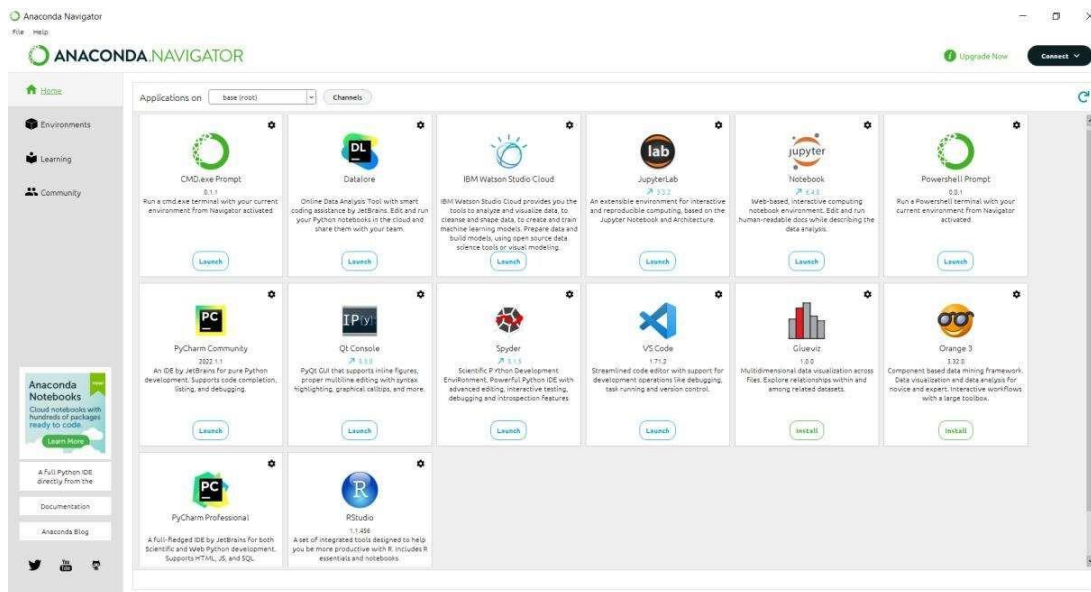


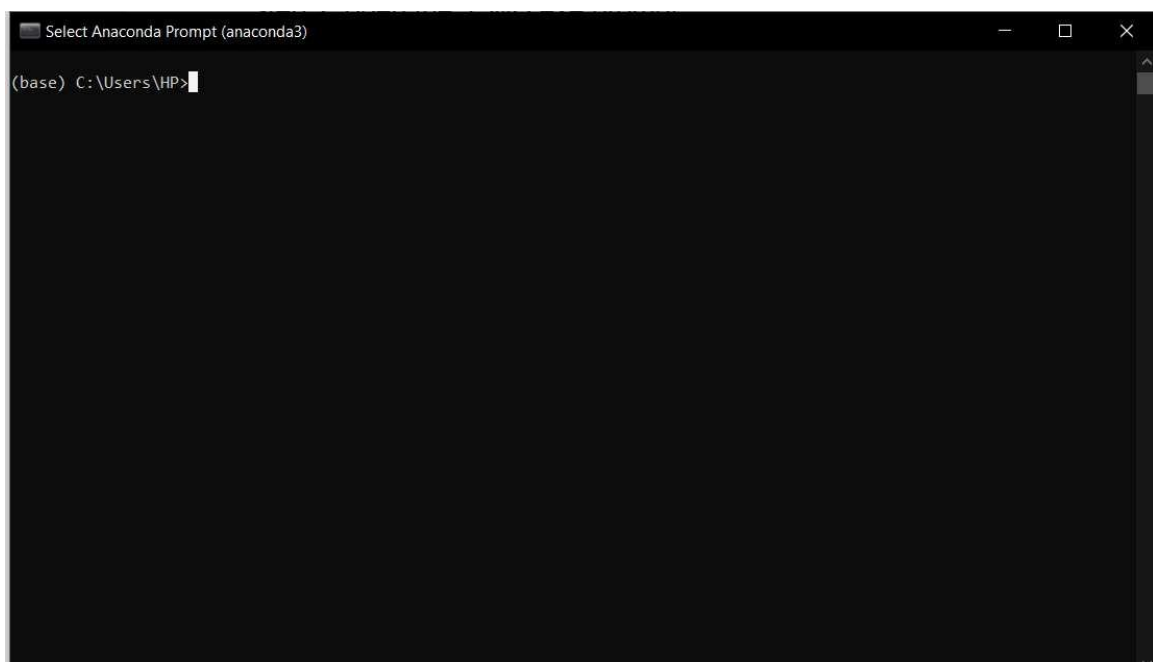
Team ID	PNT2022TMID30704
Project Name	VirtualEye-Life Guard for Swimming Pools to Detect Active Drowning

## Installing python package

**Step 1:** open the anaconda navigator. In the star menu



**Step 2:** open the CMD.exe prompt

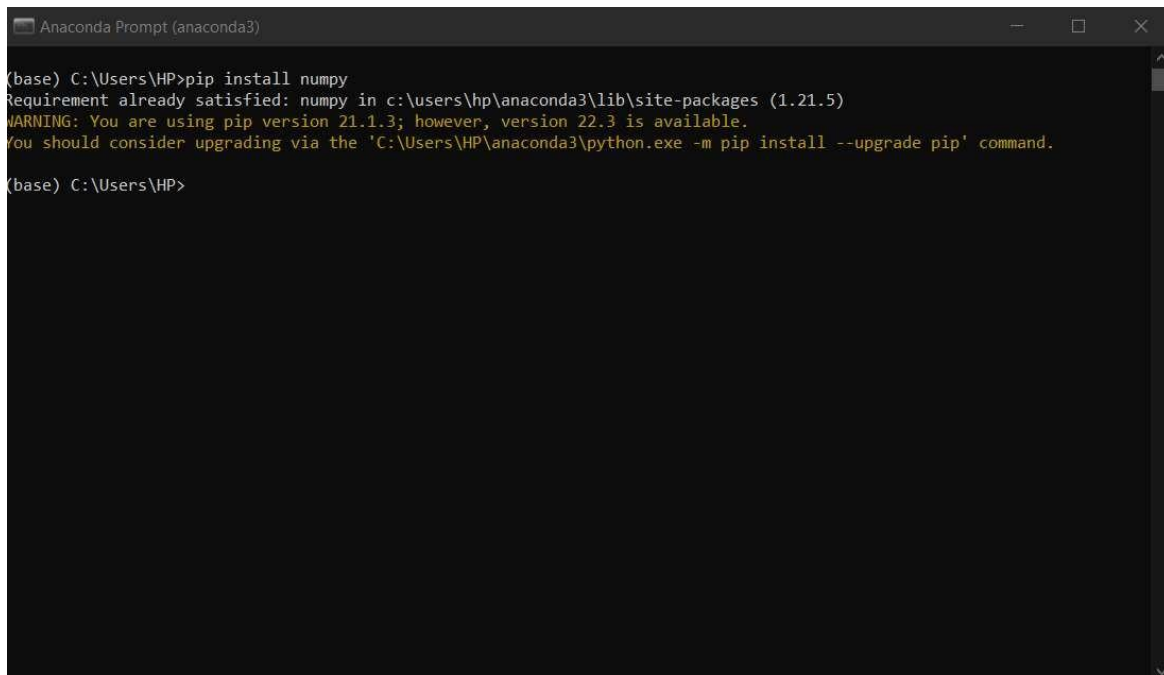


**Step 3:** install the **NUMPY** package .To enter the **numpy** package enter the command in the CMD.exe

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

A screenshot of the Anaconda Prompt (anaconda3) window. The terminal shows the command `(base) C:\Users\HP>pip install numpy` being executed. The output indicates that the requirement is already satisfied, with NumPy version 1.21.5 installed in `c:\users\hp\anaconda3\lib\site-packages`. A warning message follows, stating that the current pip version is 21.1.3 and version 22.3 is available, suggesting an upgrade via the command `'C:\Users\HP\anaconda3\python.exe -m pip install --upgrade pip'`. The prompt then returns to `(base) C:\Users\HP>`.

```
Anaconda Prompt (anaconda3)
(base) C:\Users\HP>pip install numpy
Requirement already satisfied: numpy in c:\users\hp\anaconda3\lib\site-packages (1.21.5)
WARNING: You are using pip version 21.1.3; however, version 22.3 is available.
You should consider upgrading via the 'C:\Users\HP\anaconda3\python.exe -m pip install --upgrade pip' command.
(base) C:\Users\HP>
```

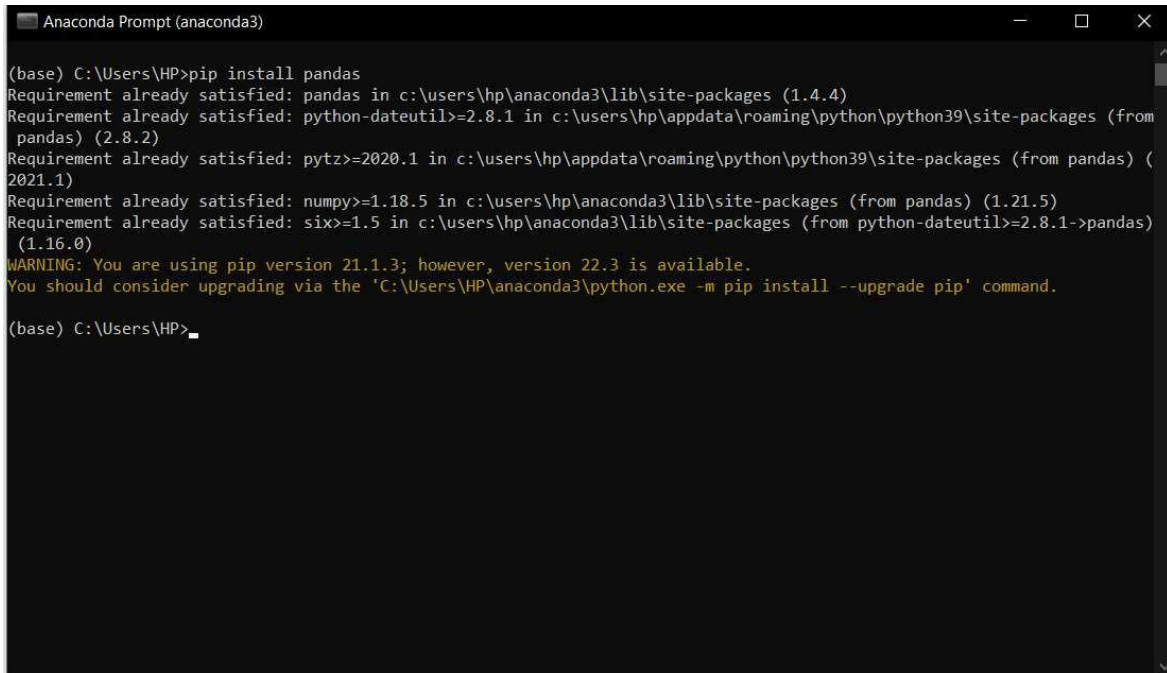
**Step 4:** install the **pandas** package .To enter the **pandas** package enter the command in the CMD.exe

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 the Anaconda Prompt (anaconda3) window. The terminal shows the command 'pip install pandas' being executed. The output indicates that pandas is already installed in the current environment (1.4.4). It also shows that several dependencies are already satisfied: python-dateutil (2.8.1), pytz (2020.1), numpy (1.18.5), and six (1.16.0). A warning message states: 'WARNING: You are using pip version 21.1.3; however, version 22.3 is available. You should consider upgrading via the 'C:\Users\HP\anaconda3\python.exe -m pip install --upgrade pip' command.' The prompt ends with '(base) C:\Users\HP>'.

```
Anaconda Prompt (anaconda3)

(base) C:\Users\HP>pip install pandas
Requirement already satisfied: pandas in c:\users\hp\anaconda3\lib\site-packages (1.4.4)
Requirement already satisfied: python-dateutil>=2.8.1 in c:\users\hp\appdata\roaming\python\python39\site-packages (from pandas) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in c:\users\hp\appdata\roaming\python\python39\site-packages (from pandas) (2021.1)
Requirement already satisfied: numpy>=1.18.5 in c:\users\hp\anaconda3\lib\site-packages (from pandas) (1.21.5)
Requirement already satisfied: six>=1.5 in c:\users\hp\anaconda3\lib\site-packages (from python-dateutil>=2.8.1->pandas) (1.16.0)
WARNING: You are using pip version 21.1.3; however, version 22.3 is available.
You should consider upgrading via the 'C:\Users\HP\anaconda3\python.exe -m pip install --upgrade pip' command.

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

**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\HP>pip install matplotlib
Requirement already satisfied: matplotlib in c:\users\hp\anaconda3\lib\site-packages (3.5.2)
Requirement already satisfied: packaging>=20.0 in c:\users\hp\appdata\roaming\python\python39\site-packages (from matplotlib) (21.0)
Requirement already satisfied: numpy>=1.17 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib) (1.21.5)
Requirement already satisfied: kiwisolver>=1.0.1 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib) (1.4.2)
Requirement already satisfied: pillow>=6.2.0 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib) (9.2.0)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib) (4.25.0)
Requirement already satisfied: pyparsing>=2.2.1 in c:\users\hp\appdata\roaming\python\python39\site-packages (from matplotlib) (2.4.7)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\hp\appdata\roaming\python\python39\site-packages (from matplotlib) (2.8.2)
Requirement already satisfied: cyycler>=0.10 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib) (0.11.0)
Requirement already satisfied: six>=1.5 in c:\users\hp\anaconda3\lib\site-packages (from python-dateutil>=2.7->matplotlib) (1.16.0)
WARNING: You are using pip version 21.1.3; however, version 22.3 is available.
You should consider upgrading via the 'C:\Users\HP\anaconda3\python.exe -m pip install --upgrade pip' command.

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

**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)

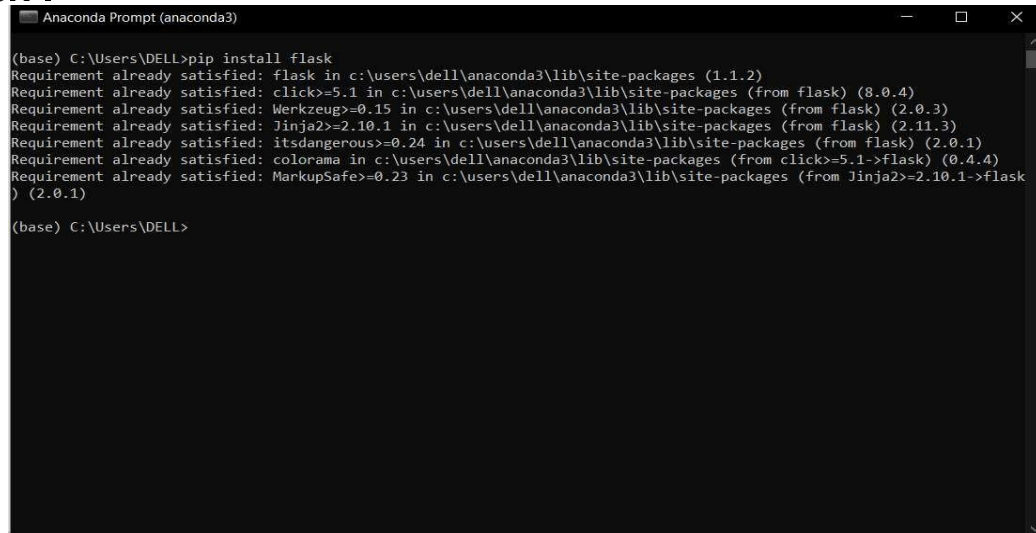
(base) C:\Users\HP>pip install scikit-learn
Requirement already satisfied: scikit-learn in c:\users\hp\anaconda3\lib\site-packages (1.0.2)
Requirement already satisfied: scipy>=1.1.0 in c:\users\hp\anaconda3\lib\site-packages (from scikit-learn) (1.9.1)
Requirement already satisfied: joblib>=0.11 in c:\users\hp\anaconda3\lib\site-packages (from scikit-learn) (1.1.0)
Requirement already satisfied: numpy>=1.14.6 in c:\users\hp\anaconda3\lib\site-packages (from scikit-learn) (1.21.5)
Requirement already satisfied: threadpoolctl>=2.0.0 in c:\users\hp\anaconda3\lib\site-packages (from scikit-learn) (2.2.0)
WARNING: You are using pip version 21.1.3; however, version 22.3 is available.
You should consider upgrading via the 'C:\Users\HP\anaconda3\python.exe -m pip install --upgrade pip' command.

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

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

**Command:** Pip install Flask

**Flask :**



```

Anaconda Prompt (anaconda3)

(base) C:\Users\DELL>pip install flask
Requirement already satisfied: flask in c:\users\dell\anaconda3\lib\site-packages (1.1.2)
Requirement already satisfied: click>=5.1 in c:\users\dell\anaconda3\lib\site-packages (from flask) (8.0.4)
Requirement already satisfied: Werkzeug>=0.15 in c:\users\dell\anaconda3\lib\site-packages (from flask) (2.0.3)
Requirement already satisfied: Jinja2>=2.10.1 in c:\users\dell\anaconda3\lib\site-packages (from flask) (2.11.3)
Requirement already satisfied: itsdangerous>=0.24 in c:\users\dell\anaconda3\lib\site-packages (from flask) (2.0.1)
Requirement already satisfied: colorama in c:\users\dell\anaconda3\lib\site-packages (from click>=5.1->flask) (0.4.4)
Requirement already satisfied: MarkupSafe>=0.23 in c:\users\dell\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.