

Control Structures

PRESENTED BY: SATYA PRAKASH PATEL
EMAIL: SATYAPATEL.IND@GMAIL.COM

Ternary operator ?:

Syntax: **<Condtion>?<True Block>:<False Block>**

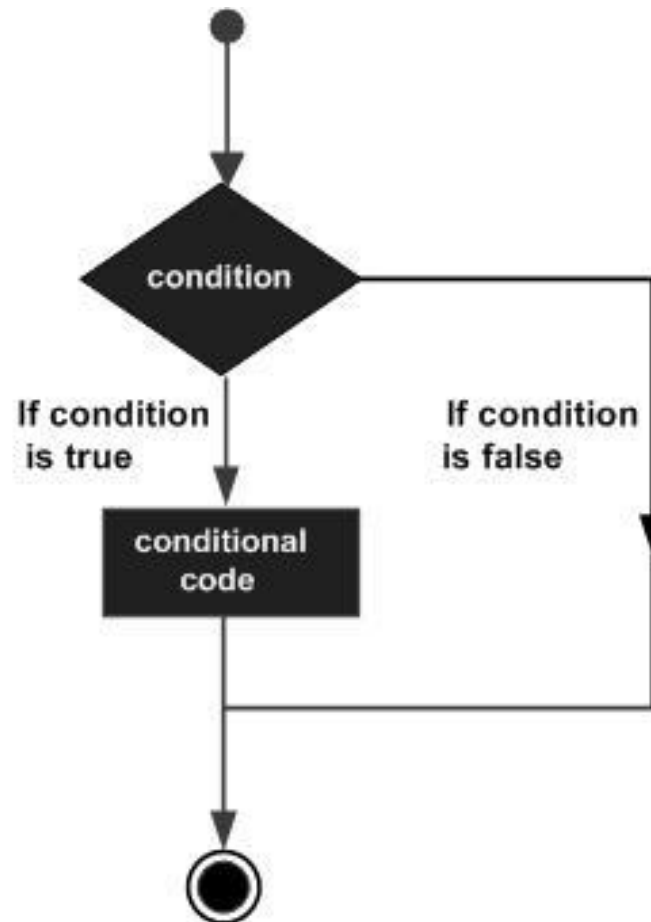
Example: `2>3? printf("2"): printf("3");`

Flow chart

The ternary operator is right-associative. The expression `a ? b : c ? d : e` is evaluated as `a ? b : (c ? d : e)`, not as `(a ? b : c) ? d : e`

Conditional Structures

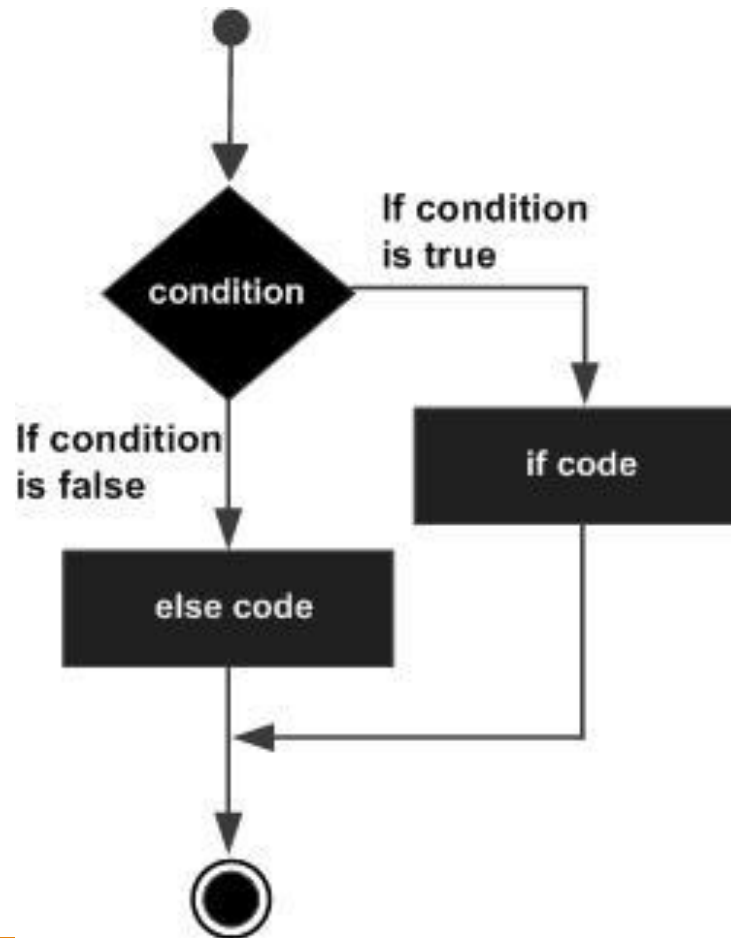
```
if(boolean_expression) {  
  /* statement(s) will execute if the boolean expression is true */  
}
```



```
if (testExpression)
{
    // statement(s)
}
```

```
if (number < 0)
{
    printf("You entered %d.\n",
number);
}
```

```
if(boolean_expression) {  
    /* statement(s) will execute if the boolean expression is true */  
} else {  
    /* statement(s) will execute if the boolean expression is false */  
}
```



```
if( number%2 == 0 )  
    printf("%d is an even integer.",number);  
else  
    printf("%d is an odd integer.",number);
```

if...else Ladder (if...else if...else Statement)

```
if (testExpression1) {  
    // statement(s)  
}  
  
else if(testExpression2)  
{ // statement(s)}  
  
else if (testExpression 3)  
{ // statement(s)  
}  
  
else  
{ // statement(s)  
}
```


Nested if...else

```
if (number1 >= number2)
{
    if (number1 == number2)
    {    printf("Result: %d = %d",number1,number2);}
    else { printf("Result: %d > %d", number1, number2);    }
}
else
{
    printf("Result: %d < %d",number1, number2);
}
```

Question 1

What will be the output of following program ?

OPTIONS

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
    const char var='A';
```

```
    ++var;
```

```
    printf("%c",var);
```

```
}
```

A. B

B. A

C. 66

D. ERROR

Question 2

WHAT WILL BE THE OUTPUT OF FOLLOWING PROGRAM ?

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
    int x=(20 || 40 ) && (10);
```

```
    printf("x= %d",x);
```

```
}
```

OPTIONS

A. x= 1

B. x= 0

C. x= 60

D. x= 70

Question 3

WHAT WILL BE THE OUTPUT OF FOLLOWING PROGRAM ?

```
int main()
{
    int x, y = 5, z = 5;
    x = y == z;
    printf("%d", x);
    return 0;
}
```

OPTIONS

- A. 0
- B. 1
- C. 5
- D. Compiler Error

Question 4

WHICH OF THE FOLLOWING OPERATORS HAS AN ASSOCIATIVITY FROM RIGHT TO LEFT?

OPTIONS

A. +=

B. <<

C. ==

D. <=

Question 5

WHAT WILL BE THE OUTPUT OF FOLLOWING PROGRAM ?

```
void main()
{
    int x;

    x= (printf("AA") || printf("BB"));
    printf("%d",x);
    printf("\n");
    x= (printf("AA")&&printf("BB"));
    printf("%d",x);
}
```

OPTIONS

- A. AABB1
 AABB1
- B. 1
 1
- C. AA1
 AABB1
- D. AABB1
 AA1

Home work1 : analyse the question

```
#include<stdio.h>

void main()
{
    int x,y;
    x= printf("%d\n",7);
    y= printf("\n%d BIT",7);
    printf("\nx= %d, \ny= %d ",x, y);

}
```

Home work 2: analyse the question

```
#include<stdio.h>

void main()
{
    int x,y;
    x= scanf("%d %d %d",&x, &y, &x);
    printf("\nx= %d,",x);
    y= scanf("%d %d %d",&x, &y, &x);
    printf("\nx= %d, \ny= %d ",x, y);
}
```


Home work 3: analyse the question

```
#include<stdio.h>
```

```
void main()
```

```
{    int x,y,z;
```

```
    scanf("%d %d %d", &x,&y,&z)
```

```
    x>z?x>y?printf("x"):printf("y"):printf("z");
```

```
    printf("\n\n\n\n\nx=%d\ny=%d, \n z=%d", x,y,z);
```

```
}
```

Input case

A. X=1,y=2,z=3

B. X=1,y=3,z=2

C. X=3,y=1,z=2

D. X=3,y=2,z=1

Queries and Feedback

