Task 2

User Documentation

Introduction

This quiz has been produced to provide a fun, exciting way to improve arithmetic skills. Find the secret variable values and collect your points for a final reveal.

System Requirements

- Python 3.9 or above.
- Terminal or Python-compatible IDE

How to access the Program

1. Install Python from python.org.
2. Download file containing programme (from GitHub repository).
3. Access a terminal or IDE to use the programme.
4. Find the program file location (cd path_to_file).
5. Run the program (VS Code is recommended)

How to Play

1. The program displays equations in the form of $x * y = z$
2. When prompted, enter your guess for y
3. The programme will validate your answer for absolute correctness.
4. After 5 questions are completed, your score will be revealed.

Troubleshooting

- **"Python not recognized":** A common issue for users. Ensure Python is added to PATH during installation (including updates).
- **"Syntax Error":** Ensure the latest version of Python is installed (3.9 or above).

Technical Documentation

Program Overview

- This program is capable of generating math equations randomly in the form $x * y = z$
- User answers are verified, and scores are tallied for a final score at the end of the game.

Functions

1. **randomised_equation**:
   - Uses random module to generate unique equations

- Returns the equation as a string and the correct answer.

2. **answer_validation**:
   - Checks if the user's input matches the correct answer.
   - Invalid inputs are dealt with via try-except blocks

3. **begin_equation_quiz**:
   - Begins the quiz, questions are visualised for users, and scores are tallied up.

Key Variables (constants)

- TOTAL_QUIZ_QUESTIONS: The total number of questions in quiz (set to 5).

- user_points: Updates in real time with users most recent score.

Dependencies

- Generation of equations via built-in Python random module

Future Enhancements

- Add a GUI using common applications.

- Quiz difficulty can be changed by introducing a timer