University of Science and Technology of Southern Philippines

WORD QUEST

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An Object Oriented Programming Project

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I. Background of the Study

In today's digital entertainment era, numerous educational games aim to improve vocabulary and spelling abilities. However, only a few provide a truly engaging, interactive experience that captivates players while presenting cognitive challenges. Word Quest fills this void by filling the blank into a word with a click-based interaction, making learning both enjoyable and stimulating.

II. Objectives

- To develop a captivating word game that strengthens vocabulary and improves spelling skills
- To design an intuitive interface that attracts a broad audience. To incorporate a clicking mechanism for word formation, offering a distinctive gameplay experience.
- To integrate a clicking mechanism for word creation, delivering a unique and engaging gameplay experience.
- To provide multiple difficulty levels and challenges, accommodating players of varying skill levels.

Word Quest is significant because it introduces an innovative approach to word games, blending traditional spelling challenges with contemporary interactive mechanics. It meets the demand for more engaging educational tools that make learning enjoyable. By prioritizing user interaction and cognitive growth, Word Quest seeks to enhance players' vocabulary while providing an entertaining experience.

III. Scope and Delimitation of the Study

Scope:

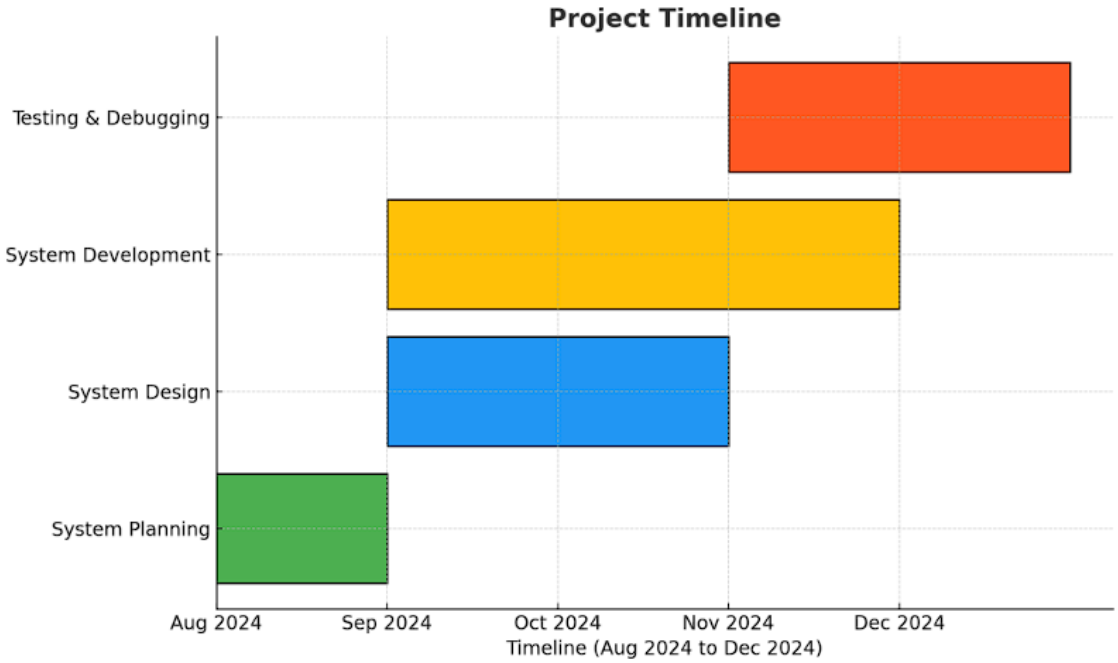
This study aims to explore and evaluate the Word Quest game as an educational tool for enhancing vocabulary, spelling, and cognitive skills. The research will focus on assessing how playing Word Quest impacts users' word recognition, language proficiency, and overall engagement. Data will be gathered from participants who regularly play the game, measuring improvements in word-related skills over a specific period. The study will also investigate user experience, the difficulty progression of levels, and the educational value of the game. The target demographic for this study includes students a, as well as adult players who engage with the game for educational purposes.

Delimitation:

The study will be limited to the version of Word Quest available on desktop platforms, excluding any other versions or potential adaptations of the game. It will focus on players who voluntarily participate in the research and may not represent the entire player base of the game. The research will not extend to analyzing the game's social interaction features, such as multiplayer modes or social networking integration. Additionally, the study will not address potential long-term effects of game use on language skills beyond the period of active gameplay. Data will be collected through surveys, interviews, and performance metrics, but it will not include direct observation of game interactions.

IV. Flowchart

V. Gantt Chart



This is a Gantt chart illustrating a project timeline divided into four phases:

1. Project Planning and Research (Aug 2024 to Sept 2024) – Represented by a green-colored bar.
2. System Design (Sept 2024 to Nov 2024) – Represented by a light blue bar.
3. System Development (September 2024 to Dec 2024) – Represented by a yellow bar.
4. Testing & Debugging (Nov 2024 to Dec 2024) – Represented by an orange bar.

VI. System Design

Figure 1.

This shows the loading screen.

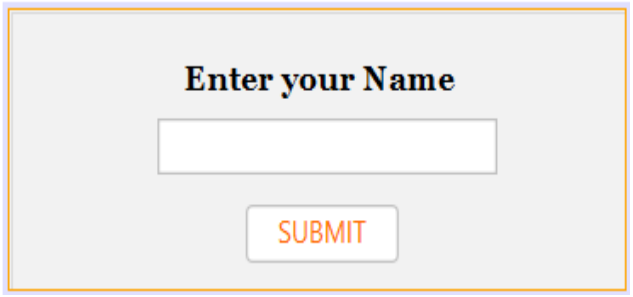


Figure 2.

Shows the user's name input before entering the main menu.

Figure 3.

Main menu screen with play, settings, and exit button.

Figure 4.

If the user clicks the play button.

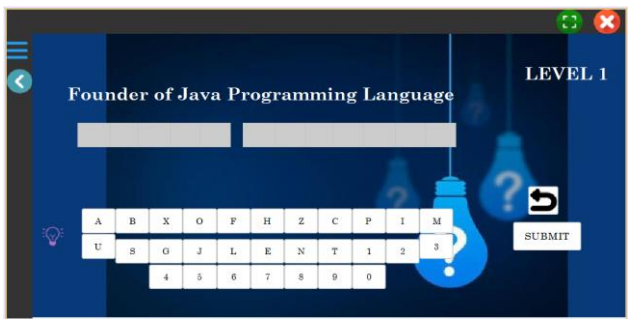


Figure 5.

If the user chooses the Java game mode

VII. Conclusion

Our development of Word Quest is advancing steadily, with the completion of major features such as the loading screen, welcome notice, and primary buttons (start, settings,

back). We are also making significant progress on key elements like word declaration, leaderboard integration (focusing on levels), and sound adjustment settings.

Moving forward, our next focus will be on:

- Finalizing the word database to ensure a balanced gameplay experience.
- Carrying out comprehensive testing to uncover and address bugs or performance issues.
- Refining the user interface and getting ready for beta testing.

VIII. Recommendation

Explore online platforms like Udemy for courses on game design, programming, and UI/UX development. These can provide valuable insights and techniques to enhance our game.

Join online forums or communities such as Reddit's r/gamedev or the Unity forums to share progress and seek advice from other game developers. This can provide additional insights and support during our development journey.

Use word list APIs, such as the WordsAPI or Datamuse API, to expand our word database dynamically. These resources can help ensure a wide variety of words across different difficulty levels.