



CSE - 4255 Data Mining and Warehousing  
Lab

*Comparison Between the Performance of K - Means  
and K - Medoids Algorithm in Clustering*

Saif Mahmud  
Roll: SH - 54

M. Tanjid Hasan Tonmoy  
Roll: SH - 09

**Submitted To:**

Dr. Chowdhury Farhan Ahmed  
Professor

&

Abu Ahmed Ferdaus  
Associate Professor

Department of Computer Science and Engineering  
University of Dhaka

October 27, 2019

- 1 Problem Definition
- 2 Dataset Description
- 3 Theory and Implementation
  - 3.1 K - Means
  - 3.2 K - Medoids
- 4 Evaluation of Clustering
  - 4.1 Elbow Method

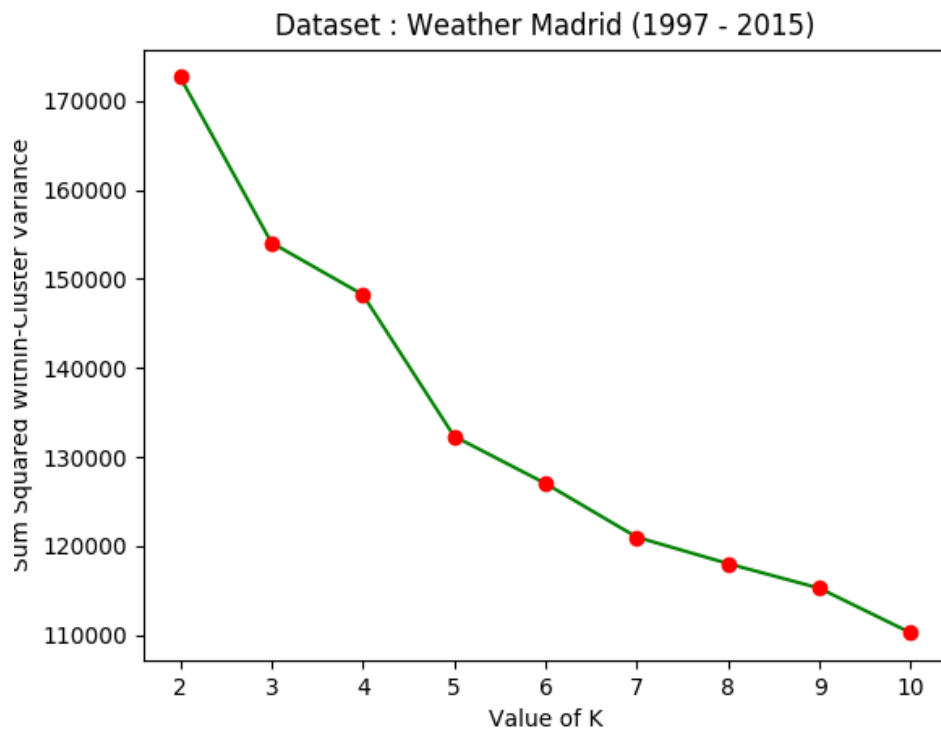


Figure 1: Determining Value of K through Elbow Method (K - Means)

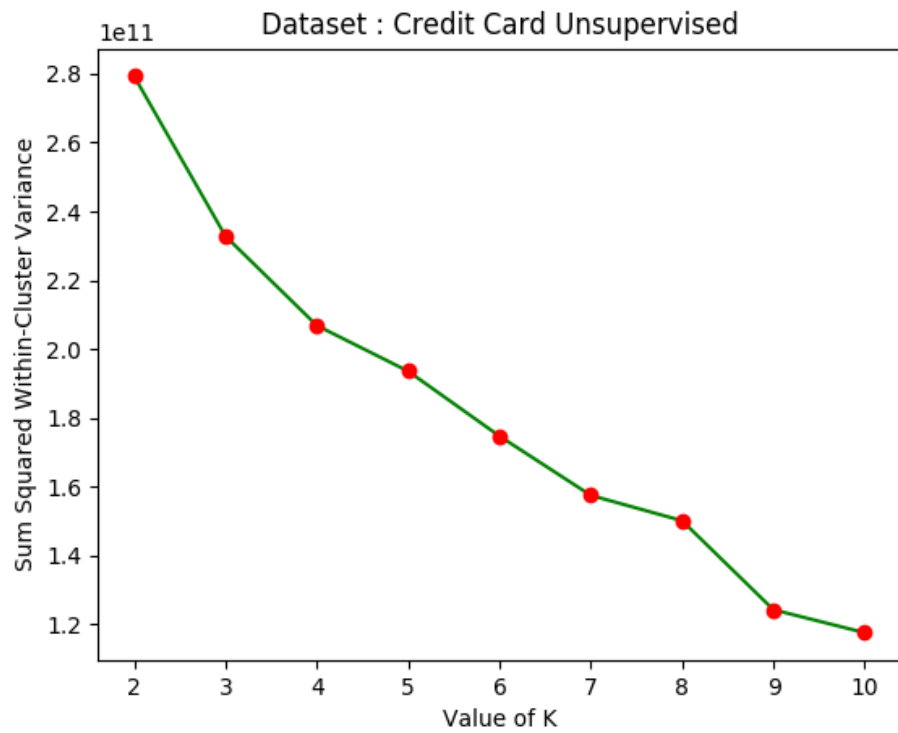


Figure 2: Determining Value of K through Elbow Method (K - Means)

## 4.2 Time Complexity Comparison

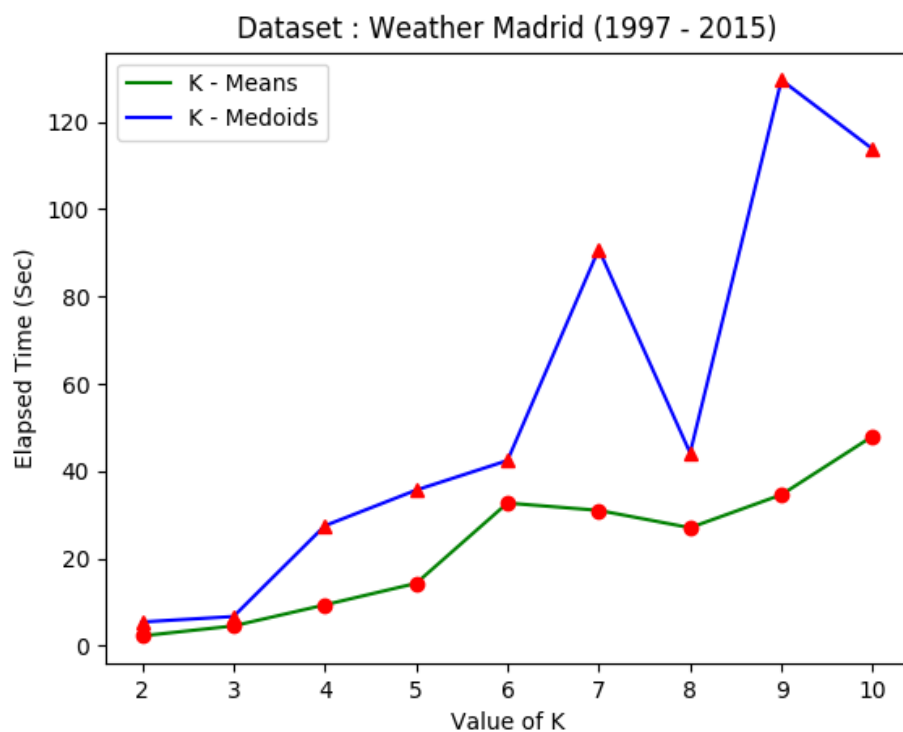


Figure 3: Comparison of Elapsed Time between K - Means and K - Medoids Algorithm

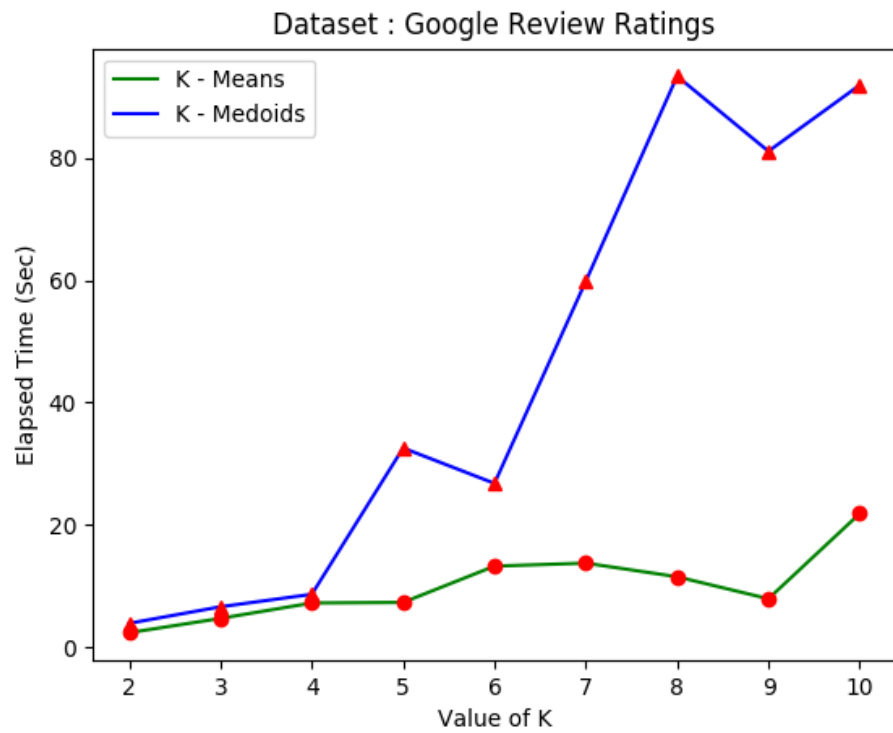


Figure 4: Comparison of Elapsed Time between K - Means and K - Medoids Algorithm

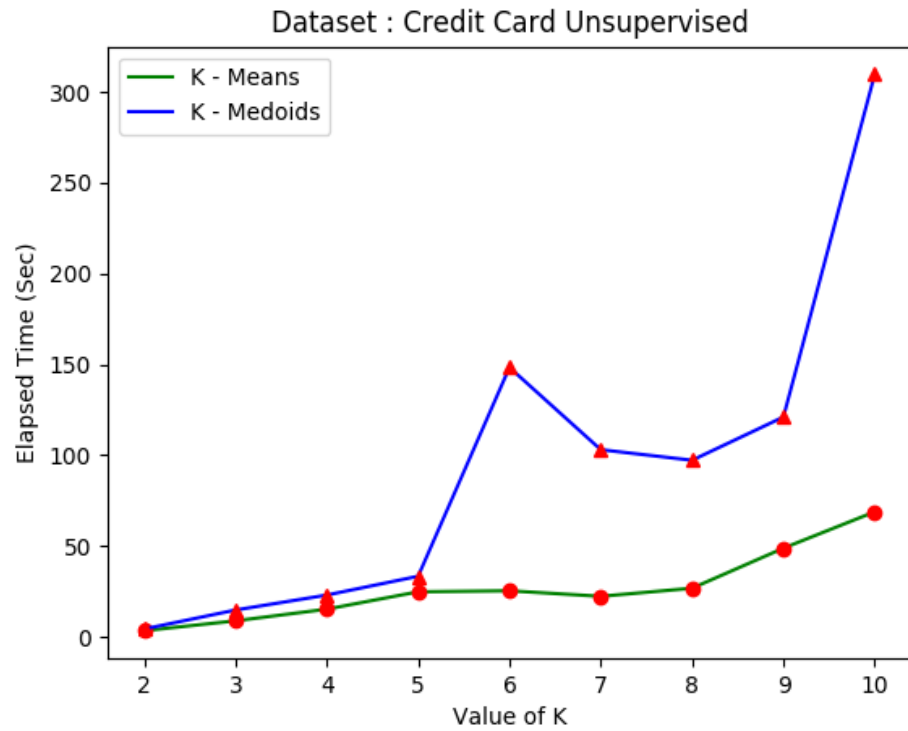


Figure 5: Comparison of Elapsed Time between K - Means and K - Medoids Algorithm

## 5 Conclusion