Lab Exercise 12

Software Design
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Due: never!!!

Image processing

1. Install PIL, the Python Image Library. On Fedora:

   ```
   yum install python-imaging
   ```

   On Ubuntu:

   ```
   apt-get install python-imaging
   ```

2. Google "PIL tutorial" and try out some of the examples in the tutorial. You will need to provide your own image files, assuming that you don't have `lena.ppm`, which is a ubiquitous and notorious image that has been used to test image processing algorithms (Google "lena" for details).

Games!

1. Install Pygame. On Fedora:

   ```
   yum install pygame
   ```

   On Ubuntu:

   ```
   apt-get install python-pygame
   ```

2. Annoyingly, the distribution doesn't include the examples, so I have created a zip file that you can download from `http://wb/sd/code/pygame-examples.zip`. Put it in your Python directory and then

   ```
   unzip pygame-examples.zip
   ```

   It should create a directory named `examples`. Run a few of the examples and then read the Pygame tutorials at `http://www.pygame.org/docs/tut/intro/intro.html` and `http://www.pygame.org/docs/tut/chimp/ChimpLineByLine.html`.

   The second tutorial explains `chimp.py`, which is in the `examples` directory.

3D Graphics

1. Install VPython. On Fedora:

   ```
   yum install visual-python
   ```

   On Ubuntu:

   ```
   apt-get install python-visual
   ```

   You can test it by running some of the examples. On Fedora:

   ```
   cd /usr/share/doc/visual-python-3.2.9/examples/
   python stonehenge.py
   ```

   On Ubuntu:

   ```
   cd /usr/share/doc/python-visual/examples/
   python stonehenge.py
   ```

   The documentation is available from `http://www.vpython.org/`.

2. The examples should give you an idea of what is possible. Choose an interesting one, make a copy, and play around with it.