**CASE STUDY 9**

TABLE: tutorial.patient\_list

1. Add two additional column in the dataset:

● ‘Age\_category’ ○ old\_age: >60 ○ mid\_age: 30-60 ○ young: < 30

● Bmi: 703\*weight (lbs) /height (inches)^2

**A. SELECT age, CASE WHEN age > 60 THEN 'old\_age' WHEN age > 30 THEN 'mid\_age' WHEN age < 30 THEN 'young' END AS Age\_category, 703\*(weight\_lbs)/(height\_inches)^2 AS BMI FROM tutorial.patient\_list;**

1. Find the physician last\_name who treats maximum mid\_age patients.
2. **WITH cte AS**

**(SELECT \*, CASE WHEN age > 60 THEN 'old\_age' WHEN age > 30 THEN 'mid\_age' WHEN age < 30 THEN 'young' END AS Age\_category, 703\*(weight\_lbs)/(height\_inches)^2 AS BMI FROM tutorial.patient\_list)**

**SELECT physician\_last\_name, COUNT(Age\_category) FROM cte WHERE Age\_category = 'mid\_age' GROUP BY 1 ORDER BY 2 DESC LIMIT 1 ;**

1. Write a query to return the following for each category:

● Average age

● Max height

● Min weight

● Number of patients

**A. SELECT AVG(age), MAX(height\_inches), MIN(weight\_lbs), COUNT(patient\_id) FROM tutorial.patient\_list;**

1. List all the records where bmi is less than average bmi. Solve using CTE.
2. **WITH cte AS**

**(SELECT \*, 703\*(weight\_lbs)/(height\_inches)^2 AS BMI FROM tutorial.patient\_list)**

**SELECT \* FROM cte WHERE BMI < (SELECT AVG(703\*(weight\_lbs)/(height\_inches)^2) AS BMI FROM tutorial.patient\_list );**