

Programming in C

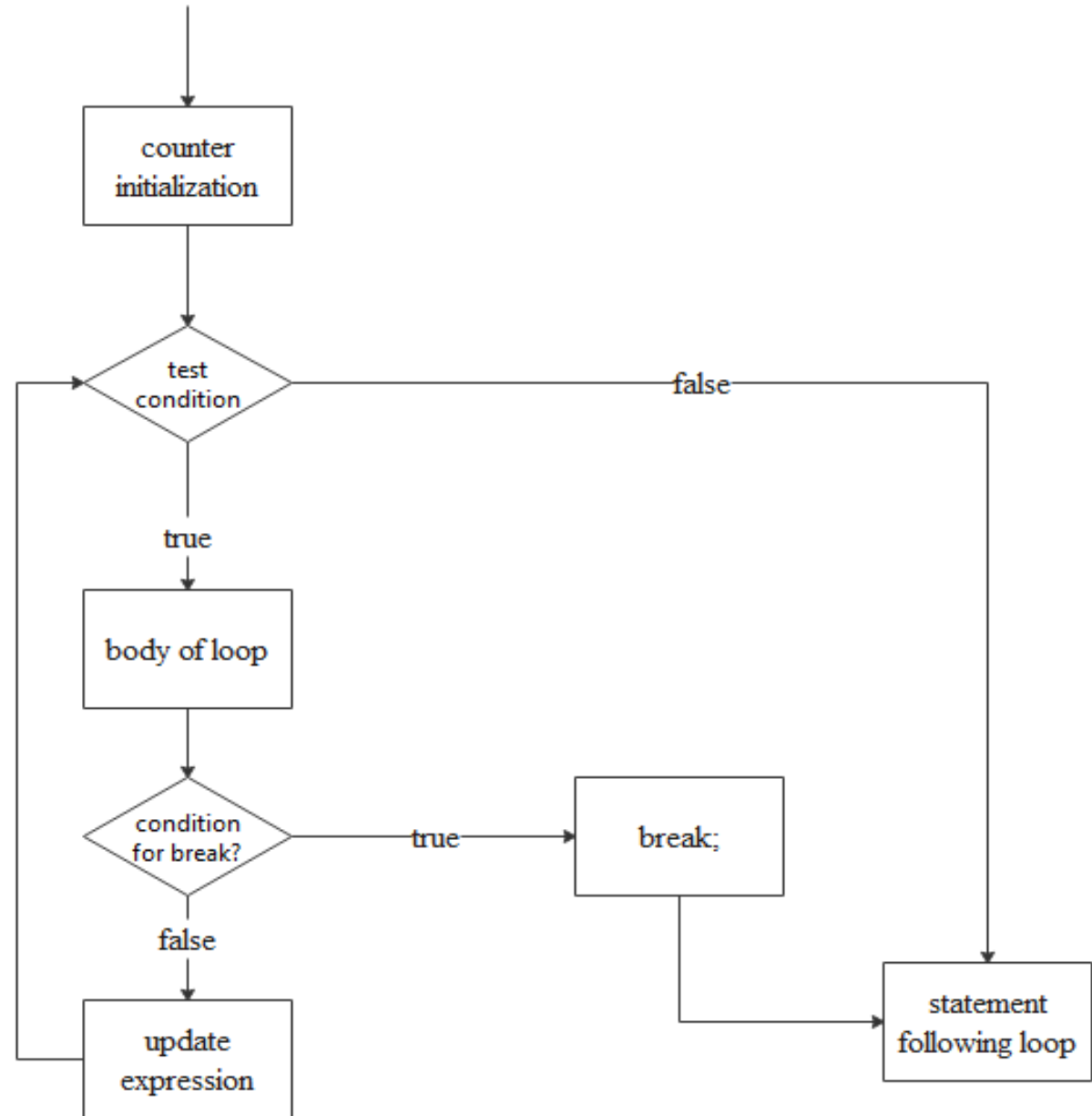
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break statement:

- break statement terminates the loop when encountered inside body of loop, and the program control is transferred to the statement immediately following the loop
- Syntax :
 break ;
- break statement is also used in switch statement which transfers control out of the switch statement

break statement:



Example Program:

compile and run this program to see how break statement works.

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

```
int main()
```

```
{
```

```
    int i;
```

```
    for(i=1;i<=10;i++)
```

```
    {
```

```
        printf("%d\t",i);
```

```
        if(i==5)
```

```
        {
```

```
            break;
```

```
        }
```

```
    }
```

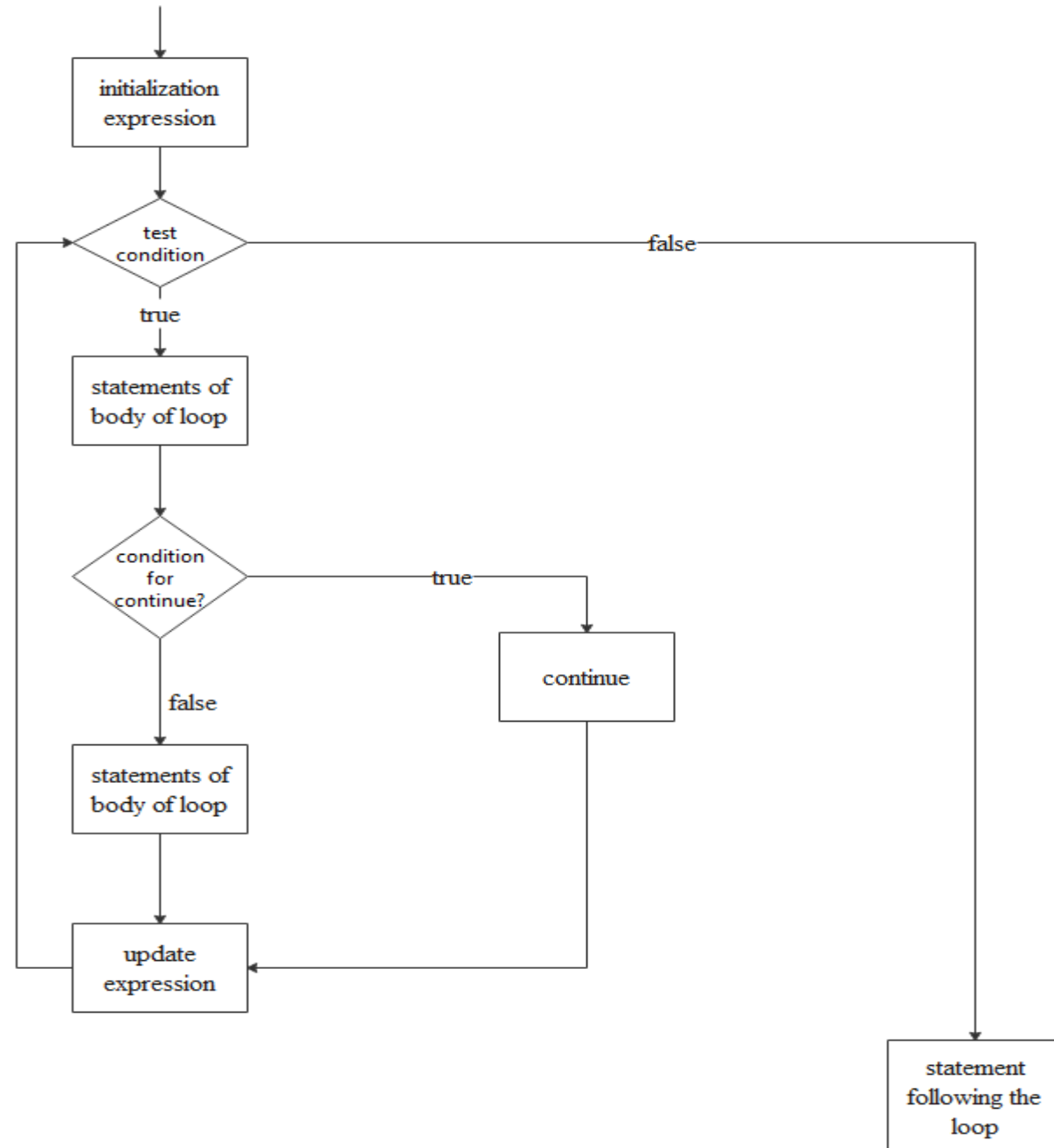
```
    return 0;
```

```
}
```

Continue statement:

- When continue statement is encountered inside a loop, remaining loop statements are skipped for the current iteration and continues with the next iteration in the loop
- Syntax :
 continue;

Flowchart:



Example program: compile and run this program to see how continue statement works.

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

```
int main()
```

```
{
```

```
    int i;
```

```
    for(i=1;i<=10;i++)
```

```
    {
```

```
        if (i == 5)
```

```
        {
```

```
            printf("\nCondition for continue is met!!!\n");
```

```
            continue;
```

```
        }
```

```
        printf("%d\t",i);
```

```
    }
```

```
    return 0;
```

```
}
```

Class work:

1. Write a program to display multiples of 5 from n1 to n2 where n1 and n2 are given by user. Use continue statement.
2. Write a program to generate multiplication table of even numbers from 1 to n. Use continue statement.

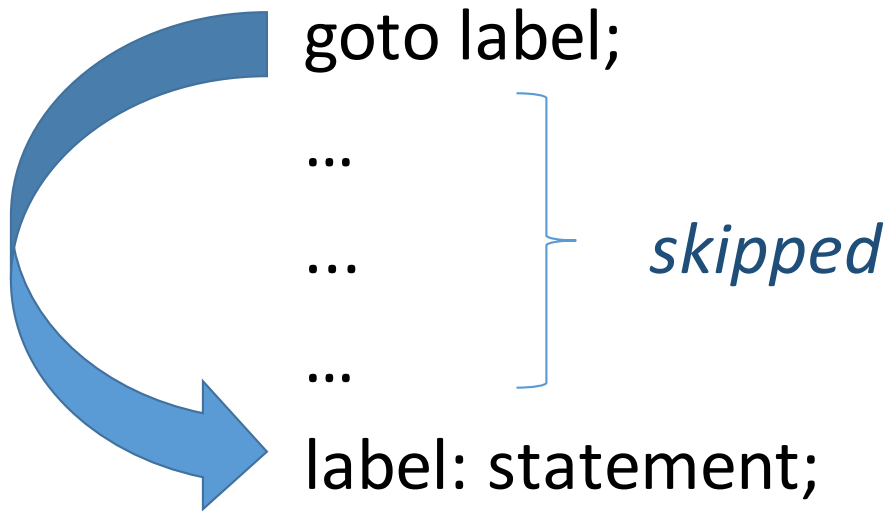
goto statement:

- goto statement is used to transfer control of the program to specified label
- When goto statement is encountered, the program control transfers to the label and continues to execute the code from the labeled statement
- goto statement can be used to transfer program's control from top to down and down to top

goto statement:

transferring control from top to down

Syntax:



goto statement:

transferring control from down to top

- Syntax:

label: statement;

...

...

...

goto label;



Program to check if the given number is odd or even using goto statement.

```
#include<stdio.h>
int main()
{
    int num;
    printf("Enter a number");
    scanf("%d",&num);
    if(num%2==0)
        goto even;
    else
        goto odd;

    even:
    printf("%d is even",num);
    goto end;
    odd :
    printf("%d is odd",num);
    end:
    printf("\nstatement after labels");

    return 0;
}
```

Program to implement goto statement transferring control from down to up.

```
#include<stdio.h>
int main()
{
    int number,i;
    repeat:
    printf("\nEnter a number: ");
    scanf("%d",&number);
    if(number<0)
        goto end;
    printf("\nThe number is %d\n\n",number);
    goto repeat;
    end:
    printf("\n\njust a message.");
    return 0;
}
```

Class Work:

1. Write a program to read numbers from user until the user inputs zero. And calculate the average of the entered numbers. Use goto statement.
2. Write a program to input and check if given number is even or odd until the user inputs a negative number. Use goto statement.