
CSC 1300 LAB 5 PURPLE

Fall 2024, Written by Kelsey Rainey, Last Updated Sept 27, 2024

Learning Objectives

- While/Do-While Loops
- For Loops
- Nested Loops
- Running totals

NO Paired Programming Option

This is an **individual assignment**. As per the syllabus, you may still talk with other students about the assignment, **however**, you are not allowed to share more than a few lines of code with them.

Part 1: (Anything But) Rock-Paper-Scissors (Stewart)



The premise of Anything But Rock-Paper-Scissors is in the name – it's rock-paper-scissors without using rock, paper, or scissors. The sample output uses rock-paper-scissors but be creative! Come up with different options and explain **in the comments** why one beats/loses to the other (or just add on one option to standard rock-paper-scissors if midterms have gotten you down). Feel free to add ASCII art as well for the rounds! Remember, this is still a lab assignment so keep your items appropriate.

You must use at least one of each: for loop, while loop, do-while loop. It is up to you to decide where to use each loop.

Remember, **THIS IS AN INDIVIDUAL ASSIGNMENT!**

Your Program:

1. Should ask the number of contestants. **Verify** that the number is greater than 1
2. Should get each contestant's name.
3. In each round:
 - a. Print out the options and **verify** that the user's choice is within the correct range.

- ## Sample Outputs

Sample Output 1

```

: +*****#####*.
. -*****#####+.
. =+*****#####=.
. : + - +*****#####: .
: *****#####+.
. +*****#####+.
. *****##### =
+*****#####%%.
. +*****#####%%.
: *****#####%%.
=*****#####%%.

```

$$\begin{aligned} & : + \text{*****} \text{#####} * . \\ & . - \text{*****} \text{#####} \text{#####} + . \\ & . . = + \text{*****} \text{#####} \text{#####} \text{#####} = . \end{aligned}$$

Round 4 is a tie!!

Choose your weapon:

1. Rock
2. Paper
3. Scissors

3

Round 5 is a tie!!

Choose your weapon:

1. Rock
2. Paper
3. Scissors

3

Round 6: April Crockett wins!!

```

                @@@@
                @@-:+@
                @%::=@
                @#::-@@
                @*:::@   @@@**@
                @@=:::#@@@*--:::#@
                @@-::-#@#-::-:-#@@
                @%+=%#-::-:-*@@
    @@@@
    @+++++##@@   @@@#-::%%:::+@@
@@*+%@@@*+@@@@@#:::-@@-=@@
@#+@@   @+++++*%:::@@%-@@
@%+%@   @#+++++%@@   @-:#@
@%++*#*++*%@@@   @=:*@
    @@@@%@@@   @*+##@
                @#+++@
                @%+++##@@
                @@++*#+++@
                @+*@@   @#+%@
                @%+%@   @@+##@
                @+*@@@@@++@@
                @@*+++++*@
                @@@@@@

```

April Crockett wins!! So proud :)

Total Rounds: 11

Average rounds per contestant: 5.5

Total ties: 3

Sample Output 2

How many contestants are playing? 0

Do you not want to play :(

Please have at least 1 contestant: 1

What's your name contestant 1? Benjamin Burchfield

Choose your weapon:

1. Rock
2. Paper
3. Scissors

4

No specialty moves. Choose option 1-3: 2

Round 1: Benjamin Burchfield wins!!


```

      @ @ - : : - # @ # - : : : - # @ @
    @ @ @ @ @      @ % = + % # - : : : : - * @ @
    @ @ + + + + + # @ @      @ @ @ # - : % % : : : + @ @
@ @ * + % @ @ @ * + @ @ @ @ @ # : : : : - @ @ = @ @
@ # + @ @      @ + + + + + * % : : % @ @ % - - @ @
@ % + % @      @ # + + + + + % @ @      @ @ - : # @
@ % + + + # * + + * % @ @ @      @ = : * @
    @ @ @ @ % @ @ @      @ * + # @ @
      @ # + + + @
    @ % + + + # @ @ @
    @ @ + + * # + + % @
    @ + * @ @      @ # + % @
    @ % + % @      @ @ + # @
    @ + * @ @ @ @ + + @ @
    @ @ * + + + + + * @
      @ @ @ @ @ @

```

Choose your weapon:

1. Rock
2. Paper
3. Scissors

2

Round 6: Benjamin Burchfield wins!!

```

      . . . . . : : - - - - - = - .
    . - : : : : : : : : : : : : : . - .
    . - : : - - : : : : : : : : - - - : : : . - .
    . - : : : : : : : : : : : : - - - : . . . . - .
    . : : : : : . . . . . : : : - : = - : : : - .
    . : - . . . . . . . . . : : - - - - - : : : - .
    . - . . . . . . . . . : : : - . . . . . - : - .
    . = . . . . . . . . . : - . . . . : - . . - : .
    . = . . . . . . . . . : : : : : . . . . . : .
    . = . . . . . : : : : - - - - - : . . . : - .
    . - . . . : : : : : : . . . . . . . . . - .
    . - : : : : : : : : : : : : : : : : - .
    . - . . . . : : : : : : : : : : : : - .
    . - : - - : : : . . . . . . . . . : : - .
    . - . : : - - - - - : : : - - - : : . . - .
    . - : . . . . . . . . . : : : : - - - . - .
    . : : : : : : : : : : : : . . . . . - .
    . : - : - - - - - : : : - - - : : : : : - : .
    . - . . . . . : : : : - - - - - : . : .
    . - : : : : : : : : : . . . . . : : .
    . - : : : : : : : : : . . . . . : : .
    . - : : : : : : : - - - - - : : : - .
    . - . . . . . . . . . - .
    . - . . . . . : : : : : : : : : : - .
    . = = = = = - - - : : . . . .

```

Benjamin Burchfield wins!! So proud :)

Total Rounds: 6
Average rounds per contestant: 6
Total ties: 1

Sample Output 3

How many contestants are playing? 1

What's your name contestant 1? Tyce Henderson

Choose your weapon:

1. Rock

- 2. Paper
- 3. Scissors

3

Round 1: Computer wins :(

Choose your weapon:

- 1. Rock
- 2. Paper
- 3. Scissors

3

Round 2: Tyce Henderson wins!!

```

      @@@@
      @-:+@
      @%::=@
      @#::-@@
      @*:::@   @@@**@
      @@=:::#@@@*-:::#@
      @-::-#@#-:::-#@@
      @@@@    @%=+@#-:::-*@@
      @+++++##@@   @@@#-:%%:::+@@
      @@*+@@@*+@@@#@#:::-@@-==@@
      @#+@@    @+++++*%:::@@%-@@
      @%+@@    @#+++++@@    @-:#@
      @%++*#*++*@@@    @=:*@
      @@@@%@@@    @*+##@
      @#+++@
      @%+++##@@
      @@++*#*++@
      @+*@@    @#+%@
      @%+@@    @@+##@
      @+*@@@@++@@
      @@*+++++*@
      @@@@

```

Choose your weapon:

- 1. Rock
- 2. Paper
- 3. Scissors

3

Round 3: Computer wins :(

Choose your weapon:

- 1. Rock
- 2. Paper
- 3. Scissors

3

Round 4: Tyce Henderson wins!!

```

      @@@@
      @-:+@
      @%::=@
      @#::-@@
      @*:::@   @@@**@
      @@=:::#@@@*-:::#@
      @-::-#@#-:::-#@@
      @@@@    @%=+@#-:::-*@@
      @+++++##@@   @@@#-:%%:::+@@
      @@*+@@@*+@@@#@#:::-@@-==@@
      @#+@@    @+++++*%:::@@%-@@
      @%+@@    @#+++++@@    @-:#@

```



```

@%++*#*++*%@@@    @=:*@
  @@@@%@@@@@        @*+##@@
                    @#+++@
                    @%+++#@@@
                    @@++*##++%@
                    @+*@@    @#+%@
                    @%+%@    @@+##@
                    @+*@@@@@++@@
                    @@*+++++*@
                    @@@@@@

```

Choose your weapon:

1. Rock
2. Paper
3. Scissors
- 3

Round 5: Computer wins :(
The computer wins :(womp womp

Total Rounds: 5
Average rounds per contestant: 5
Total ties: 0

Tips for ASCII Art

- For text, you can use <https://patorjk.com/software/taag/#p=display&f=Graffiti&t=Type%20Something%20>
- For image to ASCII, you can use <https://www.asciiart.eu/image-to-ascii>
- You will have to copy the ASCII art and then paste it in your source file. Then, you will need to make each line a cout statement with an endl or newline at the end of each line.
- Then, you will need to escape all characters that are ', ", or \. (More information on this here: <https://en.cppreference.com/w/cpp/language/escape>)

Part 2: Fill Out the Lab Report

You will fill out this lab report for every lab and it is part of your grade. To get credit, you must upload a screenshot of the confirmation page to this lab assignment. Name your screenshot **lab5ReportProof**.

Lab Report Link: https://tntech.co1.qualtrics.com/jfe/form/SV_d6BGc6kzQdSvBmS

What to Turn In

Create a zip file named **username_lab5** containing the following .cpp files and upload it to ilearn. Replace labPartner1username with your TTU username. Example: **acrockett43_lab5.zip**

- lab5.cpp
- lab5ReportProof

Remember to download and check your .zip file to make sure that it includes your .cpp and lab report proof.

Stewart, Cal. *Personal Interview*. 9 Sept. 2024

References