C++

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Topics to be discussed

- Basics of C++
- Arrays and Vectors
- Operators
- Functions
- Pointers and References
- OOPS : Classes and Objects
- Overloading

Topics to be discussed(cont..)

- Inheritance

- Polymorphism

Basics of C++

- Keywords and Identifiers
- Preprocessor Directives
- Comments
- main()
- Namespaces
- Basic I/O

Keywords and Identifiers

- Keywords
  - Not possible for re-definition and overloading
  - include, cin, cout,... Identifiers

    https://en.cppreference.com/w/cpp/keyword

- Identifiers
  - Programmer names

Preprocessor Directives

- Removes all the comments

- Processes the code before compiling

- Begins with #
  - #include <iostrem>
  - #if
  - #ifdef

- It gets the source code ready for compiling

Comments

- Idea is for self-documenting
- 2 kinds of comments
  - single line comment
  - multi-line comment

main() function

- Every C++ program must have exactly 1 main() function
- Starting point of program execution
- Returns 0 indicates successful program execution
- 2 versions
  - int main()   :: program.exe
  - int main(int argc, char *argv[]) :: program.exe arg1 arg2

namespaces

- To avoid naming conflict
- Std is thee name for the C++ 'standard' namespaces
- Third-party frameworks will have their own namespaces
- Scope resolution operator(::)
- How to use
  - Explicitly you can use namespace
  - Using namespace directive (eg: using namespace std)
  - Using namespace variant

Basic IO

- Defined in C++ standard
  - Use them using iostream

- cout
  - Standard output stream
  - console

- cin
  - Standard input stream
  - Keyboard

Basic IO (cont..)

- Insertion operator(<<)
  - Output streams

- Extraction operator(>>)
  - Input streams

Q&A

Thank You