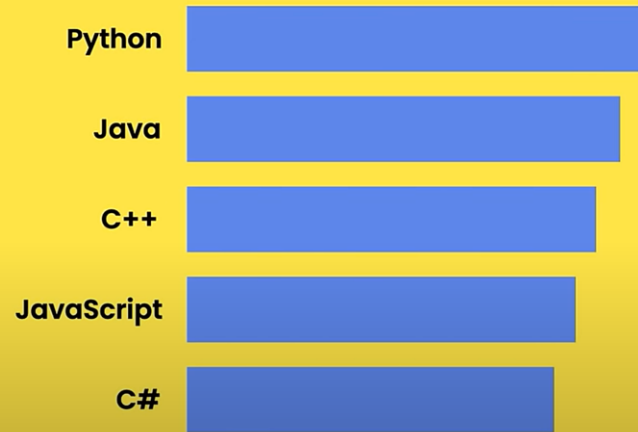




# **C++ session 1**

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## TOP LANGUAGES



C++



C#



Java



JS



TS



Dart

## PERFORMANCE



C++



C#



Java



## APPLICATIONS OF C++

- High-performance applications
  - Video games
  - Device drivers
  - Web browsers
  - Servers
  - Operating systems
- 



**NETFLIX**

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# IDE and Compiler

- -GCC (GNU Compiler Collection):
  - G++ for C++
  - Gcc for C
- Clang (C Language Family Frontend for LLVM)
- MinGW-w64 : Windows toolchain with GCC



# How to set up C++ in Visual Studio Code

- [C++ programming with Visual Studio Code](#)
- Alternatives:
- [Download dev c++](#)

# First C++ Application

- - case sensitive
- - comments `//` and `/* */`
- - more white spaces aren't important

```
1  int main(){  
2  
3  
4  
5  
6      return 0;  
7  }
```



# Create These outputs

## Cout(Character out)

- + (;)
- - Hello World!
- - my name is Mohammadreza
- - my name is
- Mohammadreza (both ways)
- - "Hello Ali"
- - tab-backspace-... \t \b \n \"
- - 3 (string and number)
- - result of 3+4,3x4,4-3,4%3....
- - 3+4=7

```
01 > G HelloWorld.cpp > main()
1 // #include <Arya.h> //we can create our own library
2 // #include <cmath>
3 #include <iostream>
4
5 using namespace std;
6
7 int main()
8 {
9     // one line comment
10    /*
11     *   muli line
12     *   comments
13     */
14
15    // printf("hello world!"); // C version
16    std::cout << "hello world!";
17    std::cout << "My name is \n mohammadreza";
18
19    /*std::cout<<"My name is";
20    std::cout<<std::endl;
21    std::cout<<"Mohammadreza";*/
22
23    cout << "My name is";
24    cout << endl;
25    cout << "Mohammadreza";
26
27    cout << endl << "My name is" << endl << "Mohammadreza";
28
29    cout << "\nMy name is\nMohammadreza";
30
31    cout << "\n\"hello\tali\"" << endl;
32
33    cout << "3" << endl;
34    cout << 3 << endl;
35
36    cout << 3 * 4 << endl;
37    cout << 3 + 4 << endl;
38    cout << 4 - 3 << endl;
39    cout << 4 % 3 << endl;
40
41    cout << "3+4=" << 3 + 4;
42
43    return 0;
44 }
45
```