**Week 1**

**DESIGN PATTERN AND PRINCIPLE**

Exercise 1 – **IMPLEMENTING THE SINGLETON PATTERN**

**Code:**

class Logger {

private static Logger instance = new Logger();

private Logger() {

System.out.println("Logger created");

}

public static Logger getInstance() {

return instance;

}

public void log(String message) {

System.out.println("Log:" + message);

}

}

public class SingletonPatternExample {

public static void main(String[] args) {

Logger logger1 = Logger.getInstance();

logger1.log("First message");

Logger logger2 = Logger.getInstance();

logger2.log("Second message");

if (logger1 == logger2) {

System.out.println("logger1 and logger2 are the SAME instance");

}

else {

System.out.println("Different instances (Singleton failed)");

}

}

}

**Output:**

