BANK LOAN ANALYSIS QUERIES

Total Loan Applications

```
SELECT COUNT(id) AS Total_Loan_Application FROM bank_loan_data
```

100 %

Results | Messages

	Total_Loan_Application
1	38576

MTD Loan Applications

SQLQuery1.sql - A...P2OA2\Aditya (82))*

```
SELECT COUNT(id) AS MTD_Total_Loan_Application FROM bank_loan_data
WHERE MONTH(issue_date) = 12
```

100 %

Results | Messages

	MTD_Total_Loan_Application
1	4314

PMTD Loan Applications

SQLQuery1.sql - A...P2OA2\Aditya (82))*

```
SELECT COUNT(id) AS PMTD_Total_Loan_Application FROM bank_loan_data
WHERE MONTH(issue_date) = 11
```

100 %

Results | Messages

	PMTD_Total_Loan_Application
1	4035

Total Funded Amount

SQLQuery1.sql - A...P2OA2\Aditya (82))*

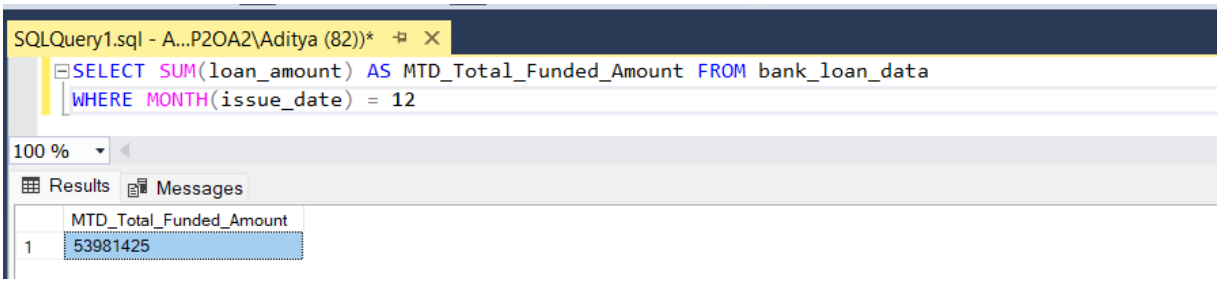
```
SELECT SUM(loan_amount) AS Total_Funded_Amount
FROM bank_loan_data
```

100 %

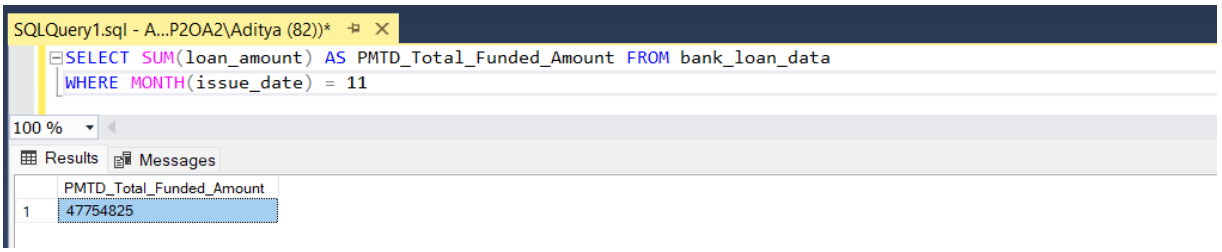
Results | Messages

	Total_Funded_Amount
1	435757075

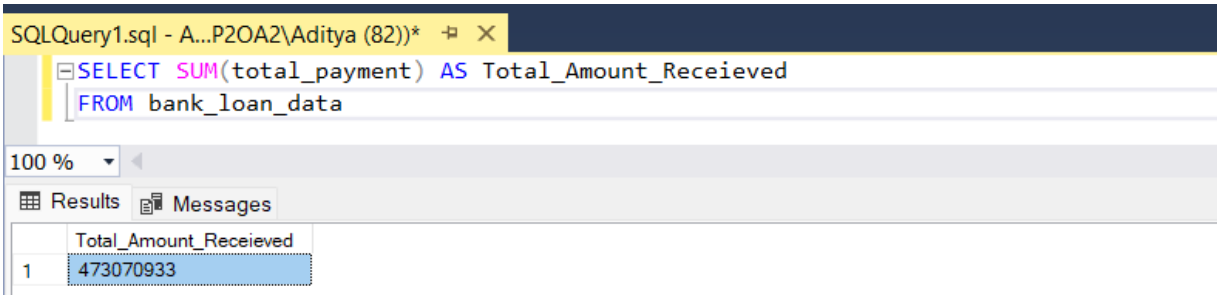
MTD Total Funded Amount



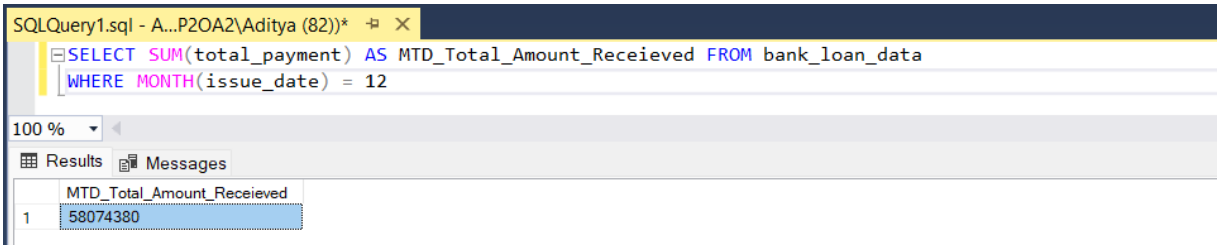
PMTD Total Funded Amount



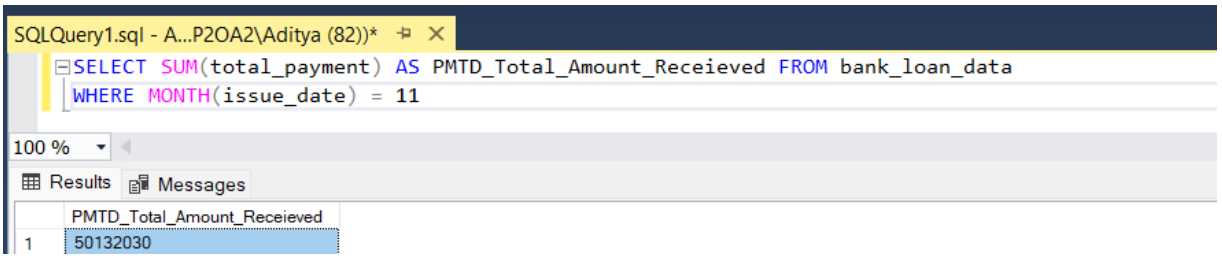
Total Amount Received



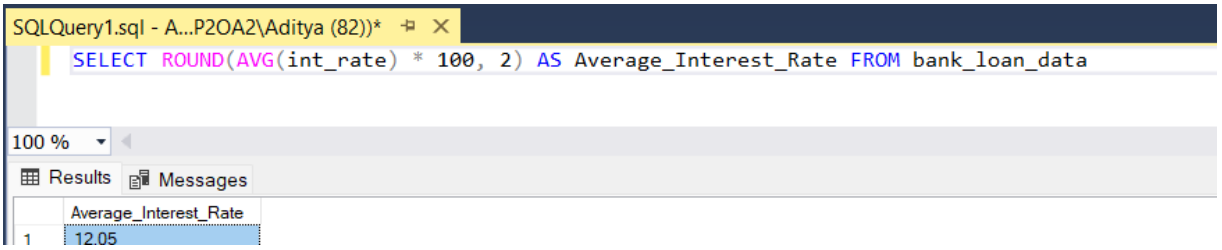
MTD Total Amount Received



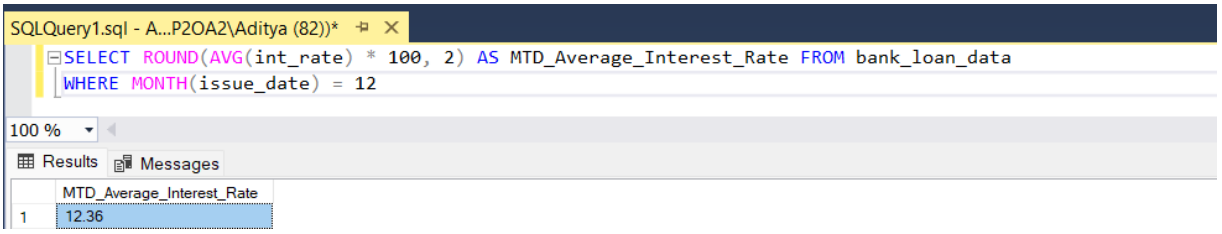
PMTD Total Amount Received



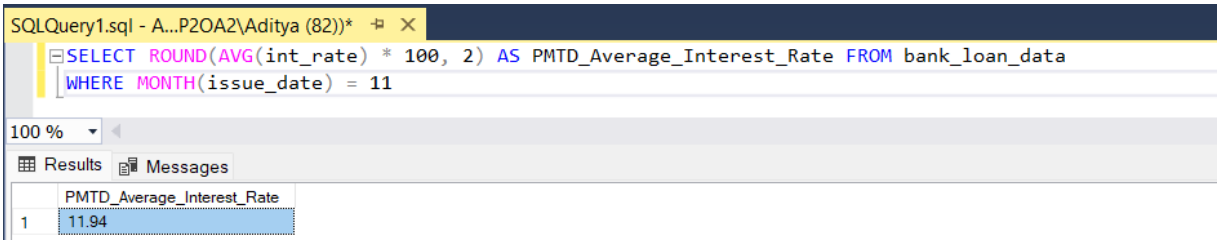
Average Interest Rate



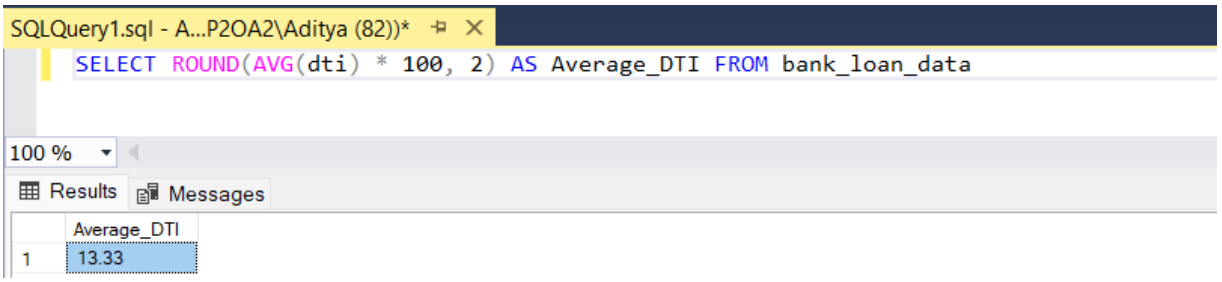
MTD Average Interest Rate



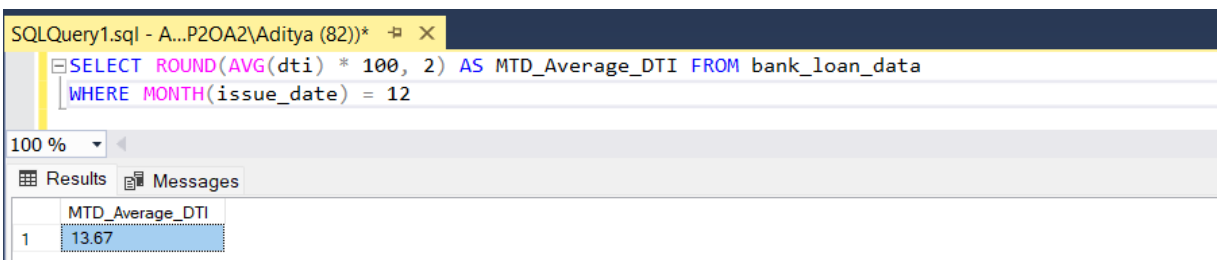
PMTD Average Interest Rate



Average DTI



MTD Average DTI



PMTD Average DTI

```
SELECT ROUND(AVG(dti) * 100, 2) AS PMTD_Average_DTI FROM bank_loan_data
WHERE MONTH(issue_date) = 11
```

	PMTD_Average_DTI
1	13.3

Good Loans Issued

Good Loan Percentage

```
SELECT
(COUNT(CASE WHEN loan_status = 'Fully Paid' OR loan_status = 'Current' THEN id
END) * 100.0)/
COUNT(id) AS Good_Loan_percentage FROM bank_loan_data
```

	Good_Loan_percentage
1	86.175342181667

Good Loan Applications

```
SELECT COUNT(id) AS Good_Loan_Applications FROM bank_loan_data
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'
```

	Good_Loan_Applications
1	33243

Good Loan Founded Amount

```
SELECT SUM(loan_amount) AS Good_Loan_Funded_Amount FROM bank_loan_data
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'
```

	Good_Loan_Funded_Amount
1	370224850

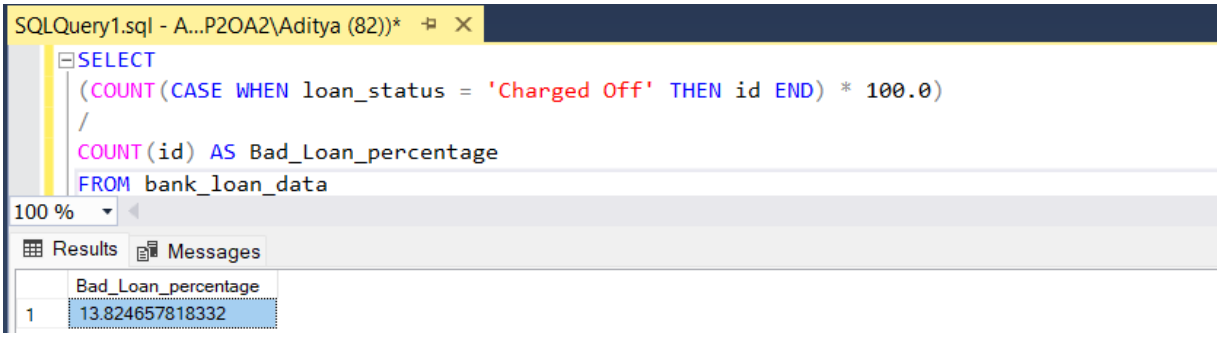
Good Loan Amount Received

```
SELECT SUM(total_payment) AS Good_Loan_Received_Amount FROM bank_loan_data
WHERE loan_status = 'Fully Paid' OR loan_status = 'Current'
```

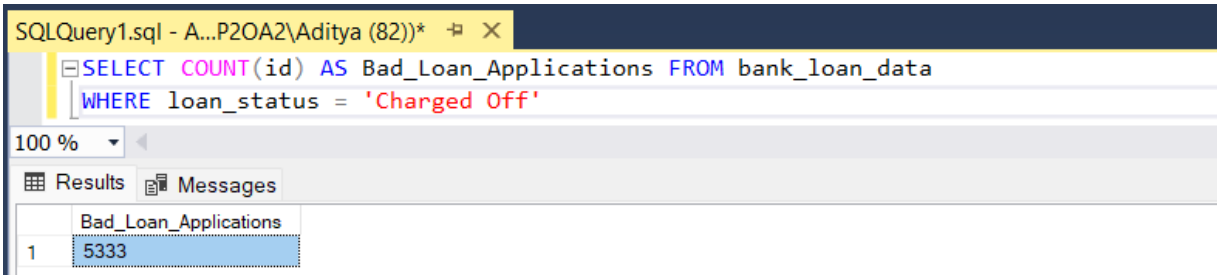
	Good_Loan_Received_Amount
1	435786170

Bad Loans Issued

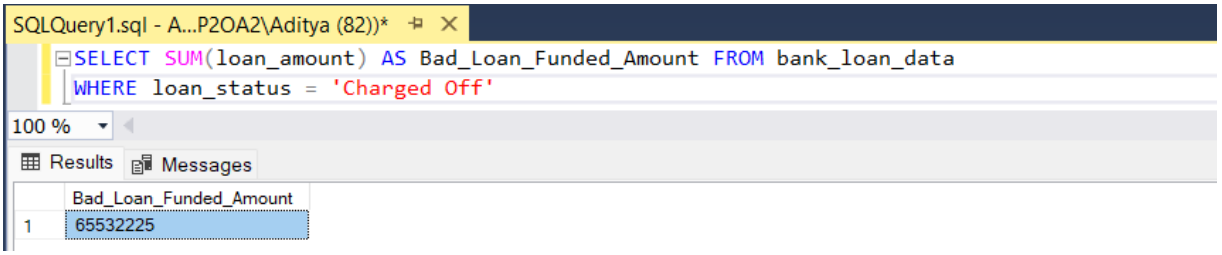
Bad Loan Percentage



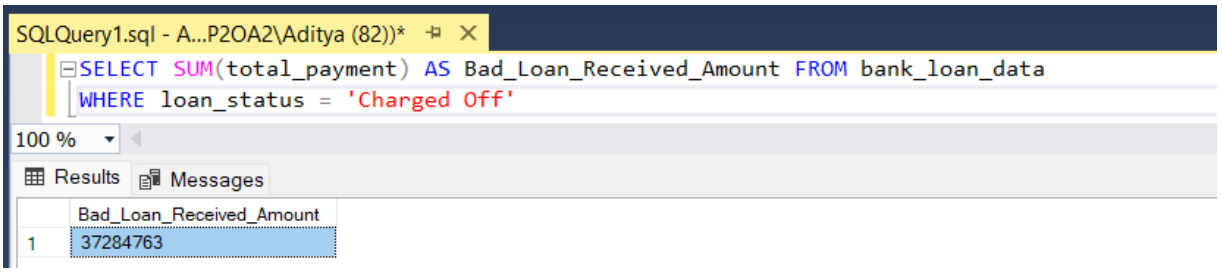
Bad Loan Applications



Bad Loan Founded Amount



Bad Loan Amount Received



LOAN STATUS

SQLQuery1.sql - A...P2OA2\Aditya (82))*

```
SELECT
loan_status AS Loan_Status, COUNT(id) AS Total_Applications,
SUM(total_payment) AS Total_Amount_Recieved,
SUM(loan_amount) AS Total_Funded_Amount, AVG(int_rate * 100) AS Interest_Rate,
AVG(dti * 100) AS DTI
from bank_loan_data
```

125 %

Results | Messages

	Loan_Status	Total_Applications	Total_Amount_Recieved	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

MTD Loan Status

SQLQuery1.sql - A...P2OA2\Aditya (82))*

```
SELECT
loan_status AS Loan_Status,
SUM(total_payment) AS MTD_Total_Amount_Recieved,
SUM(loan_amount) AS MTD_Total_Funded_Amount
from bank_loan_data
WHERE MONTH(issue_date) = 12
```

125 %

Results | Messages

	Loan_Status	MTD_Total_Amount_Recieved	MTD_Total_Funded_Amount
1	Fully Paid	47815851	41302025
2	Charged Off	5324211	8732775
3	Current	4934318	3946625

OVERVIEW

MONTHLY TREND BY ISSUE DATE

SQLQuery1.sql - A...P2OA2\Aditya (82))*

```
SELECT
MONTH(issue_date) AS Month_Number, 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_Received_Amount
from
bank_loan_data
GROUP BY MONTH(issue_date), DATENAME(MONTH, issue_date) ORDER BY MONTH(issue_date)
```

125 %

Results | Messages

	Month_Number	Month_Name	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
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

REGIONAL ANALYSIS BY STATE

SQLQuery1.sql - A...P2OA2\Aditya (82))*

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

125 %

Results | Messages

	State	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
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

LOAN TERM ANALYSIS

SQLQuery1.sql - A...P2OA2\Aditya (82))*

```
SELECT
term AS Term,
COUNT(id) AS Total_Loan_Applications,
SUM(loan_amount) AS Total_Funded_Amount,
SUM(total_payment) AS Total_Received_Amount
from bank_loan_data
GROUP BY term ORDER BY term
```

125 %

Results | Messages

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

EMPLOYEE LENGTH ANALYSIS

SQLQuery1.sql - A...P2OA2\Aditya (82))*

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

125 %

Results | Messages

	Employement_Length	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
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

LOAN PURPOSE ANALYSIS

SQLQuery1.sql - A...P2OA2\Aditya (82))*

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

125 %

Results | Messages

	Purpose	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
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

HOME OWNERSHIP ANALYSIS

SQLQuery1.sql - A...P2OA2\Aditya (82))*

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

125 %

Results | Messages

	Home_Ownership	Total_Loan_Applications	Total_Funded_Amount	Total_Received_Amount
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

SQLQuery1.sql - A...P2OA2\Aditya (82))*

```
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
```

125 %

Results | Messages

	PURPOSE	Total_Loan_Applications	Total_Funded_Amount	Total_Amount_Received
1	car	577	3629475	3805538
2	credit card	1353	12636075	13339495
3	Debt consolidation	3753	37216300	38822971
4	educational	79	484000	515639
5	home improvement	933	8359175	8744006
6	house	91	916575	957878
7	major purchase	796	5344575	5604259
8	medical	197	1471850	1526882
9	moving	164	1069450	1099875
10	other	1024	7043175	7397982
11	renewable_energy	29	224150	225827
12	small business	334	3172075	3190467
13	vacation	122	683625	694542
14	wedding	237	2001725	2126202

Keywords -

MTD – Month-to-Date
PMTD – Previous Month-to-Date

Note: PMTD is used to determine the MoM (Month Over Month) trend change Month to month(MoM) = (MTD - PMTD) / PMTD