

if

```
if (Condition1)
{
    Enter the loop processing;
}
else if (Condition2)
{
    Enter the loop processing;
}
else
{
    if (Condition3)
    {
        Enter the loop processing;
    }
}
```

switch

```
switch (Formula)
{
    case Condition1:
        Enter the loop processing;
        break;
    case Condition2:
        Enter the loop processing;
        break;
    default:
        Enter the loop processing;
        break;
}
```

for

```
for (Variable; LoopCondition; Processing)
{
    Enter the loop processing;
}
```

foreach

```
foreach (DataType Variable in Collection)
{
    Enter the loop processing;
}
```

while

```
while (LoopCondition)
{
    Enter the loop processing;
}
```

do-while

```
do
{
    Enter the loop processing;
}
while (LoopCondition);
```

break

1. Break the loop midway.
2. Use break when nesting.

continue

1. Skip processing in loop.
2. Use continue when nesting.



Example

Example of use.

if - example

```
int iNum = 5;
if (iNum == 0)
{
    Console.WriteLine("0");
}
else if (iNum == 1)
{
    Console.WriteLine("1");
}
else
{
    if (iNum < 10)
    {
        Console.WriteLine(iNum);
    }
}
```

Result : 5

switch - example

```
int iColor= 2;
switch (iColor)
{
    case "1":
        Console.WriteLine("White");
        break;
    case "2":
        Console.WriteLine("Blue");
        break;
    default:
        Console.WriteLine("Black");
        break;
}
```

Result : Blue

for - example

```
for (int iNum = 0; iNum < 3; iNum++)
{
    Console.WriteLine(iNum);
}
```

Result : 123

foreach - example

```
var color = new[] { "White", "Blue", "Black" };
foreach (string strColor in color)
{
    Console.WriteLine(strColor);
}
```

Result : WhiteBlueBlack

while - example

```
int i = 0;
while (i < 5)
{
    Console.WriteLine(i + ",");
    i++;
}
```

Result : 0,1,2,3,4,

break - example

```
for (int i = 0; i < 2; i++)
{
    for (int j = 0; j < 2; j++)
    {
        if (j == 0)
        {
            break;
        }
        Console.WriteLine("j =" + j);
    }
    Console.WriteLine("i =" + i);
}
```

Only the inner for statement is removed.

do-while - example

```
int i = 0;
do
{
    Console.WriteLine(i + ",");
    i++;
}
while (i < 5);
```

Result : 0,1,2,3,4,

break - example - do-while

```
int i = 0;
do
{
    if (i == 3)
    {
        break;
    }
    Console.WriteLine(i + ",");
    i++;
}
while (true);
```

The condition is true.

Warning: Without break, it becomes an infinite loop.

continue - example

```
for (int i = 0; i < 2; i++)
{
    for (int j = 0; j < 2; j++)
    {
        if (j == 0)
        {
            continue;
        }
        Console.WriteLine("j =" + j);
    }
    Console.WriteLine("i =" + i);
}
```

Return to the declaration line of the inner for statement.

continue - example - while

```
int i = 0;
while (i < 5)
{
    if (i == 3)
    {
        continue;
    }
    Console.WriteLine(i + ",");
    i++;
}
```

Next run line 2.

Array

```
DataType[] VariableName
    = New DataType[ElementNumber];
```

1. VariableName[Index].
2. Index starts from 0.

Array - example

```
string[] srtColors1 = new string[] {
    "White", "Snow", "GhostWhite"};
Console.WriteLine(srtColors1[0] + ",");
Console.WriteLine(srtColors1[1] + ",");
Console.WriteLine(srtColors1[2]);
var srtColors2 = new string[] {
    "LightSkyBlue", "Blue", "Navy"};
Console.WriteLine(srtColors2[0] + ",");
Console.WriteLine(srtColors2[1] + ",");
Console.WriteLine(srtColors2[2]);
var srtColors3 = new[] {
    "WhiteSmoke", "Silver", "Black"};
Console.WriteLine(srtColors3[0] + ",");
Console.WriteLine(srtColors3[1] + ",");
Console.WriteLine(srtColors3[2]);
```

Result : White,Snow,GhostWhite
 Result : LightSkyBlue,Blue,Navy
 Result : WhiteSmoke,Silver,Black

Array - example

```
string[] srtColors = new string[3];
srtColors[0] = "Snow";
srtColors[1] = "Navy";
srtColors[2] = "Silver";
Console.WriteLine(srtColors[0] + ",");
Console.WriteLine(srtColors[1] + ",");
Console.WriteLine(srtColors[2]);
```

Result : Snow,Navy,Silver

Array - example

```
string[] srtColors = new string[] {
    "White", "Snow", "GhostWhite"};
Array.Resize(ref srtColors, 4);
srtColors[3] = "WhiteSmoke";
foreach (string srtColor in srtColors)
{
    Console.WriteLine(srtColor);
}
```

Result : White
 Snow
 GhostWhite
 WhiteSmoke

Array - example

```
static void Main()
{
    string[] srtColors = new string[3] {
        "LightSkyBlue", "Blue", "Navy"};
    string[] b = GetColor(srtColors);
}
private static string[] GetColor(string[]
strColor)
{
    return strColor;
}
```

Array - example

```
static void Main()
{
    string[] srtBule = new string[] {
        "LightSkyBlue", "Blue", "Navy"};
    List<string> ColorList
        = new List<string>(srtBule);
    ColorList.Add("RoyalBlue");
    foreach (string sColor in ColorList)
    {
        Console.WriteLine(sColor);
    }
}
```

Result : LightSkyBlue
 Blue
 Navy
 RoyalBlue

2D Array - example

```
string[,] colors = new string[2,3]
{
    {"LightSkyBlue", "Blue", "Navy"},
    {"WhiteSmoke", "Silver", "Black"}
};
Console.WriteLine(colors[0, 0] + ",");
Console.WriteLine(colors[0, 1] + ",");
Console.WriteLine(colors[0, 2]);
Console.WriteLine(colors[1, 0] + ",");
Console.WriteLine(colors[1, 1] + ",");
Console.WriteLine(colors[1, 2]);
```

Result : LightSkyBlue,Blue,Navy
 WhiteSmoke,Silver,Black

