Java Switch Statement

The Java switch statement executes one statement from multiple conditions. It is like if-else-if ladder statement. The switch statement works with byte, short, int, long, enum types, String.

- There can be one or N number of case values for a switch expression.
- The case value must be of switch expression type only. The case value must be literal or constant. It doesn't allow variables.
- The case values must be unique. In case of duplicate value, it renders compile-time error.
- Each case statement can have a break statement which is optional. When control reaches to the break statement, it jumps the control after the switch expression. If a break statement is not found, it executes the next case.
- The case value can have a default label which is optional.

Syntax:

```
switch(expression)
{
case value1:


 break;
case value2:
break;
.....
default:
  code to be executed if all cases are not matched;
}
```

Example:

SwitchExample.java

```
public class SwitchExample
 {
public static void main(String[] args)
 {
      int number=20;
   switch(number)
{

   case 10: System.out.println("10");
   break;
   case 20: System.out.println("20");
   break;
   case 30: System.out.println("30");
   break;

   default:System.out.println("Not in 10, 20 or 30");
   }
}
}
```

Finding Month Example:

SwitchMonthExample.javaHTML

```
//Java Program to demonstrate the example of Switch statement
```

```
//where we are printing month name for the given number
public class SwitchMonthExample {
public static void main(String[] args) {
   int month=7;
   String monthString="";
   switch(month){
   case 1: monthString="1 - January";
   break;
   case 2: monthString="2 - February";
   break;
   case 3: monthString="3 - March";
   break;
   case 4: monthString="4 - April";
   break;
   case 5: monthString="5 - May";
   break;
   case 6: monthString="6 - June";
   break;
   case 7: monthString="7 - July";
   break;
   case 8: monthString="8 - August";
   break;
   case 9: monthString="9 - September";
   break;
   case 10: monthString="10 - October";
   break;
```

```
    case 11: monthString="11 - November";
    break;
    case 12: monthString="12 - December";
    break;
    default:System.out.println("Invalid Month!");
    }
    System.out.println(monthString);
}
}
```

Program to check Vowel or Consonant:

If the character is A, E, I, O, or U, it is vowel otherwise consonant. It is not case-sensitive.

SwitchVowelExample.java

```
public class SwitchVowelExample
{
public static void main(String[] args)
{
   char ch='O';
   switch(ch)
   {
      case 'a':
         System.out.println("Vowel");
         break;
      case 'e':
         System.out.println("Vowel");
```

```
            break;
        case 'i':
            System.out.println("Vowel");
            break;
        case 'o':
            System.out.println("Vowel");
            break;
        case 'u':
            System.out.println("Vowel");
            break;
        case 'A':
            System.out.println("Vowel");
            break;
        case 'E':
            System.out.println("Vowel");
            break;
        case 'I':
            System.out.println("Vowel");
            break;
        case 'O':
            System.out.println("Vowel");
            break;
        case 'U':
            System.out.println("Vowel");
            break;
        default:
```

```
                System.out.println("Consonant");
            }
        }
        }
```

SwitchStringExample.java

```
//Java Program to demonstrate the use of Java Switch
//statement with String
public class SwitchStringExample
{
public static void main(String[] args)
{
      String levelString="Expert";
   int level=0;
   switch(levelString)
{
   case "Beginner": level=1;
   break;
   case "Intermediate": level=2;
   break;
   case "Expert": level=3;
   break;
   default: level=0;
   break;
   }
```

```
   System.out.println("Your Level is: "+level);
}
}
```

Java Nested Switch Statement

We can use switch statement inside other switch statement in Java. It is known as nested switch statement.

Example:

NestedSwitchExample.java

//Java Program to demonstrate the use of Java Nested Switch

```
public class NestedSwitchExample
{
   public static void main(String args[])
    {
          char branch = 'C';
      int collegeYear = 4;
      switch( collegeYear )
      {
         case 1:
            System.out.println("English, Maths, Science");
            break;
         case 2:
            switch( branch )
            {
               case 'C':
                  System.out.println("Operating System, Java, Data Structure");
```

```
                break;
            case 'E':
                System.out.println("Micro processors, Logic switching theory");
                break;
            case 'M':
                System.out.println("Drawing, Manufacturing Machines");
                break;
          }
          break;
        case 3:
          switch( branch )
          {
            case 'C':
                System.out.println("Computer Organization, MultiMedia");
                break;
            case 'E':
                System.out.println("Fundamentals of Logic Design,
Microelectronics");
                break;
            case 'M':
                System.out.println("Internal Combustion Engines, Mechanical
Vibration");
                break;
          }
          break;
        case 4:
          switch( branch )
```

```
            {
                case 'C':
                    System.out.println("Data Communication and Networks,
MultiMedia");
                    break;
                case 'E':
                    System.out.println("Embedded System, Image Processing");
                    break;
                case 'M':
                    System.out.println("Production Technology, Thermal
Engineering");
                    break;
            }
            break;
        }
    }
}
```