CS101
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Program Three - Algorithm

Rock Paper Scissors Algorithm

Summary: Play Rock Paper Scissors against the computer. The computer keeps track of player's weapon choices, and selects the weapon that will beat the user's most frequent choice.

Algorithm:

1. Give user basic input directions and rules.
2. Setup a while loop to keep the game playing. "Quit" input from the user exits this loop.
3. Initialize variables for:
    a. Round count
    b. Weapon choice counts for each weapon type
    c. Current computer weapon
    d. Current user weapon
    e. User wins
    f. Computer wins
    g. Ties
4. First round – computer makes a random weapon selection
5. User inputs their weapon choice (sanitize input, repeatedly prompt)
6. Compare computer and user weapon choices
    a. Using if statements, determine winner of round
    b. Increment all variables as necessary
7. Compare weapon choice counts, select weapon that defeats user's most common weapon choice. If no most common weapon, make random selection.
8. Repeat step 5 through 7 until user inputs "Quit."
9. Print detailed summary of the game with rounds played, rounds won/lost/tied and weapons chosen how many times.