

# C++ Virtual Labs – 04092020

## Nested if-else Statement –

- A nested if is an if statement that is the target of another if statement. Nested if statements means an if statement inside another if statement.

- **Syntax –**

```
if (condition1)
{
    // Executes when condition1 is true
    if (condition2) {
        // Executes when condition2 is true
    }
    else {
        // Executes when condition2 is false
    }
}
```

## Source Code of if-else statement –

```
#include<iostream.h>
#include<conio.h>
void main()
{
    int i = 10;
    if (i == 10) {
        if (i < 15) {
            cout<<"i is smaller than 15";
        }
        if (i < 12) {
            cout<<"i is smaller than 12 too";
        }
        else {
            cout<<"i is greater than 15";
        }
    }
}
```

### If-else-if ladder Statement –

- **Syntax –**  
if (condition) {  
    //statement;  
}  
else if (condition) {  
    //statement;  
}  
.  
.  
.  
else {  
    //statement;  
}

### Source Code of if-else-if ladder statement –

```
#include<iostream.h>
#include<conio.h>
void main()
{
    int i = 20;
    if (i == 10)
        cout<<"i is 10";
    else if (i == 15)
        cout<<"i is 15";
    else if (i == 20)
        cout<<"i is 20";
    else
        cout<<"i is not present";
}
```

### Switch Case Statement -

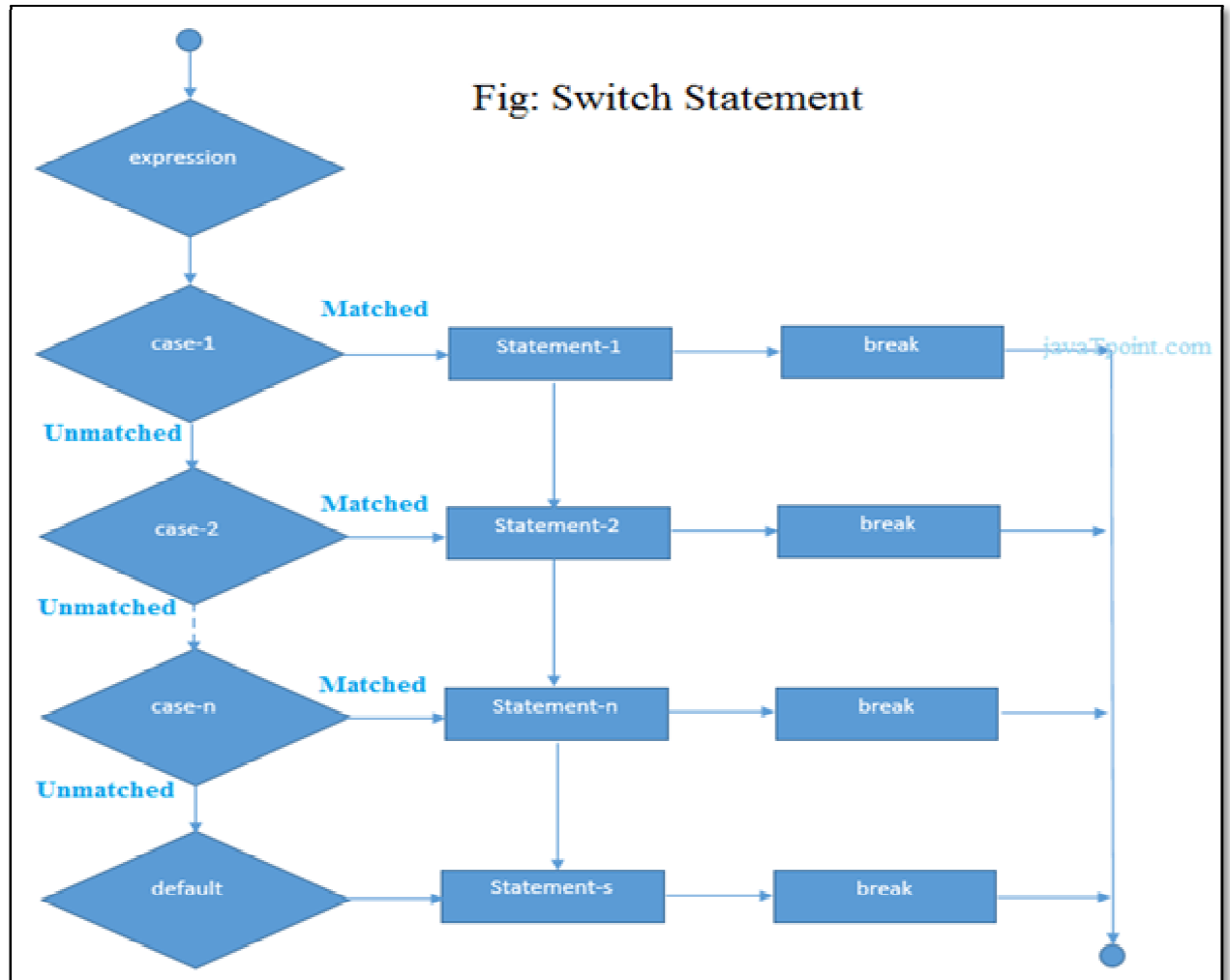
The C++ switch statement executes one statement from multiple conditions. It is like if-else-if ladder statement in C++.

- ❑ **Syntax –**  
switch(expression)  
{

```

case value1:      //code to be executed;      break;
case value2:      //code to be executed;      break;
.....
default:          //if all cases are not matched;  break;
}

```



#### ❏ Example –

```

#include<iostream.h>
#include<conio.h>
void main ()
{
    int num;
    cout<<"Enter a number to check grade:";
    cin>>num;
    switch (num)
    {
        case 10: cout<<"It is 10";           break;
        case 20: cout<<"It is 20";           break;
        case 30: cout<<"It is 30";           break;
        default: cout<<"Not 10, 20 or 30";    break;
    }
}

```

```

    }
}
/* WAP to find out the charges against the weight */
#include<iostream.h>
#include<conio.h>

void main()
{
    int weight, charges = 0;
    cout<<"Enter the product weight: ";
    cin>>weight;

    if(weight <= 10)
    {
        charges = (weight * 25);
    }
    else if(weight > 10 && weight <= 30)
    {
        charges = (250 + (weight - 10)* 20);
    }
    else
    {
        charges = (250 + 400 + (weight - 30)* 10);
    }

    charges = charges + (charges *5)/100;

    cout<<"\nRequired Weight: "<<weight;
    cout<<"\nRequired Charges: "<<charges;
}

```

```

/* Example of Switch Case */
#include<iostream.h>
#include<conio.h>

void main()
{
    int ch,ch1;

```

```
cout<<"Enter the choice: ";
cin>>ch;
switch(ch)
{
    case 1: cout<<"Mrinal Kanti Parua"; break;
    case 2: cout<<"Soham Dey"; break;
    case 3: cout<<"Subhadip Patra"; break;
    case 4: cout<<"Surajit Samanta"; break;
    default: cout<<"Global Group of Institutions";
}
}
```