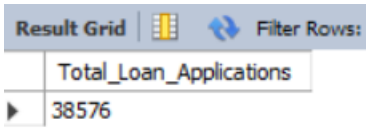
BANK LOAN REPORT QUERY DOCUMENT

A. BANK LOAN REPORT | SUMMARY

KPI's:

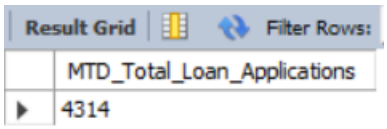
Total Loan Applications

```
select count(id) as Total_Loan_Applications from loan_data ;
```



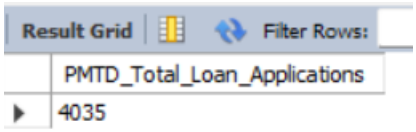
MTD Loan Applications

```
select count(id) as MTD_Total_Loan_Applications from loan_data

where Month(issue_date)=12 and Year(issue_date) =2021;
```



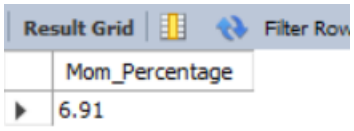
PMTD Loan Applications

```
select count(id) as PMTD_Total_Loan_Applications from loan_data
where Month(issue_date)=11 and Year(issue_date) =2021;
```



MOM Percentage

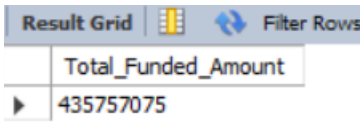
```
select Round(((MTD-PMTD)/PMTD*100),2) as Mom_Percentage

from(select

(select count(id) from loan_data

where Month(issue_date)=12 and Year(issue_date) =2021) as MTD,

(select count(id) from loan_data

where Month(issue_date)=11 and Year(issue_date) =2021) as PMTD )

as t
```



Mom_Percentage
6.91

Total Funded Amount

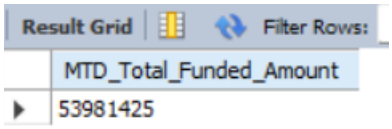
```
select Sum(loan_amount) as Total_Funded_Amount from loan_data;
```



Total_Funded_Amount
435757075

MTD Total Funded Amount

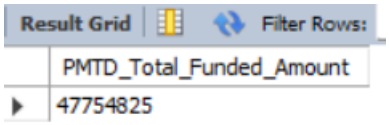
```
select Sum(loan_amount) as MTD_Total_Funded_Amount from loan_data
where Month(issue_date)=12 And Year(Issue_date)=2021;
```



MTD_Total_Funded_Amount
53981425

PMTD Total Funded Amount

```
select Sum(loan_amount) as PMTD_Total_Funded_Amount from loan_data

where Month(issue_date)=11 And Year(Issue_date)=2021;
```

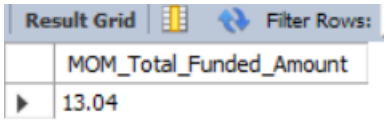


PMTD_Total_Funded_Amount
47754825

MOM Percentage of Total Funded Amount

```
select round(((MTD-PMTD)/PMTD)*100,2) as MOM_Total_Funded_Amount

from (select

(select Sum(loan_amount) from loan_data

where Month(issue_date)=12 And Year(Issue_date)=2021)as MTD,

(select Sum(loan_amount) from loan_data
```

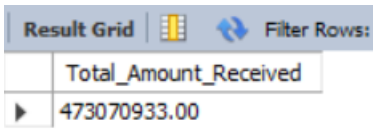
```
where Month(issue_date)=11 And Year(Issue_date)=2021) as PMTD)
as t;
```



MOM_Total_Funded_Amount
13.04

Total Amount Received

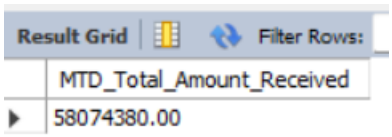
```
select Sum(total_payment) As Total_Amount_Received  from loan_data;
```



Total_Amount_Received
473070933.00

MTD Total Amount Received

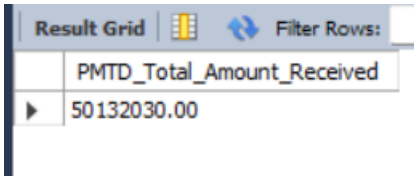
```
select Sum(total_payment) As MTD_Total_Amount_Received  from loan_data
where month(issue_date)=12 and Year(issue_date)=2021;
```



MTD_Total_Amount_Received
58074380.00

PMTD Total Amount Received

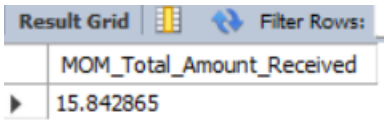
```
select Sum(total_payment) As PMTD_Total_Amount_Received  from loan_data
where month(issue_date)=11 and Year(issue_date)=2021;
```



PMTD_Total_Amount_Received
50132030.00

MOM Percentage of Total Amount Received

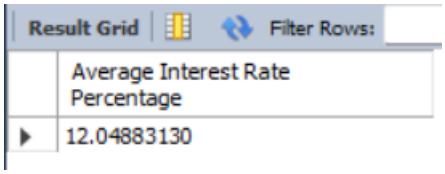
```
select (MTD-PMTD)/PMTD*100  as MOM_Total_Amount_Received
from (select
(select Sum(total_payment) from loan_data
where month(issue_date)=12 and Year(issue_date)=2021) as MTD,
(select Sum(total_payment) from loan_data
where month(issue_date)=11 and Year(issue_date)=2021)PMTD)
as t;
```



	MOM_Total_Amount_Received
▶	15.842865

Average Interest Rate

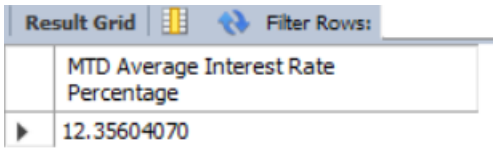
```
select Avg(int_rate)*100  as "Average Interest Rate Percentage " from loan_data;
```



	Average Interest Rate Percentage
▶	12.04883130

MTD Average Interest

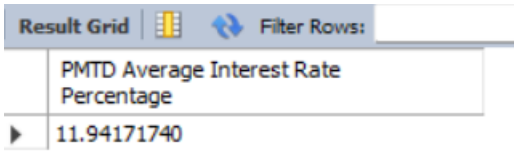
```
select Avg(int_rate)*100  as " MTD Average Interest Rate Percentage " from loan_data
where month(issue_date)=12 and Year(issue_date)=2021;
```



	MTD Average Interest Rate Percentage
▶	12.35604070

PMTD Average Interest

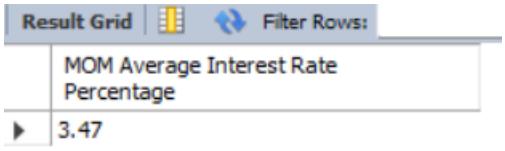
```
select Avg(int_rate)*100  as "PMTD Average Interest Rate Percentage " from loan_data
where month(issue_date)=11 and Year(issue_date)=2021;
```



PMTD Average Interest Rate Percentage
11.94171740

MOM Percentage of Average Interest

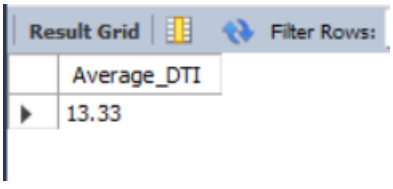
```
select round(((MTD-PMTD)/PMTD)*100,2)  as "MOM Average Interest Rate Percentage " from
(select
(select Avg(int_rate)*100  from loan_data
where month(issue_date)=12 and Year(issue_date) = 2021) as MTD,
(select Avg(int_rate)*100  from loan_data
where month(issue_date)=11 and Year(issue_date)=2021) as PMTD)
as t;
```



MOM Average Interest Rate Percentage
3.47

Avg DTI

```
select round(avg(dti)*100,2) as Average_DTI from loan_data;
```

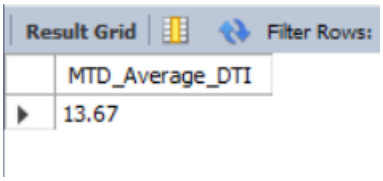


Average_DTI
13.33

MTD Avg DTI

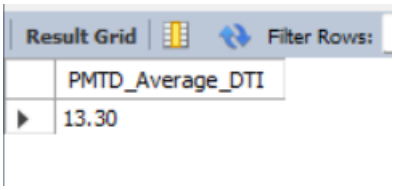
```
select round(avg(dti)*100,2) as MTD_Average_DTI from loan_data
```

```
where month(issue_date)=12 and year(issue_date)=2021;
```



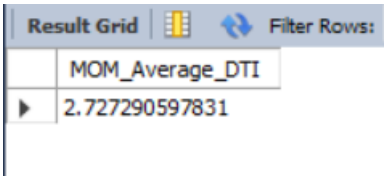
PMTD Avg DTI

```
select  round(avg(dti)*100,2) as PMTD_Average_DTI from loan_data
where month(issue_date)=11 and year(issue_date)=2021;
```



MOM Average DTI

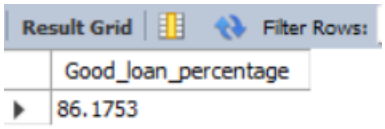
```
select (MTD-PMTD)/PMTD*100 as MOM_Average_DTI
from (select
(select avg(dti)*100 from loan_data
where month(issue_date)=12 and year(issue_date)=2021) as MTD,
(select avg(dti)*100 from loan_data
where month(issue_date)=11 and year(issue_date)=2021) as PMTD)
as t;
```



GOOD LOAN ISSUED

Good Loan Percentage

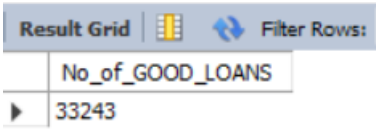
```
select ((select count(id) from loan_data where loan_status IN ('Fully Paid',
'Current'))/count(id)*100) as Good_loan_percentage

from loan_data;
```



Good_loan_percentage
86.1753

Good Loan Applications

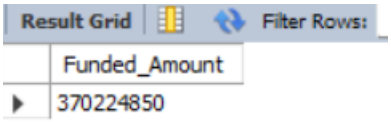
```
select Count(id) as No_of_GOOD_LOANS from loan_data

where loan_status in("Fully Paid","Current");
```



No_of_GOOD_LOANS
33243

Good Loan Funded Amount

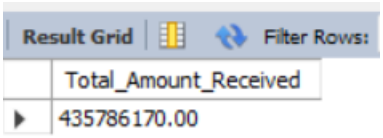
```
select Sum(loan_amount) as Funded_Amount

from loan_data

where loan_status in("Fully Paid","Current");
```



Funded_Amount
370224850

Good Loan Amount Received

```
select sum(total_payment) as Total_Amount_Received

from loan_data

where loan_status in("Fully Paid","Current");
```

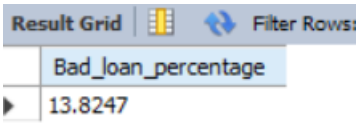


Total_Amount_Received
435786170.00

BAD LOAN ISSUED

Bad Loan Percentage

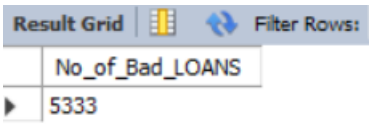
```
select ((select count(id) from loan_data where loan_status="Charged
Off")/count(id)*100) as Bad_loan_percentage

from loan_data;
```



Bad_loan_percentage
13.8247

Bad Loan Applications

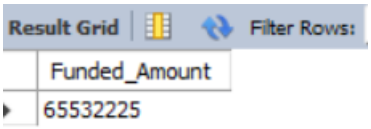
```
select Count(id) as No_of_Bad_LOANS from loan_data

where loan_status="Charged Off";
```



No_of_Bad_LOANS
5333

Bad Loan Funded Amount

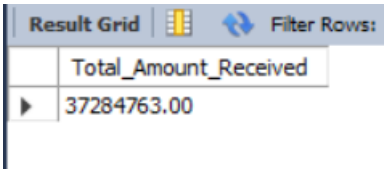
```
select Sum(loan_amount) as Funded_Amount

from loan_data

where loan_status="Charged Off";
```



Funded_Amount
65532225

Bad Loan Amount Received

```
select sum(total_payment) as Total_Amount_Received

from loan_data

where loan_status="Charged Off";
```



Result Grid | Filter Rows:

	Total_Amount_Received
▶	37284763.00

LOAN STATUS GRID VIEW

```
select
distinct loan_status ,
count(id) as Total_Loan_Applications,
sum(loan_amount) as Total_Funded_Amount,
sum(total_payment) as Total_Amount_Received,
Avg(int_rate)*100 as Average_Interest_Rate,
Avg(dti)*100 as Average_DTI
from loan_data
group by loan_status;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	loan_status	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received	Average_Interest_Rate	Average_DTI
▶	Fully Paid	32145	351358350	411586256.00	11.64107070	13.16735070
	Charged Off	5333	65532225	37284763.00	13.87857490	14.00473270
	Current	1098	18866500	24199914.00	15.09932600	14.72434420

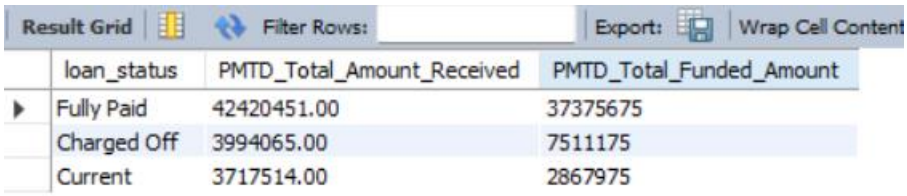
Loan status Grid View with MTD

```
select

distinct loan_status,

sum(total_payment) as MTD_Total_Amount_Received,

 sum(loan_amount) as MTD_Total_Funded_Amount

 from loan_data

 where Month(issue_date) =12

 group by loan_status;
```

	loan_status	MTD_Total_Amount_Received	MTD_Total_Funded_Amount
▶	Fully Paid	47815851.00	41302025
	Charged Off	5324211.00	8732775
	Current	4934318.00	3946625

Loan status Grid View with PMTD

```
select
distinct loan_status,
sum(total_payment) as PMTD_Total_Amount_Received,
 sum(loan_amount) as PMTD_Total_Funded_Amount
 from loan_data
 where Month(issue_date) =11
 group by loan_status;
```

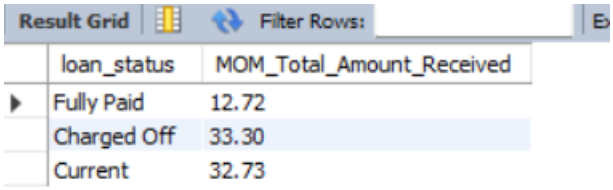


Result Grid | Filter Rows: | Export: | Wrap Cell Content

loan_status	PMTD_Total_Amount_Received	PMTD_Total_Funded_Amount
Fully Paid	42420451.00	37375675
Charged Off	3994065.00	7511175
Current	3717514.00	2867975

MOM of Total amount Received by Loan Status

```
SELECT
    loan_status,
    ROUND(
        (SUM(CASE WHEN MONTH(issue_date) = 12 THEN total_payment ELSE 0 END) -
         SUM(CASE WHEN MONTH(issue_date) = 11 THEN total_payment ELSE 0 END))
        /
        NULLIF(SUM(CASE WHEN MONTH(issue_date) = 11 THEN total_payment ELSE 0 END), 0)
        * 100,
        2
    ) AS MOM_Total_Amount_Received
FROM loan_data
WHERE YEAR(issue_date) = 2021
GROUP BY loan_status;
```

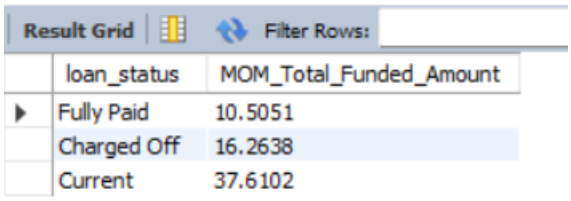


Result Grid | Filter Rows:

loan_status	MOM_Total_Amount_Received
Fully Paid	12.72
Charged Off	33.30
Current	32.73

MOM of Total Amount funded by Loan status

```
SELECT
    loan_status,
    ROUND(
        (
            SUM(CASE WHEN MONTH(issue_date) = 12 THEN loan_amount ELSE 0 END)
          - SUM(CASE WHEN MONTH(issue_date) = 11 THEN loan_amount ELSE 0 END)
        )
        / NULLIF(
            SUM(CASE WHEN MONTH(issue_date) = 11 THEN loan_amount ELSE 0 END),
            0
        ) * 100,
        2
    ) AS MOM_Total_Funded_Amount
FROM loan_data
WHERE YEAR(issue_date) = 2021
GROUP BY loan_status;
```



Result Grid | Filter Rows:

loan_status	MOM_Total_Funded_Amount
Fully Paid	10.5051
Charged Off	16.2638
Current	37.6102

B. BANK LOAN REPORT | OVERVIEW

Monthly trends by issue date

```
select
 month(Issue_date) as Month_Number,
 monthname(issue_date)as Month_Name,
 count(id) as Total_Loan_Applications,
 sum(loan_amount) as Total_Funded_Amount,
 sum(total_payment) as Total_Received_Amount
 from loan_data
 group by Month_Name,Month_Number
 order by Month_Number;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Month_Number	Month_Name	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
1	January	2332	25031650	27578836.00
2	February	2279	24647825	27717745.00
3	March	2627	28875700	32264400.00
4	April	2755	29800800	32495533.00
5	May	2911	31738350	33750523.00
6	June	3184	34161475	36164533.00
7	July	3366	35813900	38827220.00
8	August	3441	38149600	42682218.00
9	September	3536	40907725	43983948.00
10	October	3796	44893800	49399567.00
11	November	4035	47754825	50132030.00
12	December	4314	53981425	58074380.00

Regional Analysis By state

```
select
 address_state as State,
 count(id) as Total_Loan_Applications,
 sum(loan_amount) as Total_Funded_Amount,
 sum(total_payment) as Total_Received_Amount
 from loan_data
 group by State
 order by State;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

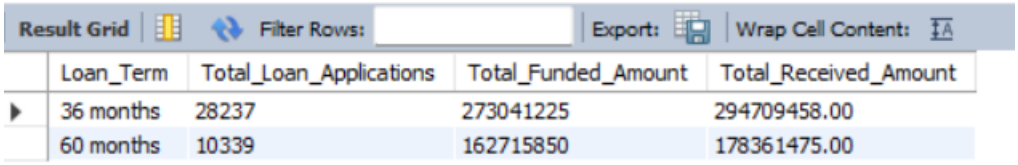
State	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
AK	78	1031800	1108570.00
AL	432	4949225	5492272.00
AR	236	2529700	2777875.00
AZ	833	9206000	10041986.00
CA	6894	78484125	83901234.00
CO	770	8976000	9845810.00
CT	730	8435575	9357612.00
DC	214	2652350	2921854.00
DE	110	1138100	1269136.00
FL	2773	30046125	31601905.00
GA	1355	15480325	16728040.00
HI	170	1850525	2080184.00
IA	5	56450	64482.00
ID	6	59750	65329.00
IL	1486	17124225	18875941.00
IN	9	86225	85521.00
KS	260	2872325	3247394.00
KY	320	3504100	3792530.00
LA	426	4498900	5001160.00
MA	1310	15051000	16676279.00
MD	1027	11911400	12985170.00
ME	3	9200	10808.00
MI	685	7829900	8543660.00
MN	592	6302600	6750746.00
MO	660	7151175	7692732.00

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

State	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
MS	19	139125	149342.00
MT	79	829525	892047.00
NC	759	8787575	9534813.00
NE	5	31700	24542.00
NH	161	1917900	2101386.00
NJ	1822	21657475	23425159.00
NM	183	1916775	2084485.00
NV	482	5307375	5451443.00
NY	3701	42077050	46108181.00
OH	1188	12991375	14330148.00
OK	293	3365725	3712649.00
OR	436	4720150	4966903.00
PA	1482	15826525	17462908.00
RI	196	1883025	2001774.00
SC	464	5080475	5462458.00
SD	63	606150	656514.00
TN	17	162175	141522.00
TX	2664	31236650	34392715.00
UT	252	2849225	2952412.00
VA	1375	15982650	17711443.00
VT	54	504100	534973.00
WA	805	8855525	9531739.00
WI	446	5070450	5485161.00
WV	167	1830525	1991936.00
WY	79	890750	1046050.00

Loan Term Analysis

```
select
term  as Loan_Term,
count(id) as Total_Loan_Applications,
sum(loan_amount) as Total_Funded_Amount,
sum(total_payment) as Total_Received_Amount
from loan_data
group by term;
```



Loan_Term	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
36 months	28237	273041225	294709458.00
60 months	10339	162715850	178361475.00

Employement Length Analysis

```
select
emp_length as Employement_length,
count(id) as Total_Loan_Applications,
sum(loan_amount) as Total_Funded_Amount,
sum(total_payment) as Total_Received_Amount
from loan_data
group by emp_length
order by emp_length;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Employement_length	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
< 1 year	4575	44210625	47545011.00
1 year	3229	32883125	35498348.00
10+ years	8870	116115950	125871616.00
2 years	4382	44967975	49206961.00
3 years	4088	43937850	47551832.00
4 years	3428	37600375	40964850.00
5 years	3273	36973625	40397571.00
6 years	2228	25612650	27908658.00
7 years	1772	20811725	22584136.00
8 years	1476	17558950	19025777.00
9 years	1255	15084225	16516173.00

Loan Purpose Breakdown

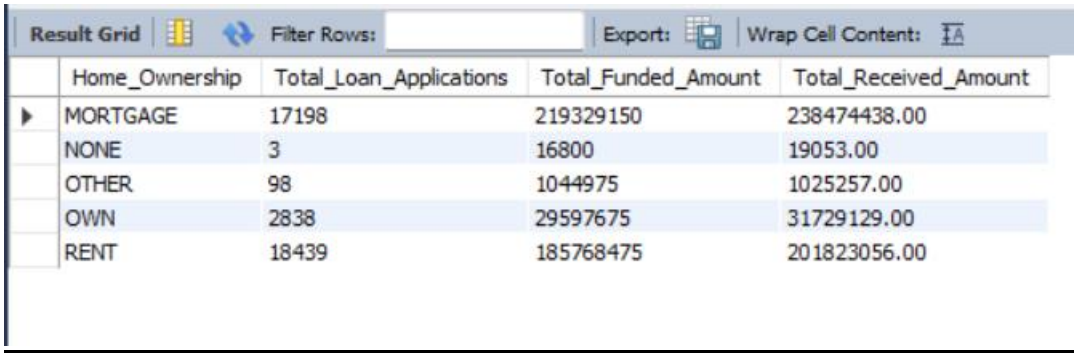
```
select
 purpose As Purpose,
count(id) as Total_Loan_Applications,
sum(loan_amount) as Total_Funded_Amount,
sum(total_payment) as Total_Received_Amount
from loan_data
group by purpose
order by purpose;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Purpose	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
car	1497	10223575	11324914.00
credit card	4998	58885175	65214084.00
Debt consolidation	18214	232459675	253801871.00
educational	315	2161650	2248380.00
home improvement	2876	33350775	36380930.00
house	366	4824925	5185538.00
major purchase	2110	17251600	18676927.00
medical	667	5533225	5851372.00
moving	559	3748125	3999899.00
other	3824	31155750	33289676.00
renewable_energy	94	845750	898931.00
small business	1776	24123100	23814817.00
vacation	352	1967950	2116738.00
wedding	928	9225800	10266856.00

Home Ownership Analysis

```
select
home_ownership as Home_Ownership,
count(id) as Total_Loan_Applications,
sum(loan_amount) as Total_Funded_Amount,
sum(total_payment) as Total_Received_Amount
from loan_data
group by Home_Ownership
order by Home_Ownership;
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Home_Ownership	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
MORTGAGE	17198	219329150	238474438.00
NONE	3	16800	19053.00
OTHER	98	1044975	1025257.00
OWN	2838	29597675	31729129.00
RENT	18439	185768475	201823056.00

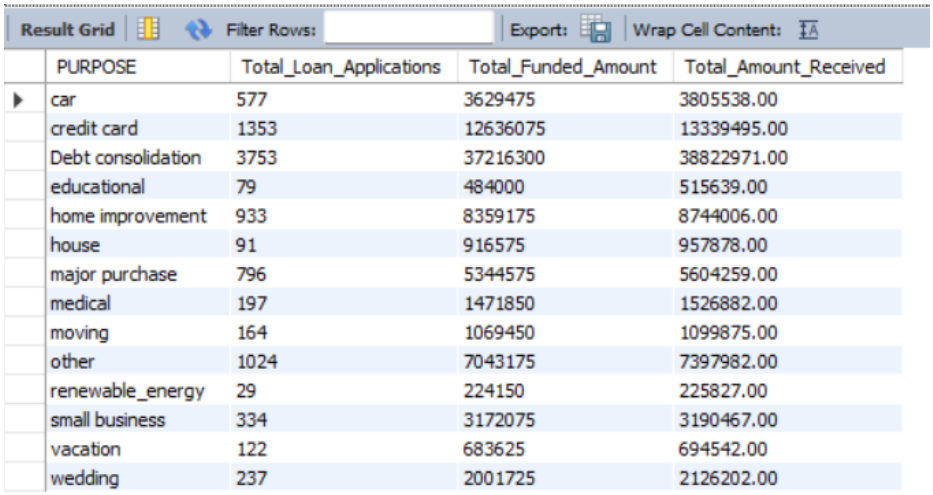
Note: We have applied multiple Filters on all the dashboards. You can check the results for the filters as well by modifying the query and comparing the results.

For e.g

See the results when we hit the Grade A in the filters for dashboards.

```
SELECT
	purpose AS PURPOSE,
	COUNT(id) AS Total_Loan_Applications,
	SUM(loan_amount) AS Total_Funded_Amount,
	SUM(total_payment) AS Total_Amount_Received
FROM bank_loan_data
WHERE grade = 'A'
GROUP BY purpose
```

```
ORDER BY purpose
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

PURPOSE	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
car	577	3629475	3805538.00
credit card	1353	12636075	13339495.00
Debt consolidation	3753	37216300	38822971.00
educational	79	484000	515639.00
home improvement	933	8359175	8744006.00
house	91	916575	957878.00
major purchase	796	5344575	5604259.00
medical	197	1471850	1526882.00
moving	164	1069450	1099875.00
other	1024	7043175	7397982.00
renewable_energy	29	224150	225827.00
small business	334	3172075	3190467.00
vacation	122	683625	694542.00
wedding	237	2001725	2126202.00