CIS540/543 Lab 7 Scott Harmon 2009

Objectives:

- Learn basic Doxygen use.

"Doxygen is a documentation system for C++, C, Java, Objective-C, Python, IDL (Corba and Microsoft flavors), Fortran, VHDL, PHP, C#, and to some extent D."

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http://www.stack.nl/~dimitri/doxygen/

There are several ways to document your code with Doxygen.

1. You can use the JavaDoc style, which consist of a C-style comment block starting with two *'s, like this:

   ```
   /**
    * ... text ...
    */
   ```

2. or you can use the Qt style and add an exclamation mark (!) after the opening of a C-style comment block, as shown in this example:

   ```
   /*!
    * ... text ...
    */
   ```

   In both cases the intermediate *'s are optional, so

   ```
   /*!
    ... text ...
   */
   ```

   is also valid.

3. A third alternative is to use a block of at least two C++ comment lines, where each line starts with an additional slash or an exclamation mark. Here are examples of the two cases:

```
///

/// ... text ...

///
```

or

```
//!

//!... text ...

//!
```

Note that a blank line ends a documentation block in this case.

4. Some people like to make their comment blocks more visible in the documentation. For this purpose you can use the following:

```
/*********************************************//**

 *  ... text

 **********************************************/
```

(note the 2 slashes to end the normal comment block and start a special comment block).

or

```
//////////////////////////////////////////////////

/// ... text ...

//////////////////////////////////////////////////
```

Other conventions:

```
///@param <var> <description>

///@return <description>
```

where `<var>` is the variable name and `<description>` is your description.

Documentation Generation:

To simplify the creation of a configuration file, doxygen can create a template configuration file for you. To do this call doxygen from the command line with the -g option:

```
doxygen -g <config-file>
```

where <config-file> is the name of the configuration file.

Exercise:

Open a unix terminal (either in Linux or by using PuTTY).

Download the starting code:

```
wget http://people.cis.ksu.edu/~harmon/cis540f09/lab7-start.zip
```

Unzip the file, go into the directory and generate a doxygen configuration file.

Instrument the Person.h file and generate the documentation.

CIS540/543 Project Documentation

For documenting your projects you **MUST** have the following:

- ✓ A short description for each class and its attributes.
- ✓ Each method should have a short description of what it does, the parameters it takes and its return type.