



ANJUMAN-I-ISLAM'S KALSEKAR TECHNICAL CAMPUS

School of Engineering & Technology

Affiliated to : University of Mumbai, Recognised by : DTE (Maharashtra) & Approved by : AICTE (New Delhi)

Course Code: CSL603	Course Name: DWM LAB
Class: TE-CO	Batch: 3
Roll no: 18C063	Name: SHAIKH TAUSEEF MUSHTAQUE ALI

Experiment :03

Aim: Draw OLAP operations for the given case study.

Output:

Q] Consider a Data Warehouse for a hospital where there are three dimension (a) Doctor (b) Patient (c) Time And two measures i) count ii) charge where charge is the fee that the doctor charges a patient for a visit using the above example describe the following OLAP operations.
1) Slice 2) Dice 3) Rollup 4) Drilldown
5) Pivot

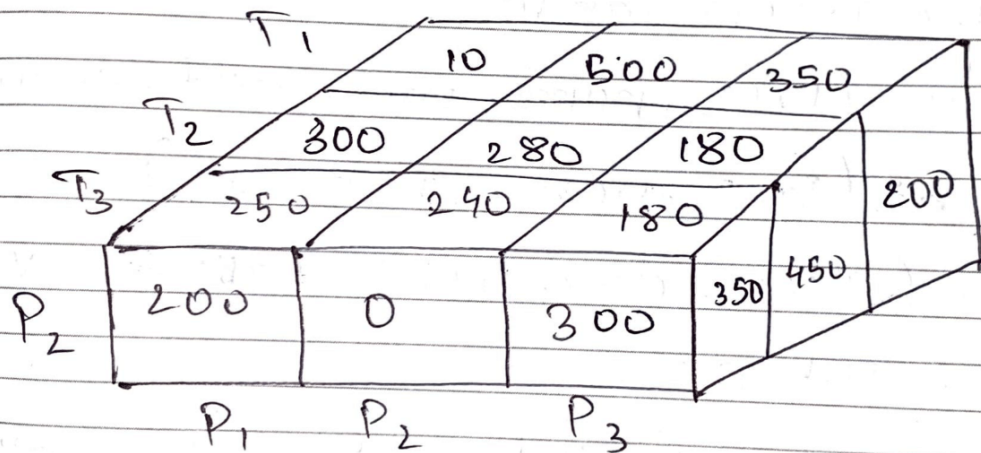


A 3D cube diagram representing a 3x3x3 matrix. The axes are labeled T_1 (top), T_2 (left), and T_3 (depth). The top face is labeled with values 0, 500, 550. The left face is labeled with values 300, 280, 180. The front face is labeled with values 250, 240, 150. The right face is labeled with values 150, 170, 100. The bottom face is labeled with values 100, 130, 125. The back face is labeled with values 200, 0, 300. The left face is labeled with values 180, 530, 280. The bottom face is labeled with values 100, 280, 100. The right face is labeled with values 450, 206, 100.

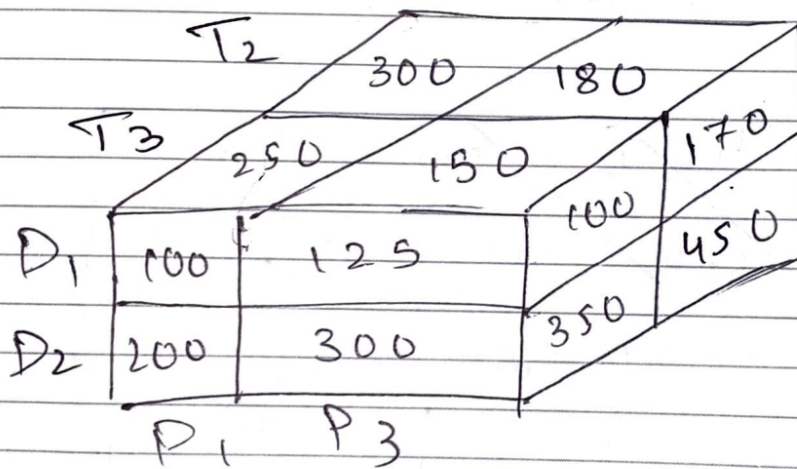
Operation 3 :

1) Slice :

Slice on fact table with $DID=2$
 this acts the cube at $DID=2$ along
 the time & Patient axis it will
 display area of cube in which
 time on x & patient on y axis



2) Dice : It is a sub cube of main cube. Thus it cuts the cube with more than predicate like dice on cube with $DID=2$ & $DID=1$ & $PID=1$ & $PID=3$ & $TID=02$ & 03



3) Roll up: It gives summary based on concept hierarchy. Assuming there exists concept hierarchy in Patient table as state \rightarrow city \rightarrow Location. The roll up will summarize the changes or count in terms of city or further roll up will give changes for a particular state etc.

				T_1	0	500	250
				T_2	300	280	180
				T_3	250	240	150
P_1	1000	200	180		100	450	100
P_2	130	0	630		350	280	
P_3	125	300	280		100		
	D_1	D_2	D_3				

4) Drill Down: It is opposite to roll up that means if currently cube is summarised with also show detailed view.

	T ₁				
		0	200	250	
	T ₂	100	150	75	70
	T ₃	250	240	150	45
D ₁₁	50	50	50	20	75
D ₁₂	25	50	25	30	50
D ₁₃	25	30	25	50	50
D ₂₁	200	0	300	35	240
D ₃₁	200	350	200	20	45
D ₃₂	80	180	80	0	180
	P ₁	P ₂	P ₃	100	50

5) **Pivot:** It rotates the cube, sub cube or rolled up or drilled down the cube, thus changing the view of the cube.

