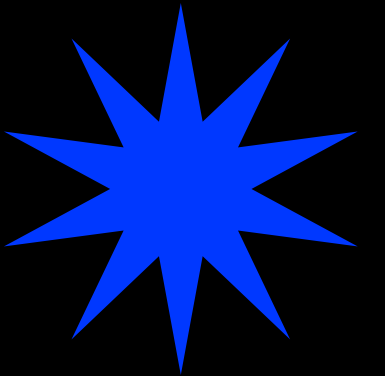
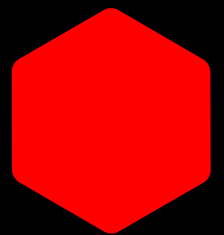


CREDIT CARD TRANSACTION SQL PROJECT



**Yatharth
Hadke**



Top 5 cities with highest spends and their percentage contribution of total credit card spends

```
-- top 5 cities with highest spends and their percentage contribution of total credit card spends

with N as (select City , sum(Amount_spend) as Amount_spend1
from Credit_card_transac
Group by City)

,M as (select sum(Amount_spend1) as Total_spend_amount -- 4074833373
from N )

select top 5 city , Amount_spend1 ,
round(100.0* Amount_spend1/4074833373.0,2) as percentage_contribution_by_city
from N
order by Amount_spend1 desc
```

Results Messages

city	Amount_spend1	percentage_contribution_by_city
Shahbad, India	1095436	0.030000
Vita, India	276648	0.010000
Arambagh, India	1447212	0.040000
Sitapur, India	1430928	0.040000
Revelganj, India	1329656	0.030000

**Find highest spend month and
amount spent in that month for each
card type**

```
-- write a query to print highest spend month and amount spent in that month for each card type
```

```
with M as (select datepart(year, Transac_Date) as year_ , datepart(MONTH, Transac_Date) as month_ ,
Card_Type , sum(Amount_spend) as amt
from Credit_card_transac
group by Card_Type , datepart(year, Transac_Date),datepart(MONTH, Transac_Date)
)

,k as (select year_ , month_ ,Card_type ,
Max(amt) over(partition by Card_type order by amt desc) highest_amt_spend_mnt,
ROW_NUMBER() over(partition by Card_type order by amt desc) as rn
from M)

select year_ , month_ ,Card_type ,highest_amt_spend_mnt
from K
where rn = 1
```

Results		Messages		
year_	month_	Card_type	highest_amt_spend_mnt	
2015	1	Gold	55455064	
2014	8	Platinum	57936507	
2013	12	Signature	58799522	
2015	3	Silver	59723549	

write a query to find city which had lowest percentage spend for gold card type

```
-- . write a query to find city which had lowest percentage spend for gold card type
```

```
with M as (select City , count(City) as cnt_gold_card, sum(Amount_spend) as amt_spend_by_gold_crd
from Credit_card_transac
where Card_Type = 'Gold'
group by City
)
select *
,(select sum(amt_spend_by_gold_crd)
from M) as Total_spend_by_gld_card,
amt_spend_by_gold_crd/(select sum(amt_spend_by_gold_crd) as per_spend
from M) as per_spend_
from M
order by amt_spend_by_gold_crd/(select sum(amt_spend_by_gold_crd)from M) asc

-- write a query to find percentage contribution of spends by females for each expense type
```

City	cnt_gold_card	amt_spend_by_gold_crd	Total_spend_by_gld_card	per_spend_
Dhamtari, India	1	1416	984539536	0.000001
Bhiwandi, India	1	2186	984539536	0.000002
Solan, India	1	2910	984539536	0.000002
Lalitpur, India	1	3482	984539536	0.000003
Ranchi, India	1	3547	984539536	0.000003
Suar, India	1	3328	984539536	0.000003
Brahmapur, India	1	3184	984539536	0.000003
Uravakonda, India	1	4131	984539536	0.000004
Bhadrachalam, India	1	4544	984539536	0.000004

Query executed successfully.

00:00:00 | 766 rows

find percentage contribution of spends by females for each expense type

```
-- write a query to find percentage contribution of spends by females for each expense type
```

```
select * from Credit_card_transac
```

```
select Gender ,Exp_Type , sum(amount_spend) as amt_spend_by_females  
from Credit_card_transac  
where Gender = 'F'  
group by Gender , Exp_Type  
order by amt_spend_by_females desc
```

Results			Messages
Gender	Exp_Type	amt_spend_by_females	
F	Bills	580035469	
F	Food	452817279	
F	Fuel	392282421	
F	Grocery	365646998	
F	Entertainment	358663333	
F	Travel	55865530	

which card and expense type combination saw highest month over month growth in Jan-2014

```
-- which card and expense type combination saw highest month over month growth in Jan-2014
with M as (select datepart(year,Transac_Date) as yy ,datepart(MONTH,Transac_Date) as mm,
Card_Type , sum(Amount_spend) as amt
from Credit_card_transac
where datepart(year,Transac_Date) = 2014 and datepart(MONTH,Transac_Date) = 1
Group by datepart(year,Transac_Date) , datepart(MONTH,Transac_Date) , Card_Type
union all
select datepart(year,Transac_Date) as yy ,datepart(MONTH,Transac_Date) as mm,
Card_Type , sum(Amount_spend) as amt
from Credit_card_transac
where datepart(year,Transac_Date) = 2013 and datepart(MONTH,Transac_Date) = 12
Group by datepart(year,Transac_Date) , datepart(MONTH,Transac_Date) , Card_Type
)

select * ,
round(100.0*(amt - lag(amt,1) over(partition by Card_Type order by Card_Type , mm desc))/lag(amt,1) over(partition by Card_Type order by Card_Type , mm desc)) as per_growth
from M
Order by Card_Type , mm desc
```

Results					
	yy	mm	Card_Type	amt	per_growth
1	2013	12	Gold	47977692	NULL
2	2014	1	Gold	54691140	13.990000
3	2013	12	Platinum	52091648	NULL
4	2014	1	Platinum	54934191	5.460000
5	2013	12	Signature	58799522	NULL
6	2014	1	Signature	46144698	-21.520000
7	2013	12	Silver	55398967	NULL
8	2014	1	Silver	51880953	-6.350000

during weekends which city has highest total spend to total no of transactions ratio

```
-- during weekends which city has highest total spend to total no of transctions ratio

with M as (select datepart(year,Transac_Date) as yy , datepart(WEEKDAY,Transac_Date) as ww , datename(weekday, Transac_Date) as name1
, City , sum(Amount_spend)/count(*) as highest_total_spend_to_total_no_of_transcations_ratio
from Credit_card_transac
group by City , datepart(year,Transac_Date) , datepart(WEEKDAY,Transac_Date) , datename(weekday, Transac_Date)
)
select City , yy , ww , name1,
sum(highest_total_spend_to_total_no_of_transcations_ratio) as highest_total_spend_to_total_no_of_transcations_ratio_
from M
where ww = 1 or ww = 7
group by City , yy , ww , name1
order by highest_total_spend_to_total_no_of_transcations_ratio_ desc
```



City	yy	ww	name1	highest_total_spend_to_total_no_of_transcations_ratio_
Raghogarh-Vijaypur, India	2014	7	Saturday	299980.000000
Sonepur, India	2013	7	Saturday	299905.000000
Noorpur, India	2014	1	Sunday	299613.000000
Lanka, India	2014	7	Saturday	298960.000000
Tekkalakote, India	2014	7	Saturday	298938.000000
Sitamarhi, India	2013	7	Saturday	298693.000000
Shirpur-Warwade, India	2013	1	Sunday	298572.000000
Zunheboto, India	2014	7	Saturday	298567.000000
Puranpur, India	2014	1	Sunday	298518.000000
Yawal, India	2014	7	Saturday	298469.000000
Margao, India	2015	7	Saturday	297927.000000
Tura, India	2014	1	Sunday	297858.000000
Nagaur, India	2014	7	Saturday	297254.000000
Phulabani, India	2014	7	Saturday	297048.000000

Try Pitch

Query executed successfully.

00:00:00 | 1,480 rows

which city took least number of days to reach its 500th transaction after the first transaction in that city



```
-- which city took least number of days to reach its 500th transaction after the first transaction in that c

with M as (select * , ROW_NUMBER() over(partition by City order by Transac_Date) as rn
from Credit_card_transac)
, N as (select *
from M
where rn = 500)
,T as (select *
from M
where rn = 1
)
select top 1 T.city , T.Transac_Date , N.Transac_Date , Datediff(day,T.Transac_Date , N.Transac_Date) as day
from N
inner join T
on N.City = T.City
order by Datediff(day,T.Transac_Date , N.Transac_Date) asc
```

0 %

Results Messages

city	Transac_Date	Transac_Date	day_diff
Bengaluru, India	2013-10-04	2013-12-24	81

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