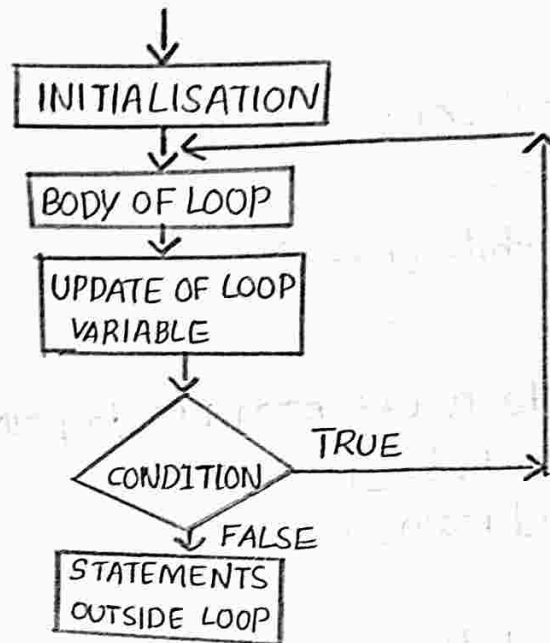3. do... while loop

* Exit controlled loop
* Condition is checked at the end of the loop.
* First execution of loop body takes place with out checking any condition, to have second execution of loop body the condition should return true value. For a false value the loop terminates.

Syntax
```
do
{
loop body ;
} while (test-exp);
```


Q. Write a C++ program to print values from 1 to 10.

Ans)
```
#include <iostream.h>
void main ()
{
int i;
i = 1; // initialisation statement
do
{
cout << i;
i++; // updation statement
} while (i <= 10); // test expression
}
```

Q. Write a C++ program to print values from 10 to 1.

Ans)
```cpp
#include <iostream.h>
void main()
{
int i;
i = 10;
do
{
cout<<i;
i--;
} while (i >= 1)
}
```

Q. Write a c++ program to point n number of values.

Ans)
```cpp
#include <iostream.h>
void main()
{
int i, n;
i = 1;
cout<<"enter the value for n";
cin>>n;
do
{
cout<<i;
i++;
} while (i<=n)
}
```

Q. Write a c++ program to print sum of first 10 natural numbers.

Ans)
```cpp
#include <iostream.h>
void main()
{
int i, sum;
```

```cpp
i = 1;
do
{
sum = sum + i;
i++;
} while (i <= 10);
cout << sum;
}
```

Q. Write a C++ program to print the sum of n natural numbers.

Ans)
```cpp
#include<iostream.h>
void main()
{
int i, n, sum;
i = 1;
cout << "enter the value for n";
cin >> n;
do
{
sum = sum + i;
} while (i <= n);
cout << sum;
}
```

Q. Write a C++ program to print the even numbers upto 10.

Ans)
```cpp
#include<iostream.h>
void main()
{
int i;
i = 2;
do
{
cout << i;
i += 2;
} while (i <= 10)
}
```

Q. Write a c++ program to find the sum of first 10 even numbers

Ans)
```cpp
#include <iostream.h>
void main()
{
int i, sum;
i = 2;
do
{
sum = sum + i;
i+ = 2;
} while (i <= 10)
}
```

Q. Write a c++ program to find factorial of a number.

Ans)
```cpp
#include <iostream.h>
void main()
{
int n, i, f = 1;
i = 1;
cout << "enter the value for n";
cin >> n;
do
{
f = f * i;
i++;
} while (i <= n);
cout << f;
}.
```

Q. Write a c++ program to find the area of a rectangle.

Ans)
```cpp
#include <iostream.h>
void main()
{
int l, b, a;
char ch;
do
{
cout << "enter l and b";
cin >> l >> b;
a = l * b
cout << a;

cout << "do u want to continue (Y/n)";
cin >> ch;
} while (ch == 'y' || ch == 'y');

}
```