

SQL

Bank Loan Analysis

Microsoft SQL Server Management Studio



```
select * from bank_loan_data
```

161 %

Results Messages

	id	address_state	application_type	emp_length	emp_title	grade	home_ownership	issue_date	last_credit_pull_date	last_payment_date	loan_status	next_payment_date	member_id	purpose	sub_grade
1	54734	CA	INDIVIDUAL	< 1 year	NULL	B	RENT	2021-08-09	2021-08-12	2021-10-11	Fully Paid	2021-11-11	80364	Debt consolidation	B4
2	55742	NY	INDIVIDUAL	< 1 year	CNN	B	RENT	2021-05-08	2021-08-12	2021-06-11	Fully Paid	2021-07-11	114426	credit card	B5
3	57245	TX	INDIVIDUAL	10+ years	city of beaumont texas	C	OWN	2021-03-10	2021-05-16	2021-03-13	Fully Paid	2021-04-13	138150	Debt consolidation	C2
4	57416	CT	INDIVIDUAL	6 years	State Farm Insurance	C	RENT	2021-11-09	2021-05-16	2021-11-12	Fully Paid	2021-12-12	139635	Debt consolidation	C3
5	58915	CA	INDIVIDUAL	3 years	Qualcomm Inc	B	RENT	2021-04-08	2021-03-14	2021-04-11	Fully Paid	2021-05-11	153417	Debt consolidation	B3
6	59006	TX	INDIVIDUAL	3 years	NULL	C	MORTGAGE	2021-09-09	2021-09-12	2021-10-12	Fully Paid	2021-11-12	154254	credit card	C5
7	61390	TX	INDIVIDUAL	< 1 year	NULL	A	MORTGAGE	2021-02-10	2021-03-12	2021-03-12	Fully Paid	2021-04-12	182594	credit card	A5
8	61419	MD	INDIVIDUAL	1 year	Pension Benefit Guaranty Corporation	D	RENT	2021-02-10	2021-03-13	2021-10-12	Charged Off	2021-11-12	182917	Debt consolidation	D2
9	62102	MA	INDIVIDUAL	5 years	Rockwell Automation Inc.	B	RENT	2021-04-10	2021-03-13	2021-02-11	Fully Paid	2021-03-11	191024	Debt consolidation	B1
10	65426	MI	INDIVIDUAL	< 1 year	Infotrieve, Inc.	B	MORTGAGE	2021-08-09	2021-05-16	2021-06-11	Charged Off	2021-07-11	232106	car	B1
11	65640	CA	INDIVIDUAL	10+ years	kmex/univision	C	MORTGAGE	2021-05-08	2021-04-15	2021-05-11	Fully Paid	2021-06-11	234569	home improvement	C2
12	66431	KY	INDIVIDUAL	3 years	Video Monitoring Services	B	RENT	2021-02-09	2021-03-12	2021-03-12	Fully Paid	2021-04-12	243540	Debt consolidation	B5
13	66749	MS	INDIVIDUAL	10+ years	crown cork & seal	C	MORTGAGE	2021-12-08	2021-12-11	2021-01-12	Fully Paid	2021-02-12	246329	Debt consolidation	C4
14	66943	CA	INDIVIDUAL	< 1 year	The Coggins Co.	B	RENT	2021-08-10	2021-07-14	2021-10-11	Fully Paid	2021-11-11	247802	Debt consolidation	B4
15	66964	KS	INDIVIDUAL	3 years	Acquity	D	MORTGAGE	2021-06-08	2021-06-11	2021-06-11	Fully Paid	2021-07-11	247990	Debt consolidation	D3
16	67503	MI	INDIVIDUAL	1 year	Genesys PHO	A	MORTGAGE	2021-10-09	2021-02-14	2021-02-12	Fully Paid	2021-03-12	252415	Debt consolidation	A4
17	68163	GA	INDIVIDUAL	9 years	Matrix Resources	A	MORTGAGE	2021-02-10	2021-02-13	2021-02-13	Fully Paid	2021-03-13	258249	small business	A3
18	68381	CA	INDIVIDUAL	< 1 year	Albertsons	A	RENT	2021-03-08	2021-03-15	2021-03-11	Fully Paid	2021-04-11	260179	Debt consolidation	A5
19	68817	NC	INDIVIDUAL	10+ years	CAROLINA BROKERAGE CO	C	MORTGAGE	2021-03-08	2021-09-10	2021-09-10	Fully Paid	2021-10-10	264119	major purchase	C1
20	68926	NJ	INDIVIDUAL	10+ years	UBS	D	RENT	2021-08-08	2021-05-16	2021-09-11	Fully Paid	2021-10-11	264924	moving	D2
21	69001	NY	INDIVIDUAL	< 1 year	NULL	A	MORTGAGE	2021-09-09	2021-08-15	2021-07-12	Fully Paid	2021-08-12	265533	credit card	A5
22	69124	WA	INDIVIDUAL	10+ years	Cellnetix Pathology	B	MORTGAGE	2021-03-08	2021-05-16	2021-04-11	Fully Paid	2021-05-11	266619	Debt consolidation	B4
23	69168	KY	INDIVIDUAL	2 years	BJ OIL SERVICE COMPANY	E	RENT	2021-04-08	2021-05-16	2021-04-11	Fully Paid	2021-05-11	266943	major purchase	E4
24	69251	OH	INDIVIDUAL	< 1 year	NULL	A	MORTGAGE	2021-05-08	2021-05-11	2021-05-11	Fully Paid	2021-06-11	267771	other	A3
25	69550	AZ	INDIVIDUAL	2 years	Witron Intergrated logistics	D	RENT	2021-05-10	2021-05-16	2021-08-14	Fully Paid	2021-09-14	270212	Debt consolidation	D3
26	69828	MI	INDIVIDUAL	10+ years	State of Michigan	A	OWN	2021-03-08	2021-08-11	2021-08-11	Fully Paid	2021-09-11	272798	other	A5
27	69924	CA	INDIVIDUAL	3 years	GAP	D	RENT	2021-03-08	2021-02-16	2021-04-11	Fully Paid	2021-05-11	274280	credit card	D4
28	69990	CT	INDIVIDUAL	< 1 year	Diageo North America	A	RENT	2021-02-10	2021-02-13	2021-02-13	Fully Paid	2021-03-13	275254	credit card	A5
29	70348	IL	INDIVIDUAL	4 years	City Lights LTD	C	RENT	2021-03-08	2021-05-16	2021-05-10	Fully Paid	2021-06-10	280311	Debt consolidation	C5
30	76597	NY	INDIVIDUAL	1 year	Ping Interactive	B	MORTGAGE	2021-07-07	2021-07-10	2021-07-10	Fully Paid	2021-08-10	76583	other	B2
31	84918	MA	INDIVIDUAL	10+ years	Revere Public Schools	A	MORTGAGE	2021-09-07	2021-06-07	2021-04-08	Fully Paid	2021-05-08	84914	other	A2

Query executed successfully.

DESKTOP-SOG01H1\SQLEXPRESS ... | DESKTOP-SOG01H1\Hxtrem... | Bank Loan DB | 00:00:00 | 38,576 rows

Total Loan Applications

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

```
select count(id) as Total_Applications  
From bank_loan_data
```

161 %

Results Messages

Total_Applications
1 38576

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

```
select count(id) as Total_Applications  
From bank_loan_data  
where month(issue_date) = 12  
and year(issue_date) = 2021|
```

161 %

Results Messages

Total_Applications
1 4314

Total Amount Funded by Month wise

```
SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X
select sum(loan_amount) as total_funded_amount
from bank_loan_data
where MONTH(issue_date) = 12
and YEAR(issue_date) = 2021
```

161 %

Results Messages

total_funded_amount
1 53981425

```
SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X
select sum(loan_amount) as total_funded_amount
from bank_loan_data
where MONTH(issue_date) = 11
and YEAR(issue_date) = 2021
```

161 %

Results Messages

Loan Interest rate

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

```
[-] select round(avg(int_rate),4)*100 as av_Interest_Rate
      from bank_loan_data
```

161 %

Results Messages

	av_Interest_Rate
1	12.05

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

```
[-] select round(avg(int_rate),4)*100 as av_Interest_Rate
      from bank_loan_data
      where MONTH(issue_date) = 12
      and YEAR(issue_date) = 2021
```

161 %

Results Messages

	av_Interest_Rate
1	12.36

Average dti by Month wise

```
SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X
select round(avg(dt),4)*100 as Avg_dt
from bank_loan_data
where MONTH(issue_date) = 12
and YEAR(issue_date) =2021
```

161 %

Results Messages

Avg_dt
13.67

```
SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X
select round(avg(dt),4)*100 as Avg_dt
from bank_loan_data
where MONTH(issue_date) = 11
and YEAR(issue_date) =2021
```

161 %

Results Messages

Avg_dt
13.3

Good Loan Application

```
SQLQuery1.sql - D:\01H1\Hxtreme (74)* ✎ ×
[-] select (count(case when loan_status = 'Fully Paid'
or loan_status = 'Current' then id end)*100) /
count(id) as Good_loan_Percentage
from bank_loan_data

161 % ▾
Results Messages
Good_loan_Percentage
1 86
```

```
SQLQuery1.sql - D:\01H1\Hxtreme (74)* ✎ ×
[-] select count(id) as good_loan_application
from bank_loan_data
where loan_status = 'Fully Paid'
or loan_status = 'Current'

161 % ▾
Results Messages
good_loan_application
1 33243
```



Good Loan Funded and Received Amount

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

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

161 %

Results Messages

	good_loan_Funded_amount
1	370224850

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

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

161 %

Results Messages

	good_loan_Recieved_amount
1	435786170

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

```
SELECT
    ROUND(
        (COUNT(CASE WHEN loan_status = 'Charged Off' THEN id END) * 100) /
        COUNT(id),4) AS Bad_loan_Percentage
FROM bank_loan_data;
```

161 %

Results Messages

	Bad_loan_Percentage
1	13

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

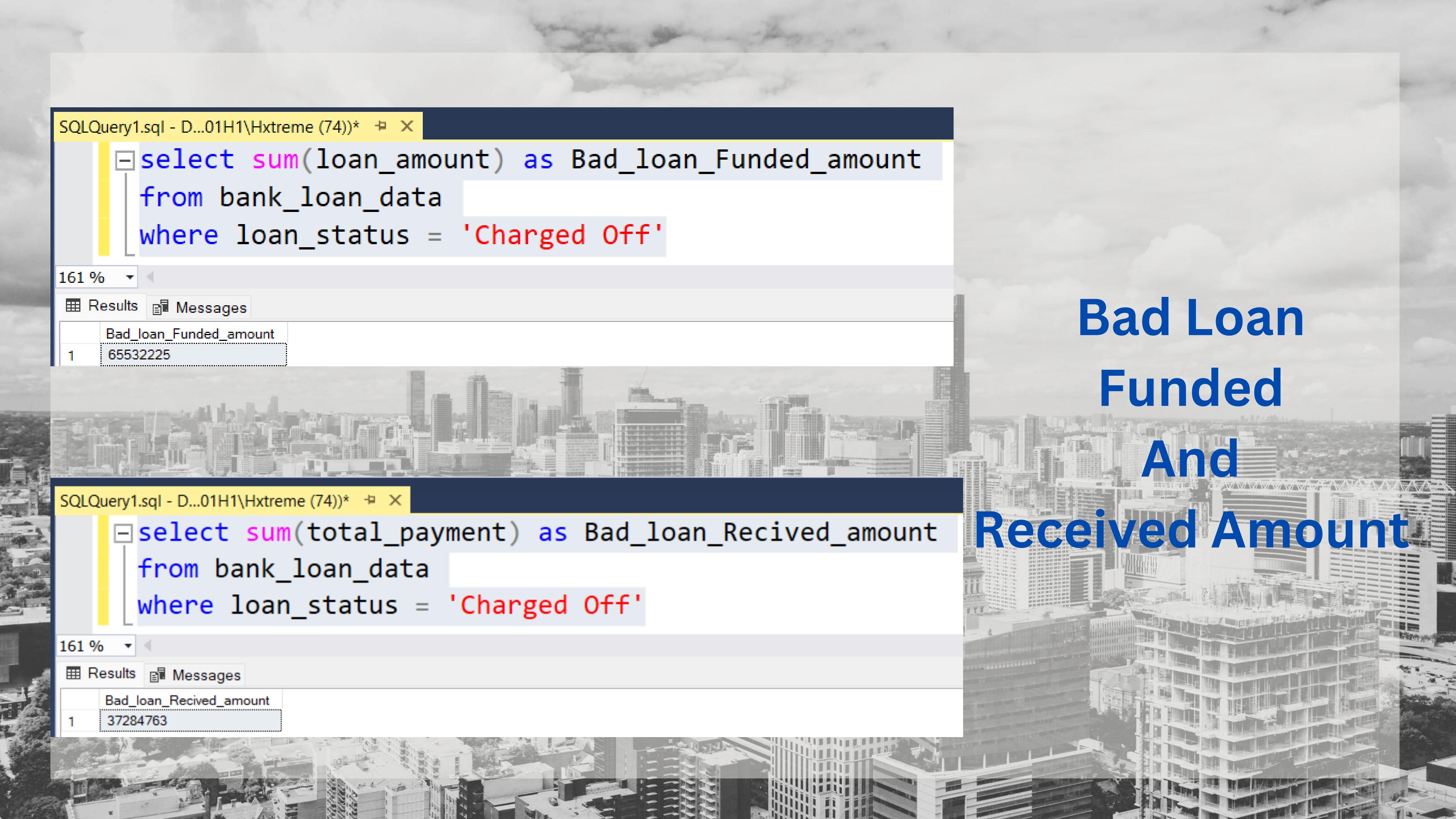
```
select count(id) as Bad_loan_App
from bank_loan_data
where loan_status = 'Charged Off'
```

161 %

Results Messages

	Bad_loan_App
1	5333

Bad
Loan
Taken



Bad Loan Funded And Received Amount

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

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

161 %

Results Messages

	Bad_loan_Funded_amount
1	65532225

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

```
select sum(total_payment) as Bad_loan_Received_amount  
from bank_loan_data  
where loan_status = 'Charged Off'
```

161 %

Results Messages

	Bad_loan_Received_amount
1	37284763

Loan Status

```
SQLQuery1.sql - D...01H1\Hxtreme (74)*  X
[ ] SELECT
    loan_status,
    COUNT(id) AS LoanCount,
    SUM(total_payment) AS Total_Amount_Received,
    SUM(loan_amount) AS Total_Funded_Amount,
    AVG(int_rate * 100) AS Interest_Rate,
    AVG(dtci * 100) AS DTI
  FROM
    bank_loan_data
 GROUP BY
    loan_status
```

161 %

Results Messages

	loan_status	LoanCount	Total_Amount_Received	Total_Funded_Amount	Interest_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

Loan Status of MTD Amount

```
SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X
SELECT
    loan_status,
    SUM(total_payment) AS MTD_Total_Amount_Received,
    SUM(loan_amount) AS MTD_Total_Funded_Amount
FROM bank_loan_data
WHERE MONTH(issue_date) = 12
GROUP BY loan_status
```

161 %

Results Messages

	loan_status	MTD_Total_Amount_Received	MTD_Total_Funded_Amount
1	Fully Paid	47815851	41302025
2	Charged Off	5324211	8732775
3	Current	4934318	3946625

BANK LOAN REPORT OVERVIEW By Month Wise

```
SQLQuery1.sql - D...01H1\Hxtreme (74)*  # X
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 bank_loan_data
GROUP BY MONTH(issue_date), DATENAME(MONTH, issue_date)
ORDER BY MONTH(issue_date)
```

161 %

Results Messages

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

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

```
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 bank_loan_data
GROUP BY address_state
ORDER BY address_state
```

161 %

Results Messages

	State	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	AK	78	1031800	1108570
2	AL	432	4949225	5492272
3	AR	236	2529700	2777875
4	AZ	833	9206000	10041986
5	CA	6894	78484125	83901234
6	CO	770	8976000	9845810
7	CT	730	8435575	9357612
8	DC	214	2652350	2921854
9	DE	110	1138100	1269136
10	FL	2773	30046125	31601905
11	GA	1355	15480325	16728040
12	HI	170	1850525	2080184
13	IA	5	56450	64482
14	ID	6	59750	65329
15	IL	1486	17124225	18875941
16	IN	9	86225	85521
17	KS	260	2872325	3247394
18	KY	320	3504100	3792530
19	LA	426	4498900	5001160
20	MA	1310	15051000	16676279
21	MD	1027	11911400	12985170

BANK LOAN REPORT OVERVIEW By State Wise

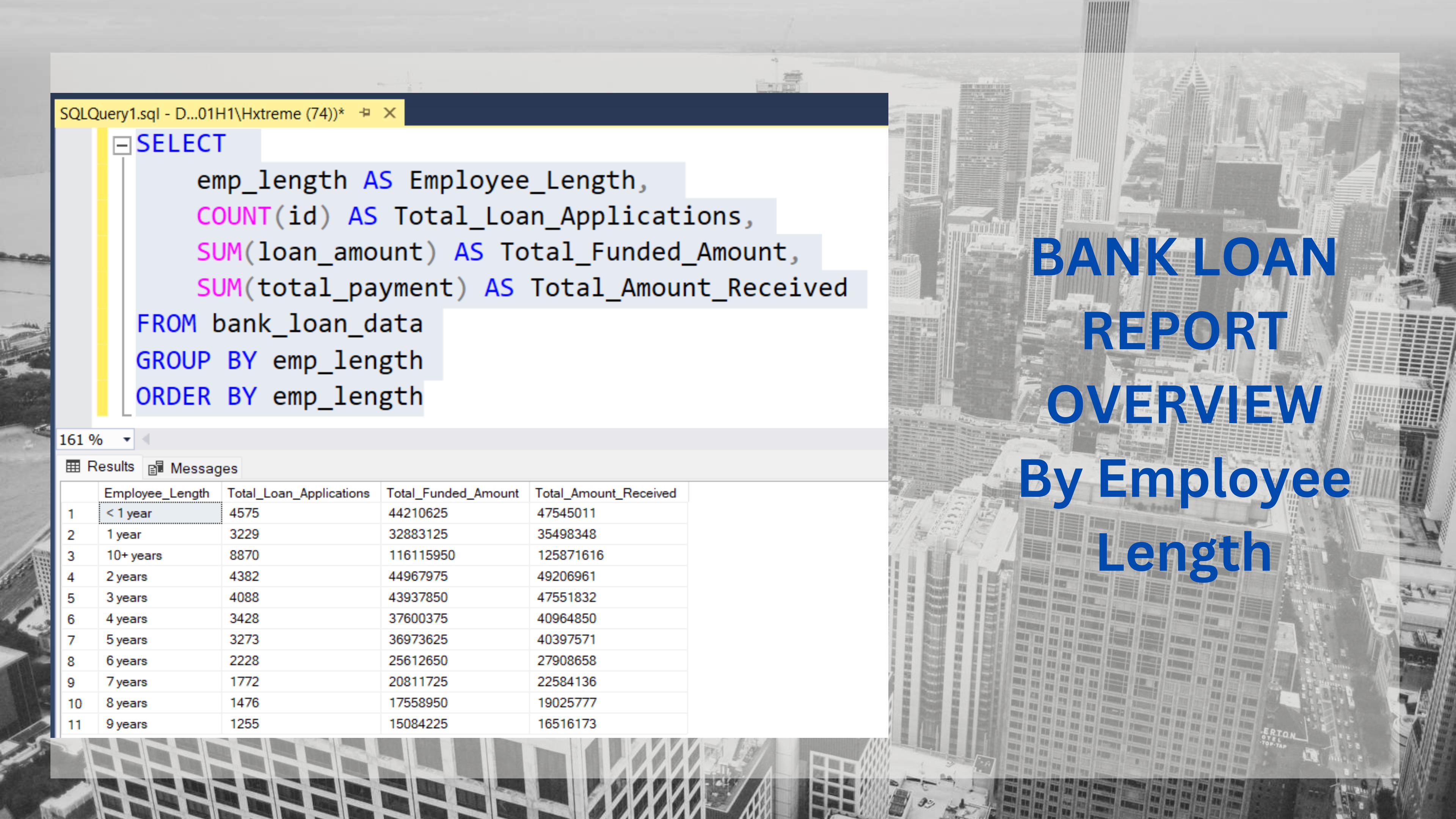
BANK LOAN REPORT OVERVIEW By Term

```
SQLQuery1.sql - D...01H1\Hxtreme (74)*  ↗ X
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 bank_loan_data
GROUP BY term
ORDER BY term
```

161 %

Results Messages

	Term	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	36 months	28237	273041225	294709458
2	60 months	10339	162715850	178361475



BANK LOAN REPORT OVERVIEW

By Employee Length

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

```
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 bank_loan_data  
GROUP BY emp_length  
ORDER BY emp_length
```

161 % ▾

Results Messages

	Employee_Length	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	< 1 year	4575	44210625	47545011
2	1 year	3229	32883125	35498348
3	10+ years	8870	116115950	125871616
4	2 years	4382	44967975	49206961
5	3 years	4088	43937850	47551832
6	4 years	3428	37600375	40964850
7	5 years	3273	36973625	40397571
8	6 years	2228	25612650	27908658
9	7 years	1772	20811725	22584136
10	8 years	1476	17558950	19025777
11	9 years	1255	15084225	16516173

BANK LOAN REPORT OVERVIEW

By Purpose

SQLQuery1.sql - D...01H1\Hxtreme (74)* X

```
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
GROUP BY purpose
ORDER BY purpose
```

161 %

Results Messages

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

BANK LOAN REPORT OVERVIEW By Home Ownership

SQLQuery1.sql - D...01H1\Hxtreme (74)* ✎ X

```
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 bank_loan_data
GROUP BY home_ownership
ORDER BY home_ownership
```

161 % ▾

Results Messages

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



Thank you
very much!