Tecnologías Multimedia - Study Guide - Milestone 2: Installation and basic programming with Python

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1.   Description

The InterCom project [4] are a collection of Python modules written in Python [3]. Therefore, you will need an interpreter and know how to develop/run Python programs (modules and packages).

Most of the current Unix-based operating systems (Linux, FreeBSD and OSX) use Python for running some of their "daily tasks", which means that a Python interpreter is already available. However, usually it is better to use our own interpreter because:

1. We can chose the version of Python and the packages.

2. We can optimize the compilation of the interpreter depending on our needs (for example, including Tk support or not).

3. By default, all the Python packages will be installed in a different repository of the system packages, which eases the system/user Python-isolation and the removal of the interpreter.

In Windows you need to install Python, yes or yes, from the official

website. However, notice that this "guide" only contemplates the installation of Python in Unix-based OS machines.

2. What you have to do?

1. Installation of Python.

   (a) Go to YAPT/01-hello_world/02-installation.ipynb [2] and follow
       the instructions to install CPython 3.8.5, and create a new virtual
       environment called `tm`. Basically:

       ```
       sudo apt-get install -y build-essential l
       pyenv install -v 3.8.5
       pyenv virtualenv 3.8.5 tm
       ```

   (b) Remember that you will need to active it when you want to work
       in this project:

       ```
       pyenv activate tm
       ```

       It is a good idea to append this to the `~/.bashrc` file.

   (c) Install an IDE for programming with Python. I recommend
       Thonny if you are not used to any other.

2. Python programming.

   (a) You don't need to master Python to follow this course, but it is convenient for you to follow some Python programming tutorial, such as The Python Tutorial [1] if you realize that the language is a setback for you. If you need to start with Python from scratch, an introduction to Python such as this workshop of YAPT [2] could also be helpful. See also ZetCode's Python Tutorial.

3. Timming

There is not time limit for finishing this milestone. Develop it at your own pace.

4. Deliverables

None.

5. Resources

[1] The Python Tutorial.

[2] YAPT.

[3] Python website.

[4] The students of Tecnologías Multimedia at the UAL. The InterCom project.