# Gebze Technical University Computer Engineering

**CSE 222 - 2018 Spring** 

**HOMEWORK X REPORT** 

# **Erkan Yılmaz 161044044**

Course Assistant:

# INTRODUCTION

#### **Problem Definition**

In this homework, we will extend abstract graph class for get relations of people. And try to find populer peolpe in this habitat. We have a data set file, in this file we learn which peaople see other people popular. Read them in this file and manuplate them.

#### System Requirement

This program needs at least 400 kb memory.

It needs a data set files.

# **METHOD**

Class Diagrams

### **Use Case Diagrams**

There is three static test metods in public static void main metod.

We read data in a file. Put them in a graph. And find number of people who liked by everyone.

Print it out.

## **Problem Solution Approach**

We create class GraphAjdacencyMatrix that extend adt graph .And add some vertex to it.

#### **Test Cases**

I write test metods in every class to test them

# Time Complexy of some of my classes

```
public void addEdge(int source, int destination) =======>0(1)
public void printGraph() =========>0(n^2)
public void getTC() warshall algorthm worscase ======>0(n^3)
public void deleteEdge(int source, int destination) ======>0(1)
```

public int numberOfPopulerPeople() =========>>0(n^2)