weights of all the images in training dataset, and recognize the image with least error between weights of test and training set.

EXPLANATION OF METHODOLOGY

Eigenfaces are the principal components of the training set of face images. Eigenfaces are the Eigenvectors which represent each of the dimensions of this face space and they can be considered as various facial features. Any face can be expressed as linear combinations of the singular vectors of the set of faces, and these singular vectors are eigenvectors of the covariance matrices. By projecting a new image into the subspace spanned by the Eigenfaces and then classifying the face by comparing its position in the face space with the positions of the known individuals we can recognize the image.

IMPLEMENTATION

There are six main functional blocks that are part of the implementation of this project, whose responsibilities are as displayed in the image below: