Conditional operator (Ternary Operator)

Syntax:

Expression1? expression2: expression3;

(or)

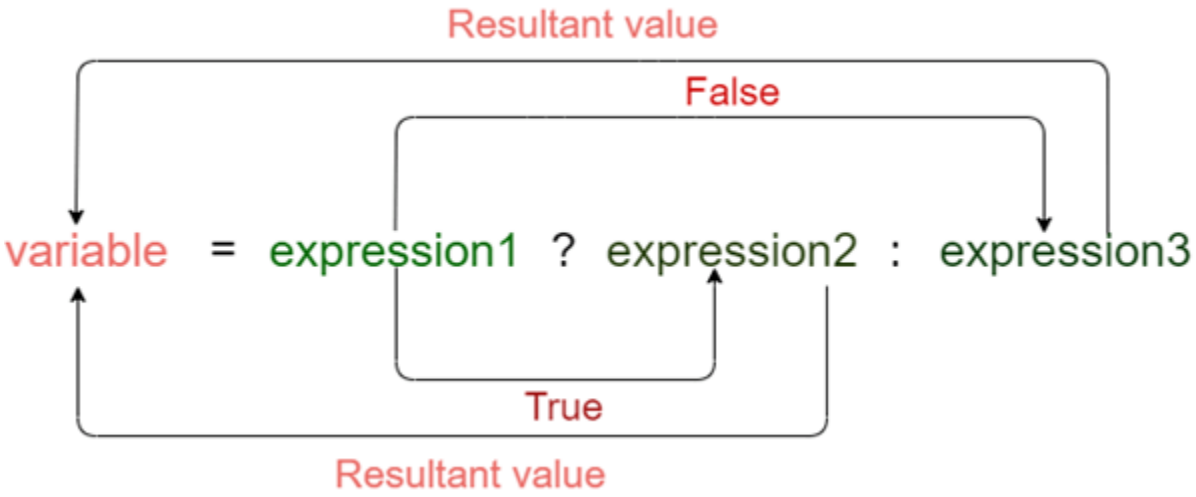
variable = Expression1 ? Expression2 : Expression3

(or)

variable = (condition) ? Expression2 : Expression3

(or)

(condition) ? (variable = Expression2) : (variable = Expression3)



Meaning of the above syntax.

- In the above syntax, the expression1 is a Boolean condition that can be either true or false value.
- If the expression1 results into a true value, then the expression2 will execute.
- The expression2 is said to be true only when it returns a non-zero value.
- If the expression1 returns false value then the expression3 will execute.
- The expression3 is said to be false only when it returns zero value.

main.c

Run

Output

Enter Fullscreen

```c
//Conditional operator / Ternary operator
//Example 1
#include <stdio.h>
int main()
{
    int age;  // variable declaration
    printf("Enter your age");
    scanf("%d",&age);   // taking user input for age variable
    (age>=18)? (printf("eligible for voting")) : (printf("not eligible for voting"));  // conditional operator
    return 0;
}
```

```
/tmp/3WZBIh4F48.o
Enter your age23
eligible for voting
```

main.c

Run

Output

```c
//Conditional operator / Ternary Operator
//Example 2
#include <stdio.h>
int main()
{
   int a=5,b;  // variable declaration
   b=((a==5)?(3):(2)); // conditional operator
   printf("The value of 'b' variable is : %d",b);
    return 0;
}
```

```
/tmp/3WZBIh4F48.o
The value of 'b' variable is : 3
```

Toggle dark mod

main.c

Run

Output

```c
//Conditional operator / Ternary Operator
//Example 2
#include <stdio.h>
int main()
{
    int m = 5, n = 4;
    (m > n) ? printf("m is greater than n that is %d > %d", m, n)
            : printf("n is greater than m that is %d > %d",
                n, m);

    return 0;
}
```

```
/tmp/3WZBIh4F48.o
m is greater than n that is 5 > 4
```

Toggle dark mode

main.c

Run

Output

```c
//Conditional operator / Ternary Operator
#include <stdio.h>
int main(){
    int yr = 1900;
    (yr%4==0) ? (yr%100!=0? printf("The year %d is a leap year",yr)
     : (yr%400==0 ? printf("The year %d is a leap year",yr)
      : printf("The year %d is not a leap year",yr)))
       : printf("The year %d is not a leap year",yr);
    return 0;
}
```

```
/tmp/3WZBIh4F48.o
The year 1900 is not a leap year
```