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Advanced Coding in Python

April 1st 2025

Rock, Paper, Scissors

This project addresses the need for a fun and interactive Rock, Paper, Scissors game that can be played in a web interface with sound effects, images and score tracking. It provides users with an engaging digital version of a classic game that can be played solo against the computer. The key features involve the user's choice between three different options, customized sound effects for when the user wins, loses, or ties. There is a visual representation of each choice using images, score tracking for each session and a simple UI that makes the game easy to understand. There are several modules that have been used, firstly is the custom made one which handles the core logic of the game. This module contains functions to randomly select the computer's choice and determine the winner based on the users and computers selection. The pygame library has been added to handle sound effects, and the user interface was built using streamlit. When it comes to the data being handled, the three choices (Rock, paper and scissors) are hardcoded images and strings in the program. The score data is stored in the streamlits session state. The user interface is minimal and intuitive which allows users to easily select their move. Some of the challenges faced were ensuring that the sound effects are clear and at an appropriate volume. As well as having streamlit work across multiple browsers which initially presented some difficulties. Some future improvements would be adding a multiplayer mode to allow users to play over a network with friends. This Rock, Paper, Scissors game provides a simple, yet engaging experience for users, utilizing modern web technologies to deliver a fun game.