**Exercise 1: Implementing the Singleton Pattern**

**Program:**

public class SingletonPatternExample{

public static void main(String[] args) {

Logger logger1 = Logger.getInstance();

Logger logger2 = Logger.getInstance();

logger1.log("First object");

logger2.log("Second object");

if(logger1==logger2){

System.out.println("Same instance");

}

else{

System.out.println("Different Instance");

}

}

}0

class Logger {

private static Logger instance;

private Logger() {

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

}

public static Logger getInstance() {

if (instance == null) {

instance = new Logger();

}

return instance;

}

public void log(String message) {

System.out.println(message);

}

}

**Output:**

