# Module 04: Midterm - Debugging Assignment

In this assignment you will demonstrate your knowledge of debugging by fixing the errors you find in the program below. Fix the code, and paste it in this document, along with the list of the problems you fixed.

This example allows the user to display the string for the day of the week. For example, if the user passed the integer 1, the method will return the string Sunday. If the user passed the integer 2, the method will return Monday. This code has both syntax errors and logic errors. Hint: There are three logic errors to find and fix (in addition to the syntax errors).

Inport daysAndDates.DaysOfWeek;

**public** **class** TestDaysOfWeek {

**public** **static** **void** main(String[] args) {

System.***out***.println("Days Of week: ");

**for** (**int** i = 0;i < 8;i++) {

System.***out***.println("Number: " + i + "\tDay Of Week: " + DaysOfWeek.*DayOfWeekStr*(i) )

}

}

}

**package** daysAndDates

**public** **class** DaysOfWeek {

**public** **static** String DayOfWeekStr(**int** NumberOfDay) {

String dayStr = ""

**switch** (NumberOfDay) {

**case** 1:

dayStr = "Sunday";

**break**;

**case** 2:

dayStr = "Monday";

**break**;

**case** 3:

dayStr = "Tuesday"

**break**;

**case** 4:

dayStr = "Wednesday";

**case** 5:

dayStr = "Thursday";

**break**;

**case** 6:

dayStr = "Thursday";

**break**;

**case** 7:

dayStr = "Saturday";

**break**;

}

}

}

CORRECTED CODE:

package daysAndDates; // Insert semicolon ; to close statement, syntax error

public class DaysOfWeek {

    public static String DayOfWeekStr(int NumberOfDay) {

        String dayStr = ""; // Insert semicolon ; to close statement, syntax error

        switch (NumberOfDay) {

            case 1:

                dayStr = "Sunday";

                break;

            case 2:

                dayStr = "Monday";

                break;

            case 3:

                dayStr = "Tuesday";  // Insert semicolon ; to close statement, syntax error

                break;

            case 4:

                dayStr = "Wednesday";

                break; // insert break keyword to terminate switch statement, syntax error

            case 5:

                dayStr = "Thursday";

                break;

            case 6:

                dayStr = "Friday"; // correct case 6 to 'Friday' from 'Thursday' // logic error

                break;

            case 7:

                dayStr = "Saturday";

                break;

            default:

                dayStr = "Here comes the weekend!"; // added default handling for input exceptions, potentially a logic error

        }

        return dayStr; // add return statement, syntax error

    }

}

import daysAndDates.DaysOfWeek; // correct mispelling & capitalization error in 'import' keyword, syntax error

public class TestDaysOfWeek {

    public static void main(String[] args) {

        System.out.println("Days Of week: ");

        for (int i = 1;i < 8;i++) { // begin iteration at 1 to avoid 0 switch statement that does nothing, logic error

            System.out.println("Number: " + i + "\tDay Of Week: " + DaysOfWeek.DayOfWeekStr(i) ); // add semicolon to terminate statement, syntax error

        }

LIST OF PROBLEMS FIXED:

In DaysOfWeek.java there were 4 syntax errors:

Line 1 – added semicolon to close the package statement

Line 5 – added semicolon to close String declaration statement

Line 14 – insert ‘break’ keyword for case 4

Line 31 – added return statement

Additionally there were 2 logic errors:

Line 23 – changed case String statement to correctly return “Friday” rather than “Thursday”

Line 28/29 – added default handling to switch loop

In TestDaysofWeek.java there were 2 syntax errors:

Line 1 – corrected the import keyword to correctly import the method from DaysOfWeek.java

Line 8 – added semicolon to close console print statement

Additionally there was 1 logic error:

Line 7 – changed iteration loop to begin at 1 rather than 0 as the first loop otherwise prints nothing

The 3 logic errors were:

Line 23 – changed case String statement to correctly return “Friday” rather than “Thursday”

Line 28/29 – added default handling to switch loop

Line 7 – changed iteration loop to begin at 1 rather than 0 as the first loop otherwise prints nothing