

Mad Math Quiz

A Terminal Application – Written in
Ruby version 3.0.3 by

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Overview

- ★ Mad Math Quiz, its features and functionalities (with Video & Live demo).
- ★ Logic behind Mad Math Quiz and code (view on VSCode).
- ★ Project Management process (Trello Board)
- ★ Challenges, ethical issues and favourite parts.

Features & Functionalities.

Feature 1: The Quiz

- ❖ 10 randomly generated arithmetic operations questions.
- ❖ Users can input their answers.
- ❖ Scores will be tallied up and displayed to the user.

Feature 2: Difficulty Levels

There are 3 difficulty levels

- ❖ Level 1: Each question in this level will be randomly generated from 2 arithmetic operators (either +, -, *), 2 single digit numbers and 1 double digit number.
- ❖ Level 2: This level include random questions with 2 arithmetic operators (either +, -, *), 1 single digit number and 2 double digit numbers.
- ❖ Level 3: Each question in this level will contain 3 arithmetic operators (either +, -, * or **), 1 single digit number, 2 double digit numbers and 1 triple digit number.

Feature 3: Saving Scorecard

Once finished their quiz, users can print out their scorecard that list out all 10 questions, the correct answers, their answers and their scores for each questions as well as their overall score.

Code Overview & Logic

The main Object of this application is The Quiz & the Scoreboard.

Quiz class include the below methods:

- .ask_questions
- .create_scorecard
- .display_scorecard
- .save_scorecard

Scoreboard class include the below methods:

- .read_file
- .max_score
- .update_score
- .write_file

Project Management Processes

Planning

- ★ Project Documentation requirements
- ★ Code requirements
- ★ Idea >> Trello Board with minimum MVP features & checklists, good to have features and deadlines.
- ★ Github Repo & folder set up

Development

- ★ Start with the core feature/function and prioritised list items that due first.
- ★ Code/Manual
- ★ Test/Refactor
- ★ Error handling.
- ★ Update Trello board.
- ★ Automatic Test with Rspec
- ★ Refactor
- ★ Test again

Deployment

- ★ Packaging/prepare script to help & guide user to install the application.
- ★ Update portfolio website
- ★ Create a blog post on how it was developed.

Challenges

- ★ Planning
- ★ Use of Test Driven Development.

Favourites

- ★ Implementing Scoreboard Table with Terminal-table Gem.
- ★ Dynamic messaging when user hit the perfect score or on top of the leaderboard.

Ethical issues

- ★ Storing all users username and score.
- ★ Add disclaimer at the beginning of the quiz

Thank You

Questions?