

User Defined Object Assignment

Due Jul 18 by 11:59pm **Points** 100

Submitting a text entry box, a media recording, or a file upload

Available Jul 8 at 12am - Jul 20 at 11:59pm 13 days

This assignment was locked Jul 20 at 11:59pm.

If you plan on working from home, you will need to have the IntelliJ IDE installed on your personal computer. If you are not familiar with IntelliJ, test and become familiar with the IntelliJ Integrated Development Environment (IDE). There are instructions in Canvas on getting the IntelliJ IDE installed on your personal computer. If working from home, you must have IntelliJ installed and configured. All programming projects must be submitted as a zipped IntelliJ Project Folder

Project Requirements

Each User Defined Class must be in its own separate source text file. The IntelliJ IDE will assist you in creating separate class files using the File - New File Option from the pull down menu. Do not place more than one class description code in a single text file unless it is an inner class. The name of the class source file must be same name as the class.

Create a Class named Product

The first part of the assignment is to create a Super Class named Product. create a basic UML Diagram for the Class named Product. After creating the Class Diagram, implement the Class and the methods of your class from the Class Diagram.

Requirements for the Product Class

A product has a product number, Product Name, and Purchased Price, and . The class should contain the basic functionality of a user defined object described in Chapters 8.

Create a Class named CellPhone

The next segment of this part of the assignment in this module is to create a basic UML Diagram for a CellPhone class and to create the class for the CellPhone. First create the Class Diagram. After creating the Class Diagram, create and implement the Class and the methods of your CellPhone class from the Class Diagram. The CellPhone class should inherit from Product.

Requirements for the CellPhone Class

Create a class named **CellPhone** . A **CellPhone** has a MAC number, Screen Size , and Model. The **CellPhone** class should contain the basic functionality of a user defined object described in Chapters 8 and 9 of the textbook.

Require Functionality in the CellPhone class

Set methods for each property

Get methods for each property

Default and initialization Constructors

toString Method

equals method

compareTo method

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- Instantiate some instances of your CellPhone. Use your initialization constructor to give an instance an initial state. Use your default constructor to give an instance a default state. After giving an instance a default state, use your set methods to change the state of an object. Use the (toString) method of CellPhone Class to print out the state of the instances of the CellPhone Class that was created in memory

What You Need To Submit

Submit your UML Diagram in PDF Format

Submit your Assignment Project as a Zipped IntelliJ Project Folder

Submit your Lab Report

Submit all three documents separately in a single submission

After completing the project in IntelliJ, zip the project into a zip file. Upload the zipped file containing the IntelliJ project folder that you created doing this assignment. Upload a copy of your Lab Report with your zipped IntelliJ Project Folder.

Criteria	Ratings	Pts
Part 2 UML Diagram Completed		20.0 pts
Product Class Completed		30.0 pts
CellPhone Class Completed		30.0 pts
Professional Lab Report Submitted		20.0 pts
		Total Points: 100.0