

Date 29 Sep 2023Page 24Assignment Operator $a = 3$  $a * = 3 \quad (\Rightarrow) \quad a = a * 3$  $a / = 10 \quad (\Rightarrow) \quad a = a / 10$ Date : 02 Oct 2023Page : 24Day - 15While and do while loopWhile loopSyntax: $\Rightarrow$ 

Initialize

while (break condition)

{

update;

};

Ex: Print 1 to 10: $\Rightarrow$ int  $i = 1$ ;while ( $i \leq 10$ )

{

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```

    cout << i << " ";
    i = i + 1;
}

```

Table:

```

int n = 8;
int i = 1;
while (i <= 10) {
    cout << n * i << " ";
    i++;
}

```

Factors of any no.:

```

int n;
int i = 1;
while (i <= n) {
    if (n % i == 0) {
        cout << i << " ";
    }
    i++;
}

```

do

while loop:

Initialize

Update

break





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### Syntax

⇒  
i = 1;  
do {

i++;

} while (i <= 10);

### Sum of numbers

⇒  
sum = 0;  
i = 1;  
do {

sum = sum + i;

i++;

} while (i <= 10);

### \* Break:

⇒  
while (i <= 10) {  
if (i == 4) {  
break;

}

cout << i << " ";

i++;

}

### \* Continue:

⇒  
Skip the current iteration.



```
Ex: for(i=1; i<=10; i++){
    if(i%4 == 0)
        continue;
    cout << i << " ";
}
```

\*

### Switch

⇒

~~according~~

```
int i = 1;
switch(i){
```

case 1:

cout << "Rohit";

break;

case 2:

cout << "Mohit";

break;

default:

cout << "Rohan";

}

\*

### Scope of a variable:

```
int main()
```

```
{
```

Scope of  
num

```
    int num = 10;
```

```
    cout << num;
```

```
    int num; X (This is not allowed)
```

```
}
```



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```

=> int main() {
    int num = 10;
    int n = 10;
    if (n == 10) {
        int num = 20;
        cout << num;  → 20
    }
}

```

Note:

=> You can initialize for loop outside the for loop.

Ex:

```

int main() {
    int i = 20;
    for ( ; i <= 30; i++ ) {
        cout << i << " ";
    }
}

```