**FINAL PROJECT CSCIE – 59 – CLINIC DATABASE**

For the Final Project I choose to build a Clinic database which allows the staff workers to retrieve information about doctors, patients, patient detailed information. This helps the hospital staff to make sure they have the most up to date information about their patients and to be aware which doctors is treating which patients. This database is setup on an EC2 instance so with more data I can easily go and change the storage type, changing CPU’s etc. In AWS we can use the feature for Auto Scaling which can scale depending on higher resource usage.

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| **TABLES IN THIS DATABASE: -**   1. **BILL** 2. **DEPARTMENT** 3. **DIAGNOSIS** 4. **DOCTOR** 5. **DOCTOR\_PATIENT** 6. **MEDICATION** 7. **MEDICATION\_PRESCRIBED** 8. **PATIENT** 9. **STAFF** 10. **TESTS** 11. **WORKER** 12. **CAFETERIA** 13. **CAFETERIA\_STAFF** |

**ERD DIAGRAM FOR THIS DATABASE – BUILT ON SQL WORKBENCH USING REVERSE**

**ENGINEER**

Diagram

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**STEPS TO BUILD THIS DATABASE IS IN THE SCRIPT CLINIC.SQL**

1. Open SQLWorkbench
2. Click on File >> Open SQL Script
3. Choose SQL Script CLINIC.SQL from your downloads
4. Highlight all the code and click on the lightning icon
5. Database tables and data will be setup and imported
6. GIT HUB LINK FOR SCRIPT: <https://github.com/raul260/CLINIC.git>

**SOME STATEMENTS FROM SQL WORKBENCH**

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**QUERIES TO SEARCH THE DATABASE FOR INFORMATION**

1. **Looking to get detailed information about the Patient**

select fname,lname,Age,Gender,Blood\_Type,Illness FROM PATIENT p, DIAGNOSIS d where d.Patient\_ID = p.Patient\_ID AND illness is not null order by Age DESC;

1. **Doctor details**

select d.Doctor\_ID, w.lname, w.fname, w.Gender,d.Degree From WORKER w, DOCTOR d

WHERE w.Worker\_ID=d.D\_Worker\_ID;

1. **Highest No of Doses offered**

SELECT \* FROM MEDICATION WHERE Doses = (SELECT MAX(Doses) from MEDICATION);

1. **Selecting Doctor, Test offered, illness associated with the patient**

select d.Doctor\_ID, t.Test\_ID, t.Result, t.Illness, t.Patient\_ID from DOCTOR d left JOIN TESTS t ON t.Doctor\_ID=d.Doctor\_ID;

1. **Count of Each Department**

select Department\_ID, COUNT(\*) as count from DOCTOR GROUP BY Department\_ID ORDER BY count ASC;

1. **How many Janitors are working in the hospital**

select Job\_Title, COUNT(\*) from STAFF where Job\_Title = 'Janitor' GROUP BY Job\_Title;

1. **Salary Range between 100-140k**

select SALARY from WORKER WHERE SALARY BETWEEN 10000 AND 140000 ORDER BY SALARY ASC;

1. **Looking for Patients with Age over 70**

SELECT Age,fname,lname from PATIENT WHERE Age >70;

1. **Average age of admitted patients**

SELECT AVG(Age) from PATIENT;

**REFERENCES:**

<https://github.com/raul260/CLINIC.git>

<https://github.com/LeonCChen/Hospital_Database_MySQL.git>