

Doxygen Tutorial

For: COP 3330.

Object oriented Programming (Using C++)

http://www.compgeom.com/~piyush/teach/3330

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Documentation Generators

 A documentation generator is a programming tool that generates documentation intended for programmers (API documentation) or end users (End-user Guide), or both, from a set of specially commented source codes.

Commenting programs

- Doxygen is a <u>documentation</u> <u>generator</u> for <u>C++</u>, <u>C</u>, <u>Java</u>, <u>Objective-</u> <u>C</u>, <u>Python</u>, and to some extent <u>PHP</u>, <u>C#</u> and <u>D</u>.
- Its highly portable.
 (Windows/unix/linux/mac)
- KDevelop has builtin support for Doxygen.

• • Why?

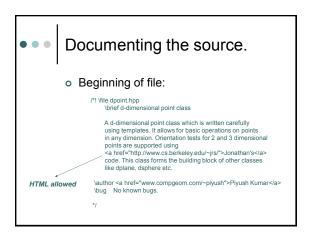
 Doxygen is very useful for maintaining and understanding your own larger projects as well as useful documentation for others who use your code.

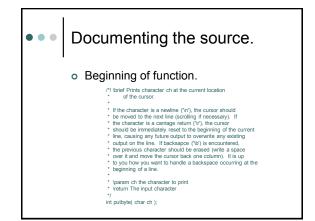
• • • How?

- For each project that uses Doxygen, you must create a configuration file.
- o "doxygen -g" creates a example configuration file called "Doxyfile"
- "doxygen [configfile]" will create the documentation for your code as per your configuration specs.

Configuration File

- Well documented, you just need to fill in the blanks.
- Main things to set
 - PROJECT_NAME = MyProject
 - OUTPUT_DIRECTORY = ./doc
 - INPUT = ./src ./include
 - FILE_PATTERNS = *.cpp *.hpp
 - GENERATE_HTML = YES
 - EXTRACT_ALL = YES





Creating the frontpage

• Example that creates first page of documentation: (You can add it to the main.cpp or main source code file)

/**

@matipage COP 3330 Project 1

@author Me and Myser

Here you should lell us about how your project works. How to run, any special things you have, etc. Also, explain any non-trivial design declarons you make. I you are working with a patire. Clearly also commert on the stability of your code. Any big bogs should be listed here. Basically, anything that you tirk in we need to know in general about your project should go here.

Any additional commerts you went to make can go here. Did you like the project? Was it too hard, too easy? My TA smelle bad. Well, you get the idea.

This initial documentation here should be removed.
Or deep you loose points.

Documentation Rules.
 Each file/function should have a header block.
 Use descriptive and meaningful names for variables, constants, and functions.
 Don't just re-express the algorithm in English; tell us why you're doing something.
 Right: For each name in the array, extract the lastname.
 Wrong: Set i to 0. Loop from 0 to 10. Call strchr() on a[i], looking for the first '' character. Return the pointer the character immediately following the ''.

