

Management Information Systems Group Project

Group Project Report

Date: 06-12-2021

Project Requirements:

Project: Database Management System of a Company

Let us consider a company that sells smartphones. It is composed of different agencies in different Chinese cities. Each agency is managed by an official manager and a set of workers. Each worker processes transactions for selling devices. A warehouse is used by each agency for locally saving the smartphones. An agency can use warehouses in other cities if devices are not available in the local one. The customers contact agencies for buying devices to be delivered at home. The delivery is done by drivers.

1. Develop an application that allows to manage smartphones in warehouses, to command others from other warehouses, to sell smartphones, to manage the delivery process,
2. Develop an application that allows to know the best active agencies and their business, the best active workers and the gains that, the best customers that frequently buy new smartphone and the best active drivers.

Our Group Member and Contribution

1. **GOH LI HAN, 2018059078**

- Manage project roadmap
- Database Design and Query
- User Interface and functions
- Project document

2. **LAI MINGYI, 2018054619**

- Database Design and Query
- User Interface and functions
- Project document

3. **YE HAIPING, 2018054615**

- Database Design and Query
- User Interface and functions
- Project document and PowerPoint

How to run this project on your pc

1. Download project file from [Here](#)
2. Open the project folder.
3. Run **Main.py** in your python terminal.

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File Descriptions

Main File

1. `Main.py` All the functions are here, Run this file in terminal.
2. `CreatingDatabase.py` Create database with preset tables.
3. `AddingData.py` Input the preset data to the database.
4. `system.db` The database file created from `CreatingDatabase.py`, delete before you create a new database.

Not Crucial File

5. `DbFunction.py` We use to test our Python+SQLite functions

Project Plan

Languages we use: Python, SQLite

Tools we use:

1. SQLite3 from python (database)
2. Tkinter from python (GUI)
3. DBeaver (to test our query)
4. Visual Studio Code, PyCharm
5. Github (for version control and collaboration)

We use Python and SQLite to create the database and functions, then we use Tkinter to create the User Interface so that we can interact with the database by clicking the buttons in GUI.

We use SQLite because it is serverless, convenient to use without install or setup anything, and also easy to build query than others.

We also use Github for idea exchange and code collaboration, and most importantly, we use it for version control during development.

Roadmap

- ☒ Setup Github repository (18-11-2021)
- ☒ Creating Tables and Database (24-11-2021)
- ☒ Fill in the Data (26-11-2021)
- ☒ Complete the query to fulfill the requirements (04-12-2021)
- ☒ Make a GUI and bind all functions into it (06-12-2021)
- ☒ Test, Debug, Refine (06-12-2021)
- ☒ Docs and PPT (06-12-2021)
- ☒ **Finished** (06-12-2021)

Requirement 1

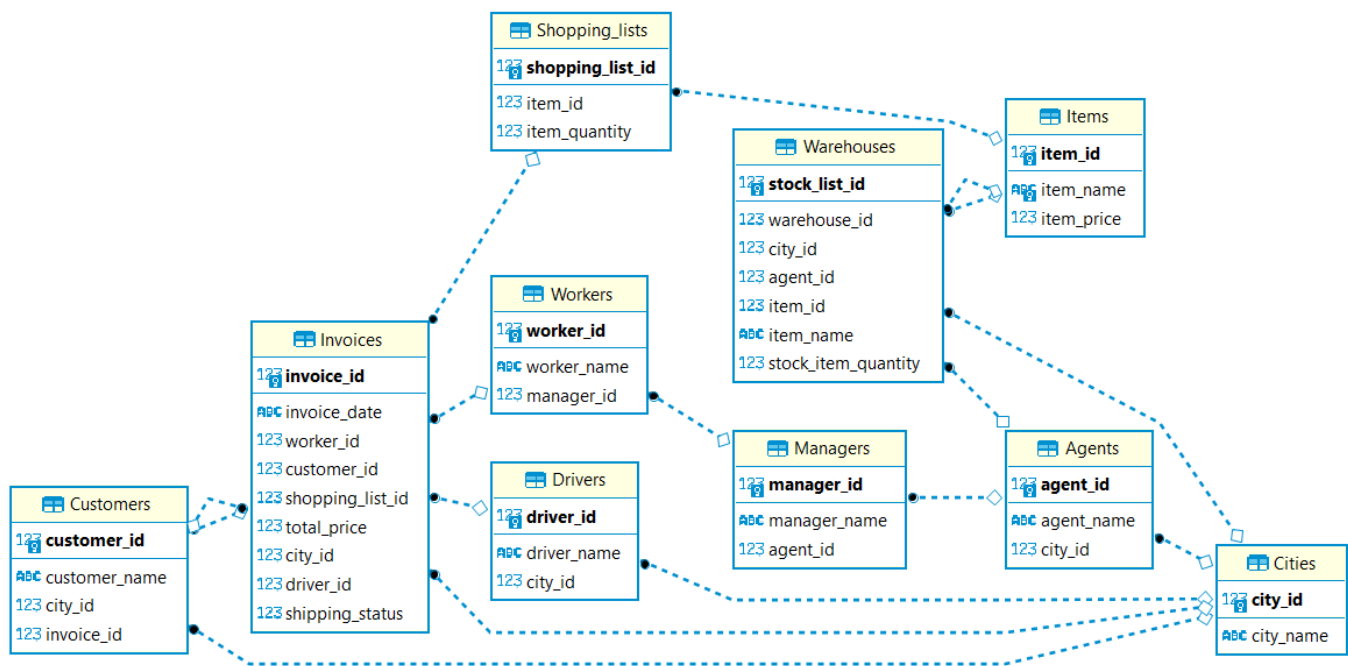
- ☒ Warehouse can manage their stocks
- ☒ Command between warehouses(changing invoices location)
- ☒ Able to create new invoices (making sales)
- ☒ Able to manage delivery process (changing the delivery status)

Requirement 2

- ☒ Show the Best active agents and their sales result
- ☒ Show the Best active workers and their sales result
- ☒ Who is the Top new phone buyer
- ☒ Who is the Top active driver

Result

Database ER Diagram



The GUI

AAA Company

Invoice Id	Invoice Date	Worker Id	Customer Id	Shopping List Id	Total Price	City Id	Deliver Id	Shipping Status
1	2021/11/11	1	1	1	12000	1	1	2
2	2021/11/11	2	2	2	6000	2	2	2
3	2021/11/11	3	3	3	3000	3	3	2
4	2021/11/11	4	4	4	4000	4	4	1
5	2021/11/11	5	5	5	6000	5	5	0
6	2021/11/11	1	1	6	12000	1	1	2
7	2021/11/11	2	2	7	6000	2	2	2
8	2021/11/11	3	3	8	3000	3	3	2
9	2021/11/11	2	2	7	6000	2	2	2

Commands

Record

Invoice Id Invoice Date Worker Id Customer Id

Shopping list Id Total Price City Id Deliver Id

Shipping Status

Invoice Modify

Tutorial we reference

<https://www.sqlitetutorial.net/>

<https://www.sqlitetutorial.net/sqlite-python/>

<https://www.pythontutorial.net/tkinter/>

[Python GUI's With Tkinter\(#172-#178\)](#)