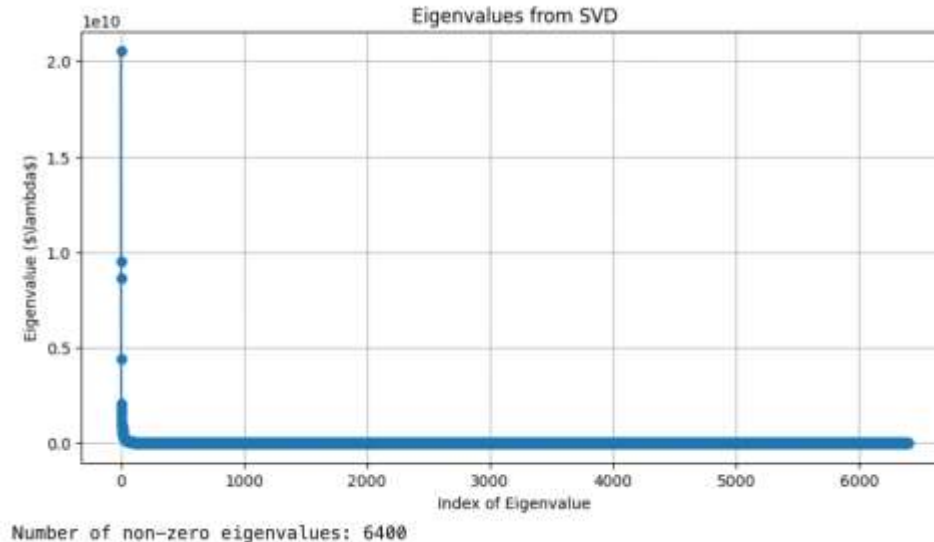


# Procedures and eigenfaces

1&2. Collect 6400 face images and set matrix A

(image size:80\*80)

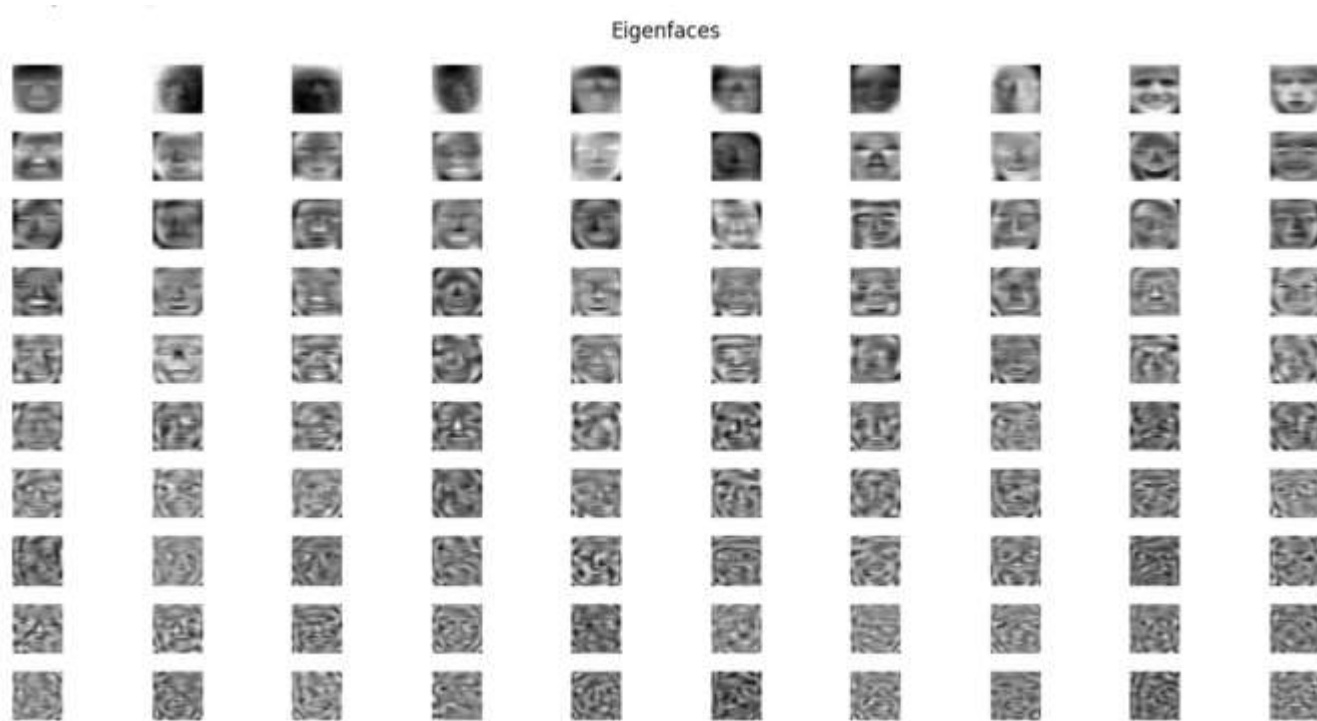




# Procedures and eigenfaces

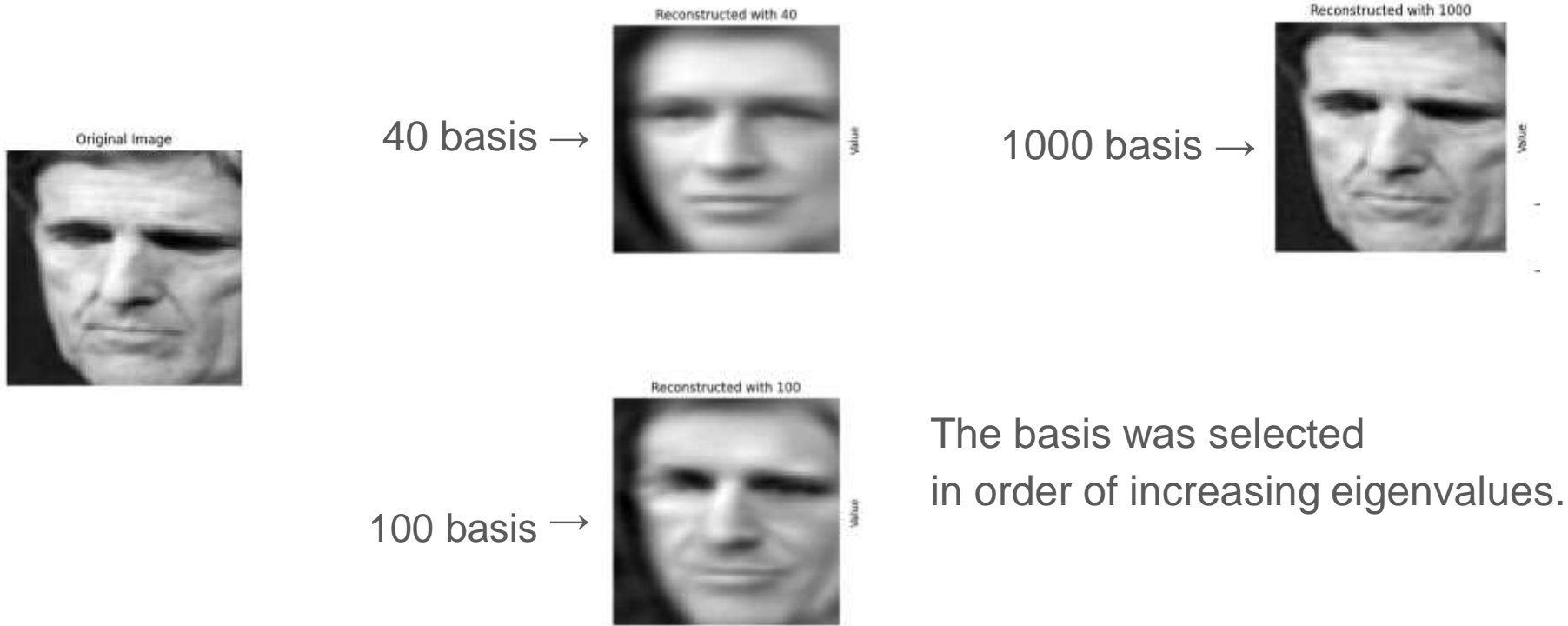
## 3. Apply SVD

100 faces →  
with large eigenvalue



# Synthesis of face images using your eigenfaces

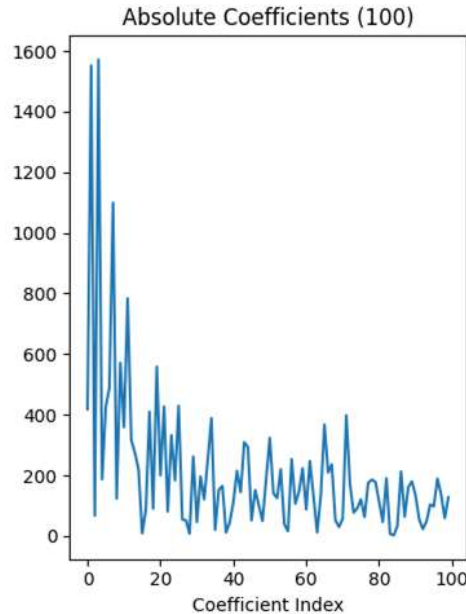
## 4. Reconstruction of Face Images



The basis was selected in order of increasing eigenvalues.

# Synthesis of face images using your eigenfaces

## 4. Reconstruction of Face Images

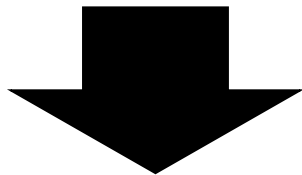
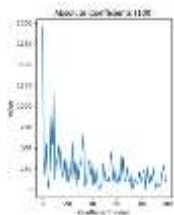


Index of Eigenvalue=Coefficient Index

basis which has large eigenvalue  
has large absolute value of coefficient.

# Synthesis of face images using your eigenfaces

## 4. Reconstruction of Face Images



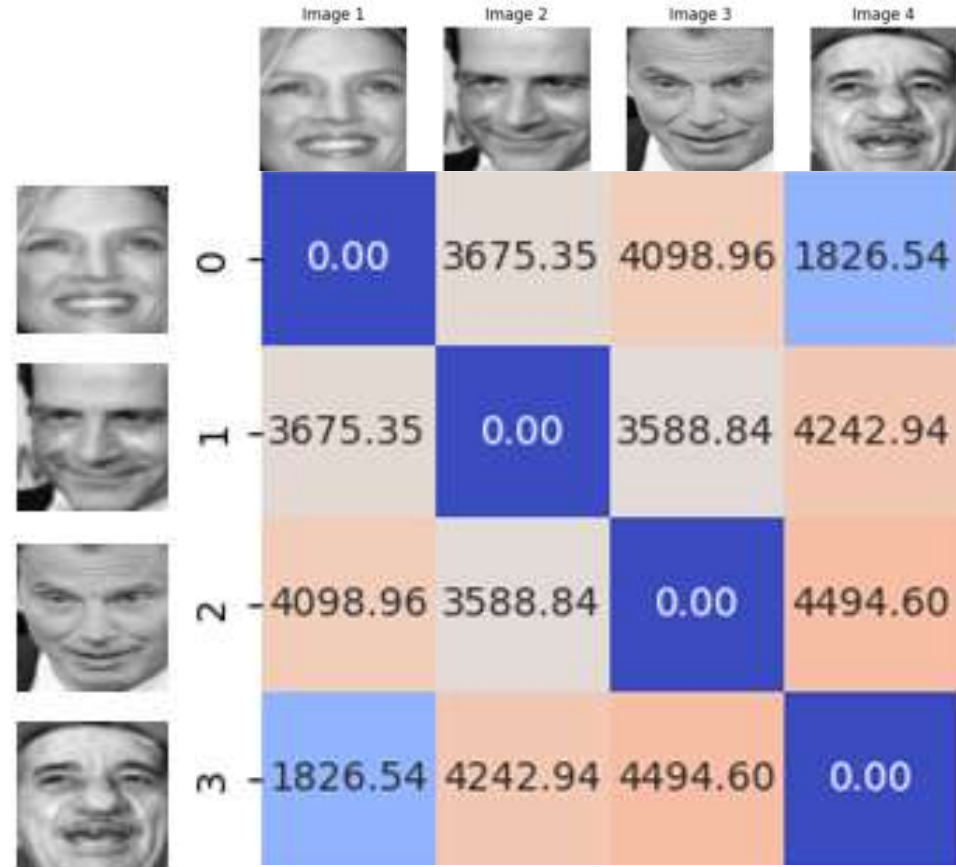
using 100 basis



# Synthesis of face images using your eigenfaces

## 5. Test of Face Recognition

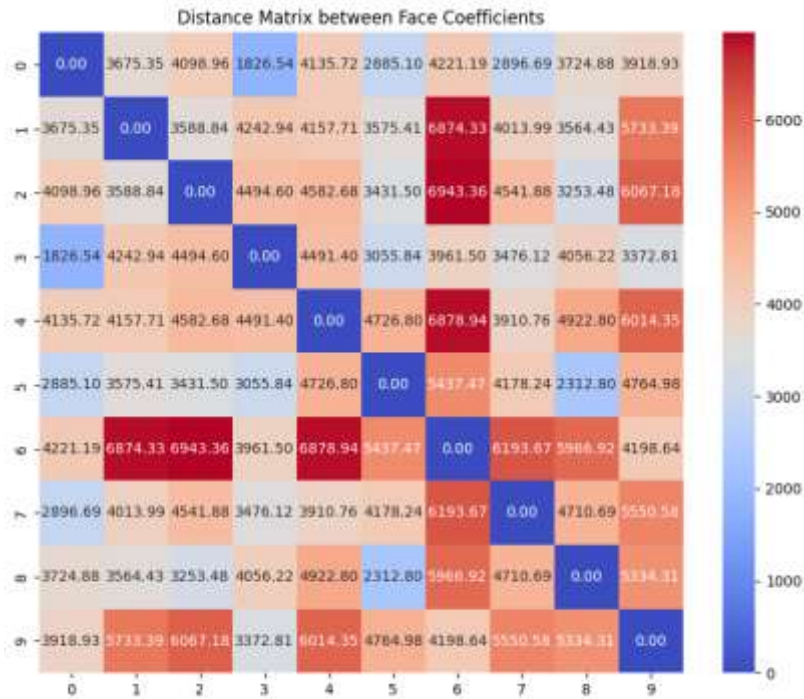
comparing images  
by calculating the distance



# Synthesis of face images using your eigenfaces

## 5. Test of Face Recognition

10 different person



9 different person  
(1 and 10 are same person)

