

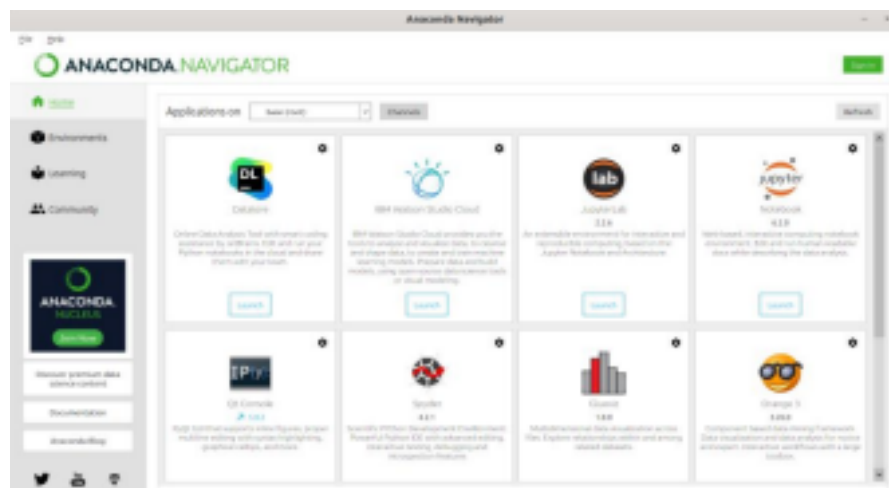
Prerequisites

Date	18 November 2022
Team ID	PNT2022TMID36166
Project Name	Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation

Prerequisites:

To complete the project we have used the following software and packages,

• Anaconda Navigator:



- Anaconda Navigator is a desktop graphical user interface (GUI) included in Anaconda Distribution that allows you to launch applications and manage conda packages, environments, and channels without using command line interface (CLI) commands.
- Navigator can search for packages on Anaconda.org or in a local Anaconda Repository.
- It is available for Windows, macOS, and Linux.
- Installation steps,
 1. Visit [Anaconda.com/downloads](https://anaconda.com/downloads).
 2. Select Windows.
 3. Download the .exe installer.

4. Open and run the .exe installer.
5. Open the Anaconda Prompt and run some Python code

• Jupyter Notebook:



- The Jupyter Notebook is the original web application for creating and sharing computational documents. It offers a simple, streamlined, document-centric experience.
- Installation steps,
 1. Download Anaconda. We recommend downloading Anaconda's latest Python 3 version (currently Python 3.9).
 2. Install the version of Anaconda which you downloaded, following the instructions on the download page.

To build Machine learning models we require the following packages:

1. Sklearn:

Scikit-learn is a library in Python that provides many unsupervised and supervised learning algorithms.

2. NumPy:

NumPy is a Python package that stands for 'Numerical Python'. It is the core library for scientific computing, which contains a powerful n-dimensional array object

“pip install numpy”

3. Pandas:

pandas is a fast, powerful, flexible, and easy to use open source data analysis

and manipulation tool, built on top of the Python programming language.

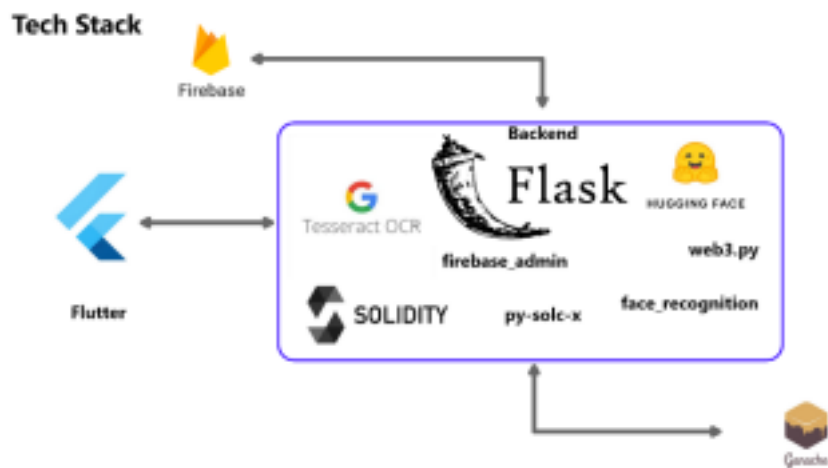
“pip install pandas”

4. **Matplotlib:**

It provides an object-oriented API for embedding plots into applications using general-purpose GUI toolkits.

“pip install matplotlib”

Flask:



- Flask is a web application framework written in Python
- Flask is considered more Pythonic than the Django web framework because in common situations the equivalent Flask web application is more explicit.
- Flask is also easy to get started with as a beginner because there is little boilerplate code for getting a simple app up and running.

“pip install Flask”