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Day - 18

## Functions in C++

Why?

=> For ex. If we want factorial and check if a <sup>no. is</sup> prime or not for 5, 6 or more than this.

=> Then we have to write the code everytime.

=> ~~How~~ So, to solve this problem we use functions.

=> Functions increase the reusability of the code.

Syntax

=> return\_type function\_name (Parameter 1, Parameter 2, ...)  
{  
    { code part ; }  
    return value ;  
}

=> return type int, float, long, void  
when we don't want to return something



Ex: Prime no.

Parameter

```

bool prime(int n) {  → fun. declaration
    if (n < 2) {
        return 0;
    }
    for (i = 2; i < n; i++) {
        if (n % i == 0)
            return 0;
    }
    return 1;
}

```

fun. definition

```

int main() {

```

```

    int a, b;

```

```

    cin >> a >> b;

```

```

    cout << prime(a);  → fun. calling
    }                  → argument

```

①

Pass by value

```

void incr(int n) {
    n++;
}

```

```

int main() {

```

```

    int a = 10;

```

```

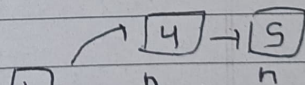
    incr(a);

```

```

    cout << a;
}

```



4

a

when we print n

It will print

4



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②. Pass by reference:  
 ⇒ Here, another copy doesn't form instead we do the changes in that same variable that we passed.

⇒ For doing this, we add '&' with the parameter in the function.