**The Improvement of Rock Paper Scissors, Quote Generator, and Simple Calculator**

A Project Improvement Proposal

Presented to the Faculty

of the College of Computer Studies

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# **Introduction**

The current Rock Paper Scissors consist of only the three elements: rock, paper, and scissors. By improving the user interface of the game, adding scores, and more, the proposed version could adapt to skill levels by providing more competitiveness, offering strategic challenges.

The Quote Generator, currently generating random quotes from historic actors, could evolve into a lesson into the meaning behind the quotes. By incorporating user preferences and interests, the application could deliver quotes that resonate on a deeper level, offering a daily dose of motivation, amusement, or wisdom tailored to the individual.

The Simple Calculator, while proficient at basic arithmetic, could improve into a scientific calculator with advanced functionalities. Imagine a user-friendly interface that allows for seamless switching between functionalities, empowering users to tackle complex calculations or manage personal finances with ease.

# **Current Process Analysis**

The current versions of Simple Calculator, Rock Paper Scissors, and Quote Generator provide fundamental features for what the title states. However, because they are unable to really engage users, these applications are held back their true potential.

The current Rock Paper Scissors is literally a simple game of Rock Paper Scissors against a computer. While it provides a quick response, the experience is static and repetitive. The game lacks features that cater to different skill levels or playing styles, leading to a lack of interest.

The current Quote Generator displays a random quote upon activation. While it can provide a momentary source of inspiration, the lack of personalization, and limited selection make it an uninteresting experience. Users have no control over the type of quotes they receive, leading to repetitive outputs and a sense of disconnection.

The current Simple Calculator performs basic arithmetic operations. While efficient for simple calculations, its functionality is limited. Users requiring more complex calculations or financial tools are forced to seek alternatives, creating a fragmented user experience.

# **Proposed Improvement**

Rock Paper Scissors:

* **Improved User Interface**: the proposed Rock Paper Scissors game provides a better and intuitive interface for users to navigate through.
* **Score Board:** the proposed version provides a way to track player and computer scores; for example, if the player won the game will add 1 point to their score. If the player won again, then the score will be 2.

Quote Generator:

* **Personalized Inspiration**: the proposed application provides meaning behind the generated quotes through user-pressed button.

Simple Calculator:

* **Scientific**: the proposed application will upgrade into a scientific application, offering functionalities for basic arithmetic and advanced arithmetic.
* **User-Friendly Interface**: the proposed application will have an intuitive and visually appealing interface will simplify complex calculations and financial tools.

# **Benefits & Impact**

The proposed Rock Paper Scissors provides an interface that will streamline navigation and enhance user experience. The addition of a scoreboard will introduce an element of competition and accomplishment, keeping users engaged and motivated to improve. Imagine the thrill of tracking your win streak against the computer and seeing your scores climb the leaderboard.

The proposed Quote Generator provides a personalized inspiration that goes beyond just displaying quotes; users will no longer receive random quotes; instead, they'll discover quotes that resonate deeply, providing a daily dose of relevant motivation, amusement, or wisdom.

The proposed Simple Calculator upgrades into a scientific calculator that unlocks a world of possibilities for users who require advanced calculations. Complex equations will become effortless, empowering users to tackle demanding mathematical challenges. The intuitive and visually appealing interface will further enhance user experience. Imagine financial tools that present clear and informative data visualizations, allowing users to make informed financial decisions with ease.

# **Project Plan & Timeline**

1. Requirements Gathering and Design

* Conduct in-depth user interviews and surveys to gather user feedback and identify specific needs and preferences.
* Develop detailed user stories and wireframes for each application, outlining functionalities and user interface (UI) elements.
* Finalize technical specifications and ensure alignment with project goals.

1. Development and Testing

* Develop the improved applications using agile methodologies, ensuring iterative development and continuous testing.
* Implement the proposed features for each application:

1. Deployment and User Training

* Deploy the improved applications to the designated platforms.
* Launch a targeted marketing campaign to introduce the improved applications to the user base.

# **Evaluation & Risk Assessment**

The project will be evaluated throughout its lifecycle using a multi-pronged approach:

1. User Feedback:

* User interviews and surveys will be conducted at key stages of the project to gather feedback on user experience, satisfaction with new features, and suggestions for further improvement.

1. Engagement Metrics:

* Key metrics like user retention rates, daily active users, and feature usage statistics will be tracked to gauge user engagement with the improved applications.

1. Performance Metrics:

* Application performance metrics like loading times, crash rates, and bug reports will be monitored to ensure a smooth user experience.

The following potential risks have been identified, along with mitigation strategies to address them:

1. Risk: Scope Creep

* Description: Project scope may expand beyond initial plans due to unforeseen technical challenges or feature requests.
* Mitigation: Clearly defined project requirements documents and a focus on core functionalities will help maintain focus. Implementing a change management process ensures proper evaluation and approval of any proposed scope changes.

1. Risk: Development Delays

* Description: Unexpected technical hurdles or resource constraints may cause delays in the development process.
* Mitigation: Utilizing agile methodologies allows for flexible development and course correction. Maintaining a buffer in the project timeline and having contingency plans for resource allocation can help mitigate delays.

1. Risk: User Adoption

* Description: Users may be resistant to change or find the improved applications too complex.
* Mitigation: User-centered design principles will be employed throughout development to ensure the applications are intuitive and meet user needs. Comprehensive user training materials and clear communication about the benefits of the improvements will encourage user adoption.

# Conclusions

In conclusion, the proposed improvements for Rock Paper Scissors, Quote Generator, and Simple Calculator represent an upgraded version.

This project signifies a strategic investment in user experience. By prioritizing user needs and innovative design, we can cultivate a positive experience. The benefits extend far beyond the applications themselves. We empower users with the tools they need to excel, foster a sense of accomplishment through engaging gameplay and personalized messages, and ultimately, contribute to a more productive and enriching digital experience.