

Even if the condition is false it runs outside loop.

Exercise: Number Toolkit

- Print number 1 to 10
- Print even number till end of forever loop
- Generate multiplication table.
- Calculate factorial.
- Exit.

(Who has to run 5 goals)

Contains while

do { } while

contains for loop & answer from user will be stored

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

System.out.println(i);

System.out.println("Hello world");

System.out.println("Good morning");

i. Shows all odd numbers from 1 to 10

2. Prints multiplication table from 1 to 10

3. Prints factorial of a number

4. Prints prime numbers

5. Prints even numbers

```

#include <iostream>
using namespace std;

int main () {
    int i = 1;
    while (i<=5) {
        cout << "Hello" << endl;
        i++;
    }
    return 0;
}

```

How it works?

- It checks the condition first
- if true → code runs
- if false → loop stops.
- * used when you don't know exact number of repetition.

(2) 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 Cpp)

Loops help 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)

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