

As C C++ also has

#include is a Preprocessor directive
ie It indicates or orders the preprocessor to
include the mentioned library inside < >

• #include ~~iostream~~ <iostream>

iostream is a Header file of library
that provides functions & classes used in
C++ program

main();

as C language main(); in C++ also serves as
an ~~entry point~~ entry point of the program

It should be mentioned only ~~once~~ ^{one} in program

• Output of Console

```
std::cout << "Hello world" << std::endl;
```

Here,

• std = Standard namespace of C++, it is where all
the classes & functions reside
It belongs to Standard Template Library (STL)

cout = ~~create~~ ^{Character} output stream

endl = end line manipulator

• return 0;

It informs the OS that program was executed successfully

Program

```
#include <iostream>
```

```
int main() int main()
```

```
{
```

```
std::cout << "Hello world" << std::endl;
```

```
return 0;
```

```
}
```

OR

```
#include <iostream>
```

```
using std::cout;
```

```
int main() {
```

```
    cout << "Hello" << std::endl;
```

```
    return 0;
```


• Std::cin

It allows for Character Input & is available in `iostream`

• Program to print an Inputted Number

```
#include <iostream>

int main() {
    int number;

    std::cout << "Enter your Number: " << std::endl;
    std::cin >> number;
    std::cout << "Your number is: " << number << std::endl;
    return 0;
}
```

• Variables & datatypes in C++

int: Integer values
 float: Single precision floating point values
 double: double precision floating point values
 char: Single characters ie String
 bool: Boolean values ie True or false

no. 11

1. if-else

C++ provides conditional functions such as if, else, while, for, switch

for if else the Syntan is ~~more~~ stable

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

```
else {  
    ll code  
}
```

2. white

```
while(Condition) {  
    // Code  
}
```

3. For Loop

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

eg for int i = 5; i <= 10; i++
Initialization Condition

• Switch Statements

switch (variable) {

case 1;

// code

break;

case 2;

// code

~~break;~~ break;

case 3;

// code

break;

// more cases

default;

// code to execute if no case matched

}

• Functions in C++

functions are reusable blocks of code that can be called with arguments to perform a specific task

It is written as

```
ReturnType functionName (Parameter 1, Parameter 2) {  
    // body  
    return value;  
}
```


• Operators of C++

addition ('+')

subtraction ('-')

Multiply ('*')

divide ('/')

modulus ('%')

increment ('++')

decrement ('--')

• Logical Operators

AND operator

(expression 1 & expression 2)

OR operator

(expression 1 || expression 2)

NOT operator

!(expression)

<< - Stream Out operator

>> - Stream In operator