**San José State University**
**Computer Science Department**
**CS151, Object Oriented Design and Programming, 01, Spring 2022**

**Homework #8**

# Objective:

This homework's objective is to review and understand the units on Java reflection.

# Details:

Exercise 1:

Remember the implementation of a business in homework 2? Please use your implementation of the *Address* and *Person* classes from that homework in this homework. You will have to change the Person class to not be abstract for this assignment.

Define and implement class **ReflectionTest**. This class should implement *main()* method. In the body of the *main()* method you should write Java code that uses only Java reflection libraries to perform the following:
1. Print out all methods declared in class *Person* (notice, declared methods only), including the number of input parameters and all input parameter types.
2. Print out all methods available to class *Address* (notice, all methods), including the number of input parameters and all input parameter types.
3. Print out all fields declared in class *Address* (notice, declared fields only), including the access modifier and the type of the field.
4. Instantiate 3 new instances of class *Person*. This should also involve instantiating the *Address* class using reflection.
5. Use Java reflection to invoke *setFirstName()*, *setLastName()* and *setAge()* in one or more instance(s) of *Person* class.

To print out your output use *System.out.println()* or a similar method. Save your program into a file named **ReflectionTest.java**.

# Submission:

Compress all the homework files into a single compressed file named "Assignment8", with the appropriate file extension. The following files are expected to be in this compressed file: Address.java, Person.java, ReflectionTest.java and any other files you completed for this assignment, if any.

Make sure to submit by 11:59pm on the due date listed in Canvas. Submit your solution via Canvas.

If you have any questions, message me or the grader or both:
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# Grading:

Your code must compile and execute successfully in order to get full credit for this assignment. I will compile and execute the files.

- Program with no compile errors
- Program executes
- Program outputs what is required by the exercise

A total of 10 points are possible for this homework assignment.