

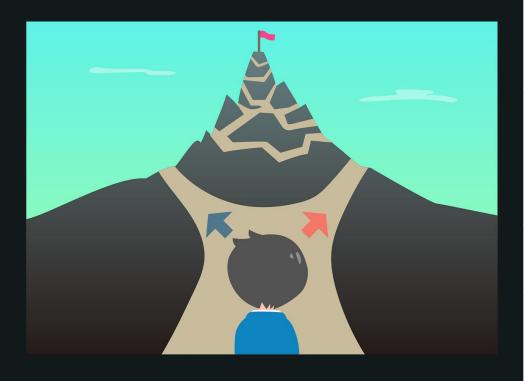
Conditions in C++

C++ Programming





Conditions



Condition	Example	Explanation
if	if (marks > 60)	if we want a particular block to execute, on some condition.
else	else (no condition)	if we want another block to execute, if first (if) fails.
else if	else if (marks > 45)	if we want to apply more conditions.
switch	<pre>case : 5 cout << "Excellent"; case : 4 cout << "Good";</pre>	When we have absolute, values.



if - condition

```
#include <iostream>
using namespace std;
int main() // Program execution begins
{ int marks;
 cout << "Enter your marks "; __</pre>
                                                               User Input
 cin >> marks;
 if ( marks >= 60 )
                                                            Checking Condition
      { cout << "You are pass"; }
  return 0;
```



if else - condition

```
#include <iostream>
using namespace std;
int main() // Program execution begins
{ int marks;
 cout << "Enter your marks ";</pre>
 cin >> marks;
 if ( marks >= 60 )
       { cout << "You are pass"; }
 else
       { cout << "You are fail"; }
 return 0;
```

User Input

Checking Condition

if - if condition fails

Default





Write a program, to input student marks and check whether student is pass or fail

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else if - condition

```
#include <iostream>
using namespace std;
int main() // Program execution begins
{ int marks;
 cout << "Enter your marks ";</pre>
 cin >> marks;
 if ( marks >= 60 && marks <=100 )
         { cout << "You are pass "; }
 else if ( marks >= 0 \&\& marks < 60 )
         { cout << "You are fail "; }
 else
         { cout << "Invalid input"; }
 return 0;
```

User Input

Checking Condition

Another Condition

if - if condition fails

Default





Write a program, to input student marks and check whether student is pass or fail. (with else if)



Switch

```
#include <iostream>
using namespace std;
int main() // Program execution begins
{ int day;
 cout << "Enter a no. b/w (1 - 7)";
 cin >> day;
 switch (day)
 { case 1:
              cout << "Monday";</pre>
  case 2:
              cout << "Tuesday";</pre>
  case 3:
              cout << "Wednesday";</pre>
  case 4:
              cout << "Thrusday";</pre>
  case 5:
              cout << "Friday";</pre>
  case 6:
              cout << "Saturday";</pre>
  case 7:
              cout << "Sunday";</pre>
 return 0;
```

Switch Expresssion

Checking Conditions





Write a program, to input number and display day name respectively.



Break



Break is use to jump out of block.

```
{
Block
}
```



Switch + Break

```
#include <iostream>
using namespace std;
int main() // Program execution begins
{ int day;
 cout << "Enter a no. b/w (1 - 7)";
 cin >> day;
 switch ( day )
 { case 1:
                 cout << "Monday";
  case 2:
                 cout << "Tuesday";</pre>
  case 3:
                 cout << "Wednesday";</pre>
  case 4:
                 cout << "Thrusday";</pre>
  case 5:
                 cout << "Friday";
  case 6:
                 cout << "Saturday";</pre>
  case 7:
                 cout << "Sunday";</pre>
 return 0;
```

Switch Expresssion

Checking Conditions with break



Default in switch



Used when non of condition is matched then, defualt is executed.

Used to handle invalid inputs.



Switch + break + default

```
#include <iostream>
using namespace std;
int main() // Program execution begins
{ int day;
 cout << "Enter a no. b/w (1 - 7)";
 cin >> day;
 switch (day)
 { case 1:
                  cout << "Monday";
  case 2:
                  cout << "Tuesday";</pre>
  case 3:
                  cout << "Wednesday";</pre>
  case 4:
                  cout << "Thrusday";</pre>
  case 5:
                  cout << "Friday";</pre>
  case 6:
                  cout << "Saturday";</pre>
  case 7:
                  cout << "Sunday";
 default:
                  cout << "invaid input";</pre>
 return 0;
```

Switch Expresssion

Checking Conditions with break