

Lab 10: Doxygen

CSE 2100-001

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Partners:

1 Objective and Description

Watch the video posted on YouTube for Lab-10 (Doxygen).

For this lab you will need to use the code that you have extended for the last Lab (Lab-9). In your main project directory, create a *doc* directory (similarly to the video) and place your *Doxyfile* and your documentation in this directory. Your task description is simple: document the entire code (all four source and header files) to create a complete documentation for Lab 9's code. Do not be afraid to look up Doxygen documentation do-s and don't-s on the Internet.

Once you think that you have provided sufficient documentation to the project, demonstrate your documentation to the TA.

Create a *.tgz* archive of your doc folder and turn it in together with the completed version of this document.

1.1 Definitions and Quick Questions

Code Documentation: is to use the comments as guidelines and instructions to create documentation. It is beneficial for programmers to keep track of what they are doing step by step when they look back after a while.

Commenting Code: is the comments that are written in your code.

Member function (C++): is a function that has its definition or its prototype within the class definition like any other variable.

2 Question-1 – Documentation vs. Commenting

What is the difference between commenting code and code documentation?

Commenting code is to write comments in your code for better understanding. Code documentation organizes commenting code and commenting capabilities into a good way that is easy to look at.

3 Question-set-2 – Code Licenses

What are the three most used open source software licenses (research)?

MIT License, GNU General Public License, and Apache License

Describe the main difference between these three licenses (include your references). Linking of the licensed code with code licensed under a different license is copylefted in GNU, but permissive in Apache and MIT. However, they all allow private use. Reference: <http://www.affero.org/agpl2.html>

Which one of these licenses would you prefer, and why? I prefer using GNU GPL because I can avoid the risk of having to compete with a proprietary modified version of my own work.

4 Question-set-3 – Subdirectories

Let's assume that you have several subdirectories under your *src* directory that contain source code. Look into the Doxyfile; what setting should you change for all those source files to be part of the documentation process?

In Doxyfile of doc folder, you need to find "INPUT=" and add "../src/name's subdirectories".

What can you do if you want all directories below *src* included except for *src/archive*?

At "INPUT=" in Doxyfile, you need to add "../src/name's subdirectories" with the name of subdirectories and what you want to include, except archive.