



Fundamental Coding with C

Loops 4:do...while



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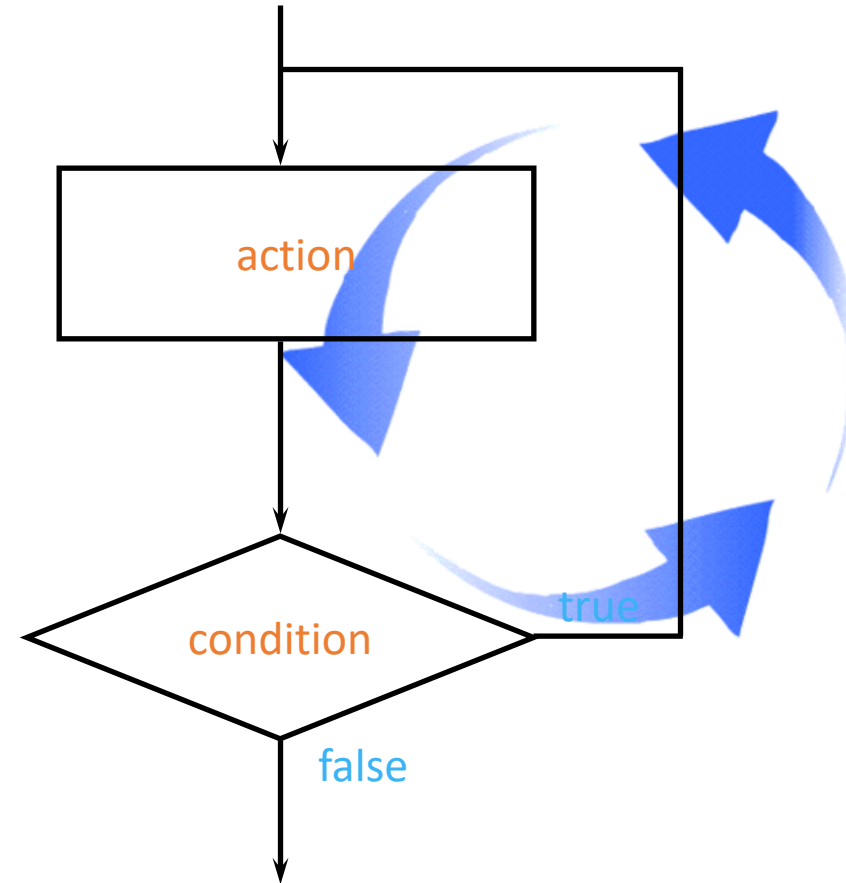
- Unlike for and while loops, which test the loop condition at the top of the loop, the do...while loop in C programming checks its condition at the bottom of the loop.
- A do...while loop is similar to a while loop, except the fact that it is guaranteed to execute at least one time.
- Notice that the conditional expression is at the end of the loop, so the statement(s) in the loop executes once before the condition is tested.
- If the condition is true, the flow of control jumps back up to do, and the statement(s) in the loop executes again. This process repeats until the given condition becomes false.



Loops 4:do...while

do ... while

- How it works:
 - Execute **action**
 - If **condition** is **true**, the **action** is executed again
 - Repeat this process until **condition** is **false**.
- **action** is either a single statement or a group of statements.





Loops 4:do...while

- do...while syntax in C:

```
do {  
    statement(s);  
} while( condition );
```

- Note in the while loop, the keyword while is written at the beginning of the loop, but here, it is written at the end of the loop.



Loops 4:do...while

- Example do..while:

```
#include <stdio.h>

int main(void)
{
    int i = 1;
    do {
        printf("i = %d\n", i);
        i = i + 1;
    }while( i <= 10 );
    return 0;
}
```

Sentences in the "do...while" loop are always executed once before the condition is tested.



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Is time to Try

<https://repl.it/languages/c>





Loops 4:do...while

```
#include<stdio.h>
int main()
{
    printf("Square of the first 10 numbers\n");
    int number = 1; // Initializing the number to 1
    do // Starting of the do-while loop
    {
        printf("Square of %d = %d\n",number,
        number*number);
        number ++; // Incrementing the number from 1 to
        10
    }
    while(number <= 10);
    return 0;
}
```