

## Exercise 4: Rock, Paper, Scissors Game

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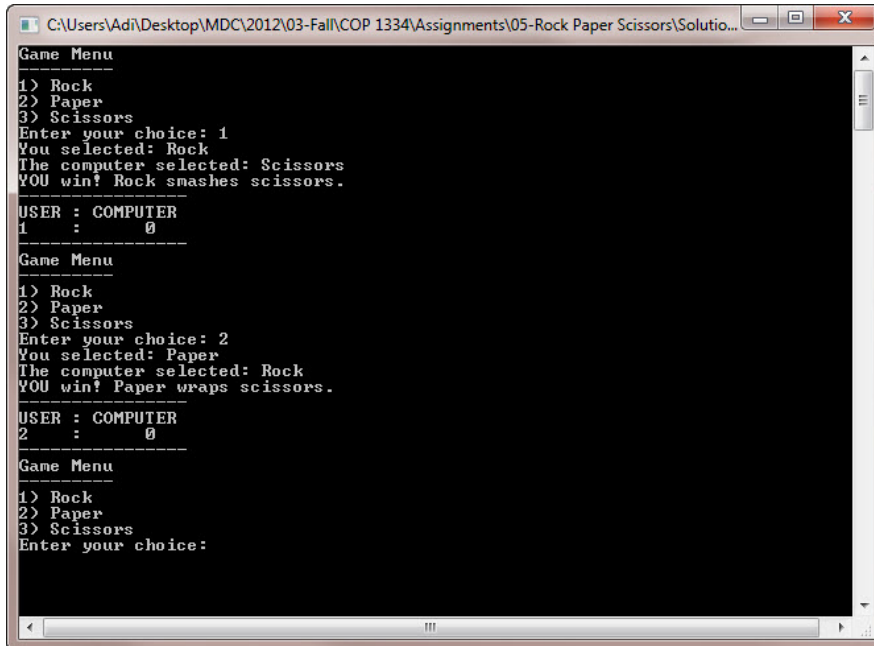
*The purpose of this exercise is to give you practice with functions, namely passing data into functions by value and by reference.*

Write a program that lets the user play the game of Rock, Paper, Scissors against the computer. The program should work as follows:

- When the program begins, a random number in the range of 1 through 3 is generated. (Don't display computer choice to the user yet).
  - If the number is 1, then the computer has chosen rock.
  - If the number is 2, then the computer has chosen paper.
  - If the number is 3, then the computer has chosen scissors.
- The user enters his or her choice of "rock", "paper", or "scissors" at the keyboard. (Use menu if you prefer).
- At this point display computer's choice.
- Your program should chose the winner according to the following rules:
  - "Rock smashes the scissors", so if one player chooses rock and the other player chooses scissors, then rock wins and one point is awarded to the player who chose rock.
  - "Scissors cut the paper", so if one player chooses scissors and the other player chooses paper, scissors wins and one point is awarded to the player who chose scissors.
  - "Paper wraps rock", so if one player chooses rock, and the other player chooses paper, paper wins and one point is awarded to the player who chose paper.
  - If both players make the same choice, then neither player gets a point.

Play the game until one player scores 10.

Be sure to divide the program into functions that perform each major task. Also, pass data **by value**, by **reference**, and/or use **static variables** and **named constants**. For each round, display the following:



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C:\Users\Adi\Desktop\MDC\2012\03-Fall\COP 1334\Assignments\05-Rock Paper Scissors\Solutio...
Game Menu
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1> Rock
2> Paper
3> Scissors
Enter your choice: 1
You selected: Rock
The computer selected: Scissors
YOU win! Rock smashes scissors.
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USER : COMPUTER
1      :      0
-----
Game Menu
-----
1> Rock
2> Paper
3> Scissors
Enter your choice: 2
You selected: Paper
The computer selected: Rock
YOU win! Paper wraps scissors.
-----
USER : COMPUTER
2      :      0
-----
Game Menu
-----
1> Rock
2> Paper
3> Scissors
Enter your choice:
```

Please name your file ***Ex.4-LastnameFirstInitial.cpp*** - (i.e. ***Ex.4-ZejnilovicA.cpp***) and submit it for grading by clicking on the Attachments button in ANGEL (dropbox). Note: the only thing you need to submit is the source code file (.cpp), nothing else.