CMPE 260/297- Reinforcement Learning

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Before installation of each software make sure you generate a new environment and activate it.

Software Installation Guide (Pytorch & Open AI Gym):

Making a new environment in Ananconda:

1. Depending on the installation of Conda on your computer and if you can run it from any folder on your system, you may have to run the conda prompt first and then run the rest of the commands in the following steps.
2. Use conda command to make a new environment called torch (or any name you wish to call your pytorch environment). For conda cheat sheet please refer to the following link:

   https://docs.conda.io/projects/conda/en/latest/_downloads/1f5ecf5a87b1c1a8aaf5a7ab8a7a0ff7/conda-cheatsheet.pdf

   ```
   conda create -n torch python=3 pip
   ```

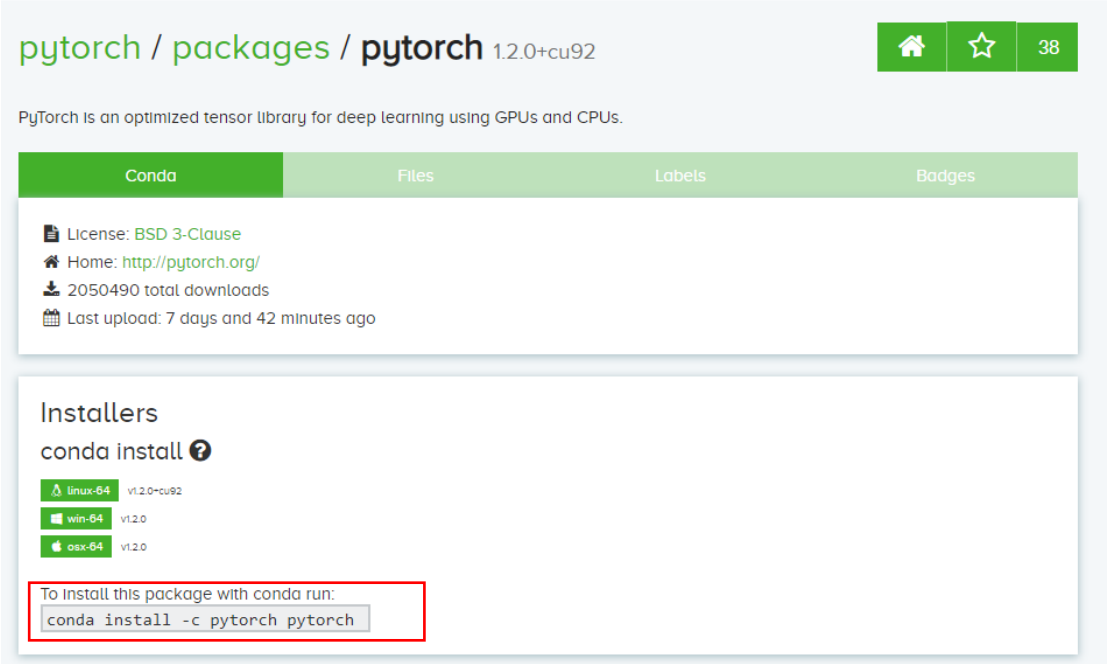
   *It is important to include pip at the end of the command to install pip within the new environment otherwise your installation of libraries in the new environment could impact the base environment of Python.

3. Check the list of your environments then activate your Pytorch environment

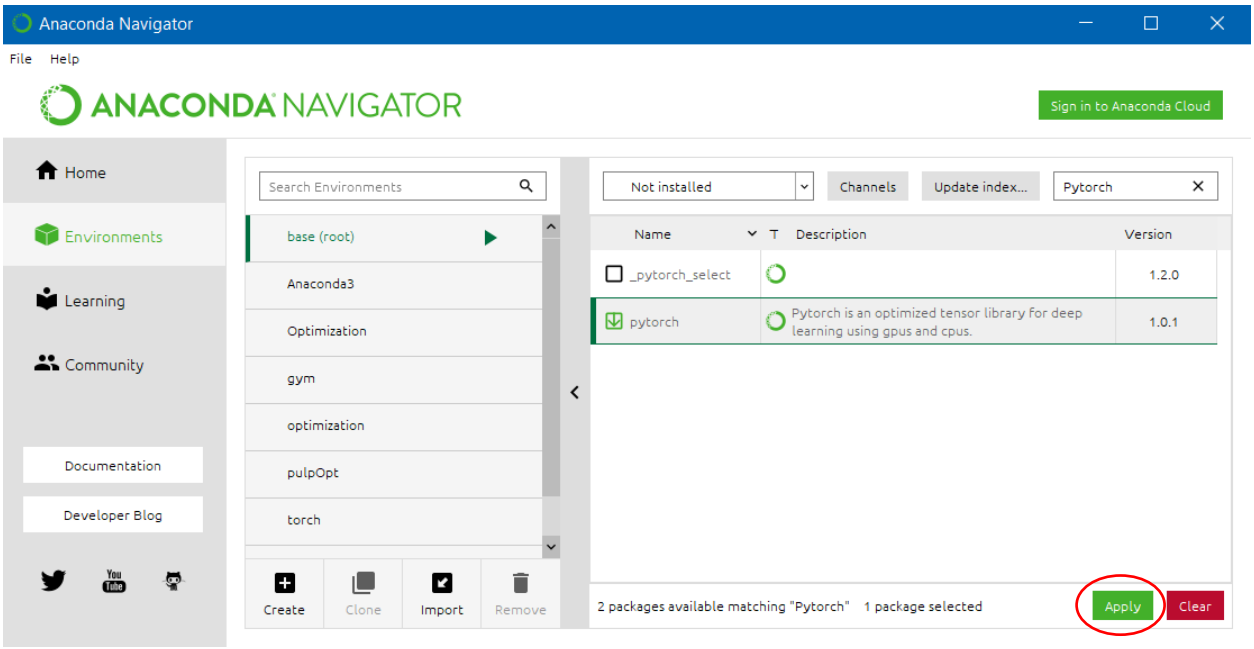
   `conda env list` (to get the list of your current environments. The new environment should appear in the list).

   `conda activate torch` (to activate the environment)

4. Pytorch Installation (Mac version)
   a. Download Pytorch from Anaconda.org (https://anaconda.org/pytorch/pytorch)

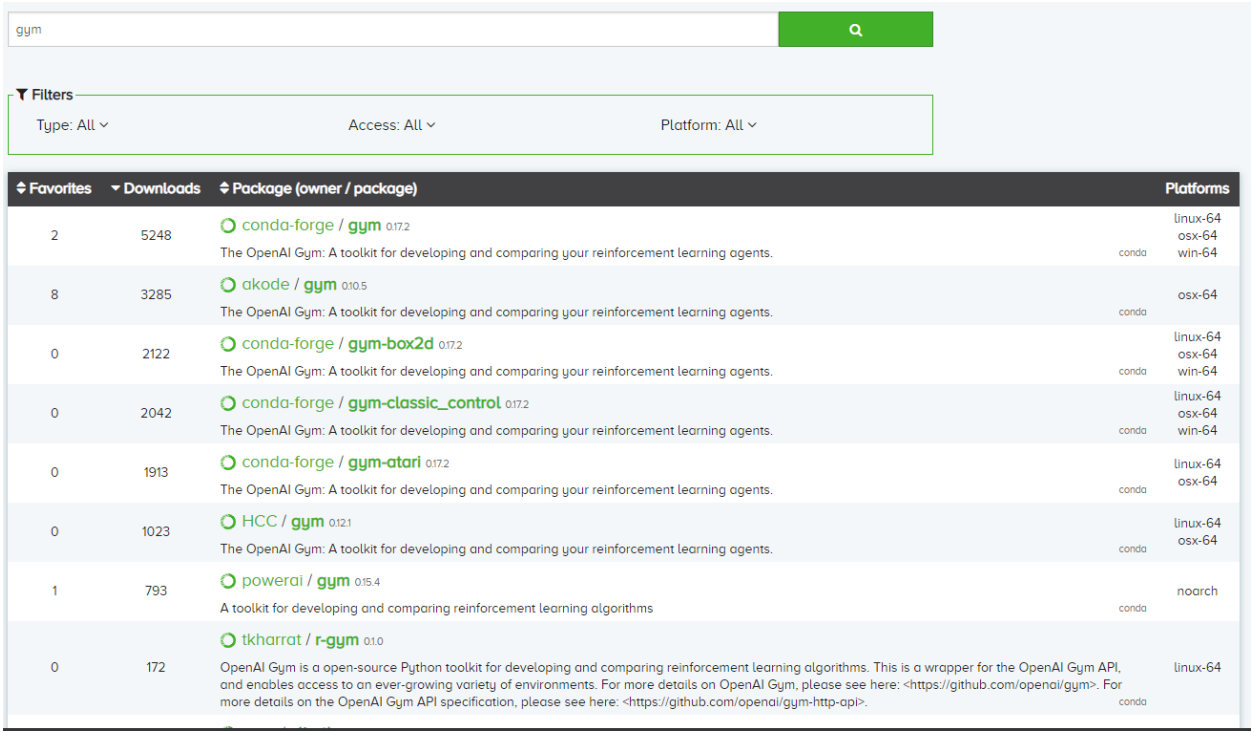


There might be a newer version of Pytorch available from Anaconda.org website. You can type the above command in a terminal (on Mac) or in windows command prompt with administrative privileges. Another option is to use Anaconda package and install Pytorch and its relevant libraries through anaconda:

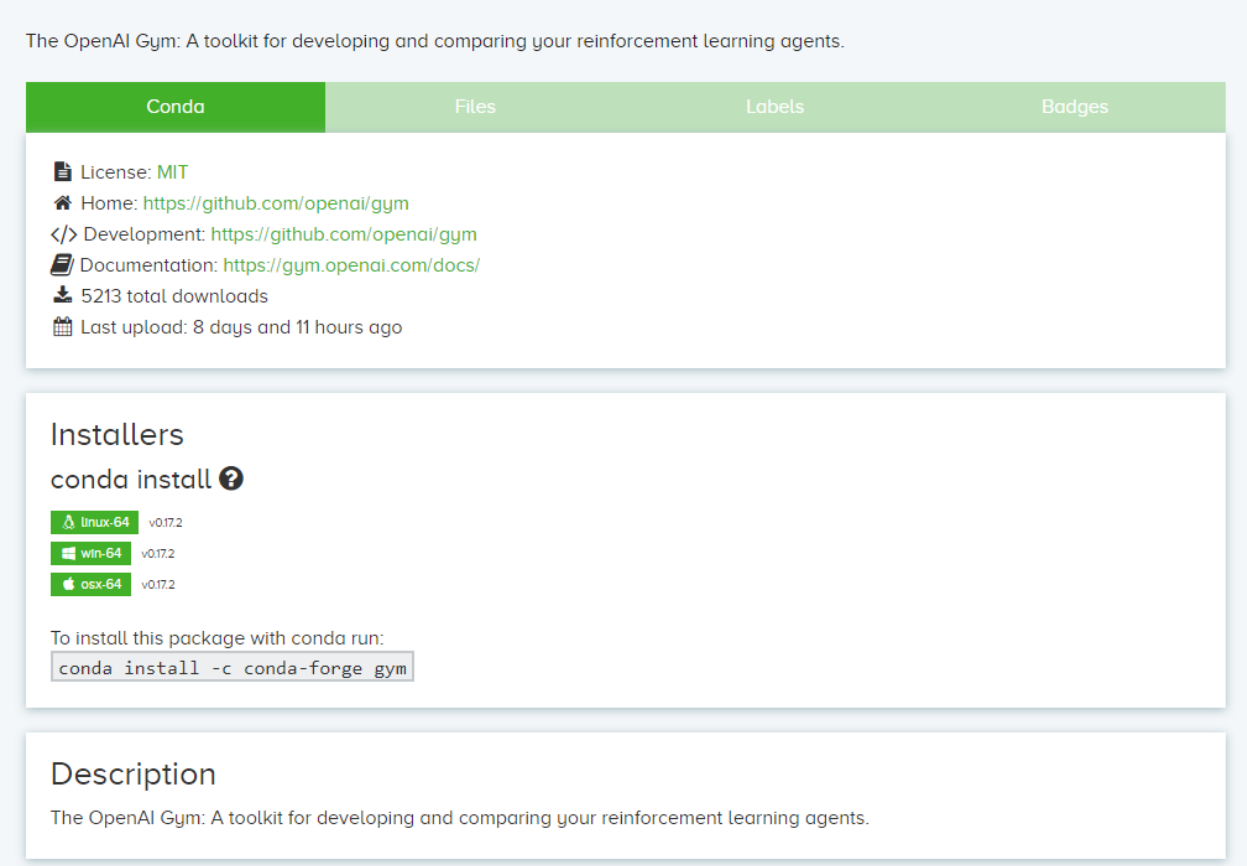


The second software you will need to install is Open AI Gym. This package is not native to Windows (it is developed for Linux-based systems), however, there is a workaround that is explained below. For Mac/Linux users you can just use your Mac or Linux package manager to install it.

You can install Gym from Anaconda.org as well. Type Gym in the search bar in anaconda.org. You should get to the following screen:



Click on the first link to get the installation page:



Copy and paste the installation command in a terminal or command prompt to install Gym.

You are all set for windows/Mac installation of Gym.

To test if everything is working, try the sample code below:

```
import gym
env = gym.make('CartPole-v0')
#env = gym.make('Taxi-v2')
env.reset()

for _ in range(1000):
    env.render()
#     env.step(env.action_space.sample())
    env.reset()

env.close()
```

This should display an inverted pendulum that is being balanced.