#### ❖ Files Available

- ➤ Installation Guide
  - In this file, a guide is given about, How to run the code.
- ➤ AIFA Assignment
  - In this file, A complete approach to the problem is discussed.
- ➤ aifa.py
  - In this file, the code of the File which gives optimal solution is given in .py format.
- ➤ aifaheuristic.py
  - In this file, the code of the file which gives a heuristic solution is given in .py format.

### System Requirement for Python Installation

- ➤ Operating system
  - Linux- Ubuntu 16.04 to 17.10
  - Windows 7 to 10, with 2GB RAM (4GB preferable)
- ➤ You have to install Python 3.6 and related packages, please follow the installation instructions given below as per your operating system

## ❖ The procedure to install Python 3 on Ubuntu Linux OS: Install Python 3.6: 1.

- ➤ To follow the installation procedure, you need to be connected to the Internet.
- ➤ Open the terminal by pressing Ctrl + Alt + T keys together.
  - 3. Install Python 3.6:
    - For Ubuntu 16.04 and Ubuntu 17.04: i. In the terminal, run the command sudo apt-get install python3.6
    - Press Enter.

- The terminal will prompt you for your password, type it in to the terminal.
- Press Enter.
- ➤ For Ubuntu 17.10 and above, the system already comes with Python 3.6installed by default

# The procedure to install Python 3 on Windows OS: Install Python 3.6:

- > To follow the installation procedure, you need to be connected to the Internet.
- ➤ Visit https://www.python.org/downloads/release/python-368/
- ➤ At the bottom locate Windows x86-64 executable installer for 64 bits OS and Windows x86 executable installer for 32 bits OS
- > Click on the located installer file to download.
- ➤ After download completes, double click on the installer file to start the installation procedure.
- > Follow the instructions as per the installer

### Install Numpy, Matplotlib and Ipython:

- ➤ Open the cmd/Terminal window
- > Type in the following commands followed by the Enter key:
  - python -m pip install numpy
  - python -m pip install ipython
  - python -m pip install matplotlib

### Running the code on Notebook

- ➤ Jupyter Notebook
  - Open the .py file from "File Location".
  - Press Shift + Enter to Run the code.
- ➤ Collab
  - Save the File in collab cloud
  - Open the file from location
  - Run the code by clicking Play Button