Introduction Document for Week2 Hand-in Assignment

This project contains three classes:

1. SwimmingPool
   1. This class serves as the blueprint for a SwimmingPool object.
   2. Contains the following private instance variables:
      1. width, which stores the width of the swimming pool.
      2. length, which stores the length of the swimming pool.
      3. depth, which stores the depth of the swimming pool.
   3. The swimming pool can be instantiated with the width, length and depth values, or without. If done without these values, then all instance variables are initialized to zero. If values are provided, then they must be greater than or equal to zero.
   4. Contains get and set methods for accessing and assigning values to the above instance variables.
   5. Contains a getVolume() method, which returns the volume of the pool in liters by multiplying width \* length \* depth \* 1000.
2. Assignment2App
   1. This class the application class and is used to create an instance of the SwimmingPool class.
   2. Imports javax.swing.JOptionePane, which allows the program to display messages and receive input from the user using dialog boxes.
   3. Contains the instance variables width, length, depth, and volume, which are assigned values from the user.
   4. Contains the following public methods:
      1. greeting(), which displays a welcome message and tells the user what the program will do.
      2. getPoolDimensions(), which asks the user for the length, width, and depth of the swimming pool.
      3. displayVolume(), which calls the getVolume() method of the SwimmingPool class to get the volume so that it can be displayed to the user.
      4. displayFillTime(), which assumes a rate of 2.5 liters/second, and displays how long it would take to fill the pool. The formula used is volume / (rate \* 3600).
3. Assignment2Driver
   1. This class is used to create an instance of the Assignment2App class.
   2. All of Assignment2App’s methods are called in the main method.

Screenshots:











