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).

```java
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:

```java
import daysAndDates.DaysOfWeek; // Fixed typo "Inport" to "import"
public class TestDaysOfWeek {
        public static void main(String[] args) {
                System.out.println("Days Of Week: ");

                for (int i = 1; i <= 7; i++) { // Fixed loop to start at 1 and go to 7
                        System.out.println("Number: " + i + "\tDay Of Week: " +
DaysOfWeek.DayOfWeekStr(i)); // Added missing semicolon at end of println statement
                }
        }
}

package daysAndDates; // Added missing semicolon

public class DaysOfWeek {
        public static String DayOfWeekStr(int NumberOfDay) {
                String dayStr = ""; // Added missing semicolon
                switch (NumberOfDay) {
                        case 1:
                                dayStr = "Sunday";
                                break;
                        case 2:
                                dayStr = "Monday";
                                break;
                        case 3:
                                dayStr = "Tuesday"; // Added missing semicolon
                                break;
                        case 4:
                                dayStr = "Wednesday";
                                break; // Added missing break
                        case 5:
                                dayStr = "Thursday";
                                break;
                        case 6:
                                dayStr = "Friday"; // Day 6 should be Friday, not Thursday
                                break;
                        case 7:
                                dayStr = "Saturday";
                                break;
                        default:
                                dayStr = "Invalid day"; // Added default case for safety
                                break;
                }
                return dayStr; // Added missing return statement
        }
}
```

LIST OF PROBLEMS FIXED:

(Added comments to the code pointing out each one in addition to this.)

1. Fixed typo "Inport" to "import".
2. Fixed the for loop to start at 1 and go to 7.
3. Added a missing semicolon at end of println statement inside the for loop.

4. Added a missing semicolon on the package line.
5. Added a missing semicolon on the line declaring the variable dayStr.
6. Added a missing semicolon inside of case 3.
7. Added a missing break in case 4.
8. dayStr in case 6 should be Friday, not Thursday.
9. Added a default case for if the number was not representing a valid day.
10. Added a missing return statement.