STUDENT NUMBER: 219001437

SURNAME AND INITIALS: MKANSI P

MODULE NAME: COMPUTER SCIENCE 3A

MODULE CODE: CSC03A3

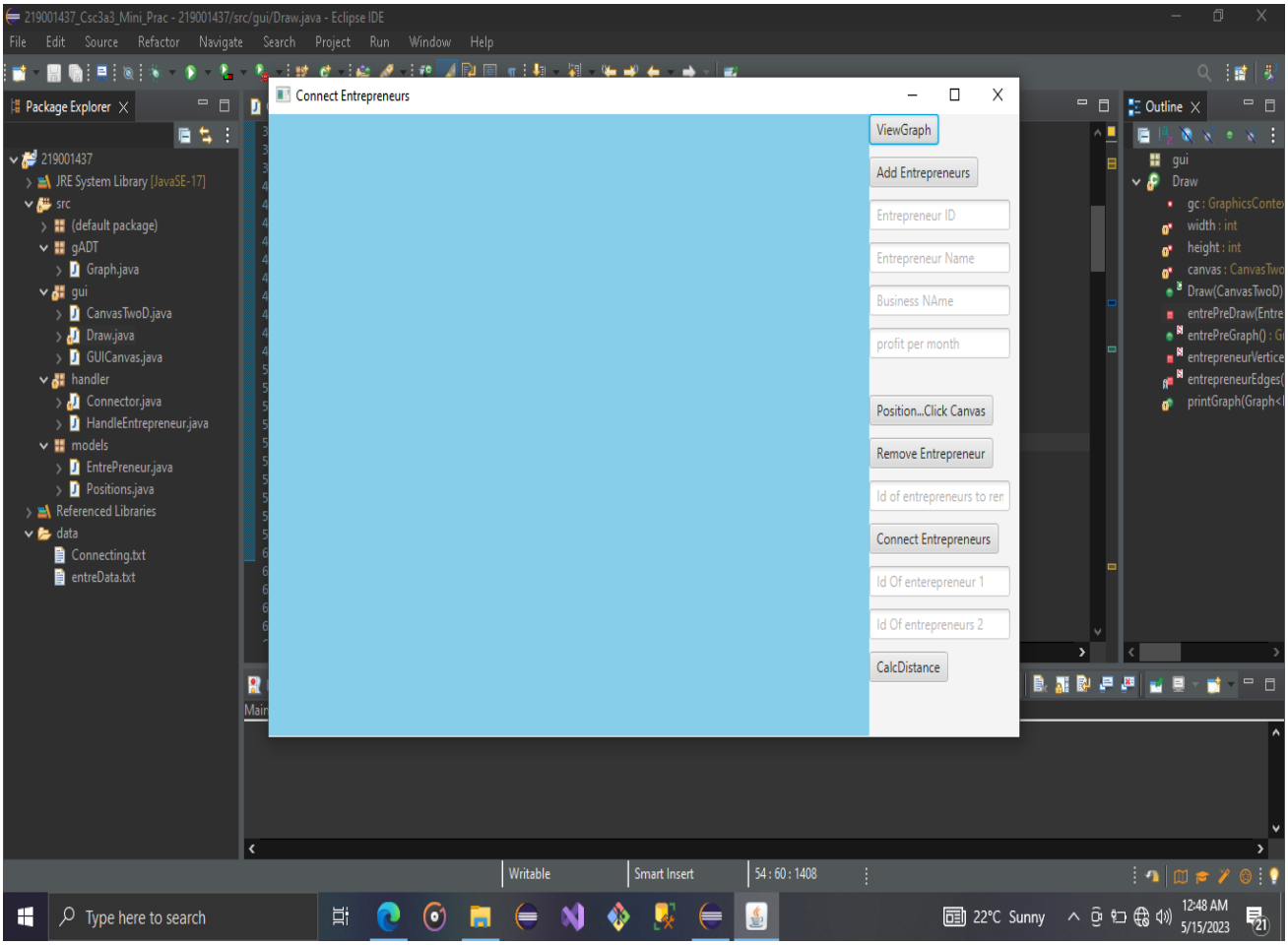
2023 SOCIO ECONOMIC PROBLEMS PROJECT

Problem:

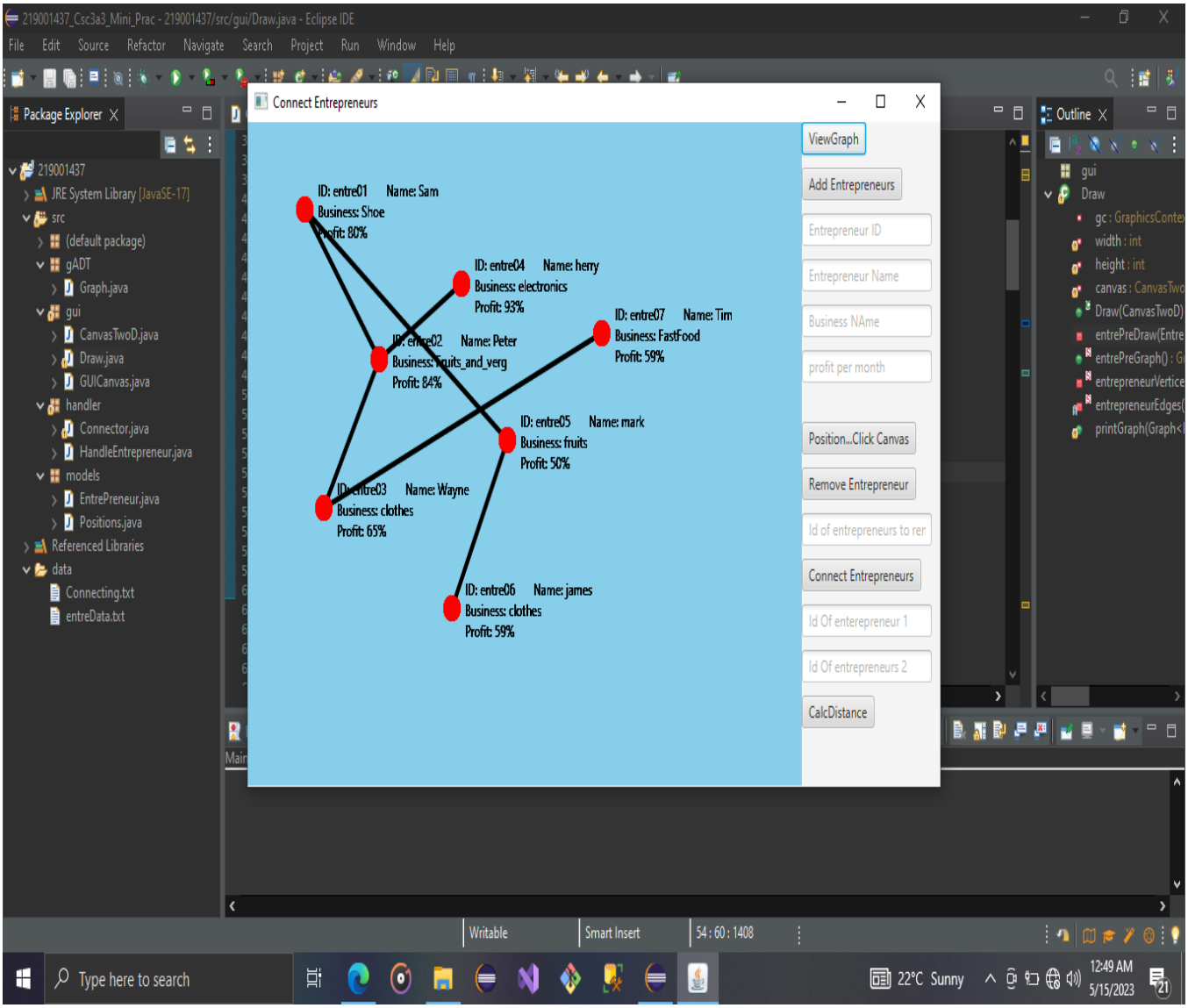
- Sum Entrepreneurs or small time business owners are struggling to make their businesses grow and they have low profit.

Solution:

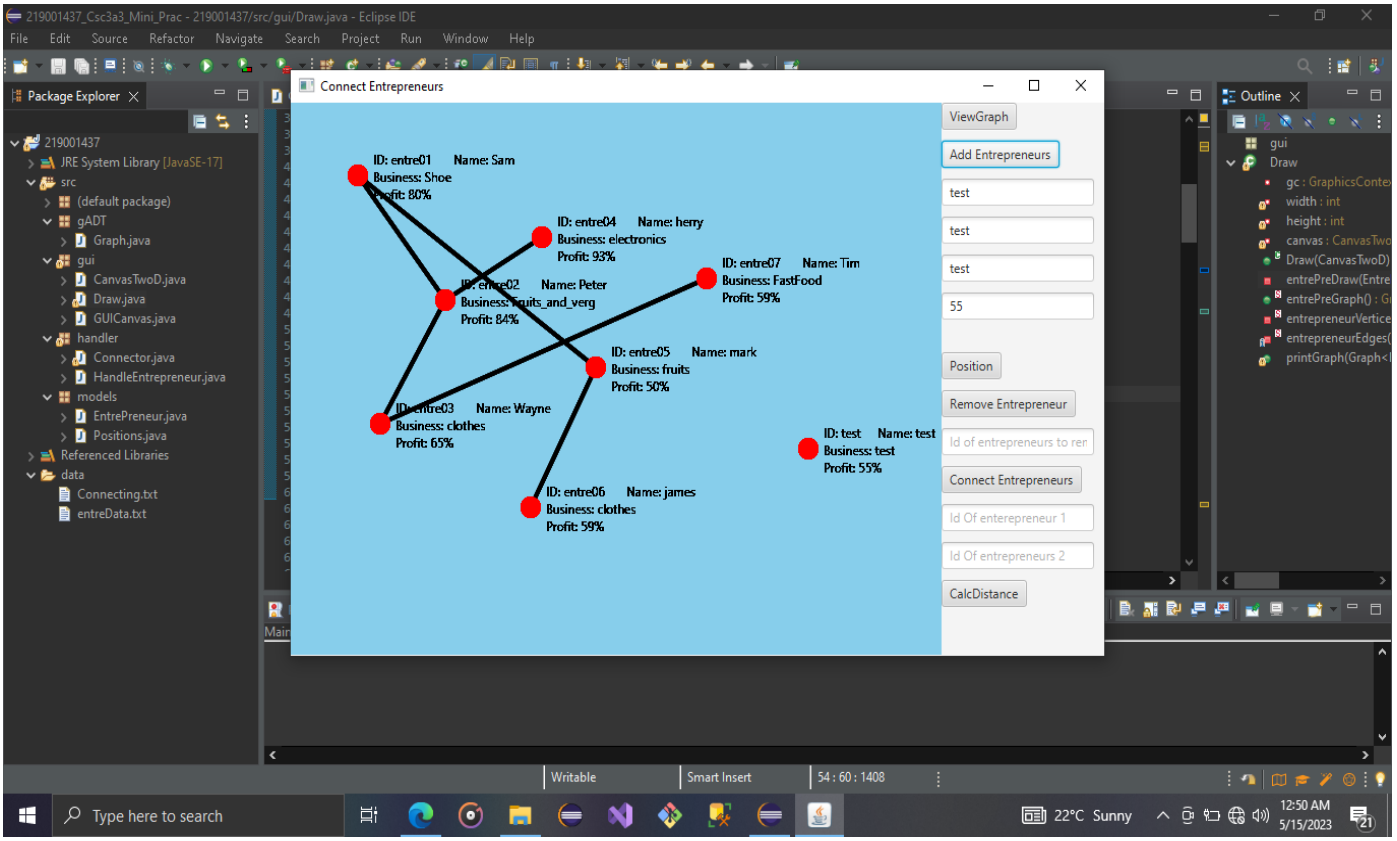
- Connect the struggling entrepreneurs with the ones striving so that all entrepreneurs find success.



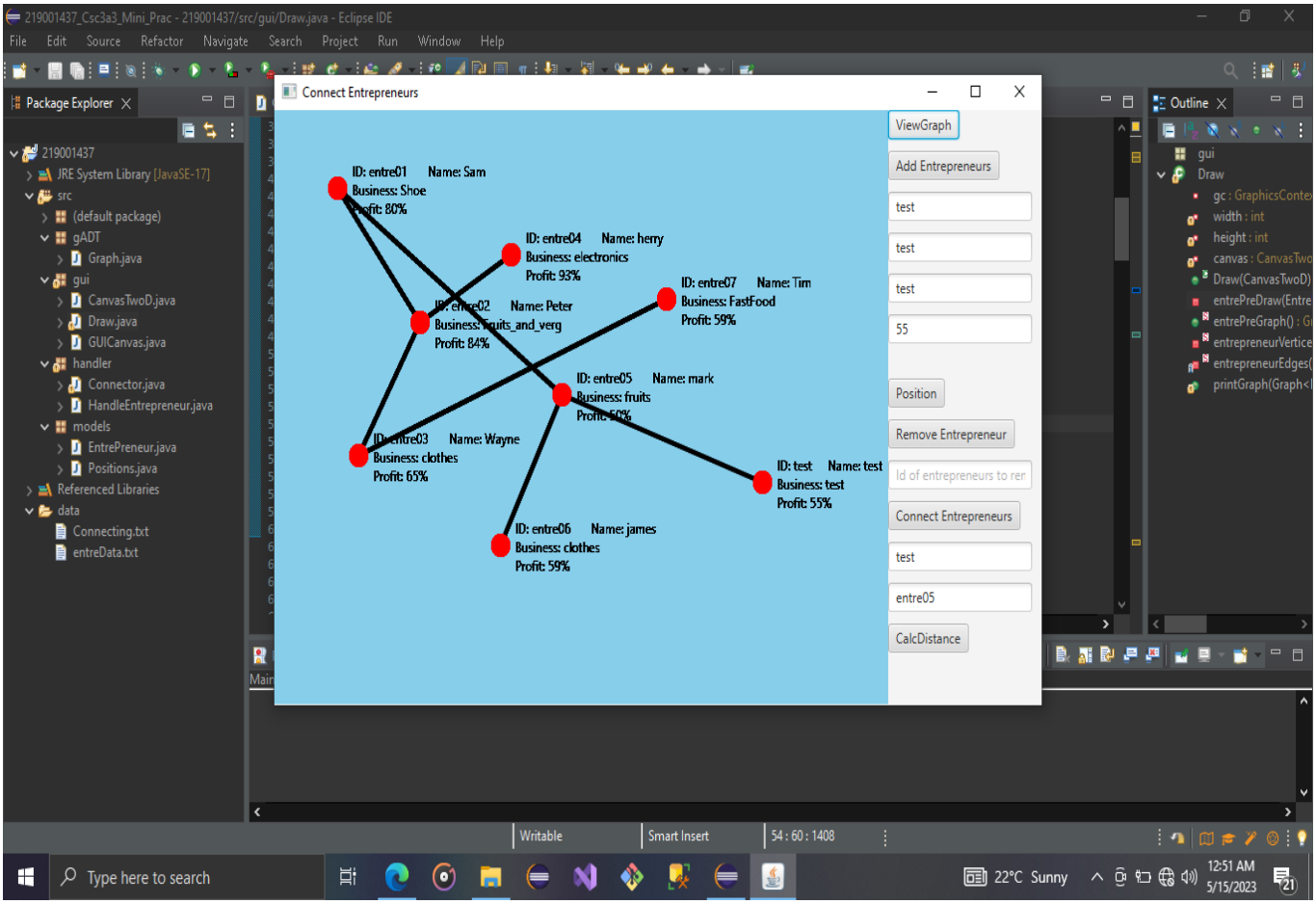
- Run the project
- An empty canvas will be displayed with a graphical user interface
- Click button view Graph
- Graph is displayed with entrepreneurs as nodes



- Add new entrepreneur to the canvas
- Type in an entrepreneur's id, name, business name and profit made each month as an integer.
- Click the position button
- After clicking the position button click anywhere on the canvas u want new entrepreneur to be drawn
- After that on the position button coordinates will appear
- Then click the add entrepreneur button

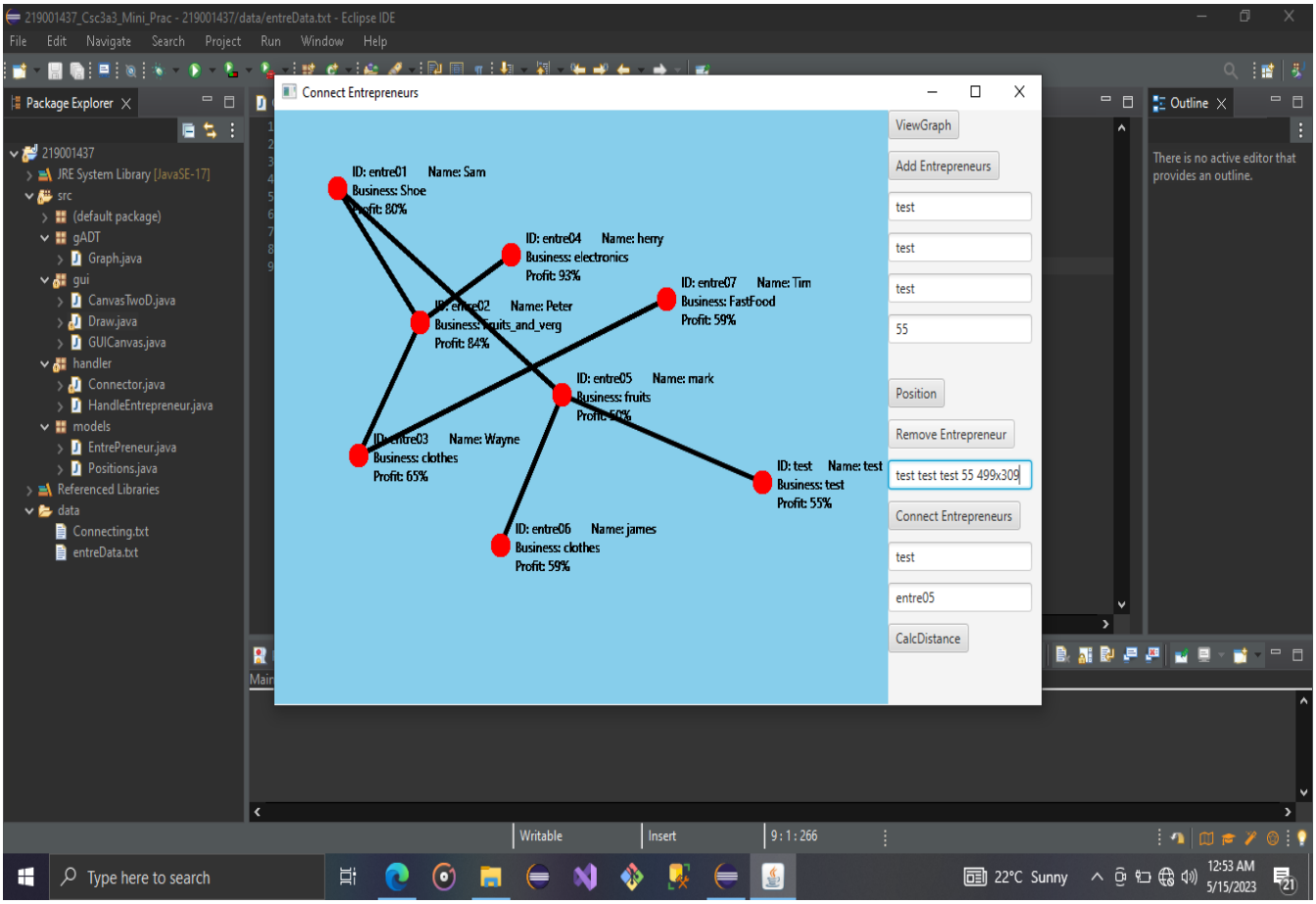


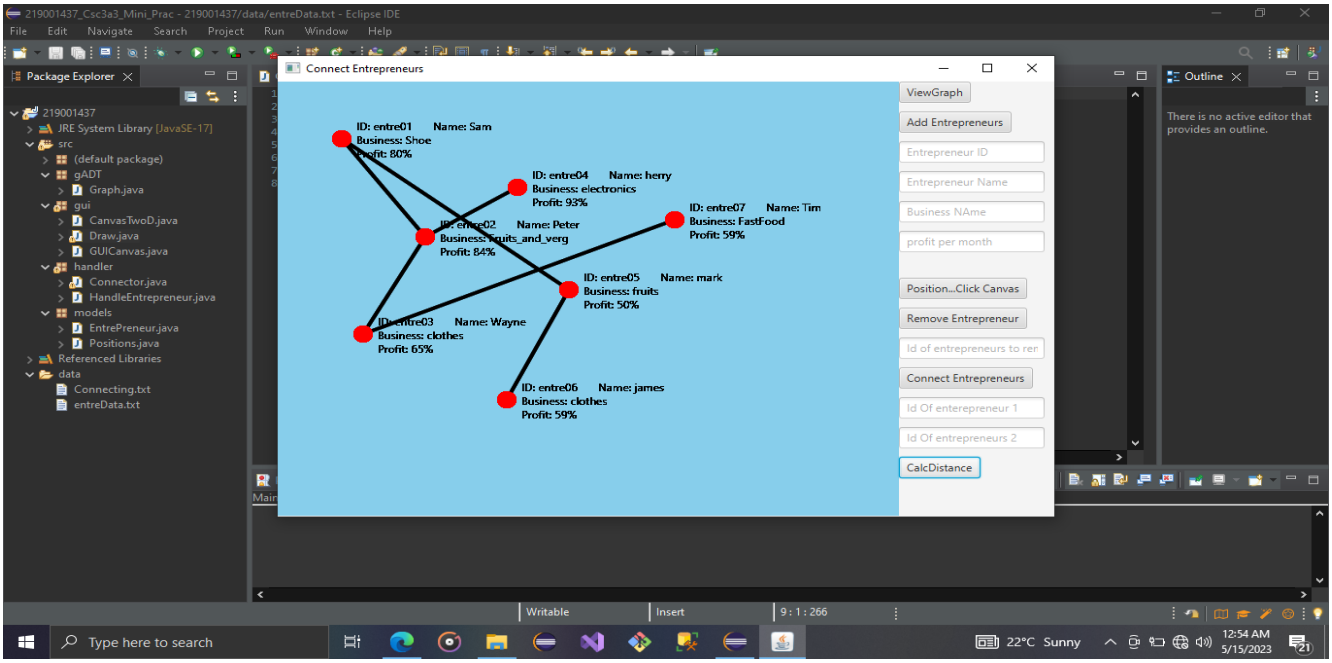
- If the entrepreneur added has a low profit percentage therefore connect them to a entrepreneur with high profit so that they can help them grow.
- Or connect them to entrepreneur that's connect to the one with a high profit but chose the one with less connections.
- Chose the one with the shortest path
- Connections are made by taking ID's of entrepreneur's you want to connect and write them to a text field and click button connect entrepreneurs.
- After clicking button connect intrapreneur's click the button view graph again to display the new connections made
- Therefore connections will be made
- - you can make as many connections as you want



Removing:

- Removing a node or entrepreneur
- To remove a node write the id, name, business name, profit and coordinates of the text field remove entrepreneur
- Leave a space between the data e.g. (testID sam Home_Food 66 234x88)
- The xon (234x88) separates the x and y coordinates of the node
- Get the coordinates on the text file
- Therefore click button remove
- After you must terminate the program and start it again then the data will be deleted dis only works for delete the other functions will sav their data to the file so t doesn't atter if u terminate if u open again the data will still be there on the text file and displayed on canvas


Connect Entrepreneurs
ID: entre01 Name: Sam
Business: Shoe
Profit: 80%
ID: entre04 Name: herry
Business: electronics
Profit: 93%
ID: entre07 Name: Tim
Business: FastFood
Profit: 59%
ID: entre02 Name: Peter
Business: fruits_and_verg
Profit: 84%
ID: entre05 Name: mark
Business: fruits
Profit: 50%
ID: entre03 Name: Wayne
Business: clothes
Profit: 65%
ID: test Name: test
Business: test
Profit: 55%
ID: entre06 Name: james
Business: clothes
Profit: 59%
ViewGraph
Add Entrepreneurs
test
test
test
55
Position
Remove Entrepreneur
test test test 55 499x309
Connect Entrepreneurs
test
entre05
CalcDistance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Business: fruits
Profit: 50%
ID: entre03 Name: Wayne
Business: clothes
Profit: 65%
ID: entre06 Name: james
Business: clothes
Profit: 59%
ViewGraph
Add Entrepreneurs
Entrepreneur ID
Entrepreneur Name
Business NAme
profit per month
Position...Click Canvas
Remove Entrepreneur
Id of entrepreneurs to rer
Connect Entrepreneurs
Id Of enterepreneur 1
Id Of entrepreneurs 2
CalcDistance

Button calc distance:

- Using DIJSTRAS ALGORITHM it calculates the shortest among the nodes you want to connect