Assignment Title	**Warehouse database analysis**
Skills take away From This Project	**python, MySQL**
Domain	**MySQL**

Problem Statement:

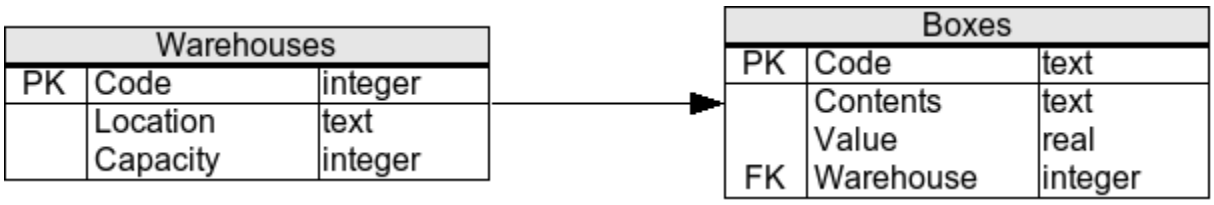
Warehouse management system is a pivotal part of the supply chain which mainly controls the storage and movement of materials within a warehouse and processes the transactions, including receiving, shipping, picking, and put away. WMS also enables directing and optimizing stock putaway according to the real-time information of bin utilization status. Let's play with a warehouse dataset provided in the link to answer the following interesting questions.

Approach:

The SQL file from creating and inserting the data can be found in the following link

https://bit.ly/guvisql1

Import or execute the schema in any sql server to build the database and tables it in your local system.The ER diagram for the schema is shown below



Assignment Questions:

1. Select all warehouses.
2. Select all boxes with a value larger than $150.
3. Select all distinct contents in all the boxes.
4. Select the average value of all the boxes.
5. Select the warehouse code and the average value of the boxes in each warehouse.
6. Select only those warehouses where the average value of the boxes is greater than 150.
7. Select the code of each box, along with the name of the city the box is located in.
8. Select the warehouse codes, along with the number of boxes in each warehouse.
9. Optionally, take into account that some warehouses are empty (i.e., the box count should show up as zero, instead of omitting the warehouse from the result).
10. Select the codes of all warehouses that are saturated (a warehouse is saturated if the number of boxes in it is larger than the warehouse's capacity).
11. Select the codes of all the boxes located in Chicago.
12. Create a new warehouse in New York with a capacity for 3 boxes.
13. Create a new box, with code "H5RT", containing "Papers" with a value of $200, and located in warehouse 2.
14. Reduce the value of all boxes by 15%.
15. Remove all boxes with a value lower than $100.
16. Remove all boxes from saturated warehouses.
17. Add Index for column "Warehouse" in table "boxes"
    a. -- !!!NOTE!!!: index should NOT be used on small tables in practice
18. Print all the existing indexes
    a. -- !!!NOTE!!!: index should NOT be used on small tables in practice
19. Remove (drop) the index you added just
    a. -- !!!NOTE!!!: index should NOT be used on small tables in practice

Project Submission:

Submit the Assignment notebook

(titled with <your name + assignment name>)through github.

Project Evaluation metrics:

- You are supposed to write code in a modular fashion (**in functional blocks**)
- Maintainable: It can be maintained, even as your codebase grows.
- Portable: It works the same in every environment (operating system)
- You have to maintain your code on **GitHub**.(Mandatory)
- You have to keep your **GitHub** repo public so that anyone can check your code.(Mandatory)
- Proper readme file you have to maintain for any project development(Mandatory)
- You should include basic workflow and execution of the entire project in the readme file on **GitHub**
- Follow the coding standards: https://www.python.org/dev/peps/pep-0008/
- You need to Create a Demo video of your working model and post in **LinkedIn**(Mandatory)