

USE retail\_banking\_analytics;

-- MODULE 1

-- Loan Portfolio & Credit Risk Analysis

-- Task 1

-- Total Loans Issued

```
SELECT COUNT (*) AS total_loans_issued  
FROM Loans;
```

total_loans_issued
4000

-- Task 2

-- Loans Issued by Year

```
SELECT  
    YEAR (start_date) AS issue_year,  
    COUNT (*) AS loans_issued  
FROM Loans  
GROUP BY YEAR (start_date)  
ORDER BY issue_year;
```

issue_year	loans_issued
2015	481
2016	538
2017	477
2018	449
2019	476
2020	465
2021	519
2022	489
2023	106

-- Task 3

-- Loan Status Distribution

```
SELECT loan_status,  
COUNT (*) AS loan_count  
FROM loans  
GROUP BY loan_status;
```

loan_status	loan_count
Active	2634
Closed	968
Defaulted	398

-- Task 4

-- Capital at Risk (Defaulted LOANS)

```
SELECT SUM (principal_amount) AS total_capital_at_risk  
FROM loans  
WHERE loan_status = "Defaulted";
```

total_capital_at_risk
284770963.63

-- Task 5

-- Default Rate by Customer Risk Rating

```
SELECT  
    cu.risk_rating,  
    COUNT (l. loan_id) AS total_loans,  
    SUM (  
        CASE  
            WHEN l. loan_status = "Defaulted" THEN 1  
        ELSE 0  
        END  
    ) AS defaulted_loans,  
    ROUND (  
        SUM (  
            CASE
```

```

        WHEN l. loan_status = "Defaulted" THEN 1
    ELSE 0
    END
    ) / COUNT (l. loan_id) * 100,
2
    ) AS default_rate_pct
FROM loans l
JOIN customers cu
    ON l. customer_id = cu. customer_id
GROUP BY cu. risk_rating
ORDER BY default_rate_pct DESC;

```

risk_rating	total_loans	defaulted_loans	default_rate_pct
High	553	73	13.20
Medium	1035	102	9.86
Low	2412	223	9.25