

PROJECT_CAR

```
use Project;
--a. Create an analysis to find income class of UK citizens based on price of
--Cars(You can use per-capita income in UK from internet sources)
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```
Select Price,Transmission,
Case When Price Between 0 and 20000 then 'Lower_Class'
      when Price Between 20000 and 50000 Then 'Middle_class'
      When Price Between 50000 And 900000 Then 'Upper_class'
End as Income_class From cclass ,Transmission Union
Select Price,Transmission,
Case When Price Between 0 and 20000 then 'Lower_Class'
      when Price Between 20000 and 50000 Then 'Middle_class'
      When Price Between 50000 And 900000 Then 'Upper_class'
End as Income_class From Audi ,Transmission Union
Select Price,Transmission,
Case When Price Between 0 and 20000 then 'Lower_Class'
      when Price Between 20000 and 50000 Then 'Middle_class'
      When Price Between 50000 And 900000 Then 'Upper_class'
End as Income_class From Bmw ,Transmission Union
Select Price,Transmission,
Case When Price Between 0 and 20000 then 'Lower_Class'
      when Price Between 20000 and 50000 Then 'Middle_class'
      When Price Between 50000 And 900000 Then 'Upper_class'
End as Income_class From merc ,Transmission Union
Select Price,Transmission,
Case When Price Between 0 and 20000 then 'Lower_Class'
      when Price Between 20000 and 50000 Then 'Middle_class'
      When Price Between 50000 And 900000 Then 'Upper_class'
End as Income_class From hyundai,Transmission;
```

0 %

Results Messages

	Price	Transmission	Income_class
1	27974	Other	Middle_class
2	20563	Other	Middle_class
3	19891	Other	Lower_Class
4	44631	Automatic	Middle_class
5	26992	Automatic	Middle_class

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--b. Categorize the cars on the basis of their price
--(Create as many buckets as you want as per your understanding of data) and analyze the:
select *,ntile(4) over( Partition By Price Order By Price) as Buckets
from (Select Distinct A.Year,E.model_name,(A.Price) From merc As A
Left join hyundai As B On A.price=B.price
Left join bmw AS C On B.price=C.price
Left Join Audi As D On C.price = D.price
Left Join Models As E On D.model_ID=E.model_ID )Da;
```

Results					Messages				
Year	model_name	Price	Buckets						
2003	NULL	650	1						
2010	NULL	1350	1						
2000	NULL	1490	1						
2004	NULL	1495	1						
2002	NULL	1495	2						
2001	NULL	1695	1						
2006	NULL	1695	2						
2004	NULL	1780	1						
2007	NULL	1800	1						
1998	NULL	1990	1						
2004	NULL	1995	1						

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```
--a. price changes across the years and identify the categories which has seen significant jump in its price
Select A.Year,Sum(A.Price)As Sum_price,E.Model_Name From merc As A
Left join hyundai As B On A.price=B.price
Left join bmw As C On B.price=C.price
Left Join Audi As D On C.price=D.price
Left Join models As E On D.model_ID= E.Model_ID
Left Join cclass As F On E.model_ID=F.model_ID
Left Join Transmission As G On F.ID=G.ID
Group By A.year,E.Model_Name
Order By A.year ,Sum(A.price) Asc;
--b. changes in no of cars sold across the years and identify the categories
--which has seen significant jump in its sales
Select A.Year,Count(A.Price)As Count_price,D.Model_Name From merc As A
Left join hyundai As B On A.price=B.price
Left join bmw As C On B.price=C.price
Left join Audi As D On C.price=D.price
Left join models As E On D.model_ID= E.Model_ID
Left Join cclass As F On E.model_ID=F.model_ID
Left Join Transmission As G On F.ID=G.ID
```

Results			Messages
Year	Sum_price	Model_Name	
1970	399984	A4	
1970	399984	A5	
1970	399984	Q2	
1997	5067465	TT	
1997	5067465	A8	
1997	10134930	A3	
1997	15202395	A5	
1997	20269860	A4	
1997	35472255	A1	
1998	7960	NULL	
1999	21104410	A4	

Query executed successfully.

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```
--b. changes in no of cars sold across the years and identify the categories
--which has seen significant jump in its sales
Select A.Year,Count(A.Price)As Count_price,D.Model_Name From merc As A
Left join hyndai As B On A.price=B.price
Left join bmw AS C On B.price=C.price
Left Join models As D On D.model_ID= A.Model_ID Group By A.year,D.model_name
Order By A.year ,Count(A.price) Asc;

--c. Find relationship between fuel efficiency & price of car/sales of car/fuel type/, e
Select A.Year,Sum(A.Price)As Sum_price,D.fueltype From merc As A
```

Results			
Messages			
Year	Count_price	Model_Name	
1970	16	M Class	
1997	507	SL CLASS	
1998	3	SL CLASS	
1998	4	SLK	
1998	156	S Class	
1999	108	S Class	
2000	3	SLK	
2000	24	SL CLASS	
2001	2	E Class	
2001	11	S Class	
2001	25	CLK	

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```
--c. Find relationship between fuel efficiency & price of car/sales of car/fuel type/, etc.  
Select A.Year,Sum(A.Price)As Sum_price,D.fueltype From merc As A  
Left join hyundai As B On A.price=B.price  
Left join bmw As C On B.price=C.price  
Left Join fueltype As D On D.fuel_ID= A.fuel_ID  
Left Join models As E On E.model_ID= A.Model_ID  
Group By A.year,D.fueltype  
Order By A.year ,Sum(A.price) Asc;  
  
----New Query Showing The Change In SUM Price According To Transmission And Time
```

Results			
Messages			
Year	Sum_price	fueltype	
1970	399984	Diesel	
1997	5067465	Petrol	
1998	3157750	Petrol	
1999	647460	Petrol	
2000	291470	Petrol	
2001	3390	Diesel	
2001	999081	Petrol	
2002	1495	Diesel	
2002	6010867	Petrol	
2003	3376	Diesel	
2003	2020055	Petrol	

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----New Query Showing The Change In SUM Price According To Transmission And Time

```
Select A.Year,Sum(A.Price)As Sum_price,D.Transmission From merc As A
Left join hyndai As B On A.price=B.price
Left join bmw AS C On B.price=C.price
Left Join transmission As D On D.ID= C.transmission_ID
Left Join models As E On E.model_ID= D.ID
Group By A.year,D.transmission
Order By A.year ,Sum(A.price) Asc;
```

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Results Messages			
Year	Sum_price	Transmission	
1970	149994	Semi-Auto	
1970	249990	Automatic	
1997	389805	Semi-Auto	
1997	1169415	Automatic	
1997	3508245	Manual	
1998	7960	NULL	
1998	500660	Manual	
1998	1079460	Automatic	
1998	1569670	Semi-Auto	
1999	215820	Automatic	
1999	121640	Manual	