

Even if the condition is false it runs atleast once.

Exercise: Number Toolkit

- Print number 1 to 10
- Print even number till end
- Generate multiplication table.
- Calculate factorial.

1. Print number 1 to 10
2. Print even number till end
3. Generate multiplication table
4. Calculate factorial

1. Print number 1 to 10

2. Print even number till end

3. Generate multiplication table

4. Calculate factorial

```
#include <iostream>
using namespace std;
int main () {
```

```
    int i = 1;
```

```
    while (i <= 5) {
```

```
        cout << "hello" << endl;
        i++;
    }
```

```
    return 0;
}
```

How it work?

- It check the condition first
- if true \rightarrow code runs
- if false \rightarrow loop stop.
- * used when you don't know exact number of repetition.

③ do-while loop (Run at least once)

```
do {
    // code
} while (condition);
```

Example

```
#include <iostream>
using namespace std;
```

```
int main () {
```

```
    int i = 1;
```

```
    do {
```

```
        cout << "hello" << endl;
```

```
        i++;
```

```
    } while (i <= 5);
```

```
    return 0;
}
```

Day-4 (Loops in C++)

Loops helps to repeat a block of code multiple times without writing it again and again.

① for loop (when you know how many times to repeat)

Syntax:

```
for (initialization; condition; update) {  
    // code  
}
```

Example

```
for (int i = 1; i <= 5; i++) {
```

```
    cout << "hello" << endl;
```

```
}
```

```
return 0;
```

```
}
```

how it works?

It starts from 1 and runs until 5

② while loop (when condition is important)

Syntax:

```
while (condition) {  
    // code  
}
```

```
}
```