

# MASTERING PYTHON FROM BASICS TO ADVANCE

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**1. Project Name:** Rock Paper Scissors Game

**2. Project Description:**

The **Rock Paper Scissors Game** is a classic hand game implemented as a console-based program. It allows a user to play against a computer opponent in a series of rounds. The game operates by adhering to the traditional rules of Rock, Paper, Scissors.

**3. How the Project Works:**

**Game Rules:**

- a) Rock beats Scissors.
- b) Paper beats Rock.
- c) Scissors beats Paper.
- d) If both the user and computer select the same choice, the round is a tie.

**Game Flow:**

- e) The user selects a choice (Rock, Paper, or Scissors).
- f) The computer randomly selects its choice.
- g) The choices are compared, and the winner of the round is determined.
- h) The user can choose to play multiple rounds or exit the game. **Inputs:**
- i) User provides input via numbers (1, 2, or 3) representing Rock, Paper, and Scissors.
- j) Displays the user's and computer's choices.

**Features of the Project:**

- 1. Simple Gameplay:** User-friendly interface with clear instructions for making choices.
- 2. Input Validation:** Ensures the user enters valid input, avoiding program crashes.
- 3. Randomized Computer Choice:** Uses Python's random module to make the computer's selection unpredictable.
- 4. Replay Option:** Users can play multiple rounds until they decide to exit.
- 5. Dynamic Outcome:** The game calculates and announces the winner (user, computer, or a tie) in each round.