San José State University
Department of Computer Engineering

CMPE 135
Object-Oriented Analysis and Design
Spring 2021
Instructor: Ron Mak

Assignment #3

Assigned: Thursday, February 25
Due: Friday, March 5 at 11:59 PM
Team assignment, 100 points max

Command-Line Rock-Paper-Scissors Game
Implement the first version of the Rock-Paper-Scissors game as a command-line program:

- Each game has 20 rounds.
- Prompt the human player for each round's choice of rock, paper, or scissors.
- The computer makes a random choice.

What can <u>change</u> in future versions of this program:

- How the opposing (i.e., human) player's choices are obtained.
- How the computer makes its choices (it may not always be random).

Assume that you will expand this program in future assignments. Therefore, do not simply write it as one large main function. It should consist of several well-designed classes.

Written report
In a short (2- or 3-page) report, describe:

- How you **encapsulated** code that will change.
- How you used the **Law of Demeter**.
- Your implementation of **cohesive** classes.
- Your implementation of **loosely-coupled** classes.

What to turn in

Make a zip file of all your C++ source files and your report. Submit it into Canvas:
Assignment #3. Command-Line Rock-Paper-Scissors Game

This is a team assignment. Each member of the team will receive the same score.

Rubric

Your program will be graded according to these criteria:

Criteria	Max points
• **As implemented by the program and described by the report:**	• **100**
○ How well code that will change is encapsulated.	○ 25
○ How well the program uses the Law of Demeter.	○ 25
○ How well the implemented classes are cohesive.	○ 25
○ How well the implemented classes are loosely coupled.	○ 25