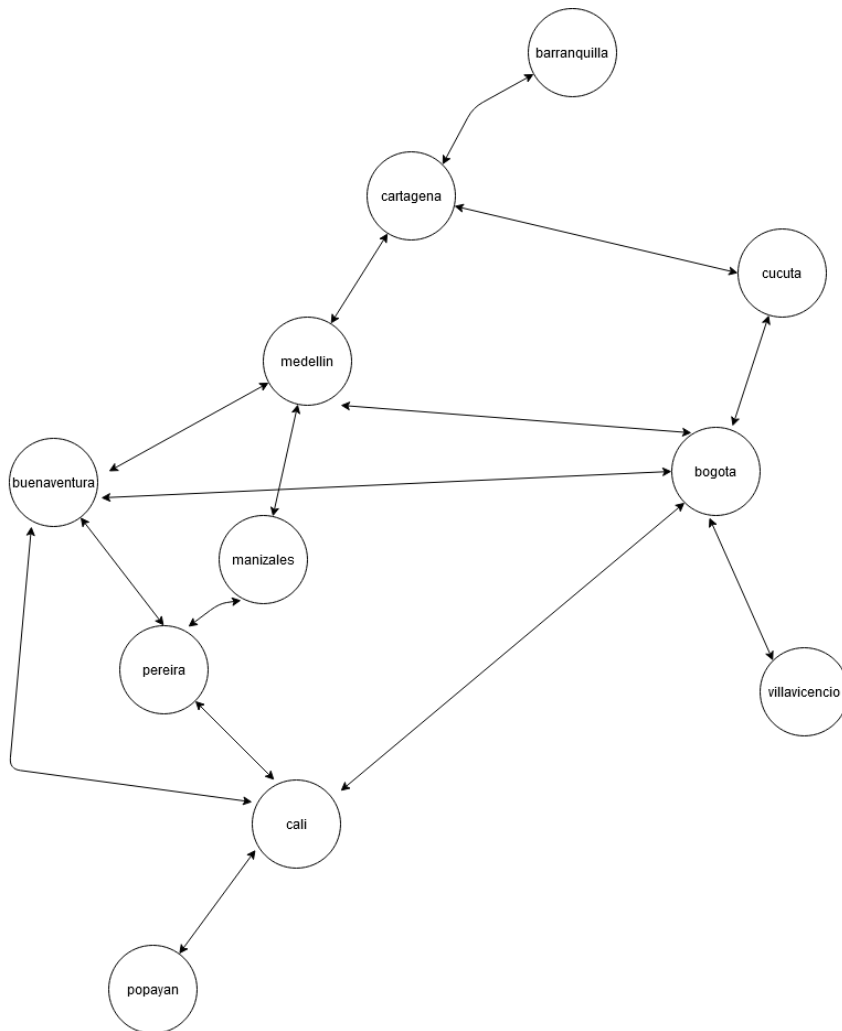


Relational data base ,with an bsf algorithm to serach for the optimal path

The source coude of this project you could find it in
https://github.com/esmerin/terminal_transporte:

This code what it does is find the optimal path between two nodes by
the condicion of minimum

length, and also make a query to the database to know if that path if
open at the moment:



(F.1)

The bfs algorithm is in:

ubicado en: https://github.com/esmerin/terminal_transporte/blob/master/IA%20calcular_ruta%20python/calcular_ruta.py

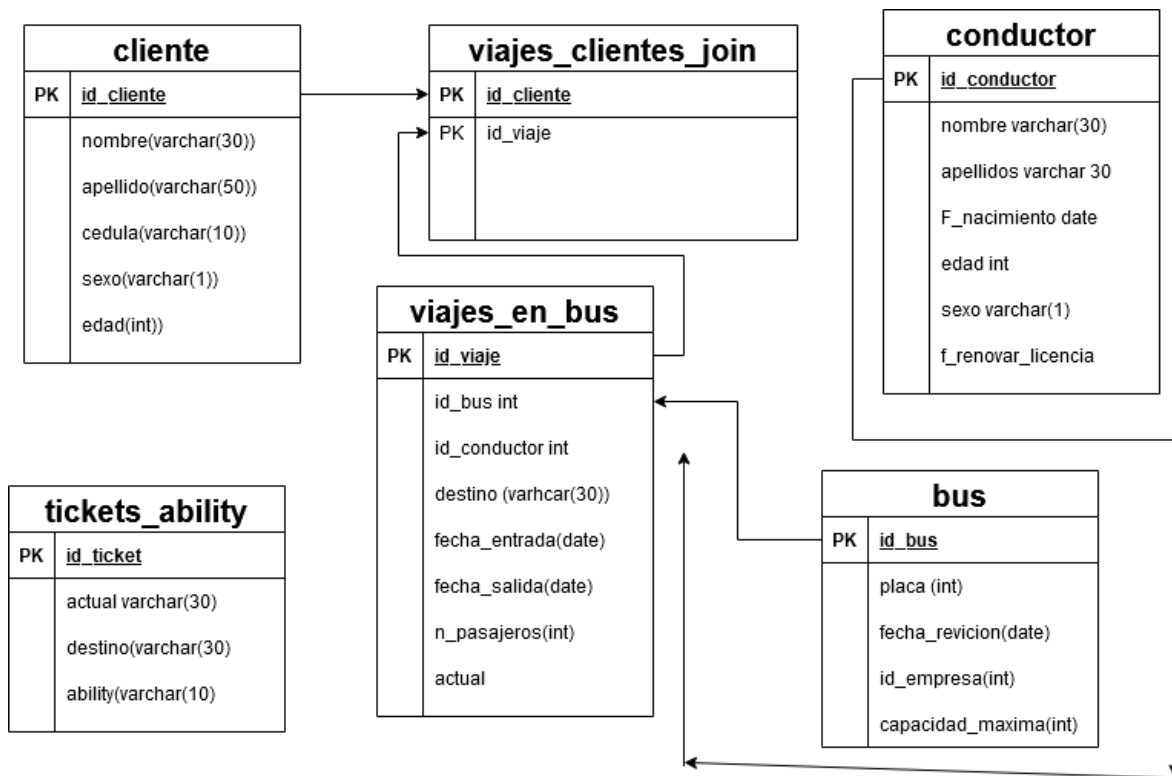
The only change to a normal bfs is that each cycle it query the database with the library pymysql if that route is possible or not for whatever reason, maybe the weather or just all tickets were sold

This program has one exception:

Unable to open error#1 this means that python is unable to query or access to the database

All the data for the database were generated by the file create_csv.py with random method. But consistent for the graph in (F.1) path like Popayan – Buenaventura has not direct path, it wasn't generated

That file generate the files: bus , tabla_cliente, tabla_viaje, tickets_bol, viajes_clientes_join all in the folder "tablas csv"



F.2

The table tickets_ability: gives the information about the ability to run that particular path, from "actual" to "destino" it can be true or false , in text format , this is the table that is used by python.

Viajes_clientes_join: this table make a relation between the travelers and the route they are in

the querys that I made are in:

https://github.com/esmerin/terminal_transporte/blob/master/query/queries_varias.sql

by order are :

- People who travel to Pereira
- The travels what were made by a specific bus to Pereira
- The travels that the user 8050 did to diferent regions of Colombia

- Average age of the travelers
- Number of people under age
- Percentage of people who travel to bogota and are under age
- Percentage of people who are between 20 and 30 and traveled to bogota