Roll No.: 21BCS007 **LAB ASSESSMENT:** #09 **DATE:** 17/10/2023

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PROBLEM 1:

Things Learned:

1. Basic Implementation of Java Programs.
2. Java file should be named the same as class name (either during execution it automatically changes its name to the class name, or, it won't be read the java file and execute it).
3. During compilation creates a .class file which is the bytecode file of the executable java code.

Problems Faced:

1. -

Solutions of Questions in the PDF:

1. Would you say that Java is a "successful" technology? What makes a technology successful?
   - Yes, I would definitely consider Java a successful technology. Its longevity, versatility, and widespread adoption across various industries and applications are strong indicators of its success.
   - There are several factors that contribute to a technology's success:
     i. Popularity and adoption
     ii. Versatility
     iii. Platform Independence
     iv. Open-source Nature
     v. Large Ecosystem
     vi. Robust Standard Library
   - <Article1> <Article2> <Article3> <Article4>
2. List the full forms of the acronyms "JDK", "Java SE", "JRE". What do they mean?
   - JDK (Java Development Kit) is a software development kit used by Java developers. It includes tools for developing, debugging, and monitoring Java applications and applets. The JDK also includes the Java Runtime Environment (JRE) and other additional tools and libraries needed for Java development.
   - Java SE (Java Platform, Standard Edition) is a computing platform that provides the Java programming language, libraries, and tools for developing and running Java applications. It is the core foundation for Java development and includes the basic features and libraries that make up the standard Java platform.
   - JRE (Java Runtime Environment) is a part of the Java Development Kit (JDK). It provides the runtime environment for Java applications to run. The JRE includes the Java Virtual Machine (JVM), class libraries, and other supporting files needed for the execution of Java applications.

PROBLEM 2:

Things Learned:

1. Basic concepts of Java OOPS. <Link>
2. Implementing Java classes and objects. <Link>
3. Implementing constructors in Java. <Link>

4. Inheritance in Java. <Link>
5. Method Overriding in Java. <Link>

Problems Faced:

1. Understanding the intricacies of OOPS in Java.
2. Implementing inheritance in Java.
3. Calling out classes through java objects.

PROBLEM 3:

Things Learned:

1. Using Random package in Java Program.
2. Concept of instanceOf in Java. <Link>

Problems Faced:

1. Had trouble in generating random points in Java.
2. Implementing instanceOf in Java Program.