Affective Computing Project 2022
<u>Parkinson Disease</u>

Hey Data Geeks !
You have a challenge and it will be really easy for you :D.

In this project, you will need to cooperate and engage with your teammates because it's a little bit hard to observe the whole provided dataset.

The goal of this project specifically is to choose the best model and technique to get to more than 85% accuracy score in your prediction model :D.

You will have some FUN ! :-D.

Parkinson Disease is a neurological movement disorder. Common symptoms include tremor, slowness of movement, stiff muscles, unsteady walk and balance and coordination problems.
There is no cure for the disease. Most patients can maintain a good quality of life with medications.

Parkinson dataset contains biomedical measurements, 195 records of people with 23 different attributes.

In this project, you are required to maintain a full model and application with GUI (any type of language) to differentiate between healthy people and people with Parkinson's disease.
   - Use this link to download the whole dataset.

The dataset was created by Max Little of the University of Oxford, in collaboration with the National Center for Voice and Speech, Denver, Colorado, who recorded the speech signals. The original study published the feature extraction methods for general voice disorders.

In the dataset you will have 24 columns and those are the description of each one of them if you need it :

Name - ASCII subject name and recording number
MDVP:Fo(Hz) - Average vocal fundamental frequency
MDVP:Fhi(Hz) - Maximum vocal fundamental frequency
MDVP:Flo(Hz) - Minimum vocal fundamental frequency
MDVP:Jitter(%),MDVP:Jitter(Abs),MDVP:RAP,MDVP:PPQ, Jitter:DDP - Several measures of variation in fundamental frequency.
MDVP:Shimmer,MDVP:Shimmer(dB),Shimmer:APQ3,Shimmer:APQ5 ,MDVP:APQ,Shimmer:DDA - Several measures of variation in amplitude.
NHR,HNR - Two measures of ratio of noise to tonal components in the voice.
status - Health status of the subject Parkinson's or healthy.
RPDE,D2 - Two nonlinear dynamical complexity measures
DFA - Signal fractal scaling exponent.
spread1,spread2,PPE - Three nonlinear measures of fundamental frequency variation.

Note : if you don't understand what any of these means … DON'T WORRY. We either xD .
JUST FOCUS ON THE ATTRIBUTES THAT U REALLY NEED !!.