PROJECT PREREQUISITES

Team ID	**PNT2022TMID31776**
Project Name	**AI-powered Nutrition Analyzer for Fitness Enthusiasts**

In order to develop this project we need to install the following software/packages:

Anaconda Navigator

Anaconda Navigator is a free and open-source distribution of the Python and R programming languages for data science and machine learning-related applications. It can be installed on Windows, Linux, and macOS. Conda is an open-source, cross-platform, package management system. Anaconda comes with great tools like JupyterLab, Jupyter Notebook, QtConsole, Spyder, Glueviz, Orange, Rstudio,Visual Studio Code.

For this project, we will be using a Jupyter notebook and Spyder

If you are using anaconda navigator, follow the below steps to download the required

packages: Open anaconda prompt as administrator

If you are using Pycharm IDE, you can install the packages through the command prompt and follow the same syntax as above.

Web framework used for building Web applications

Python packages:

- open anaconda prompt as administrator
- Type “pip install numpy” and click enter.
- Type “pip install pandas” and click enter.
- Type “pip install scikit-learn” and click enter.
- Type “pip install tensorflow==2.3.0” and click enter.
- Type “pip install keras==2.4.0” and click enter.
- Type “pip install Flask” and click enter.

Artificial Neural Networks :

Artificial neural networks (ANNs) are comprised of a node layers, containing an input layer, one or more hidden layers, and an output layer. Each node, or artificial neuron, connects to another and has an associated weight and threshold. If the output of any individual node is above the specified threshold value, that node is activated, sending data to the next layer of the network. Otherwise, no data is passed along to the next layer of the network.

Convolution Neural Networks :

A convolutional neural network is a class of deep neural networks, most commonly applied to analyzing visual imagery.