Instructions on installing Python and Gurobi

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1. Installing Python

There are various ways of installing python. The straightforward way is to go to the website https://www.python.org/downloads/, download the installer and then install python. Another way is to install Anaconda which installs Python with an Integrated Development Environment (IDE) named **Spyder**, a command shell named **IPython**, and **Jupyter Notebook**, which I'll use for teaching.

What is Anaconda?

According to Wiki, Anaconda is a free and open-source distribution of the **Python** and **R** programming languages for scientific computing (data science, machine learning applications, large-scale data processing, predictive analytics, etc.), that aims to simplify package management and deployment.

Instructions to install Anaconda

A. Go to the website https://www.anaconda.com/products/individual.

B. Click on the **Download** button. It may start downloading the installer or you may need to select the appropriate OS and processor and then save the installer.

C. Go to the download folder location and double click on the installer.

D. Click **Next, I agree, Next**, then **Install**, and finally, **Finish**.

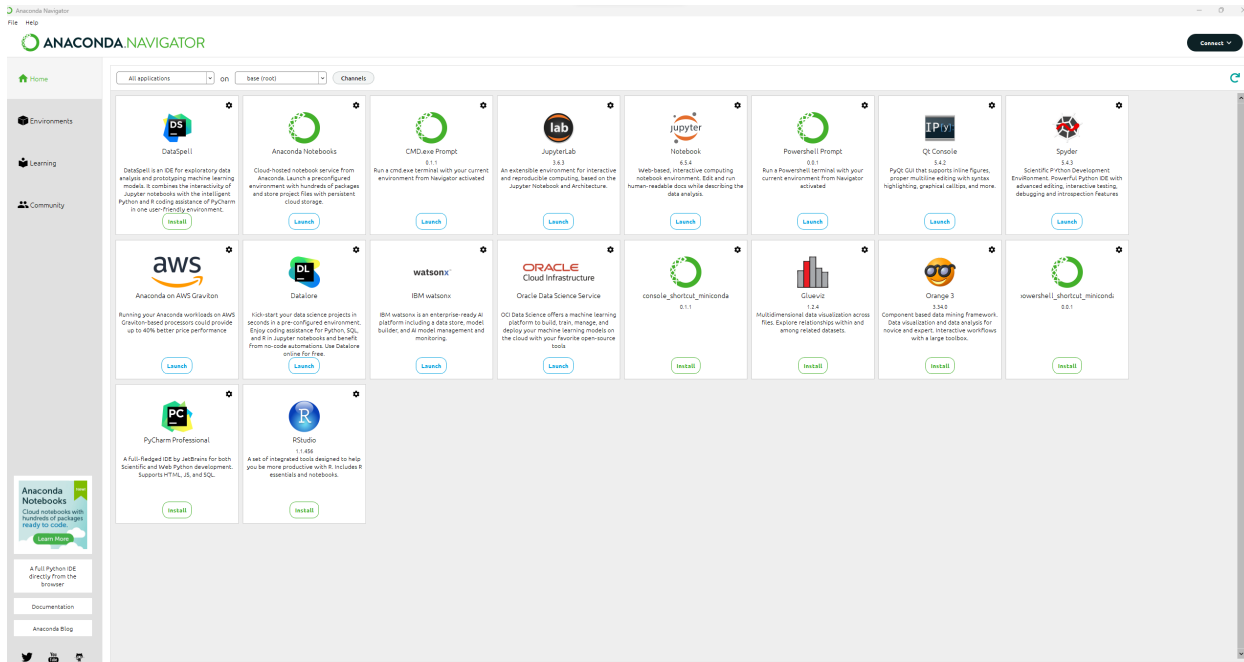**E.** Search **Anaconda Navigator** in the start menu and open jupyter notebook.
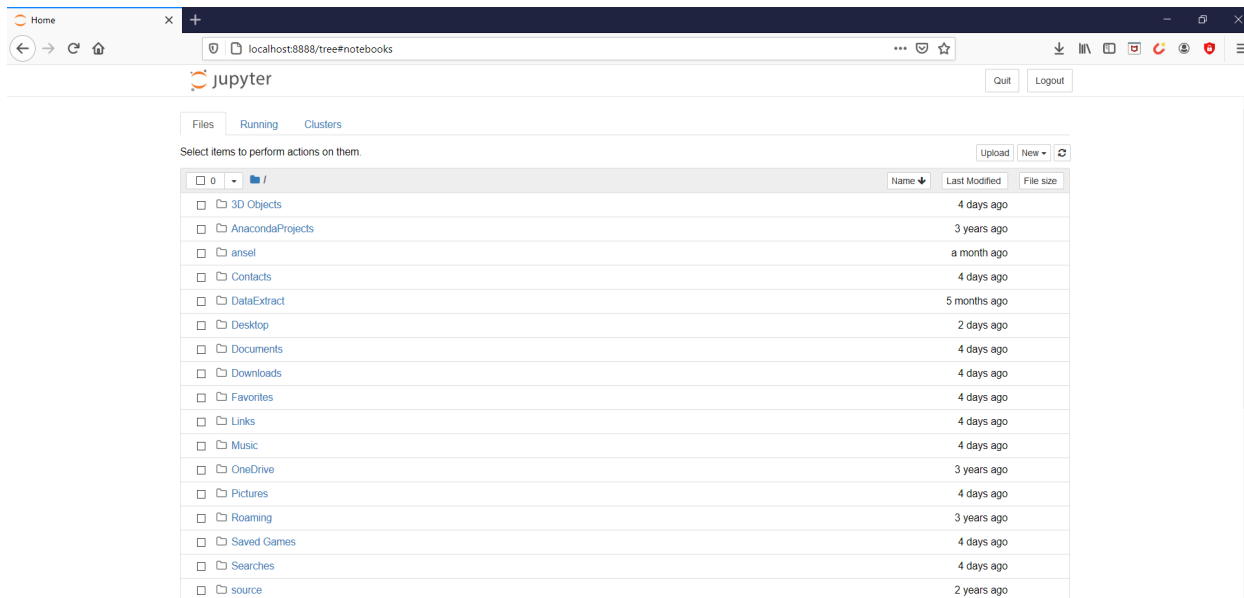
Figure 1: Anaconda Navigator

Figure 2: Jupyter window

2. Installing Gurobi

Gurobi is a commercial optimization solver. We will use it to solve linear and integer programs. Here are the instructions to install gurobi and its license.

- **A.** First go to the website https://pages.gurobi.com/registration.

- **B.** Make an account on this webpage. Select **Academic User** and fill out other details. Click

on the confirmation email if needed.

Figure 3: Gurobi registration

C. Click on the link https://www.gurobi.com/login/ and login into your account.

D. Now go to the website https://www.gurobi.com/downloads/. Click on **Gurobi Optimizer** and the click on **I accept the end user license agreement**. Download the installer for appropriate OS and processor.

E. Go to the download location and double click the msi installer. Click **Next**, check the user agreement and click **Next, Install** and **Finish**.

F. Now go to User Portal that you logged in (https://portal.gurobi.com/iam/home) (See Figure

4 below). Click on **Licenses** on the left bar and then click on **Request** . Click on **Generate Now!** under the category **Named-user Academic**. Check box the **terms of the End User License Agreement** and then click on **Confirm**.
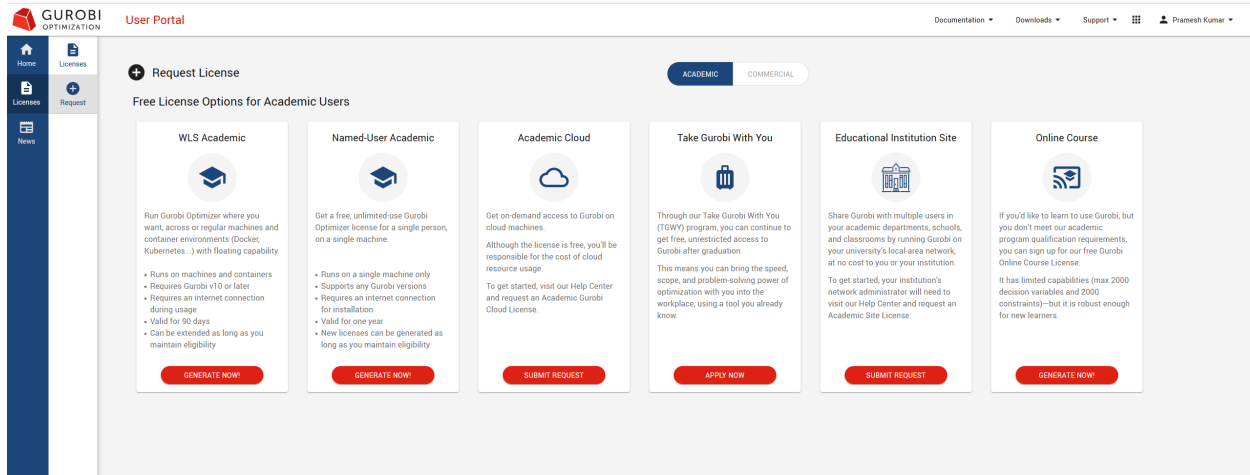

Figure 4: Gurobi license
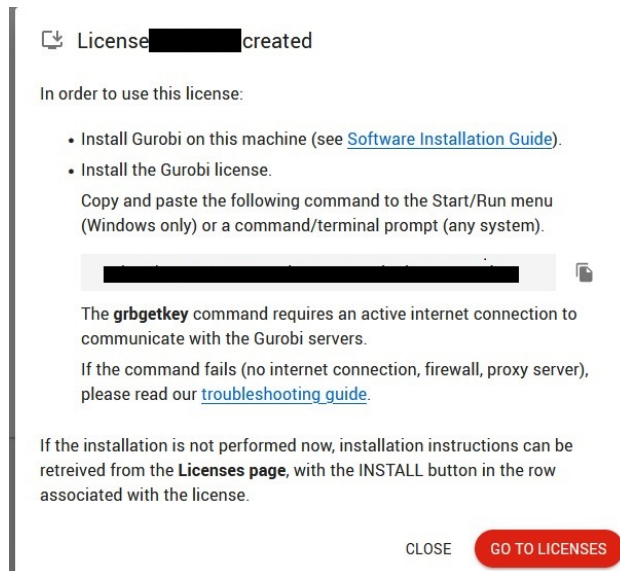
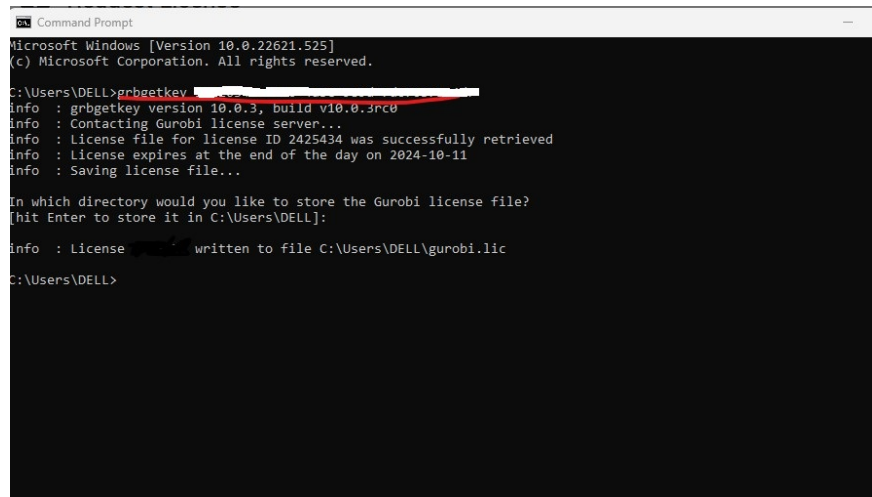**G.** This should generate the key shown in the Figure 5.

Figure 5: Key

H. Copy the above key and then go to command prompt (Go to start menu and type cmd and hit enter). Paste the key and hit enter. You may need to type "y" and press enter (see Figure 6).

Figure 6: Installing license in the local machine

I. To install the python package **gurobipy**, open command line and change your directory to the Gurobi installation directory by using command `cd C:\gurobi800\ win64` (or whatever your default installation directory is). Now type `python setup.py install` and hit enter. You might have to open cmd as an administrator. Also, if Python is not added to the path. Then, perform this step using the **Anaconda Prompt** (type this in windows search).