ALGONQUIN COLLEGE

OBJECT ORIENTED PROGRAMMING (JAVA) (CST8284)

LAB #5

INHERITANCE

Some Introduction

- This lab focuses on the OOP concept of **Inheritance**. You will use the knowledge of the week's concepts to work with:
  - Super classes
  - Subclasses
  - super keyword
  - toString(), overriding and more
- Review the corresponding resources, and helpful links on the concept.

Important Information

- The **Week #5** theory lecture slides for this week is a great resource for this lab. Review the slides as you prepare for this lab.

- Explore more materials on Inheritance in Java to help your learning experience and internalizing the concepts studied.

- Continue your practice beyond this lab to gain more confidence and knowledge.

YOUR TASKS

ALGONQUIN COLLEGE

You are required to ….

- Download and review the **two** files and an output sample (in this slide) provided for you.
  - Sample output included (scroll below).
  - SalesAgent
    - ✓ Java code file. This class contains a **name** and **age** of a Sales Agent.
  - SalesAgentTest
    - ✓ An empty Java code file. This is for you to write the **test program** that tests all the classes and methods.

You are required to …(2)

- Create a new class called SalesSupervisor that inherits from SalesAgent.
  - Include an instant variable named location, indicating the location for the sales which has type String.
  - Provide a toString method for printing the name of the sales supervisor, his age and his sales location.

You are Required to…(3)

- Create a class called SalesChief which inherits from SalesSupervisor.
- You must provide toString methods for all the **classes** and **methods**.
- Write the test program SalesAgentTest and use your name as the SalesChief in your output.
- Ensure that your output displays all necessary details.

Your Demo …

- Show your Professor the **two new** classes (SalesSupervisor and SalesChief), and the **test program** (SalesAgentTest) that you created.

- Put **Javadoc style comments** in your code and explain to your professor any overrides in the classes.

- Answer **all** questions as may be asked by your professor**.**

Sample Output File

Please see the Sample output file included with documents presented to you for this lab.

- Note that there are separate outputs given by the two different test files.
- If there are any modifications reflected in your output, please let your Professor know.

References

- Big Java Early Objects, 7/E. Author: Horstmann, C. Wiley. ISBN: eText: 978-1-119-49909-1 or loose-leaf paper: 978-1-119-74020-9.

- Another good resource:

- Java How to Program, Early Objects Plus MyProgrammingLab with Pearson eText -- Access Card Package, 11/E. Author: Deitel ISBN: 9780134800271