Plan:

1. Cluster analysis with quality assessment,
   1. Methods
      * K-means (M)
      * PAM (M)
      * AGNES (I)
      * DIANA (I)
      * Fuzzy C-means (M)
      * Gaussian mixture model (GMM)
      * DBSCAN (I)
      * Jarvis-Patrick
   2. Quality assessment of cluster analysis results.
      * comparison of average silhouette index values for different number of clusters K,
      * other internal indices assessing separation, compactness, etc.
      * cluster validation
2. Application of the selected dimension reduction method in connection with classification and cluster analysis.
   1. MDS (M)
      * in connection with the classification (I)
      * and clustering (M)
3. Conclusions: what can be concluded from the analyses carried out? How these conclusions could be put into practice? (e.g. development of a new/better strategy in the company, new/better diagnostic method, etc.). (I)
4. Further research suggestions: Short information on further possible directions of research (what could/should be further studied and what additional methods/algorithms could be used?) (I)