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Project 2014
Concurrent, Parallel and Distributed Computing

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Overview

- Challenge
- Ideas and implementation
- Problems
- Improvements

Challenge

- Graph interactivity:
  - Add/remove vertices
  - Add/remove edges
  - Change weigth
  - Calculate shortest path
  - …

Implementation

- Basic functions

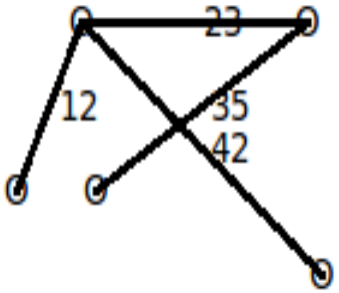
```
Usage:
n)    new graph
aV)   add vertex
rV)   remove vertex
aE)   add edge
rE)   remove edge
chW) change edge weight
gW)   get edge weigth
shPath)shortest path
imPath)improved path
dG)   delete graph
s)    show data
v)    visualize
Q)    quit

>
```

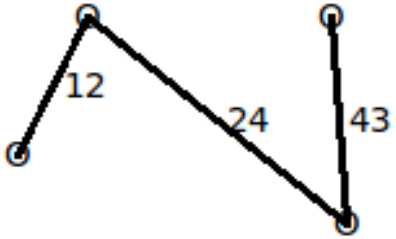
Implementation (2)

- “Internal functions”
  - Usage/1: shows all the available functionalities for user
  - Cm/1: prepares file .txt that describes the graph
  - Makelist/1: gives random (x,y) coordinates and puts these results into **ets** table

Implementation (3)

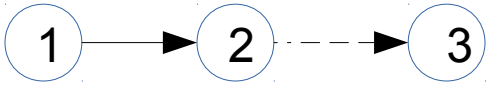
- Ermdrawer (visualize method)





Implementation(4)

- Chandy Misra
  - shPath
  - ImPath (simple case)



- Demo

Problems

- Closing ermdrawer window
- Improved path (difficult case)
- Exceptions
- Global variables

Improvements

- Improved path (difficult case)
- GUI (graphically add vertices/edges instead)
- Messages that guide user in case of wrong request

Thank you for your attention =)

Questions?