

Osama Abdo modhish

Rock Paper Scissors Game Algorithm

1. Import the ``random`` module.
2. Define a function called ``get_user_choice`` that takes no parameters:
 - Prompt the user to enter their choice of rock, paper, or scissors.
 - Convert the input to lowercase.
 - If the input is not one of the valid choices, prompt the user again until a valid choice is entered.
 - Return the user's choice.
3. Define a function called ``get_computer_choice`` that takes no parameters:
 - Create a list of valid choices: rock, paper, and scissors.
 - Use the ``random.choice()`` function to randomly select an item from the choices list.
 - Return the computer's choice.
4. Define a function called ``determine_winner`` that takes two parameters:
: ``user_choice`` and ``computer_choice``:
 - If the user's choice is the same as the computer's choice, return "It's a tie!".
 - If the user's choice is rock:
 - If the computer's choice is paper, return "Computer wins!".
 - Otherwise, return "You win!".
 - If the user's choice is paper:
 - If the computer's choice is scissors, return "Computer wins!".
 - Otherwise, return "You win!".
 - If the user's choice is scissors:
 - If the computer's choice is rock, return "Computer wins!".
 - Otherwise, return "You win!".
5. Define a function called ``play_game`` that takes no parameters:
 - Print a welcome message.
 - Start an infinite loop:
 - Call the ``get_user_choice`` function to get the user's choice.
 - Call the ``get_computer_choice`` function to get the computer choice.
 - Print the user's choice and the computer's choice.
 - Call the ``determine_winner`` function to determine the winner and print the result.
 - Prompt the user if they want to play again.
If the input is "no", print The Game is Over and break out of the loop.
6. Call the ``play_game`` function to start the game.