



COMPUTER PROGRAMMING 1
JAVA & JAVASCRIPT LEARNING GAME (WEB APP)

Description:

A gamified web application to learn programming languages, from basic to advanced concepts.

Objectives:

- Helps users develop their programming skills in Java and JavaScript
- Provides a variety of question types (matching, fill in the blanks, true/false)
- Increases user engagement and motivation through gamified elements, making learning fun and interactive
- Allows users to customize quiz structure, catering to different learning styles
- Helps users learn from their mistakes, such as deducting points and resetting progress

Scope:

- Two programming languages to learn: Java & JavaScript
- Users are able to shuffle the questions
- Customizable quiz structure: Users can choose from different response types such as matching type, fill in the blanks, true or false, and etc.
- Consequence-based actions: Right minus wrong test, tabbing-out or switching tabs will reset the entire quiz
- Time Bomb: Time accelerates every wrong answer
- Mode Selection: Survival (unlimited questions, 5 life points, reach as many points as possible), Speed Round (2 minutes, right minus wrong, reach as many points as possible), Versus Mode
- Companion

Limitation:

- Requires internet to play (online game)
- Compatible only on mobile and web
- No progress; refreshing the page will reset the game
- Repetitive mechanics
- Development would only take 2 months

Approved by:

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