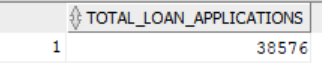
**Bank Loan KPI Analysis Using SQL**

This project analyses key performance indicators (KPIs) from a bank loan dataset using SQL. It covers loan volumes, amounts, payment trends, interest rates, and borrower characteristics across time, regions, and categories.

**Loan Volume KPIs**

**-- Total number of loan applications**

SELECT COUNT(ID)AS TOTAL\_LOAN\_APPLICATIONS FROM BANK\_LOAN\_DATA;



**--MTD Loan Applications**

SELECT COUNT (ID)AS MTD\_TOTAL\_LOAN\_APPLICATIONS FROM BANK\_LOAN\_DATA WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 12 AND EXTRACT (YEAR FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 2021;

A close up of a sign

AI-generated content may be incorrect.

**--PMTD Loan Applications**

SELECT COUNT (ID)AS PMTD\_TOTAL\_LOAN\_APPLICATIONS FROM BANK\_LOAN\_DATA WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 11AND EXTRACT (YEAR FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 2021;

A close up of a sign

AI-generated content may be incorrect.

**--Total Loan Amount**

SELECT SUM (LOAN\_AMOUNT) AS TOTAL\_LOAN\_AMOUNT FROM BANK\_LOAN\_DATA;

A close up of a number

AI-generated content may be incorrect.

**--MTD Total Loan Amount**

SELECT SUM (LOAN\_AMOUNT) AS TOTAL\_LOAN\_AMOUNT FROM BANK\_LOAN\_DATA WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE ,'DD-MM-YY')) = 12 AND EXTRACT (YEAR FROM TO\_DATE (ISSUE\_DATE,'DD-MM-YY')) = 2021;

A close up of a number

AI-generated content may be incorrect.

**--PMTD Total Loan Amount**

SELECT SUM (LOAN\_AMOUNT) AS TOTAL\_LOAN\_AMOUNT FROM BANK\_LOAN\_DATA WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE ,'DD-MM-YY')) = 11 AND EXTRACT (YEAR FROM TO\_DATE (ISSUE\_DATE,'DD-MM-YY')) = 2021;

A close up of a number

AI-generated content may be incorrect.

**Financial KPIs**

**--TOTAL PAYMENT SUM**

SELECT SUM(TOTAL\_PAYMENT) AS TOTAL\_PAYMENT FROM BANK\_LOAN\_DATA;

A close up of numbers

AI-generated content may be incorrect.

**--MTD TOTAL PAYMENT SUM**

SELECT SUM (TOTAL\_PAYMENT) AS MTD\_TOTAL\_PAYMENT FROM BANK\_LOAN\_DATA

WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 12

AND EXTRACT (YEAR FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 2021;

A close up of a number

AI-generated content may be incorrect.

**--PMTD TOTAL PAYMENT SUM**

SELECT SUM (TOTAL\_PAYMENT) AS PMTD\_TOTAL\_PAYMENT FROM BANK\_LOAN\_DATA

WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 11

AND EXTRACT (YEAR FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 2021;



**Interest Rate and DTI-**

**--AVG Interest rate**

SELECT ROUND (AVG(INT\_RATE), 4) \*100 AS INTEREST\_DATE FROM BANK\_LOAN\_DATA;

A close up of a computer screen

AI-generated content may be incorrect.

**--MTD AVG Interest rate**

SELECT ROUND (AVG(INT\_RATE), 4) \*100 AS MTD\_INTEREST\_DATE FROM BANK\_LOAN\_DATA

WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 12

AND EXTRACT (YEAR FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 2021;

A close up of a sign

AI-generated content may be incorrect.

**--PMTD AVG Interest rate**

SELECT ROUND (AVG(INT\_RATE), 4) \*100 AS PMTD\_INTEREST\_DATE FROM BANK\_LOAN\_DATA

WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 11

AND EXTRACT (YEAR FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 2021;

A close up of a sign

AI-generated content may be incorrect.

**--AVG DTI**

SELECT ROUND (AVG(DTI), 4) \*100 AS AVG\_DTI FROM BANK\_LOAN\_DATA;

A close up of a number

AI-generated content may be incorrect.

**--MTD AVG DTI**

SELECT ROUND (AVG(DTI), 4) \*100 AS MTD\_AVG\_DTI FROM BANK\_LOAN\_DATA

WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 12

AND EXTRACT (YEAR FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 2021;



**--PMTD AVG DTI**

SELECT ROUND (AVG(DTI), 4) \*100 AS PMTD\_AVG\_DTI FROM BANK\_LOAN\_DATA

WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 11

AND EXTRACT (YEAR FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 2021;

A close up of a computer screen

AI-generated content may be incorrect.

**Good vs Bad Loan Analysis**

**--Good Loan Percentage**

SELECT ROUND ((SUM (CASE

WHEN LOAN\_STATUS IN ('Fully Paid', 'Current') THEN 1

ELSE 0 END) \* 100) / COUNT(\*), 2 ) AS GOOD\_LOAN\_PERCENTAGE

FROM BANK\_LOAN\_DATA;

A close up of a sign

AI-generated content may be incorrect.

**--Good Loan Applications**

SELECT COUNT(ID) AS GOOD\_LOAN\_APPLICATIONS FROM BANK\_LOAN\_DATA

WHERE LOAN\_STATUS = 'Fully Paid' OR LOAN\_STATUS = 'Current';

A close up of a sign

AI-generated content may be incorrect.

**--Good Loan Funded Amount**

SELECT SUM (LOAN\_AMOUNT) AS GOOD\_LOAN\_FUNDED\_AMOUNT FROM BANK\_LOAN\_DATA

WHERE LOAN\_STATUS = 'Fully Paid' OR LOAN\_STATUS = 'Current';

A close up of a sign

AI-generated content may be incorrect.

**--Good Loan Received Amount**

SELECT SUM (TOTAL\_PAYMENT) AS GOOD\_LOAN\_RECEIVED\_AMOUNT FROM BANK\_LOAN\_DATA

WHERE LOAN\_STATUS = 'Fully Paid' OR LOAN\_STATUS = 'Current';

A close up of a message

AI-generated content may be incorrect.

**--Bad Loan Percentage**

SELECT ROUND ((SUM (CASE

WHEN LOAN\_STATUS = 'Charged Off' THEN 1 ELSE 0 END) \* 100) / COUNT(\*), 2) AS BAD\_LOAN\_PERCENTAGE

FROM BANK\_LOAN\_DATA;

A close up of a sign

AI-generated content may be incorrect.

**--Bad Loan Applications**

SELECT COUNT(ID) AS BAD\_LOAN\_APPLICATIONS FROM BANK\_LOAN\_DATA

WHERE LOAN\_STATUS = 'Charged Off';



**--Bad Loan Funded Amount**

SELECT SUM (LOAN\_AMOUNT) AS BAD\_LOAN\_FUNDED\_AMOUNT FROM BANK\_LOAN\_DATA

WHERE LOAN\_STATUS = 'Charged Off';

A close up of a sign

AI-generated content may be incorrect.

**--Bad Loan Received Amount**

SELECT SUM (TOTAL\_PAYMENT) AS BAD\_LOAN\_RECEIVED\_AMOUNT FROM BANK\_LOAN\_DATA

WHERE LOAN\_STATUS = 'Charged Off';

A white rectangular sign with black text

AI-generated content may be incorrect.

**--Loan Status**

SELECT LOAN\_STATUS,

COUNT(ID) AS TOTAL\_LOAN\_APPLICATIONS,

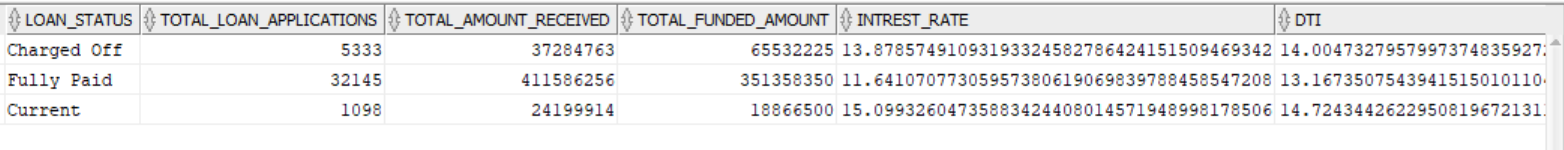
SUM (TOTAL\_PAYMENT) AS TOTAL\_AMOUNT\_RECEIVED,

SUM (LOAN\_AMOUNT) AS TOTAL\_FUNDED\_AMOUNT,

AVG (INT\_RATE\*100) AS INTREST\_RATE,

AVG (DTI\*100) AS dti FROM BANK\_LOAN\_DATA

GROUP BY LOAN\_STATUS;



**--MTD Amount received and funded**

SELECT LOAN\_STATUS,

SUM (TOTAL\_PAYMENT) AS MTD\_TOTAL\_AMOUNT\_RECEIVED,

SUM (LOAN\_AMOUNT) AS MTD\_TOTAL\_FUNDED\_AMOUNT

FROM BANK\_LOAN\_DATA

WHERE EXTRACT (MONTH FROM TO\_DATE (ISSUE\_DATE, 'DD-MM-YY')) = 12

GROUP BY LOAN\_STATUS;

A screenshot of a computer

AI-generated content may be incorrect.

**Monthly Trends**

**--Monthly Trends by Issue date**

SELECT

TO\_CHAR (ISSUE\_DATE, 'MM') AS MONTH\_NUMBER,

TO\_CHAR (ISSUE\_DATE , 'Month') AS MONTH\_NAME,

COUNT(ID) AS TOTAL\_LOAN\_APPLICATIONS,

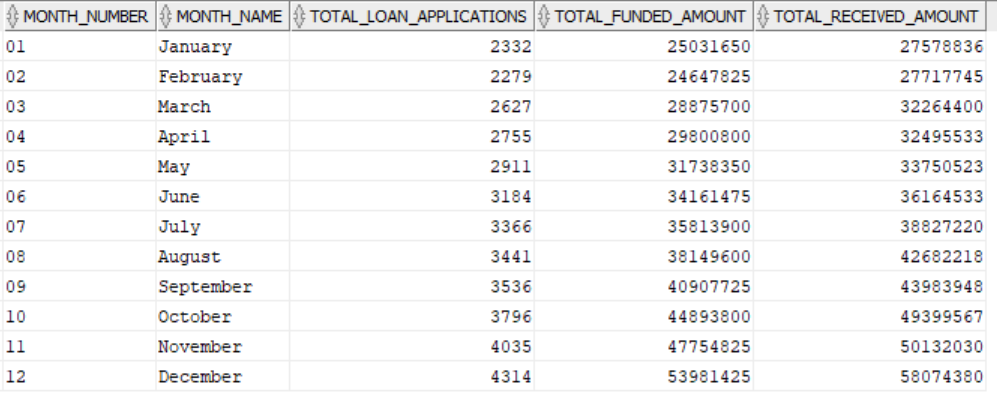
SUM (LOAN\_AMOUNT) AS TOTAL\_FUNDED\_AMOUNT,

SUM (TOTAL\_PAYMENT) AS TOTAL\_RECEIVED\_AMOUNT

FROM BANK\_LOAN\_DATA

GROUP BY TO\_CHAR(ISSUE\_DATE,'MM'), TO\_CHAR (ISSUE\_DATE, 'Month')

ORDER BY TO\_CHAR (ISSUE\_DATE, 'MM');



**Regional Breakdown**

**--Regional Analysis by State**

SELECT ADDRESS\_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 TOTAL\_FUNDED\_AMOUNT DESC;

A screenshot of a computer

AI-generated content may be incorrect.

**Categorical Insights**

**--Loan Term Analysis**

SELECT 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 ;

A screenshot of a computer

AI-generated content may be incorrect.

**--Employee Length Analysis**

SELECT EMP\_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 ;

A screenshot of a computer

AI-generated content may be incorrect.

**--Loan Purpose Breakdown**

SELECT 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 COUNT(ID) DESC ;

A screenshot of a computer

AI-generated content may be incorrect.

**--Home Ownership Analysis**

SELECT 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 COUNT(ID) DESC ;

A screenshot of a computer

AI-generated content may be incorrect.