--SQL code to categorize according to age bracket.

AlTER TABLE [dbo].[ANZ synthesised transaction dataset] ADD age\_bracket VARCHAR(20);

UPDATE [dbo].[ANZ synthesised transaction dataset] SET age\_bracket=

CASE

WHEN age BETWEEN 0 AND 20 THEN 'Less than 20'

WHEN age BETWEEN 20 AND 30 THEN '20-30'

WHEN age BETWEEN 30 AND 40 THEN '30-40'

WHEN age BETWEEN 40 AND 50 THEN '40-50'

WHEN age BETWEEN 50 AND 60 THEN '50-60'

ELSE '60+'

END

-- 'Find Avegage purchase made,Percentage of prurchase according to age bracket'

SELECT CAST(AVG(ANZ.amount) AS DECIMAL(5,2)) AS Average\_purchase\_amouunt,ANZ.age\_bracket,(SELECT ROUND(CAST(SUM(ANZ.amount)/SUM(T.amount)\*100

AS DECIMAL(4,2)),2) FROM [dbo].[ANZ synthesised transaction dataset] AS T

WHERE T.movement='debit')AS Percentage\_total\_purchase

FROM [dbo].[ANZ synthesised transaction dataset] AS ANZ

WHERE ANZ.movement='debit'

GROUP BY ANZ.age\_bracket

ORDER BY Percentage\_total\_purchase DESC

-- 'Find Avergage purchase and percentage of purchase - monthly wise'

SELECT ROUND(CAST(AVG(amount) AS DECIMAL(5,2)),2) AS Average\_purchase\_amount,DATENAME(MONTH,ANZ.date) AS Month ,

(SELECT ROUND(CAST(SUM(ANZ.amount)/SUM(T.amount)\*100 AS DECIMAL(4,2)),2) FROM [dbo].[ANZ synthesised transaction dataset] AS T

WHERE T.movement='debit') AS Percentage\_total\_purchase

FROM [dbo].[ANZ synthesised transaction dataset] AS ANZ

WHERE ANZ.movement='debit'

GROUP BY DATENAME(MONTH,ANZ.date)

-- 'SQL Code to find Average purchase amount Per state and number of transactions per state and percentage of purchase.'

SELECT COUNT(\*) AS Count\_transaction\_per\_state ,ROUND(CAST(AVG(ANZ.amount) AS DECIMAL(4,2)),2)\*100 AS Average\_transaction\_amount,

ANZ.merchant\_state AS Merchant\_state,(SELECT ROUND(CAST(SUM(ANZ.amount)/SUM(T.amount) AS DECIMAL(4,2)),2)\*100

FROM [dbo].[ANZ synthesised transaction dataset] AS T

WHERE T.movement='debit') AS Percentage\_purchase

FROM [dbo].[ANZ synthesised transaction dataset] AS ANZ

WHERE ANZ.movement='debit'

GROUP BY ANZ.merchant\_state

ORDER BY Percentage\_purchase DESC

-- 'Top 5 Number of purchases made suburb and age bracket wise'

SELECT TOP(5) COUNT(\*) AS Count\_transactions,AVG(ANZ.amount) AS Average\_purchase\_amount,ANZ.merchant\_suburb,ANZ.age\_bracket

FROM [dbo].[ANZ synthesised transaction dataset] AS ANZ

WHERE ANZ.movement='debit' AND ANZ.merchant\_suburb<>''

GROUP BY ANZ.merchant\_suburb,ANZ.age\_bracket

ORDER BY Count\_transactions DESC

-- 'Average Salary earned age bracket wise'

SELECT CAST(AVG(amount) AS DECIMAL(6,2)) AS Average\_salary\_amount,ANZ.age\_bracket ,

(SELECT ROUND(CAST(SUM(ANZ.amount)/ SUM(T.amount)AS DECIMAL(4,2)),2)\*100 FROM [dbo].[ANZ synthesised transaction dataset] AS T

WHERE T.movement='credit' ) AS Percentage\_salary

FROM [dbo].[ANZ synthesised transaction dataset] AS ANZ

WHERE ANZ.movement='credit'

GROUP BY ANZ.age\_bracket

ORDER BY Percentage\_salary DESC