**SQL CODE**

**select** **count**(\*) **from** calling

**select** \* **from** calling **limit** 10

-- UPDATING TABLE

-- ALTER TABLE calling

-- ADD COLUMN Disposition\_Category VARCHAR(10);

--

-- Update the new column based on categorization

-- UPDATE calling

-- SET Disposition\_Category =

-- CASE

-- WHEN Disposition IN ('Agree To Pay', 'Acceptable Promise To Pay', 'RTP - Counselled',

-- 'User Claimed Payment', 'User Claimed Payment with Payment Date') THEN 'Success'

-- WHEN Disposition IN ('Customer Hangup', 'Refused to Pay', 'Dispute', 'Failed', 'Busy', 'end delay') THEN 'Failed'

-- ELSE 'Others'

-- END;

-- UPDATE calling

-- SET dialed\_date = STR\_TO\_DATE(dialed\_date, '%d/%m/%y')

-- WHERE STR\_TO\_DATE(dialed\_date, '%d/%m/%y') IS NOT NULL;

-- Success Rate (SRT) for the Client

**select** dialed\_date , client\_name,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1,2

**order** **by** 2,1

-- Success Rate (SRT) for the flow\_type

**select** dialed\_date , flow\_type,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1,2

**order** **by** 2,1

-- Success Rate (SRT) for the language

**select** dialed\_date , **language**,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1,2

**order** **by** 2,1

-- Success Rate (SRT) for the gender

**select** dialed\_date , gender,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1,2

**order** **by** 2,1

-- Success Rate (SRT) for the channel

**select** dialed\_date , channel,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1,2

**order** **by** 2,1

-----------------------------------------------------------------------------------------------------------

-- query1

**select** client\_name,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1

**order** **by** 1

--query2

**select** flow\_type,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1

**order** **by** 1

--query3

**select** **language**,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1

**order** **by** 1

--query4

**select** dialed\_date , gender,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1

**order** **by** 1

--query5

**select** dialed\_date , channel,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1

**order** **by** 1

-------merchant analysis-------------------

**select** dialed\_date , client\_name,**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1,2

**order** **by** 2,1

**select** dialed\_date ,

-- client\_name,

-- flow\_type,

-- language,

-- gender,

channel,

**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**where** dialed\_date **in** ('2023-11-28','2023-11-30')

**and** client\_name **in** ('Smart Finance')

-- and flow\_type in ('postbounce','predue')

-- and language in ('Hindi','Marathi')

**and** gender **in** ('M')

-- and channel in ('Message','Call')

**group** **by** 1,2

**order** **by** 2,1

**select** \* **from** calling **limit** 1

------ error reason

**WITH** cte **AS** (

**SELECT**

Disposition\_Category **AS** dc1,

disposition **AS** di1,

**COUNT**(\*) **AS** traffic1

**FROM**

calling

**WHERE**

dialed\_date **IN** ('2023-11-28')

**AND** client\_name **IN** ('Smart Finance')

**GROUP** **BY** 1, 2

),

cte2 **AS** (

**SELECT**

Disposition\_Category **AS** dc2,

disposition **AS** di2,

**COUNT**(\*) **AS** traffic2

**FROM**

calling

**WHERE**

dialed\_date **IN** ('2023-11-30')

**AND** client\_name **IN** ('Smart Finance')

**GROUP** **BY** 1, 2

)

**SELECT**

**COALESCE**(cte.dc1, cte2.dc2) **AS** dc,

**COALESCE**(cte.di1, cte2.di2) **AS** di,

**COALESCE**(traffic1, 0) **AS** traffic1,

**COALESCE**(traffic2, 0) **AS** traffic2

**FROM**

cte

**LEFT** **JOIN** cte2 **ON** cte.dc1 = cte2.dc2 **AND** cte.di1 = cte2.di2

**UNION**

**SELECT**

**COALESCE**(cte.dc1, cte2.dc2) **AS** dc,

**COALESCE**(cte.di1, cte2.di2) **AS** di,

**COALESCE**(traffic1, 0) **AS** traffic1,

**COALESCE**(traffic2, 0) **AS** traffic2

**FROM**

cte2

**LEFT** **JOIN** cte **ON** cte.dc1 = cte2.dc2 **AND** cte.di1 = cte2.di2

**ORDER** **BY** dc, di;

-----------------------------------------------

----- metricis------------

**SELECT** Reason, **COUNT**(\*) **AS** CallCount

**FROM** calling

**GROUP** **BY** Reason

**ORDER** **BY** CallCount **DESC**;

**SELECT** loan\_id, **MAX**(emiAmount) **AS** MaxEMIAmount

**FROM** calling

**GROUP** **BY** loan\_id

**ORDER** **BY** MaxEMIAmount **DESC**

**LIMIT** 10;

**SELECT** flow\_type, Disposition\_Category, **AVG**(talk\_time) **AS** AvgTalkTime

**FROM** calling

**GROUP** **BY** flow\_type, Disposition\_Category;

**SELECT** gender,

**AVG**(emiAmount) **AS** AvgEMIAmount,

**MAX**(emiAmount) **AS** MaxEMIAmount,

**MIN**(emiAmount) **AS** MinEMIAmount

**FROM** calling

**GROUP** **BY** gender;

**select**

-- dialed\_date ,

-- client\_name,

-- flow\_type,

-- language,

-- gender,

channel,

**count**(\*) **as** Traffic

**from** calling

**where** dialed\_date **between** '2023-11-28' **and** '2023-11-30'

-- and client\_name in ('Smart Finance')

**and** Disposition\_Category = 'Others'

-- and flow\_type in ('postbounce','predue')

-- and language in ('Marathi')

**and** gender **in** ('M')

-- and channel in ('Message','Call')

**group** **by** 1

**order** **by** 1

**WITH** cte **AS** (

**SELECT**

Disposition\_Category **AS** dc1,

disposition **AS** di1,

**COUNT**(\*) **AS** traffic1

**FROM**

calling

**WHERE**

dialed\_date **IN** ('2023-11-28')

**and** Disposition\_Category = 'Others'

-- and language in ('Marathi')

-- and gender in ('M')

**GROUP** **BY** 1, 2

),

cte2 **AS** (

**SELECT**

Disposition\_Category **AS** dc2,

disposition **AS** di2,

**COUNT**(\*) **AS** traffic2

**FROM**

calling

**WHERE**

dialed\_date **IN** ('2023-11-30')

**and** Disposition\_Category = 'Others'

-- and language in ('Marathi')

-- and gender in ('M')

**GROUP** **BY** 1, 2

)

**SELECT**

**COALESCE**(cte.dc1, cte2.dc2) **AS** dc,

**COALESCE**(cte.di1, cte2.di2) **AS** di,

**COALESCE**(traffic1, 0) **AS** traffic1,

**COALESCE**(traffic2, 0) **AS** traffic2

**FROM**

cte

**LEFT** **JOIN** cte2 **ON** cte.dc1 = cte2.dc2 **AND** cte.di1 = cte2.di2

**UNION**

**SELECT**

**COALESCE**(cte.dc1, cte2.dc2) **AS** dc,

**COALESCE**(cte.di1, cte2.di2) **AS** di,

**COALESCE**(traffic1, 0) **AS** traffic1,

**COALESCE**(traffic2, 0) **AS** traffic2

**FROM**

cte2

**LEFT** **JOIN** cte **ON** cte.dc1 = cte2.dc2 **AND** cte.di1 = cte2.di2

**ORDER** **BY** dc, di;

---------------- TIME level ANALYSIS

**select** **left**(**time**,2),**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**group** **by** 1

**order** **by** 1

**from** calling

**select**

-- left(time,2),

connectionStatus,

-- client\_name ,

**count**(\*) **as** traffic,

**sum**(**case** **when** Disposition\_Category = 'Success' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** s\_rte,

**sum**(**case** **when** Disposition\_Category = 'Failed' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** f\_rte,

**sum**(**case** **when** Disposition\_Category = 'Others' **then** 1.00 **else** 0 **end**)/**count**(\*) **as** o\_rte

**from** calling

**where** **time** **between** '14:00' **and** '16:00'

-- and connectionStatus in ('NOT CONNECTED')

**group** **by** 1

**order** **by** 1

**select** Disposition\_Category,Disposition,**COUNT**(\*)

**from** calling

**where** **time** **between** '14:00' **and** '16:00'

**and** connectionStatus **in** ('NOT CONNECTED')

**group** **by** 1,2

**order** **by** 1,3 **DESC**