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Object Oriented Programming (Java)

Java Project

The Mighty RPS Warrior

Clash Of Hands

The Rock Paper Scissors App is a good way to pass the time, bringing back childhood memories while offering simple, enjoyable gameplay. Created out of my love for gaming and a desire to always create my own game, this app will provide the joy of learning while having fun. As I continue to work on it, I hope to be able to add exciting features like different levels and unlockable items, enhancing the gameplay experience for players. In the RockPaperScissorsApp class, the main method will serve as the gateway to the game, initiating the JavaFX GUI. The start method will set up the game interface, the interface will contain buttons for choosing rock, paper, or scissors, and labels to display scores and outcomes. Managing the user interface, the GameGUI class will oversee updating scores and presenting results based on the player's selections. Meanwhile, the GameLogic class operates behind the scenes, orchestrating the game's logic, from generating random computer moves to determining the winner of each round. This application will deliver an engaging Rock Paper Scissors experience.

1. RockPaperScissorsApp

* This class represents the main application class for Rock Paper Scissors game
* It will extend the Application class from JavaFX

Methods:

* Main method: The entry point of the application
* Start : initializes and starts the application

1. GameGUI:

* This class handles the graphical user interface (GUI) for the game.
* Contain player score, computer score, and the game result.

Fields:

- playerScore : Integer to store the players score

- computerScore : Integer to store the computers score

- playerScoreLable : Label to display the players score

- computerScoreLable : Label to display the computers score

- resultLable : Label to display the result of each game round

Methods:

* PlayGame (playerChoice ) : Handles the game logic when the player makes a choice
* updateScores(result) : Updates the player and computer scores based on the game result

1. GameLogic:

* This class contains the game logic for determining the winner and generating random choices for the computer.

Methods:

* getRandomChoice(): Generates a random choice (rock, paper, or scissors) for the computer
* determineResult(): Determines the result of a game round based on the players and computers choices

1. Choice(Enum):

* This enum represents the possible choices in the game:ROCK,PAPER,SCISSORS

Fields:

* ROCK
* PAPER
* SCISSORS
* RockPaperScissorApp class usues the GameGUI class to manage the user interface.
* GameGUI class interacts with the GameLogic class to perform game related operations, such as generating computer choices and determining game results.

A diagram of a software application

Description automatically generated with medium confidence