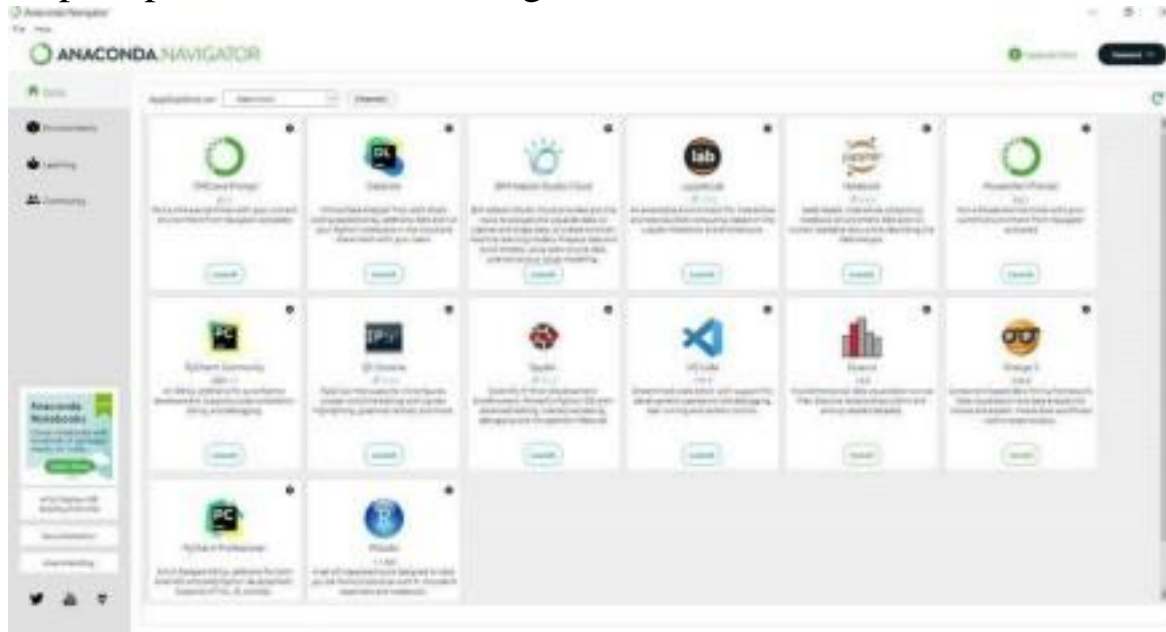


Team ID : PNT2022TMID31103

Project Name : Virtual Eye-Lifeguard for swimming pools to detect active drowning

Installing python package

Step 1: open the anaconda navigator. In the start menu



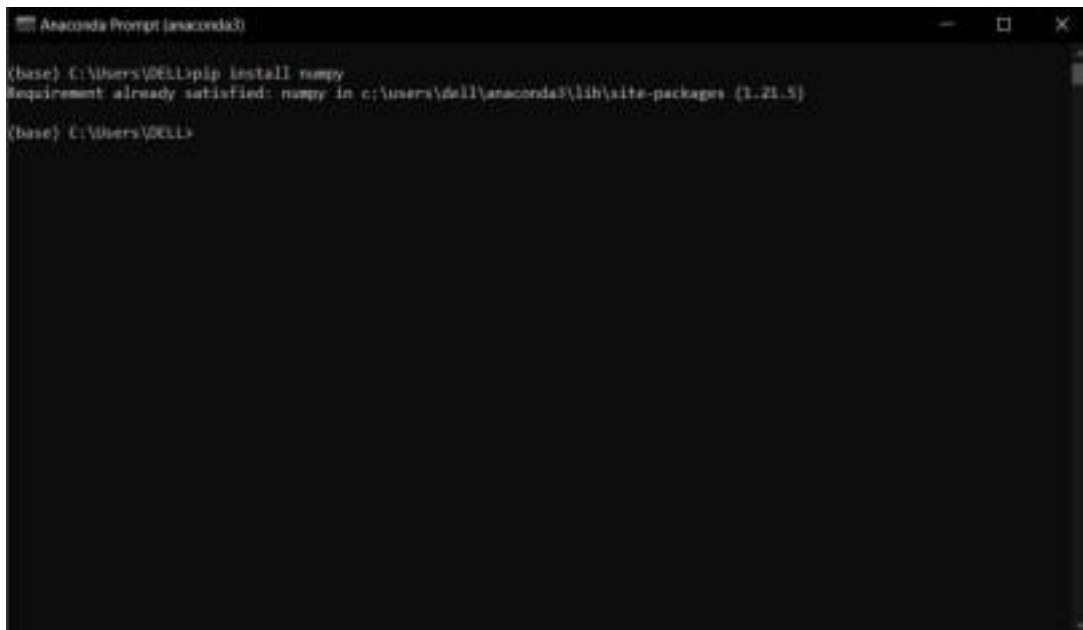
Step 2: open the CMD.exe prompt



Step 3: install the NUMPY package .To enter the numpy package enter the command in the CMD.exe

Command:Pip install numpy NUMPY :

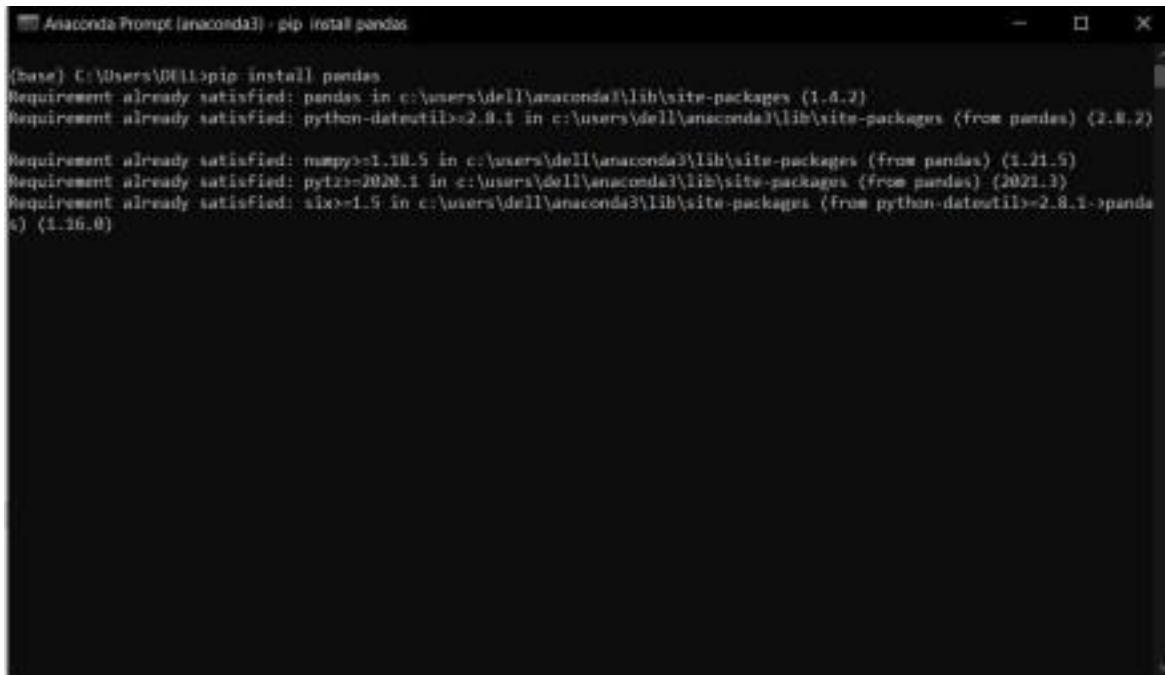
Numpy: This package is used to perform numerical computations. This package is pre-installed in anaconda .NumPy is used for working with arrays. NumPy is short for "Numerical Python



```
Anaconda Prompt (anaconda3)
(base) C:\Users\Dell>pip install numpy
Requirement already satisfied: numpy in c:\users\dell\anaconda\lib\site-packages (1.21.5)
(base) C:\Users\Dell>
```

Step 4: install the pandas package .To enter the pandas package enter the command in the CMD.exe Command:
Pip install pandas Pandas :

Pandas is one of the most widely used python libraries in data science. It provides high-performance, easy to use structures, and data analysis tools. This package is pre- installed in anaconda. is an open-source library that is built on top of NumPy library. It is a Python package that offers various data structures and operations for manipulating numerical data and time series. It is mainly popular for importing and analyzing data much easier. Pandas is fast and it has high- performance & productivity for users.

A screenshot of an Anaconda Prompt window. The title bar reads 'Anaconda Prompt (anaconda3) - pip install pandas'. The command prompt shows the command '(base) C:\Users\DELL>pip install pandas'. The output displays several dependency checks: 'Requirement already satisfied: pandas in c:\users\dell\anaconda3\lib\site-packages (1.4.2)', 'Requirement already satisfied: python-dateutil>=2.8.1 in c:\users\dell\anaconda3\lib\site-packages (from pandas) (2.8.2)', 'Requirement already satisfied: numpy>=1.18.5 in c:\users\dell\anaconda3\lib\site-packages (from pandas) (1.21.5)', 'Requirement already satisfied: pytz>=2020.1 in c:\users\dell\anaconda3\lib\site-packages (from pandas) (2021.3)', and 'Requirement already satisfied: six>=1.5 in c:\users\dell\anaconda3\lib\site-packages (from python-dateutil>=2.8.1->pandas) (1.16.0)'.

```
(base) C:\Users\DELL>pip install pandas
Requirement already satisfied: pandas in c:\users\dell\anaconda3\lib\site-packages (1.4.2)
Requirement already satisfied: python-dateutil>=2.8.1 in c:\users\dell\anaconda3\lib\site-packages (from pandas) (2.8.2)
Requirement already satisfied: numpy>=1.18.5 in c:\users\dell\anaconda3\lib\site-packages (from pandas) (1.21.5)
Requirement already satisfied: pytz>=2020.1 in c:\users\dell\anaconda3\lib\site-packages (from pandas) (2021.3)
Requirement already satisfied: six>=1.5 in c:\users\dell\anaconda3\lib\site-packages (from python-dateutil>=2.8.1->pandas) (1.16.0)
```

Step 5: install the Matplotlib package .To enter the Matplotlib package enter the command in the CMD.exe Command: Pip install Matplotlib Matplotlib :

Matplotlib is a comprehensive library for creating static, animated, and interactive visualizations in Python. This package is pre-installed in anaconda .Matplotlib is an amazing visualization library in Python for 2D plots of arrays. Matplotlib is a multi-platform data visualization library built on NumPy arrays and designed to work with the broader SciPy stack. It was introduced by John Hunter in the year 2002.

```
Anaconda Prompt (anaconda3)

(base) C:\Users\DELL>pip install matplotlib
Requirement already satisfied: matplotlib in c:\users\dell\anaconda3\lib\site-packages (3.5.1)
Requirement already satisfied: cycler>=0.10 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (0.11.0)
Requirement already satisfied: pyparsing>=2.2.1 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (3.0.4)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (2.8.2)
Requirement already satisfied: mpmath>=1.17 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (1.21.5)
Requirement already satisfied: pillow>=6.2.0 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (9.0.1)
Requirement already satisfied: packaging>=20.0 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (21.3)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (4.25.0)
Requirement already satisfied: kiwisolver>=1.0.1 in c:\users\dell\anaconda3\lib\site-packages (from matplotlib) (1.3.2)
Requirement already satisfied: six>=1.5 in c:\users\dell\anaconda3\lib\site-packages (from python-dateutil>=2.7->matplotlib) (1.16.0)

(base) C:\Users\DELL>
```

Step 6: install the Scikit-learn package . to enter the Scikit- learn package enter the command in the CMD,exe Command: Pip install Scikit-learn Scikit-learn :

This is a machine learning library for the Python programming language. This package is pre-installed in anaconda.

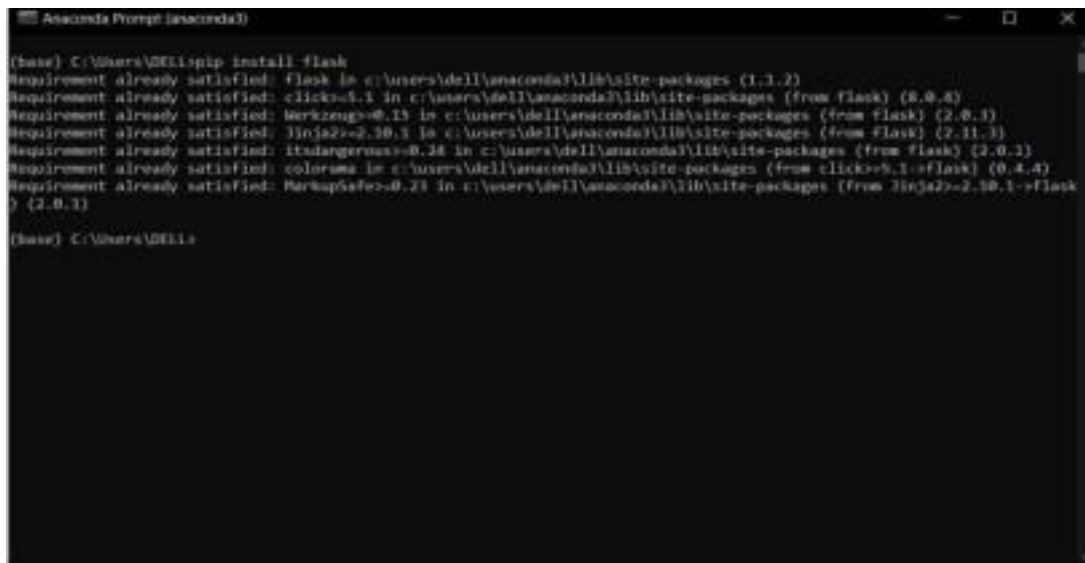
- Scikit learn in python is mostly used in python for focusing on the modeling. It simply focused on modeling not focused on loading the data.

```
Anaconda Prompt (anaconda3)

(base) C:\Users\DELL>pip install scikit-learn
Requirement already satisfied: scikit-learn in c:\users\dell\anaconda3\lib\site-packages (1.0.2)
Requirement already satisfied: joblib>=0.11 in c:\users\dell\anaconda3\lib\site-packages (from scikit-learn) (1.1.0)
Requirement already satisfied: numpy>=1.14.0 in c:\users\dell\anaconda3\lib\site-packages (from scikit-learn) (1.21.5)
Requirement already satisfied: scipy>=1.1.0 in c:\users\dell\anaconda3\lib\site-packages (from scikit-learn) (1.7.3)
Requirement already satisfied: threadpoolctl>=2.0.0 in c:\users\dell\anaconda3\lib\site-packages (from scikit-learn) (2.2.0)

(base) C:\Users\DELL>
```

Step 7: install the Flask package . to enter the Flask package enter the command in the CMD,exe Command: Pip install Flask Flask :



```
(base) C:\Users\DELL>pip install flask
Requirement already satisfied: flask in c:\users\de\anaconda3\lib\site-packages (1.1.2)
Requirement already satisfied: click in c:\users\de\anaconda3\lib\site-packages (from flask) (8.0.4)
Requirement already satisfied: werkzeug in c:\users\de\anaconda3\lib\site-packages (from flask) (2.0.3)
Requirement already satisfied: Jinja2 in c:\users\de\anaconda3\lib\site-packages (from flask) (2.11.3)
Requirement already satisfied: itsdangerous in c:\users\de\anaconda3\lib\site-packages (from flask) (2.0.1)
Requirement already satisfied: colorama in c:\users\de\anaconda3\lib\site-packages (from click->8.1->flask) (0.4.4)
Requirement already satisfied: MarkupSafe in c:\users\de\anaconda3\lib\site-packages (from Jinja2->2.10.1->flask) (2.0.1)
(base) C:\Users\DELL>
```

Flask is a lightweight WSGI web application framework Flask is a web application framework written in Python. Armin Ronacher, who leads an international group of Python enthusiasts named Pocco, develops it. Flask is based on Werkzeug WSGI toolkit and Jinja2 template engine. Both are Pocco projects.