# MOOD DETECTION

## STEPS

### AUTHENTICATION

* DETECTION
* PROCESSING
* DELIVERY

## AUTHENTICATION

* In this the user has to provide his client identification number and client secret from his spotify developer dashboard.
* He also has to give his username for the same
* Code :

token=util.prompt\_for\_user\_token(username,scope,client\_id=client\_id,client\_secret=client\_secret,redirect\_uri=redirect\_uri)

if token:

def authenticate\_spotify():

print("..Connecting to spotify")

sp=spotipy.Spotify(auth=token)

return sp

* We are creating a token from the username,scope,client\_id and client\_secret provided.The authenticate\_spotify function does the authentication and it creates a spotipy instance for future tasks and development

## DETECTION

* In this we gather data regarding the last 10 songs the user has listened to.We then gather the audio features of every song and we predict the mood value based on the values of the audio features.

A screenshot of a computer screen

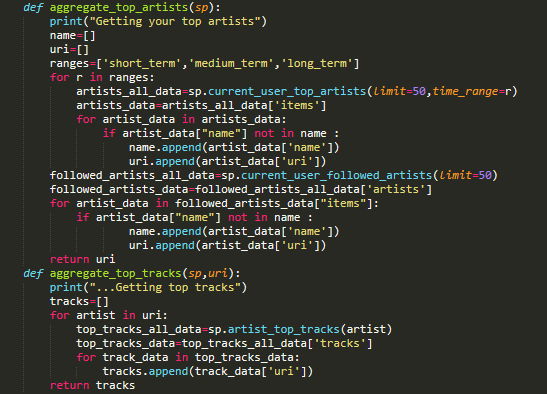
Description automatically generatedA screenshot of a computer screen

Description automatically generated

* In getrecenturi function we are appending the URI’s of all last 10 listened songs to a list.
* In computemetrics function we are calculating valence,danceability and energy values of the songs in the uri list and appending it to 3 different lists
* In computemode function based on the output from the computemetrics function we calculate the mood value and then divide it by 10 to get the accurate scaled mood value

## PROCESSING

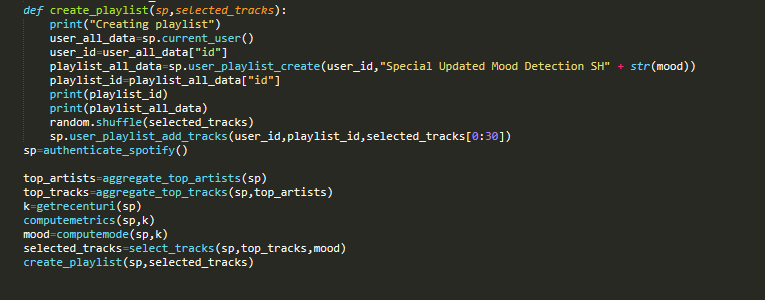
* Code :





* Aggregate\_top\_artists function prepares a list of the URI’s of the artists the user frequently listens to or follows.aggregate\_top\_tracks consists of a list of the songs belonging to the artists from aggregate\_top\_artists.
* In this the output from the computemode function is passed as a parameter to the select\_tracks function .
* In this a list of tracks by the artists the users follows is prepared and then the audio features of those songs are compared with the computed mood values and only the ones which match are appended to a list called selected\_tracks

## DELIVERY



* We then create a playlist and then add 30 songs from the selected\_tracks into the playlist .The user can then access it from the library option from their spotify accounts.

