

CS 201

Fall 2021

Program Assignment 1: **9/12/2021**

**All work submitted must be your own.**

Assignment: Upload your project to Canvas no later than **Sunday night, Sept. 12 by 11:59PM.**

### Part 1 - Writing a program.

The first program of the semester is very simple. We're keeping the problem simple so you can focus on learning the mechanics of writing a program using branching and iterations, saving your program file, etc., and not have to spend much time on the problem-solving part.

You've been asked to write C++ program to roll a six-sided dice once and then we roll a second dice as many times as is necessary to obtain the same face as the one obtained in the first dice.

### Rules of the Game:

- 1- Randomly roll the first dice **once** (six-sided dice).
- 2- Randomly roll the second dice.
- 3- Compare first and second dice:
  - a. If they are equal in less than 3 rounds, announce that you got a match and that computer won.
  - b. If they are not equal in less than 3 rounds, keep checking for a match and then announce that you got a match in "X" rounds and that the computer lost this turn.
  - c. Note: First dice only roll randomly once and with each round the second dice will roll randomly until you get a match.
- 4- After you announce either the computer won or lost, you will ask the user if they want to have another turn.
  - a. If the user wanted to have another turn, then you will repeat all previous steps.
  - b. If user decided to end the game, then output a message to the user "Have a great day" and terminate the program.

```
Microsoft Visual Studio Debug Console
Round 1 :
First dice: 5
Second dice: 6
Round 2 :
First dice: 5
Second dice: 1
Round 3 :
First dice: 5
Second dice: 4
Round 4 :
First dice: 5
Second dice: 4
Round 5 :
First dice: 5
Second dice: 5

First dice == Second dice after 5 rounds

Computer Lost this Turn

Do you want to play again? (Y/y)
y
Round 1 :
First dice: 3
Second dice: 3

**COMPUTER WON!!**

First dice == Second dice after 1 rounds

Do you want to play again? (Y/y)
n
Have a great day
```

**Deliverables**

- Upload your Whole project by Sept 12<sup>th</sup> before 11:59PM. Don't lose points for silly mistakes. Make sure you comment the top of your program with your name, class section and program #, as well as the creation date and the date due.