**Directions**: Create a Python module named CSP1-4-1d.py and code the following:

1. Define a class that represents a Car. This class should have three attributes and four methods:
   1. Attributes:
      1. age
      2. model
      3. isRunning()
   2. Methods
      1. startCar() that, when called, sets the isRunning to True.
      2. stopCar() that, when called, sets the isRunning to False.
      3. A getter and setter method for model getModel() and setModel()
   3. The constructor must accepts the values mentioned above and set the appropriate attributes in your program.
2. Create an instance of Car. It is a three year old Chevy that is not running.
3. Define a class that represents a Shape. This class should have two attributes, a method, and a constructor:
   1. Attributes:
      1. x position of the shape on the screen.
      2. y position of the shape on the screen.
   2. Methods that allows the user to change the attributes mentioned above (setX and getX, setY and getY)
   3. The constructor must set the values of the attributes mentioned above when an object instance is created from this class.
   4. **Test your code** by creating an instance of the class and calling the methods that change the values of the attributes. Print the values of your attributes as the last part of the test.
4. Define a class that represents a Circle. It must be inherit the attributes and methods of the Shape class. Define one attribute, one method, and a constructor:
   1. Attributes
      1. Radius
   2. Method
      1. calcArea()
         1. Use the formula and make equal to 3.14
         2. Return the value from the method.
   3. The constructor must accept radius attribute as a parameter and sets the attribute.
   4. **Test your code** by creating an instance of the class and calling the calcArea() method.
      1. Set the x and y coordinates to 10 and 50 using the appropriate setter methods.
      2. Print the value returned by the calcArea() method.
      3. Print the x, y coordinates of your circle using the getX and getY getter methods.
5. In the example above, Circle inherits from Shape which makes Shape the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and Circle the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. *(Note: Parent and child will not be good enough. I need the official terms.)*

1. Software developers often use UML diagrams to describe their ideas during the early stages of software development. Suppose you and your partner are working on a word processing program.
   1. Describe what you would want the user to be able to do with the word processing software.
   2. Bold all nouns in the above description.
   3. Print this document and draw entities for each noun that you think would make sense as a class. Identify the entity names, attributes, and methods. Draw the diagram below: