

# Final Project Design

## Network

\* set like System of SSSQs?  
Reads file, creates based on first int  
edges are pointers to Computers  
Might create graph  
for easier implementation  
of Matrix

## Computer

needs id

FIFO Queue <Messages>

Pointer to edges

Delay Task for message processing  
call dijkstra and implant  
as a vector in variables?  
or have as function to create path.  
Pointers act as directed Edge

## FIFO Queue

copy FIFO

statistics

- average size
- maximum size
- average in queue

## Message

Entity

id

Computer src

Computer dst

Time created time

Time delay in time

int stops

int total wait time

## Edge

Need edge  
statistics or  
functions?

## 1) Shortest Path

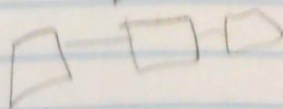
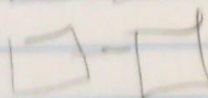
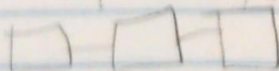
- look up algorithm
- all weights are 1

## 2) Dynamic

- call after each Process Message
- edge weight is Queue Size

Adjacency Matrix? more memory  
easier execute

Adjacency?  
Requires knowing Queue



or

$$\begin{Bmatrix} 0 & 1 & 1 \\ 1 & 0 & 0 \\ 1 & 1 & 0 \end{Bmatrix}$$