**Week 2**

**Exercise 1: Logging Error Messages and Warning Levels**

**Code:**

package org.example;

import java.io.IOException;

import java.util.logging.\*;

public class LogExample {

private static final Logger logger = Logger.getLogger(LogExample.class.getName());

public static void main(String[] args) {

configureLogger();

logger.info("Application started");

try {

simulateWarning();

simulateError();

} catch (Exception e) {

logger.log(Level.SEVERE, "An exception occurred during execution", e);

}

logger.info("Application ended");

}

private static void configureLogger() {

Logger rootLogger = Logger.getLogger("");

for (Handler handler : rootLogger.getHandlers()) {

rootLogger.removeHandler(handler);

}

ConsoleHandler consoleHandler = new ConsoleHandler();

consoleHandler.setLevel(Level.ALL);

consoleHandler.setFormatter(new SimpleFormatter());

logger.addHandler(consoleHandler);

logger.setLevel(Level.ALL);

logger.setUseParentHandlers(false);

}

private static void simulateWarning() {

logger.warning("This is a warning message – something might be wrong!");

}

private static void simulateError() {

throw new RuntimeException("This is a simulated error");

}

}

**Output:**

