

```
/*
 * C++ Programming Notes
 * Ravi Kumar Reddy K
 * github.com/ravikumark815
 */
```

Preset:

- Invented by Bjarne Stroustrup in 1979
- Middle Level Language
- Versions: C++ 14, C++11, C++99

Hello World:

```
#include <iostream>
using namespace std;
```

```
int imGlobal = 0;
const double PI = 3.141;
```

```
int main(int argc, char**argv) {
    cout << "Hello World\n";
    return 0;
}
```

- Namespaces
- main: Start executing from here
- Cout allows us to output information to console
- "<<" Stream insertion operator: Takes string on the right to cout stream
- "endl" Issue newline and force write to console
- argc: No of arguments passed to main
- argv: Array of pointers to strings in the arg vector
- int: Return an integer when done executing
- imGlobal: Global variable and accessible everywhere else.
- const double PI: Global variable whose value cannot be changed anywhere else

Comments:

```
/*
Multi
Line
Comment
*/
// Single Line Comment
```

Common Header files:

- #include <cstdlib> // Sorting, Searching, import c libraries, rand, memmgmt, and other general-purpose functions
- #include <iostream> // Read and Write data
- #include <string> // Work with strings
- #include <limits> // Min and max values
- #include <vector> // Work with vectors

- `#include <sstream> // Work with string streams`
- `#include <numeric> // Work with sequences of values`
- `#include <ctime> // Work with time`
- `#include <cmath> //Common math functions`

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