

Bank Loan Analysis Using SQL

A Bank Loan Report Summary

Total Loan Application

```
select count(*) as total_application from finance
```

	total_application
1	38576

MTD

```
select count(*) as total_application from finance  
where month(issue_date) = 12
```

MTD
4314

PMTD

```
select count(*) as total_application from finance  
where month(issue_date) = 11
```

PMTD
4035

Total Funded Amount

```
select sum(loan_amount) as funded_amount from finance
```

funded_amount
435757075

MTD

```
select sum(loan_amount) as mtd_funded_amount from finance  
where month(issue_date) =12
```

mtd_funded_amount
53981425

PMTD

```
select sum(loan_amount) as mtd_funded_amount from finance  
where month(issue_date) =11
```

pmt_d_funded_amount
47754825

Total Amount Received

```
select sum(total_payment) as amount_received from finance
```

amount_received
473070933

MTD

```
select sum(total_payment) as mtd_amount_received from finance  
where month(issue_date) =12
```

mtd_amount_received
58074380

PMTD

```
select sum(total_payment) as mtd_amount_received from finance  
where month(issue_date) =11
```

pmt_d_amount_received
50132030

Average Interest Rate

```
select round(avg(int_rate),4)*100 as mtd_int_rate from finance
```

total_int_rate
12.05

MTD

```
select round(avg(int_rate),4)*100 as mtd_int_rate from finance  
where month(issue_date) =12
```

mtd_int_rate
12.36

PMTD

```
select round(avg(int_rate),4)*100 as pmt_d_int_rate from finance  
where month(issue_date) =11
```

pmt_d_int_rate
11.94

Loan Status Types

```
select distinct(loan_status) as loan_status from finance
```

loan_status
Fully Paid
Charged Off
Current

Good loan Percentage

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

good_loan_percentage
86

Good loan

```
select count(id) as good_loan_count from finance
where loan_status = 'Fully Paid' or loan_status = 'Current'
```

good_loan_count
33243

Good loan amount

```
select sum(loan_amount) as good_loan_amount from finance
where loan_status = 'Fully Paid' or loan_status = 'Current'
```

good_loan_amount
370224850

Bad_loan_percentage

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

bad_loan_percentage
13

Bad loan

```
select count(id) as bad_loan_count from finance
where loan_status = 'Charged Off'
```

bad_loan_count
5333

Bad loan amount

```
select sum(loan_amount) as bad_loan_amount from finance
where loan_status = 'Charged Off'
```

bad_loan_amount
65532225

Loan Status

select

```
    loan_status,  
    count(id) as total_loan_application,  
    sum(total_payment) as total_received_amt,  
    sum(loan_amount) as total_received_amt,  
    avg(int_rate)*100 as interest_rate
```

from

finance

group by

loan_status

loan_status	total_loan_application	total_received_amt	total_received_amt	interest_rate
Fully Paid	32145	411586256	351358350	11.6410707730605
Charged Off	5333	37284763	65532225	13.8785749109319
Current	1098	24199914	18866500	15.0993260473588

MTD

select

```
    loan_status,  
    count(id) as total_loan_application,  
    sum(total_payment) as mtd_total_received_amt,  
    sum(loan_amount) as mtd_total_funded_amt
```

from

finance

where

Month(issue_date)=12

group by

loan_status

loan_status	total_loan_application	mtd_total_received_amt	mtd_total_funded_amt
Fully Paid	3452	47815851	41302025
Charged Off	649	5324211	8732775
Current	213	4934318	3946625

BANK LOAN REPORT | OVERVIEW

MONTH

```
select
    month(issue_date) as month_munber,
    datename(month, issue_date) as month_name,
    count(id) as total_loan_applications,
    sum(loan_amount) as total_funded_amount,
    sum(total_payment) as total_amount_received
from finance
group by month(issue_date), datename(month, issue_date)
order by month(issue_date)
```

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

STATE

```
select
    address_state as state,
    count(id) as total_loan_applications,
    sum(loan_amount) as total_funded_amount,
    sum(total_payment) as total_amount_received
from finance
group by address_state
order by address_state
```

state	total_loan_applications	total_funded_amount	total_amount_received
AK	78	1031800	1108570
AL	432	4949225	5492272
AR	236	2529700	2777875
AZ	833	9206000	10041986
CA	6894	78484125	83901234
CO	770	8976000	9845810
CT	730	8435575	9357612
DC	214	2652350	2921854
DE	110	1138100	1269136
FL	2773	30046125	31601905
GA	1355	15480325	16728040
HI	170	1850525	2080184
IA	5	56450	64482
ID	6	59750	65329
IL	1486	17124225	18875941
IN	9	86225	85521
KS	260	2872325	3247394
KY	320	3504100	3792530
LA	426	4498900	5001160
MA	1310	15051000	16676279
MD	1027	11911400	12985170
ME	3	9200	10808
MI	685	7829900	8543660
MN	592	6302600	6750746
MO	660	7151175	7692732
MS	19	139125	149342
MT	79	829525	892047
NC	759	8787575	9534813
NE	5	31700	24542
NH	161	1917900	2101386
NJ	1822	21657475	23425159
NM	183	1916775	2084485
NV	482	5307375	5451443
NY	3701	42077050	46108181
OH	1188	12991375	14330148

OK	293	3365725	3712649
OR	436	4720150	4966903
PA	1482	15826525	17462908
RI	196	1883025	2001774
SC	464	5080475	5462458
SD	63	606150	656514
TN	17	162175	141522
TX	2664	31236650	34392715
UT	252	2849225	2952412
VA	1375	15982650	17711443
VT	54	504100	534973
WA	805	8855525	9531739
WI	446	5070450	5485161
WV	167	1830525	1991936
WY	79	890750	1046050

TERM

```
select
    term as term,
    count(id) as total_loan_applications,
    sum(loan_amount) as total_funded_amount,
    sum(total_payment) as total_amount_received
from finance
group by term
order by term
```

term	total_loan_applications	total_funded_amount	total_amount_received
36 months	28237	273041225	294709458
60 months	10339	162715850	178361475

EMPLOYEE LENGTH

```
select
    emp_length as employee_length,
    count(id) as total_loan_applications,
    sum(loan_amount) as total_funded_amount,
    sum(total_payment) as total_amount_received
from finance
group by emp_length
order by emp_length
```

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

PURPOSE

```
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 finance
group by purpose
order by purpose
```

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

HOME OWNERSHIP

```
select
    home_ownership as home_ownership,
    count(id) as total_loan_applications,
    sum(loan_amount) as total_funded_amount,
    sum(total_payment) as total_amount_received
from finance
group by home_ownership
order by home_ownership
```

Home_Ownership	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
MORTGAGE	17198	219329150	238474438
NONE	3	16800	19053
OTHER	98	1044975	1025257
OWN	2838	29597675	31729129
RENT	18439	185768475	201823056