game Completion:

1. Ends the game when the player successfully guesses the entire word.
2. Display a victory message and allow the player to restart the game.
3. Continuously update the game's progress until the player either wins by guessing the complete word or loses by running out of attempts.
4. Keep a score based on the number of successful guesses and maintain a high score record for the player.
5. Provide an option for players to play again and choose different word categories.

**Project Organization**

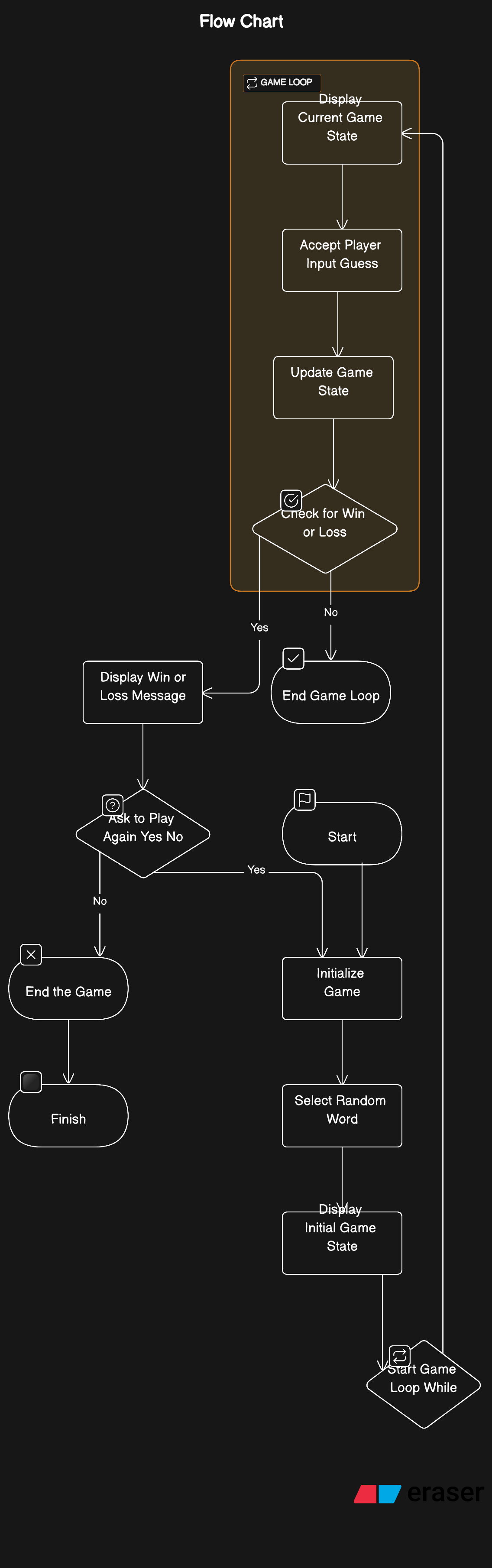
We are 3 members in this project and contributing to this project as

* Utkarsh joshi
* Harshita joshi
* Bhumika pandey
* Utkarsh joshi worked on the game logic of the project.
* Harshita joshi worked on the compilation and testing of the project.
* Bhumika pandey worked on the webpage of the project.

**Present Status of development of project**

* Our all paperwork is completed.
* We completed the planning phase of application.
* Currently we are working on the presentation for our project.

**Activity Diagram**



**Resources And Technology Used:**

HTML (Hypertext Markup Language):

- Used for structuring the web page, creating the game interface, and presenting content.

CSS (Cascading Style Sheet):

- Styling the user interface to enhance the visual appeal and ensure a seamless gaming experience.

JavaScript:

-Employed for implementing the game's logic, handling user interactions, and dynamically update

content.

Development Tools:

Text Editor (e.g., Visual Studio Code):

- Utilized for writing and editing HTML and JavaScript code.

Web Browser (e.g., Google Chrome):

- Used for testing and previewing the Hangman Game during development.

Libraries and Frameworks:

No external libraries or frameworks: The project has been implemented without the use of external libraries, keeping it lightweight and focused on core web development concepts.

**Basic modules of project**

1. User Interface Module:

Responsibility: Design and display the user interface using HTML.

Components:

* Start Game Button
* Category Selection (Optional)
* Display Area for Word and Feedback
* Attempts Remaining Indicator
* Input Area for Guesses

2. Game Logic Module:

Responsibility: Implement the core gameplay logic using JavaScript.

Components:

* Word Selection from Categories
* Letter Guessing Mechanism
* Feedback Display for Correct and Incorrect Guesses
* Game Completion and Victory Conditions
* Attempts Tracking and Management

3. Category and Word Management Module:

Responsibility: Handle word selection and category management.

Components:

* Predefined Word Lists for Different Categories (Fruits, Animals, Colors)
* Random Word Selection Logic
* Category Display and Theme Integration

4. User Interaction Module:

Responsibility: Manage user inputs and interactions.

Components:

* Event Handling for Button Clicks
* Input Validation for Guesses
* Real-time Interaction Updates

5. Display Update Module:

Responsibility: Dynamically update the display based on game progress.

Components:

* Display of Attempts Remaining
* Revealing Correctly Guessed Letters
* Visual Feedback for Incorrect Guesses
* Victory Message and Game Over Conditions

6. Testing Module:

Responsibility: Conduct testing to ensure the functionality and user experience meet the requirements.

Components:

Test Cases for Gameplay Scenarios

User Interface Testing

Cross-Browser Compatibility Testing

**CONCLUSION**

The Hangman Game mini project has been an engaging and rewarding endeavor. The primary objective was to create an interactive and enjoyable game that not only entertains users but also provides a platform for learning and skill enhancement in web development.

Throughout the development process, key components such as the User Interface, Game Logic, Category and Word Management, User Interaction, Display Updates, and optional features were meticulously designed and implemented. The game successfully captures the essence of the classic Hangman experience, offering users an opportunity to challenge their vocabulary while having fun.

Moreover, the modular structure of the project allows for easy expansion and integration of new features in the future. This flexibility ensures that the Hangman Game can evolve, offering an ongoing learning experience.

The testing phase played a crucial role in refining the user experience and ensuring the game's robustness. Various scenarios were explored to identify and address potential issues, resulting in a polished and reliable final product.

This Hangman Game mini project has not only provided practical insights into web development but has also fostered creativity and problem-solving skills. It serves as a testament to the journey of translating ideas into a functional and enjoyable application.