**LAB 8**

**Arrays and Inheritance – 10 points**

**Instructions:**

1. After downloading the lab assignment from Blackboard, please write the appropriate Java programs in BlueJ IDE.
2. If stuck anywhere, the instructor and the lab assistant are always there to help.
3. Lab assignments need to be uploaded onto Blackboard by the due date listed on Blackboard.
4. You would need to submit a .docx file. Copy-paste the written code and a sample run of the program.
5. Online resources can ‘definitely’ be consulted. However, please refrain from using content from the internet as-is. The mark of a good programmer is to write clean and genuine code – anytime, anywhere, and always.
6. Write a program that prompts the user to read ten integers and displays their sum. **(2 point)**
7. Write a method that returns the product of all numbers in an array.

Write a test program that prompts the user to enter five numbers, stores them in an array, and displays their product. **(3 point)**

1. Design a class named **Person** and its two subclasses named **Student** and **Employee**. Make **Faculty** and **Staff** subclasses of **Employee**. A person has a name, address, phone number, and e-mail address. A student has a class status (freshman, sophomore, junior, or senior). Define the status as a constant. An employee has an office, salary, and date hired. A faculty member has office hours and a rank. A staff member has a title. Override the **toString** method in each class to display the class name and the person’s name.

Write a test program that creates objects of **Person**, **Student**, **Employee, Faculty,** and **Staff,** and invoke their **toString()** methods. **(5 points)**