R project

Source code:

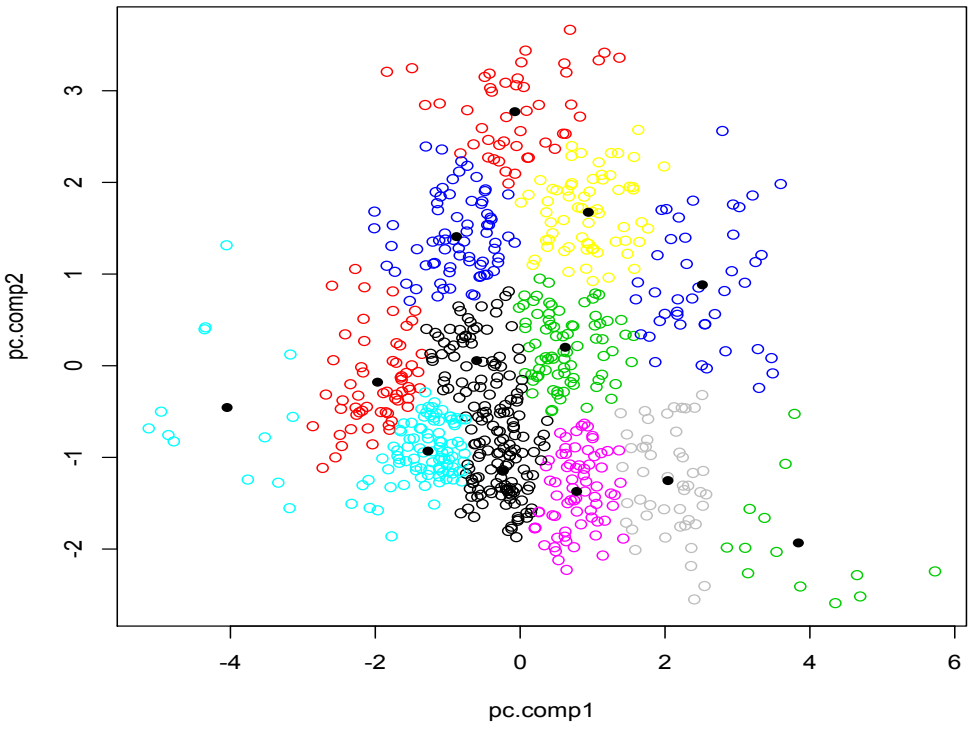
```
>RawData <- read.table("Desktop/pima-indians
diabetes.data",sep = ",",header=FALSE)

> RowData

> responseY <- RawData[,dim(RawData)[2]]
> predictorX <- RawData[,1:(dim(RawData)[2]-1)]
> pca <- princomp(predictorX, cor=T) # principal
components analysis using correlation matrix
> pc.comp <- pca$scores
> pc.comp1 <- -1*pc.comp[,1] # principal component 1
scores (negated for convenience)
> pc.comp2 <- -1*pc.comp[,2] # principal component 2
scores (negated for convenience)
>
>
> X <- cbind(pc.comp1, pc.comp2)
> cl <- kmeans(X,13)
> cl$cluster
> plot(pc.comp1, pc.comp2,col=cl$cluster)
> points(cl$centers, pch=16)
```

Screenshot:

```
> plot(pc.comp1, pc.comp2,col=cl$cluster)
> points(cl$centers, pch=16)
> X <- cbind(pc.comp1, pc.comp2)
> cl <- kmeans(X,13)
> cl$cluster
  [1]  2  1  3  1  5  8  1  8  9  7  3  2  2  5  2  8  5  8  6  6  4  7  2 13  2  2  2  1  7  3  2  4 12  8  2
 [36]  6  7  2  6  9 13  2  3  9  3  5 11  1 13 10  1 12  8  9  9 12  9  5 13  6 10  3  8  6  3 11 13  2 12 13
 [71]  6 13  2  4  1 10  3 11 12  1 12 10 13  1  2  6  2  6  2  1 12 13 13  7 11 13  1 12  1  5 13 12 12  1  1
[106]  6  8 13  1  6  4  9  1 12 13  7  3 12  1 12  5 11  6  7  1  6  4  6 13  3 13  3  4 13  1 11  6  1 11  4
[141]  3 13  1  7  4 12  3  4  7 12  4  8  9  5  2  9  1  1  1  9 13 13  4  1 11 13 11  8  8 11  3 13 12  6  1
[176]  9  3  5  2 13  8  6 12  8  3  2  9  4 13 13 12 13  3  3  8  4 12  1  4  4  6 11  1 12 13 11  9  2  1  2
[211] 12  4  2  4 13  9  6 13 11  3  5  2  8  2  1  1  1  6  5  6 13  9  1 11  1 13  9  4  2 12  1  6 12 13  4
[246]  2  7  5  9  1  3  8  1  1  2  6 11  1  4  9 13 12 11  2  8 13  1  4 12 12  9  1  8  6  7  4  8  1  7  6
[281] 11  2 13  7  3  2  5  5 12 13  6  6  5  4  3 13  4  4  2  7 12  6 11 13  8  4  2  1  4  4  8  6 11  1 13
[316]  6  8  3  6  7 11 11 11  2  6  6  4  7  4 11  2  1 11  7 12  5 12  3  9  2  1 11  1  3  7  2  1 10 12 11
[351] 11  3 11  1 11  7  4  3  2  5  4  7  2  2  4 11  8 12  1 13  5  1  1  6  4  9  1  6 13  4  6 12  1  1  1
[386] 12 13  2  9  6  6 13  6 11 13  4 11  6 12 13  8  7 13  3  3  6  3 12  2  5 13  6  5  1  6  5  1 13 12 11
[421]  4  1  6  1  9  4 10  4  4 13 10 11  1  8 11 12  2  3 12  3 13  1 11  3 11  5  1  6  6  1 12 11  6  8  6
[456]  2  3 11  9  2  3 12 13 11  3  1 12  6  8  4  4  6  6  7  8  3  4 11 13  2  4  6  1  6  1  4  5  9  8  7
[491]  6 11 11 13 10  7  8  1  2 13 11 11 11 13 13  3 13  6  1  7  7  1  7 12  1 13  9  7  7  2  1  6 10  7  8
[526] 12 12 11  6 12  6  6  4 12  6 12  8  8  4  4  9  4  2 11  6  9  9 11 13  9  1  6  7  1  6 13  6  7  2  3
[561]  7  5  6 11  1  1  6 13 13  6  8  8  1  1  4  6 11 11  3  9  4  8  7  3  9 12  3  8  9 10  9  4  3  6  4
[596]  4 11 12  3  1  1 10 11  2  8  6  5  1  4  1  1 13  9 13  2  8  3 12  2 12  4  6  2  6 12  4 12  1  3 12
[631]  3  6 12  6  8  7  3  1 13 12  6 11  7 12  6  5 11  4  2  1  1  6 13 12  6  5  1  5  7  6  7  5  9  9 13
[666]  6  2  3 13  2  9 12  2  5  7  3  7 12  8  6 12  4  6 11  7  4  8 12  6  9  3  2  4  9 12  9 13 10 13 11
[701]  4  2  9  8 11 11 10  6  7  6  4 13  2  6  8  9  4  7  6  3 11  6 13 13  3 13  4  6 11 12 11  3  4  6  3
[736] 11  6  3  6 11  9  1  1  2  9  2  4  4 13  7 11  4  1  5  2  4 13  3 11  2  1  2  8  2 11 11  8  1
```



Android Studio

Android voice recognition Screenshot: