

Control Structures

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Ternary operator ?:

Syntax: <Condition>?<True Block>:<False Block>

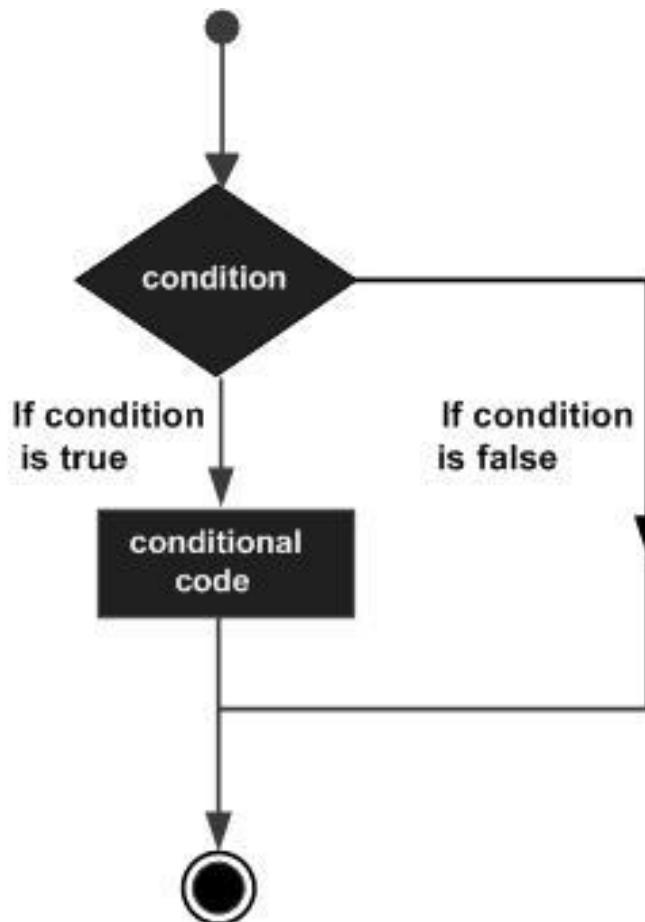
Example: 2>3? printf("2"): printf("3");

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

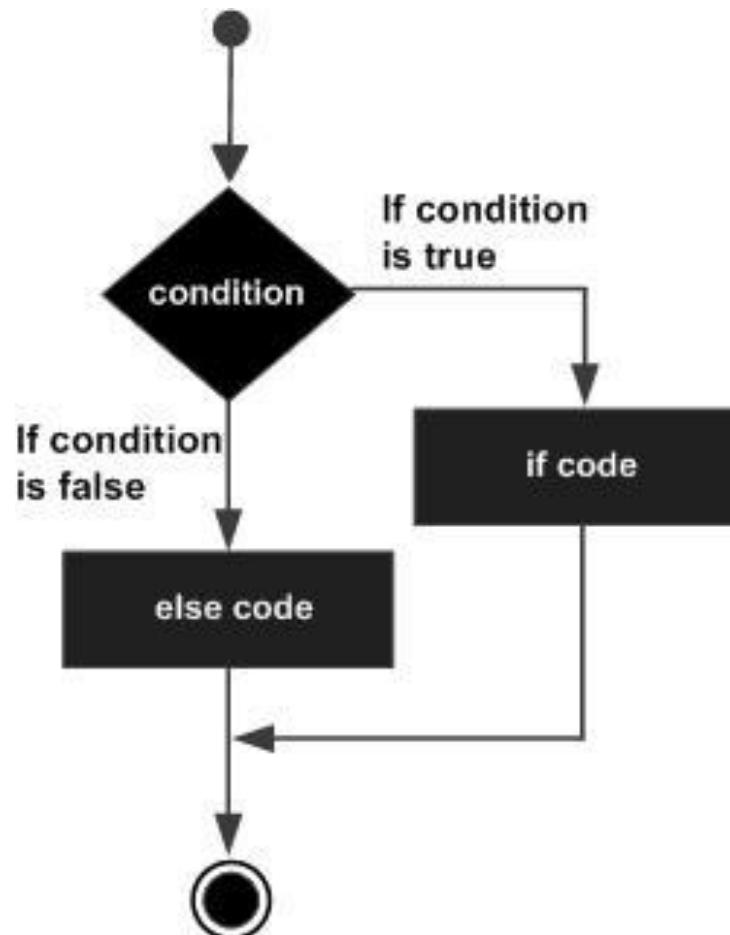
```
if(boolean_expression) {  
    /* statement(s) will execute if the boolean expression is true */  
}
```



```
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>
```

A. B

```
void main()
```

B. A

```
{
```

C. 66

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

D. ERROR

```
    ++var;
```

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

```
}
```

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

