Functions

↳ a block of code / sub program

↳ that is linked to a well-designed task

why?

↳ Reusability

↳ Readability

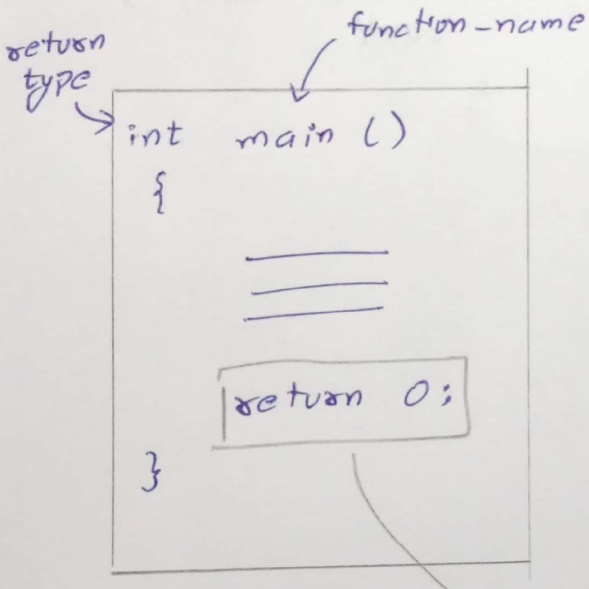
if we don't use functions

→ code bulky ho jayega

→ readability kharab

→ no reusability

→ buggy code



means ovo program has been successfully executed

i/p parameter

return type function name ( )

{

// function body

}

Simple function

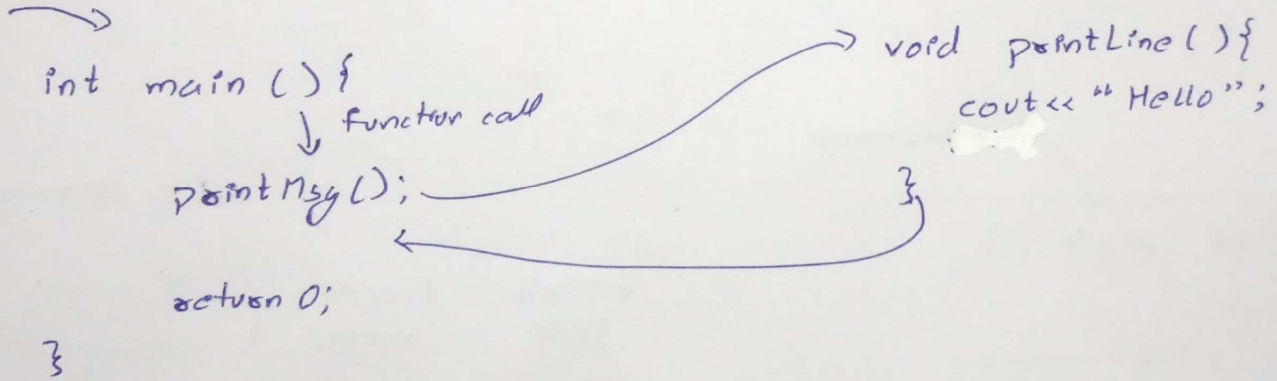
↓

Print 10 times

"Sundar ko sundari pasnd hai"

① void printMsg( )

```
{
    for (i=0; i<10; i++){
        cout<<"Sundar ko sundari pasnd hai"<<endl;
    }
}
```



add two numbers

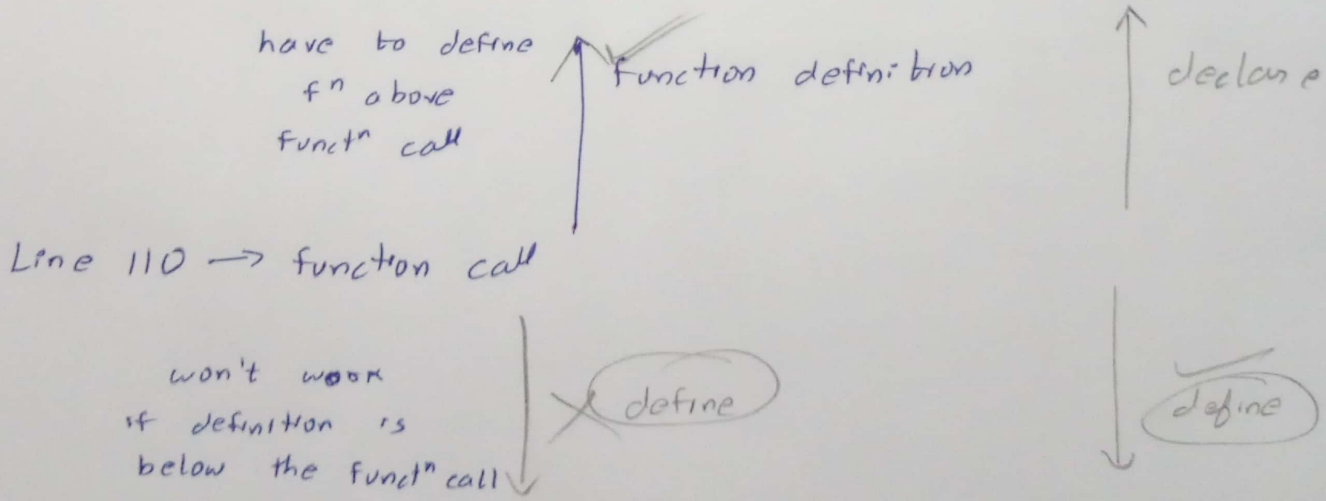
Function

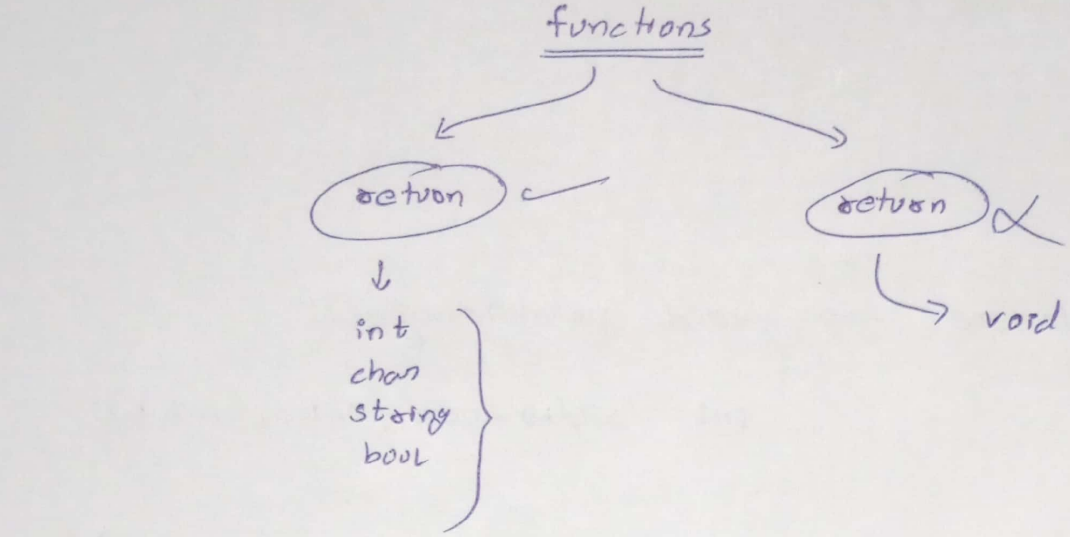
declare → void printMessage();

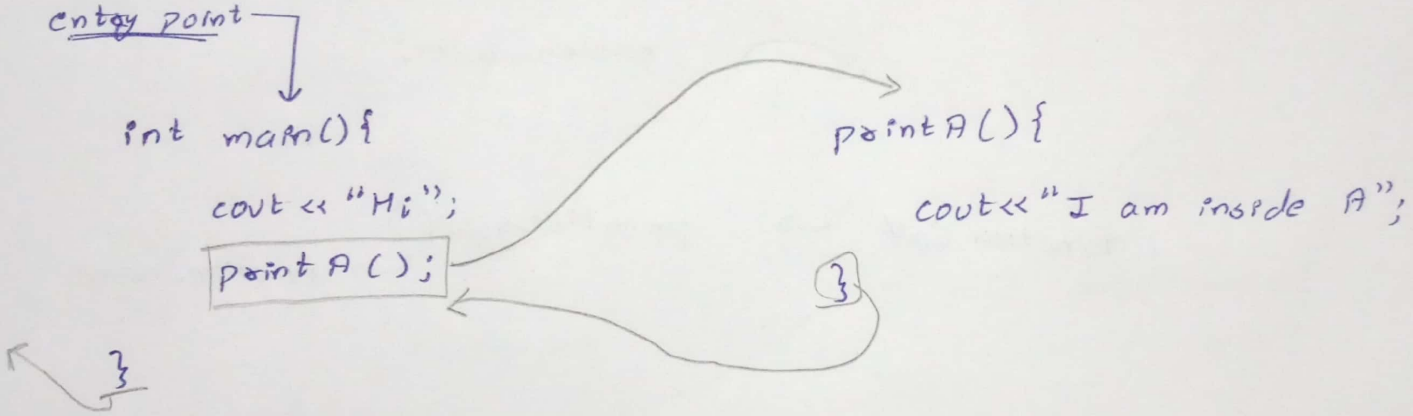
int addNumbers (int a, int b);

define → int addNumbers (int a, int b){
int sum = a + b;
return sum;
}

function Call → printMessage()
↳ function_name







O/P

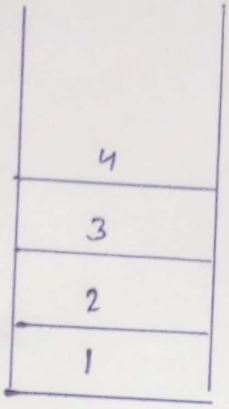
Hi

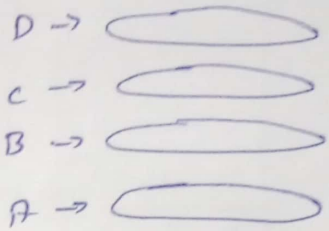
I am inside A

Function Call Stack

Stack

Last-in first-out





LIFO ordering

→ function call

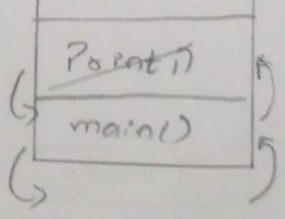
→ Local variable

→ Kis fun nc Ki's f^n Ko call Kiyo hai

→ retuon ralue

```
int main () {
    cout << " inside main";
    printA ();
    cout << "Back in main";
    retuon 0;
}
```

```
void printA (){
    coutec "inside A"
    coutec "going back to
        main";
}
```

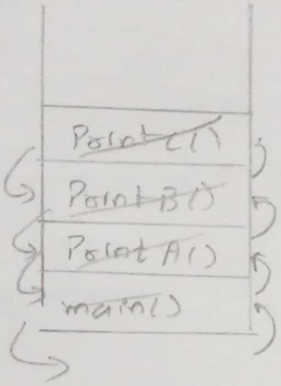


```
int main (){
    pointA();
}
```

```
pointA (){
    cout<<"Inside A";
    pointB();
}
```

```
pointB(){
    cout<<"Inside B";
    point C();
}
```

```
point C(){
    cout<<"Inside C";
}
```




```
void pointSum (int a, int b, int c){
    int ans = a + b + c;
    cout<<"sum is" << ans << endl;
}
```

```
int pointSum (int a, int b, int c){
    int ans = a + b + c;
    return ans;
}
```

```
int main(){

    int sum = printsum(4, 4, 5);
    cout << "Sum is :" << sum << endl;


    return 0;
}
```

1. Find max of three number a, b, c
2. Counting from 1 to N
3. Check prime no. or not
4. Check even or Odd
5. Sum of all No. upto 1 → N
6. Sum of all Even nu. upto 1 → N

Homework

Function to find area of circle
function to find factorial of a Nu.
Print all prime no from 1 → N
Print all digit of an Integer
Create a no. using digits

} Imp?

Print binary rep. of a decimal number } Imp

Convert km into miles

Convert Farhenheit to Celcius

Convert all set bits of a number

Check even/odd using Bitwise