Challenge Report: PRCE-001 Medical Data History

Overview: The project is related to Medical Data History which involved to pull docker image with sql environment and writing sql queries to extract data from remote server in the form of tables such as Patients, Admission, doctors,Province_names. The objective was to proficient is writing sql queries like applying joins, joining tables, filtering, calculating fields, generating reports.

Challenges faced:-

1) **To pull data from docker image**

Description:While creating docker image and after creating docker images I faced problem to create container for connecting remote sql query inside that container using provided username and credentials.

Solution: For this, I used step of official sql, docker documentation.

2) **Understanding Table Relationship**

Description: Before, it was difficult to know the relationship between Patients, doctors, admissions ,Province Names and how they are connected each other.

Solution:

patients.patients_id=admission.patient_id,
admission.doctor_id=doctors.doctor_id,
patients.patients_id=province.province_id

3) **Sql Syntax Errors:**

Description: Faced frequent syntax error like forgetting commas, incorrect aliasing, or using where with column aliases like isObese.

Solution: Carefully review error messages and consulted with SQL documentation and learned the correct usage of CASE statements, where clause, group by, having, subqueries, aliases with their scope and other subqueries.

4) **Calculating fields like BMI and creating logics:**

Description: While Calculating fields like BMI and creating logical flags like(isObese) using sql function power and case is challenging.

Solution: Here, I practiced combined sql functions and nested expressions to compute BMI and conditional logic POWER(),FLOOR() and CONCAT().

Outcome:

I successfully wrote queries to extract insights such as:

1) Joining and filtering multiple.
2) calculating male and female patients.
3) Data Exploration and pattern matching.
4) Obesity Identification.
5) Admission date analytics.
6) Data Aggregation.
7) Password generation using multiple fields.

Lessions learned:

1) To pull docker image with SQL environment.
2) To extract remote SQL server .
3) Reading error message carefully can save time.
4) Subqueries are powerful tool.
5) Data Aggregation.
6) Data exploration, pattern matching.