

# Bank Loan Report Query Document

## BANK LOAN REPORT SUMMARY

### KPI's:

#### Total Loan Applications

```
select count(id) as total_loan_applications
from bank_loan_data;
```

Results	Messages
	total_loan_applications
1	38576

#### MTD Loan Applications

```
select count(id) as total_loan_applications
from bank_loan_data;
```

Results	Messages
	MTD_total_loan_applications
1	4314

#### PMTD Loan Applications

```
select count(id) as PMTD_total_loan_applications
from bank_loan_data
where MONTH(issue_date)=11 and YEAR(issue_date)=2021;
```

Results	Messages
	PMTD_total_loan_applications
1	4035

#### Total Funded Amt

```
select sum(loan_amount) as total_funded_amt
from bank_loan_data;
```

Results	Messages
	total_funded_amt
1	435757075

### MTD Total Funded

```
select sum(loan_amount) as MTD_total_funded_amt
from bank_loan_data
where MONTH(issue_Date)=12;
```

MTD_total_funded_amt
53981425

### PMTD Total Funded

```
select sum(loan_amount) as PMTD_total_funded_amt
from bank_loan_data
where MONTH(issue_Date)=11;
```

PMTD_total_funded_amt
47754825

### Total Amt. Received

```
select sum(total_payment) as total_amt_received
from bank_loan_data;
```

total_amt_received
473070933

### MTD Total Funded Amt.

```
select sum(total_payment) as MTD_total_amt_received
from bank_loan_data
where MONTH(issue_date)=12;
```

MTD_total_amt_received
58074380

### PMTD Total Amt. Funded

```
select sum(total_payment) as PMTD_total_amt_received
from bank_loan_data
where MONTH(issue_date)=11;
```

PMTD_total_amt_received
50132030

### Avg. Interest Rate

```
select round(avg(int_rate)*100,3) as avg_intrst_rate
from bank_loan_data;
```

avg_intrst_rate
12.049

### MTD Avg. Interest Rate

```
select round(avg(int_rate)*100,3) as MTD_avg_intrst_rate
from bank_loan_data
where month(issue_date)=12;
```

MTD_avg_intrst_rate
12.356

### PMTD Avg. Interest Rate

```
select round(avg(int_rate)*100,3) as PMTD_avg_intrst_rate
from bank_loan_data
where month(issue_date)=11;
```

PMTD_avg_intrst_rate
11.942

### Avg. DTI

```
select round(avg(dti)*100,2) as avg_dti
from bank_loan_data;
```

avg_dti
13.33

### MTD Avg. DTI

```
select round(avg(dti)*100,2) as MTD_avg_dti
from bank_loan_data
where month(issue_date)=12;
```

MTD_avg_dti
13.67

### PMTD Avg. DTI

```
select round(avg(dti)*100,2) as PMTD_avg_dti
from bank_loan_data
where month(issue_date)=11;
```

PMTD_avg_dti
13.3

### Good Loan Perc.

```
select
  (count(case when loan_status='Fully Paid' or loan_status='Current' then id
end)*100)/count(id) as good_loan_perc
from bank_loan_data;
```

good_loan_perc
86

### Good Loan Appli.

```
select
  count(id) as good_loan_appl
from bank_loan_data
where loan_status='Fully Paid' or loan_status='Current';
```

good_loan_appl
33243

### Good Loan Funded Amt.

```
select sum(loan_amount) as good_loan_funded_amt
from bank_loan_data
where loan_status='Fully Paid' or loan_status='Current';
```

good_loan_funded_amt
370224850

### Good Received Amt.

```
select sum(total_payment) as good_received_amt_amt
from bank_loan_data
where loan_status='Fully Paid' or loan_status='Current';
```

good_received_amt_amt
435786170

### Bad Loan Perc.

```
select
  count(case when loan_status='Charged Off' then id end)*100/ count(id) as
bad_loan_perc
from bank_loan_data;
```

bad_loan_perc
13

## Bad Loan Appl.

```
select
  count(id) as bad_loan_appl
from bank_loan_data
where loan_status='Charged Off';
```

bad_loan_appl
5333

## Bad Loan Funded Amt.

```
select sum(loan_amount) as bad_loan_funded_amt
from bank_loan_data
where loan_status='Charged Off';
```

bad_loan_funded_amt
65532225

## Loan Status

```
select
  loan_status,
  count(id) as loanCount,
  sum(total_payment) as total_amt_received,
  sum(loan_amount) as total_funded_amt,
  avg(int_rate*100) as Inrst_rate,
  avg(dti*100) as DTI
from bank_loan_data
group by loan_status;
```

	loan_status	loanCount	total_amt_received	total_funded_amt	Inrst_rate	DTI
1	Fully Paid	32145	411586256	351358350	11.6410707918092	13.1673507557434
2	Charged Off	5333	37284763	65532225	13.8785749318289	14.0047328005517
3	Current	1098	24199914	18866500	15.0993260800947	14.7243442736843

## MTD Loan Status

```
select
  loan_status,
  count(id) as loanCount,
  sum(total_payment) as MTD_total_amt_received,
  sum(loan_amount) as MTD_total_funded_amt
from bank_loan_data
where month(issue_date)=12
group by loan_status;
```

loan_status	loanCount	MTD_total_amt_received	MTD_total_funded_amt
Fully Paid	3452	47815851	41302025
Charged Off	649	5324211	8732775
Current	213	4934318	3946625

## PMTD Loan Status

```
select
loan_status,
count(id) as loanCount,
sum(total_payment) as PMTD_total_amt_received,
sum(loan_amount) as PMTD_total_funded_amt
from bank_loan_data
where month(issue_date)=11
group by loan_status;
```

loan_status	loanCount	PMTD_total_amt_received	PMTD_total_funded_amt
Fully Paid	3321	42420451	37375675
Charged Off	561	3994065	7511175
Current	153	3717514	2867975

## MONTHLY Trend's By Issue\_date

```
select
MONTH(issue_date) as mnth_number,
DATENAME(month , issue_date) as mnth,
count(id) as total_loan_appl,
sum(total_payment) as total_amt_received,
sum(loan_amount) as total_funded_amt
from bank_loan_data
group by DATENAME(month , issue_date),MONTH(issue_date)
order by MONTH(issue_date);
```

mnth_number	mnth	total_loan_appl	total_amt_received	total_funded_amt
1	January	2332	27578836	25031650
2	February	2279	27717745	24647825
3	March	2627	32264400	28875700
4	April	2755	32495533	29800800
5	May	2911	33750523	31738350
6	June	3184	36164533	34161475
7	July	3366	38827220	35813900
8	August	3441	42682218	38149600
9	September	3536	43983948	40907725
10	October	3796	49399567	44893800
11	November	4035	50132030	47754825
12	December	4314	58074380	53981425

## Regional Analysis by State

```
select
address_state,
count(id) as total_loan_appl,
sum(total_payment) as total_amt_received,
sum(loan_amount) as total_funded_amt
from bank_loan_data
group by address_state
order by 4 desc;
```

	address_state	total_loan_appl	total_amt_received	total_funded_amt
1	CA	6894	83901234	78484125
2	NY	3701	46108181	42077050
3	TX	2664	34392715	31236650
4	FL	2773	31601905	30046125
5	NJ	1822	23425159	21657475
6	IL	1486	18875941	17124225
7	VA	1375	17711443	15982650
8	PA	1482	17462908	15826525
9	GA	1355	16728040	15480325
10	MA	1310	16676279	15051000
11	OH	1188	14330148	12991375
12	MD	1027	12985170	11911400
13	AZ	833	10041986	9206000
14	CO	770	9845810	8976000
15	WA	805	9531739	8855525
16	NC	759	9534813	8787575
17	CT	730	9357612	8435575
18	MI	685	8543660	7829900
19	MO	660	7692732	7151175
20	MN	592	6750746	6302600
21	NV	482	5451443	5307375
22	SC	464	5462458	5080475
23	WI	446	5485161	5070450
24	AL	432	5492272	4949225

	address_state	total_loan_appl	total_amt_received	total_funded_amt
25	OR	436	4966903	4720150
26	LA	426	5001160	4498900
27	KY	320	3792530	3504100
28	OK	293	3712649	3365725
29	KS	260	3247394	2872325
30	UT	252	2952412	2849225
31	DC	214	2921854	2652350
32	AR	236	2777875	2529700
33	NH	161	2101386	1917900
34	NM	183	2084485	1916775
35	RI	196	2001774	1883025
36	HI	170	2080184	1850525
37	WV	167	1991936	1830525
38	DE	110	1269136	1138100
39	AK	78	1108570	1031800
40	WY	79	1046050	890750
41	MT	79	892047	829525
42	SD	63	656514	606150
43	VT	54	534973	504100
44	TN	17	141522	162175
45	MS	19	149342	139125
46	IN	9	85521	86225
47	ID	6	65329	59750
48	IA	5	64482	56450
49	NE	5	24542	31700
50	ME	3	10808	9200

## Loan Term Analysis

```
select
term,
count(id) as total_loan_appl,
sum(total_payment) as total_amt_received,
sum(loan_amount) as total_funded_amt
from bank_loan_data
group by term
order by 1 desc;
```

term	total_loan_appl	total_amt_received	total_funded_amt
60 months	10339	178361475	162715850
36 months	28237	294709458	273041225

## Emp\_Length Analysis

```
select
emp_length,
count(id) as total_loan_appl,
sum(total_payment) as total_amt_received,
sum(loan_amount) as total_funded_amt
from bank_loan_data
```



```
group by emp_length
order by 1 ;
```

emp_length	total_loan_appl	total_amt_received	total_funded_amt
< 1 year	4575	47545011	44210625
1 year	3229	35498348	32883125
10+ years	8870	125871616	116115950
2 years	4382	49206961	44967975
3 years	4088	47551832	43937850
4 years	3428	40964850	37600375
5 years	3273	40397571	36973625
6 years	2228	27908658	25612650
7 years	1772	22584136	20811725
8 years	1476	19025777	17558950
9 years	1255	16516173	15084225

## Loan Purpose Breakdown

```
select
purpose,
count(id) as total_loan_appl,
sum(total_payment) as total_amt_received,
sum(loan_amount) as total_funded_amt
from bank_loan_data
group by purpose
order by 2 desc;
```

purpose	total_loan_appl	total_amt_received	total_funded_amt
Debt consolidation	18214	253801871	232459675
credit card	4998	65214084	58885175
other	3824	33289676	31155750
home improvement	2876	36380930	33350775
major purchase	2110	18676927	17251600
small business	1776	23814817	24123100
car	1497	11324914	10223575
wedding	928	10266856	9225800
medical	667	5851372	5533225
moving	559	3999899	3748125
house	366	5185538	4824925
vacation	352	2116738	1967950
educational	315	2248380	2161650
renewable_energy	94	898931	845750

## HomeOwnership Analysis

```
select
home_ownership,
count(id) as total_loan_appl,
sum(total_payment) as total_amt_received,
sum(loan_amount) as total_funded_amt
from bank_loan_data
```

```
group by home_ownership
order by 2 desc;
```

home_ownership	total_loan_appl	total_amt_received	total_funded_amt
RENT	18439	201823056	185768475
MORTGAGE	17198	238474438	219329150
OWN	2838	31729129	29597675
OTHER	98	1025257	1044975
NONE	3	19053	16800

**We Can also apply some filter's like on grade , Address state , loan Status for good loan.**

*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.*

### On Grade

```
select
home_ownership,
count(id) as total_loan_appl,
sum(total_payment) as total_amt_received,
sum(loan_amount) as total_funded_amt
from bank_loan_data
where grade='A'
group by home_ownership
order by 2 desc;
```

home_ownership	total_loan_appl	total_amt_received	total_funded_amt
MORTGAGE	4973	47963188	45908575
RENT	3918	33290992	31825075
OWN	773	6618219	6340100
OTHER	24	167924	168475
NONE	1	11240	10000

### ON AddressState

```
select
home_ownership,
count(id) as total_loan_appl,
sum(total_payment) as total_amt_received,
sum(loan_amount) as total_funded_amt
from bank_loan_data
where address_state='CA'
group by home_ownership
order by 2 desc;
```

home_ownership	total_loan_appl	total_amt_received	total_funded_amt
RENT	4320	48101468	44900225
MORTGAGE	2185	31491154	29405250
OWN	367	4077893	3962050
OTHER	21	226097	212600
NONE	1	4622	4000

## On Loan Status

### For good loan

```
select
home_ownership,
    count(id) as total_loan_appl,
    sum(total_payment) as total_amt_received,
    sum(loan_amount) as total_funded_amt
from bank_loan_data
where loan_status='Fully Paid'
group by home_ownership
order by 2 desc;
```

home_ownership	total_loan_appl	total_amt_received	total_funded_amt
RENT	15342	177109471	150520975
MORTGAGE	14350	205773509	176046600
OWN	2370	27797313	23976450
OTHER	80	886910	797525
NONE	3	19053	16800