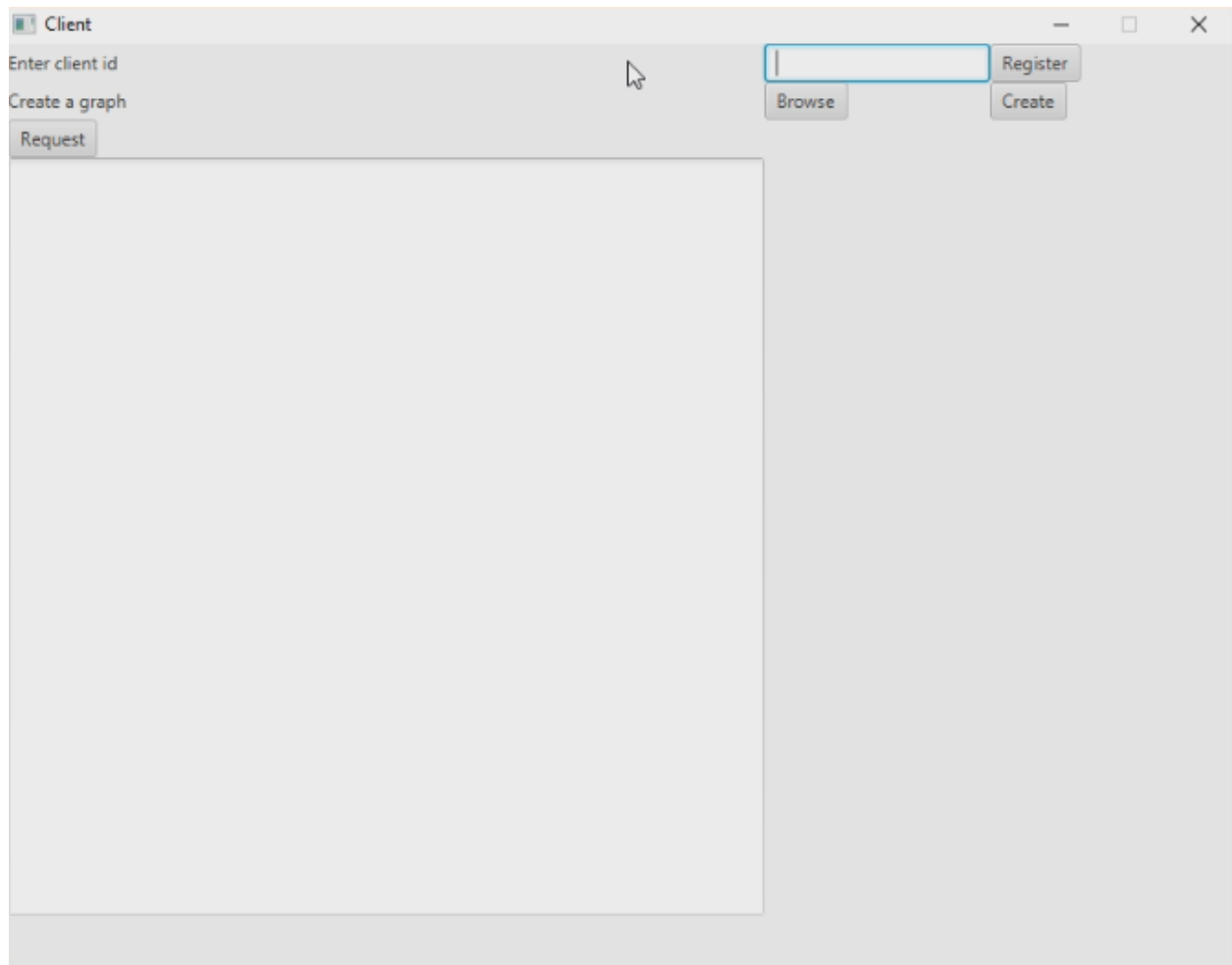


I designed a GUI for a client for taking input and showing the output of graph operations that are provided by BulutCizge AS.

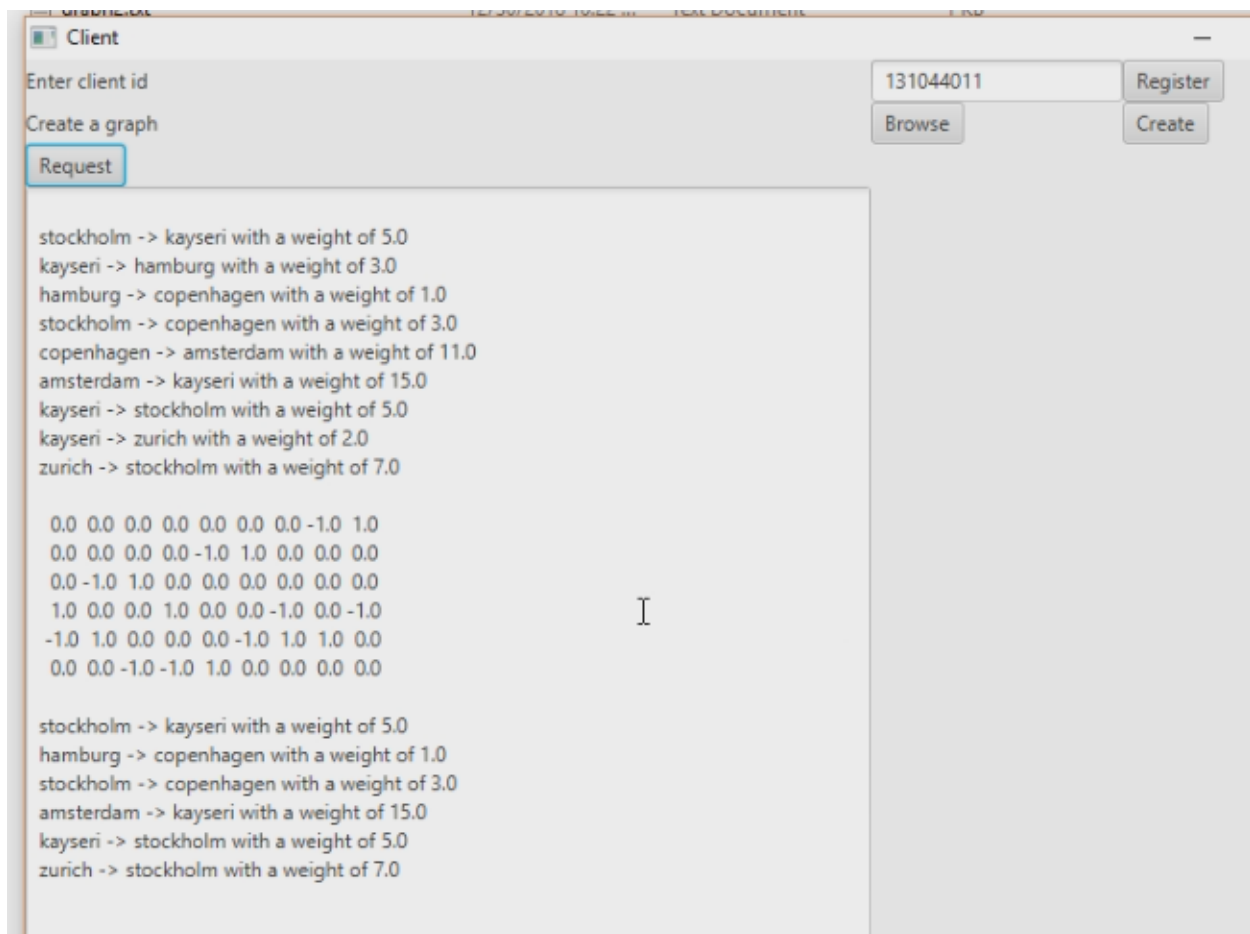


Client interface takes a client id for registration process. It must be a unique integer value otherwise the client will be logged in the existing account.

The client must provide an input text file for constructing a graph. Input file must follow the design below in order to be accepted by my program.

```
graph1.txt - Notepad
File Edit Format View Help
6
zurich amsterdam hamburg stockholm kayseri copenhagen
stockholm kayseri 5
kayseri hamburg 3
hamburg copenhagen 1
stockholm copenhagen 3
copenhagen amsterdam 11
amsterdam kayseri 15
kayseri stockholm 5
kayseri zurich 2
zurich stockholm 7
```

The first line contains the number of vertices that are used to create the graph. The following, the second line, are the names of the vertices. And after that, each line corresponds to a new edge.



Let's assume that incidence matrix is denoted by `matrix[][]`. Vertices that are read from the file respectively represent from `Matrix[0][0]` to `Matrix[n][0]`. And edges represent from `Matrix[0][0]` to `Matrix[0][n]`

Every client has 50 credits initially and each operation costs client 10 credits. If it runs out of credits, the server throw an exception.