## CSE225 Data Structures Project#3 Report

In this project we were expected to find influencer people in a social graph. Program takes input from a txt which are names in a sequence: Name; friend, friend .... Number of people may change. Here is a example input:

Cem; Ayse, Ferit, Dundar

Ayse; Cem, Ferit, Dundar, Belma

Belma; Ayse, Dundar, Edip

Edip; Belma, Dundar, Gamze

Dundar; Ayse, Belma, Cem, Ferit, Gamze, Edip

Gamze; Dundar, Edip, Ferit, Halit

Ferit; Ayse, Cem, Dundar, Gamze, Halit

Halit; Ferit, Gamze, Ilke

Ilke; Halit, Jale

Jale; Ilke

Here are the outputs of the program:

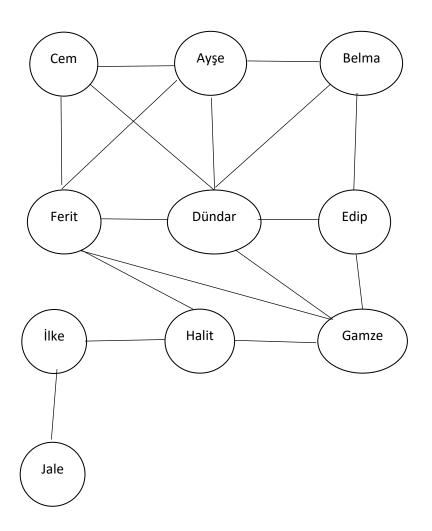
## Adjancency Matrix:

|        | Cem | Ayşe | Belma | Edip | Dündar | Gamze | Ferit | Halit | İlke | Jale |
|--------|-----|------|-------|------|--------|-------|-------|-------|------|------|
| Cem    | 0   | 1    | 0     | 0    | 1      | 0     | 1     | 0     | 0    | 0    |
| Ayşe   | 1   | 0    | 1     | 0    | 1      | 0     | 1     | 0     | 0    | 0    |
| Belma  | 0   | 1    | 0     | 1    | 1      | 0     | 0     | 0     | 0    | 0    |
| Edip   | 0   | 0    | 1     | 0    | 1      | 1     | 0     | 0     | 0    | 0    |
| Dündar | 1   | 1    | 1     | 1    | 0      | 1     | 1     | 0     | 0    | 0    |
| Gamze  | 0   | 0    | 0     | 1    | 1      | 0     | 1     | 1     | 0    | 0    |
| Ferit  | 1   | 1    | 0     | 0    | 1      | 1     | 0     | 1     | 0    | 0    |
| Halit  | 0   | 0    | 0     | 0    | 0      | 1     | 1     | 0     | 1    | 0    |
| İlke   | 0   | 0    | 0     | 0    | 0      | 0     | 0     | 1     | 0    | 1    |
| Jale   | 0   | 0    | 0     | 0    | 0      | 0     | 0     | 0     | 1    | 0    |

## Degree Centrality:

| Person | Score | Standardized Score |
|--------|-------|--------------------|
| Cem    | 3     | 3/10               |
| Ayşe   | 4     | 4/10               |
| Belma  | 3     | 3/10               |
| Edip   | 3     | 3/10               |
| Dündar | 6     | 6/10               |
| Gamze  | 4     | 4/10               |
| Ferit  | 5     | 5/10               |
| Halit  | 3     | 3/10               |
| İlke   | 2     | 2/10               |
| Jale   | 1     | 1/10               |

This is the graph user can draw from this information (this is not drawn in code).



If you look at closeness Ferit is the most important, if you look at degree Dündar is most important.

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