DESIGN DOCUMENT

LOGIC:

SEARCH-FACES: The database is already containing a huge number of images with some encodings. When a user inputs a test image to search the best matchings, it simply encode the test image then it calculate the face_distance of this image with each image in the database and return the best matching images on the basis of face_distance.

Add_Face: When a user choose to add a single image to the database the program simply convert the input image into the encoding and then simply add this
image into the databases with suitable attributes.

Add_Faces_IN_BULK: When user wants to add multiple images at once it will provide a zip file containing the images, the program will simply get the zip file
by zip handling methods and then extract it in a folder then create the encodings of all the images inside the folder and then add images to the database

Get_FACE_INFO: If the user simply inputs an id (database index), the program simply returns the information about the id to the user.
It is also connecting the database whenever it is required and close the connection after the request is processed

Functions used:

Search: To find the top best matchings

DB_Load: To load the database encodings to find their face_distance from the input search image

make_map: to map the face_distance of an image(in database) from the input search image to the index of the image(in database)

Add_Bulk: To add the bulk of images into the database

handle_zip: To handle and process the zip file received from the request in bulk addition

Others are the builtin libraries of pythons.