Exercise 1:

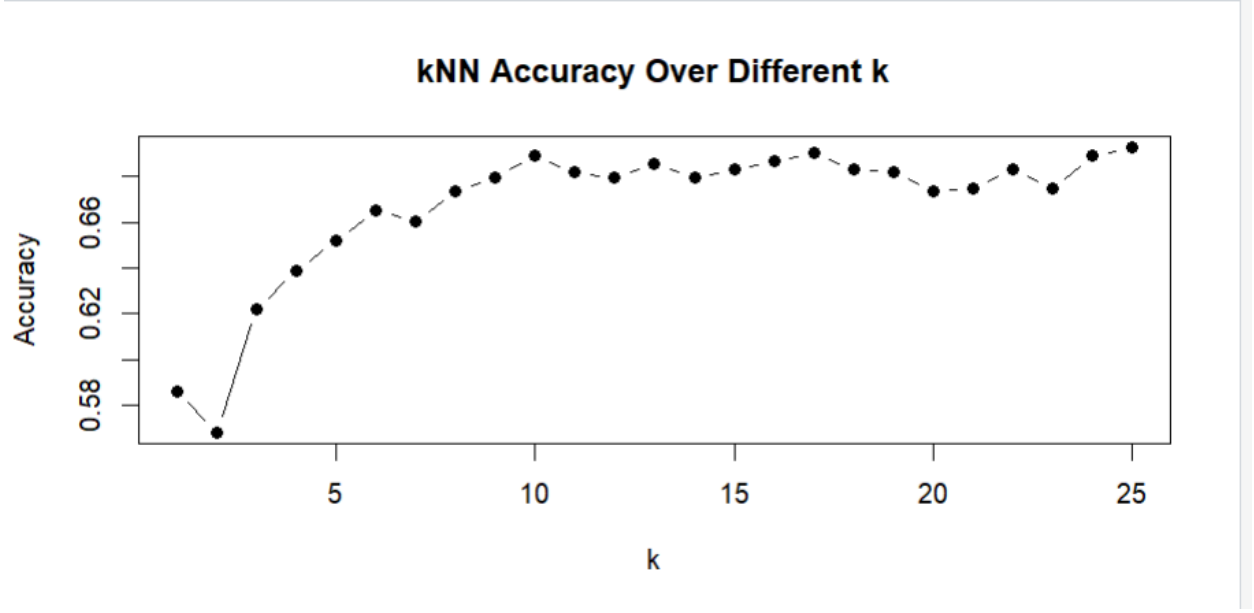
Model A Contingency Table

```
Contingency Table - Model A (size features)
> print(table_A)
         Actual
Predicted young adult old
    young   205    70  18
    adult    68   226  98
    old      17    70  64
```

Model B Contingency Table

```
Contingency Table - Model B (weight features)
> print(table_B)
         Actual
Predicted young adult old
    young   209    78   9
    adult    74   245  84
    old       7    43  87
```

Accuracy versus k Plot



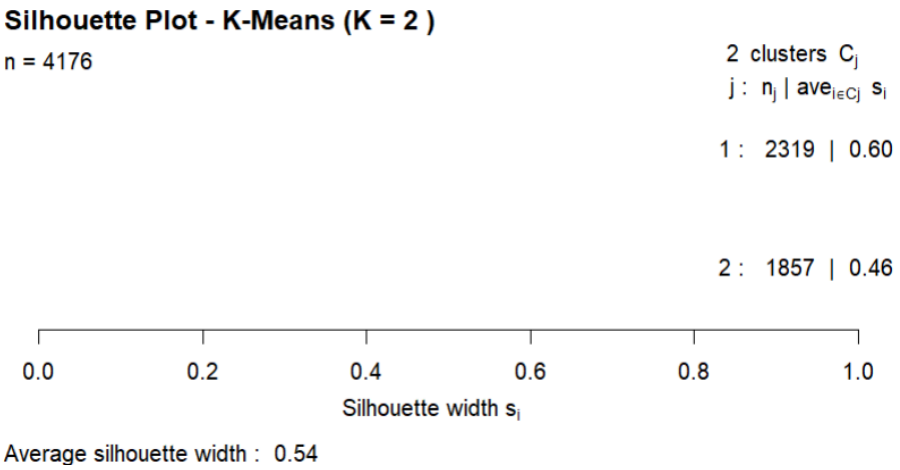

```
> cat("\nThe optimal k value is:", best_k, "\n")

The optimal k value is: 25
```

Exercise 2:

K-Means

```
> cat("Optimal K for K-Means:", best_k_kmeans, "\n")
Optimal K for K-Means: 2
```



PAM

```
> cat("Optimal K for PAM:", best_k_pam, "\n")
Optimal K for PAM: 2
```