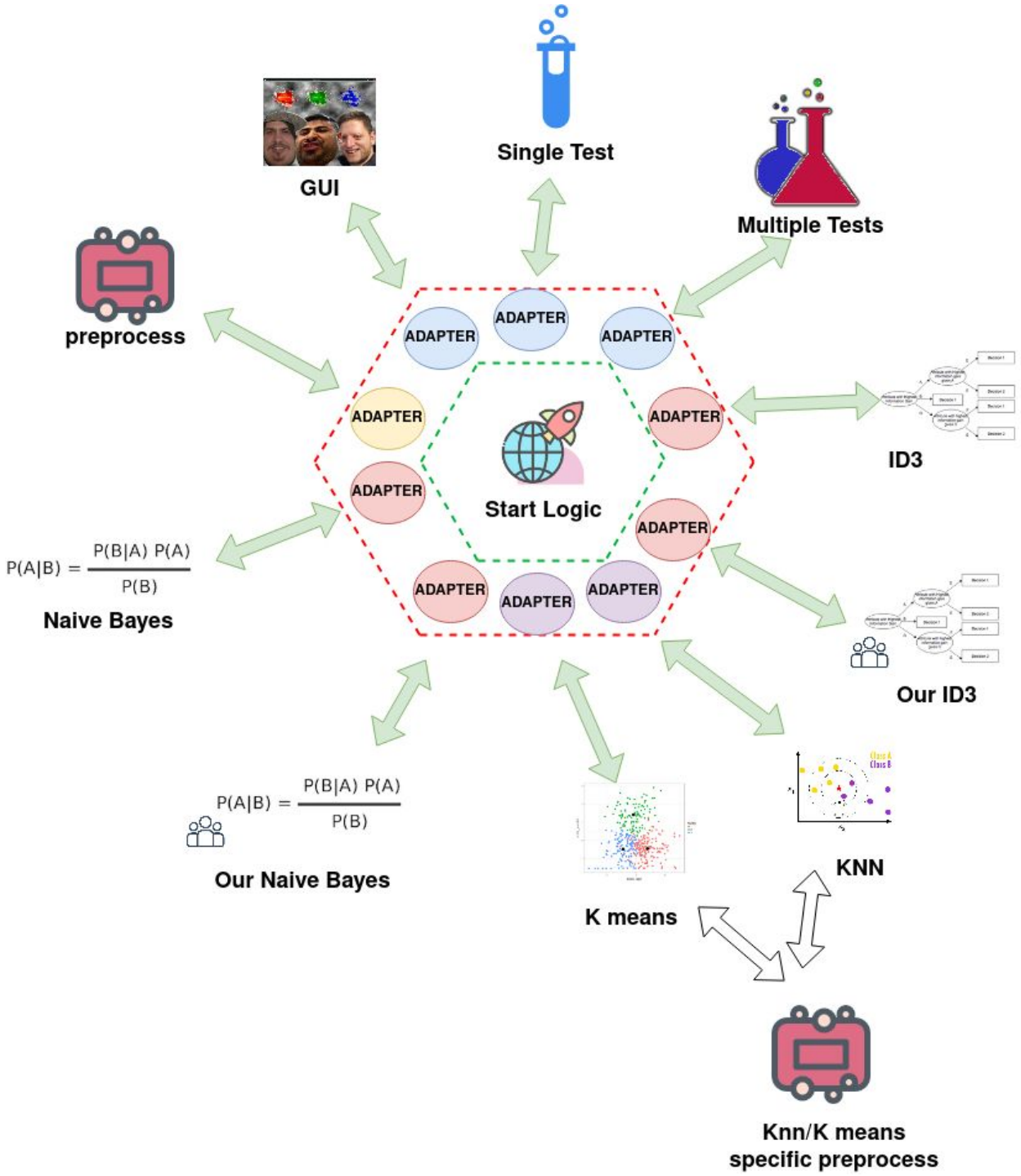
project architecture



Start Logic:

The main logic that compose the functions in the right way and handle passage of the key arguments.
This part located ad the start.py file

Adapters:

Each module communicate with the start logic module to run start the process , and this Communication is done via adapters that pass and return key argument to the start logic.

Gui:

The gui module job is to collect from the user via UI key arguments about the functions
The user want to run, pass thouse key arguments to the Start Logic and show the result
With option to save.

Single test:

This module job is: using the Start Logic run one specific test on function that configured in the code.

Multiple tests:

THis module responsible for running multiple test and log them in csv files for later analisis.

Preprocess:

This module responsible for cleaning and binning the data with multiple configurations.
This model doing the following:
Binning with given number of bins.
Applying different binning strategy.
Binning strategy - equal width/ equal frequency /entropy
And Removing/Replacing Nans.

ID3:

Integration of the id3 decision tree from sklearn to our project

Our ID3:

Our implementation of id3

Naive bayes:

Integration of the naive bayes from sklearn to our project

Our Naive bayes:

Our implementation of naive bayes

K means:

Integration of the K means from sklearn to our project

Knn:

Integration of the knn from sklearn to our project

Specific knn/kmeans preprocess:

Knn and K means required specific preprocess that is different from the existing preprocess.