

King Saud University
College of Computer and Information Sciences

Switch (Tutorial #7)

CSC 111: Java Programming-I, All Sections

[Exercise 1]

Using the following code, write the output in the following scenarios:

- 1) The user input is 4
- 2) The user input is 1
- 3) The user input is 12

```
import java.util.Scanner;

public class Tut7 {

    public static void main(String[] args) {
        System.out.print("Enter a number between 1 and 9 to get its factorial: ");
        Scanner in = new Scanner(System.in);
        int Factorial = in.nextInt();
        int Result = 1;
        switch (Factorial) {
            case 9: System.out.print("9 * ");
                    Result *= 9;
            case 8: System.out.print("8 * ");
                    Result *= 8;
            case 7: System.out.print("7 * ");
                    Result *= 7;
            case 6: System.out.print("6 * ");
                    Result *= 6;
            case 5: System.out.print("5 * ");
                    Result *= 5;
            case 4: System.out.print("4 * ");
                    Result *= 4;
            case 3: System.out.print("3 * ");
                    Result *= 3;
            case 2: System.out.print("2 * ");
                    Result *= 2;
            case 1: System.out.print("1");
                    Result *= 1;
                    break;
            default: System.out.println("ERROR: Bad Input");
        }
        if (Factorial >= 1 && Factorial <= 9)
            System.out.print(" = " + Result);
    }
}
```

[Exercise 2]

Convert the following if statements into a switch statement.

```
String str = "Ali";
if (str == "Fahad")
    System.out.println("Hello Father");
else if (str == "Khaled")
    System.out.println("Hi Son");
else System.out.println("Hi " + str);
```

[Exercise 3]

Write the output of the following code.

```
int a = 1;
int b = 2;
switch (a + b) {
case 1: System.out.println("The Answer is 1");
        break;
case 2: System.out.println("The Answer is 2");
        break;
case 3: System.out.println("The Answer is 3");
        break;
default: System.out.println("The Answer is not 1, 2 or 3");
         break;
}
```

[Exercise 4]

Point out the 6 coding mistakes in the following code.

```
switch ('b') {
case 'a': System.out.println("1st letter in the alphabet");
        break;
case 1: System.out.println("The digit 1");
        break;
case '?': System.out.println("The question mark");
        break;
case '"': System.out.println("The double quotation mark");
        break;
case "'': System.out.println("The single quotation mark");
        break;
case 'ث': System.out.println("3rd Arabic letter Ta");
        break;
case '\\': System.out.println("The backslash mark");
        break;
case '\t': System.out.println("The horizontal tab");
        break;
case '?': System.out.println("The question mark");
default: System.out.println("This character is not registered");
}
```