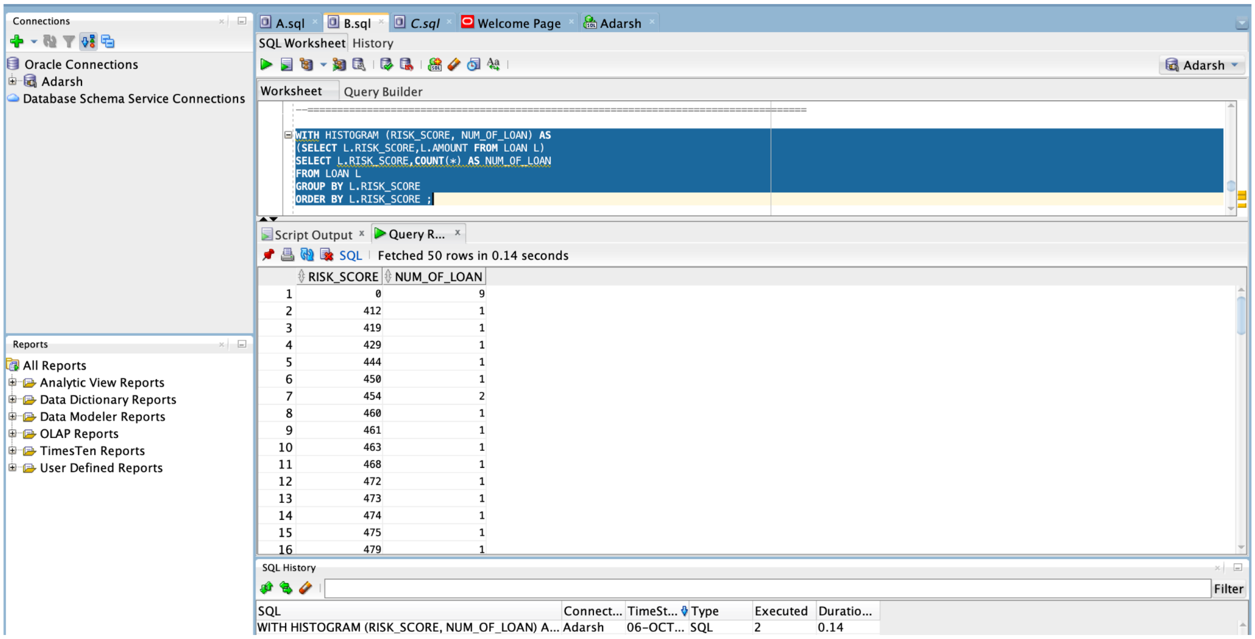
Question B:
-- (i) Write a CTE 'Histogram' that counts the number of loans for each risk score.
--Write a simple query to display the results of the CTE in descending order of the count.



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--=============================================================================

WITH HISTOGRAM (RISK_SCORE, NUM_OF_LOAN) AS
(SELECT L.RISK_SCORE,L.AMOUNT FROM LOAN L)
SELECT L.RISK_SCORE,COUNT(*) AS NUM_OF_LOAN
FROM LOAN L
GROUP BY L.RISK_SCORE
ORDER BY L.RISK_SCORE ;
```

Fetched 50 rows in 0.14 seconds

	RISK_SCORE	NUM_OF_LOAN
1	0	9
2	412	1
3	419	1
4	429	1
5	444	1
6	450	1
7	454	2
8	460	1
9	461	1
10	463	1
11	468	1
12	472	1
13	473	1
14	474	1
15	475	1
16	479	1

SQL	Connect...	TimeSt...	Type	Executed	Duratio...
WITH HISTOGRAM (RISK_SCORE, NUM_OF_LOAN) A...	Adarsh	06-OCT...	SQL	2	0.14

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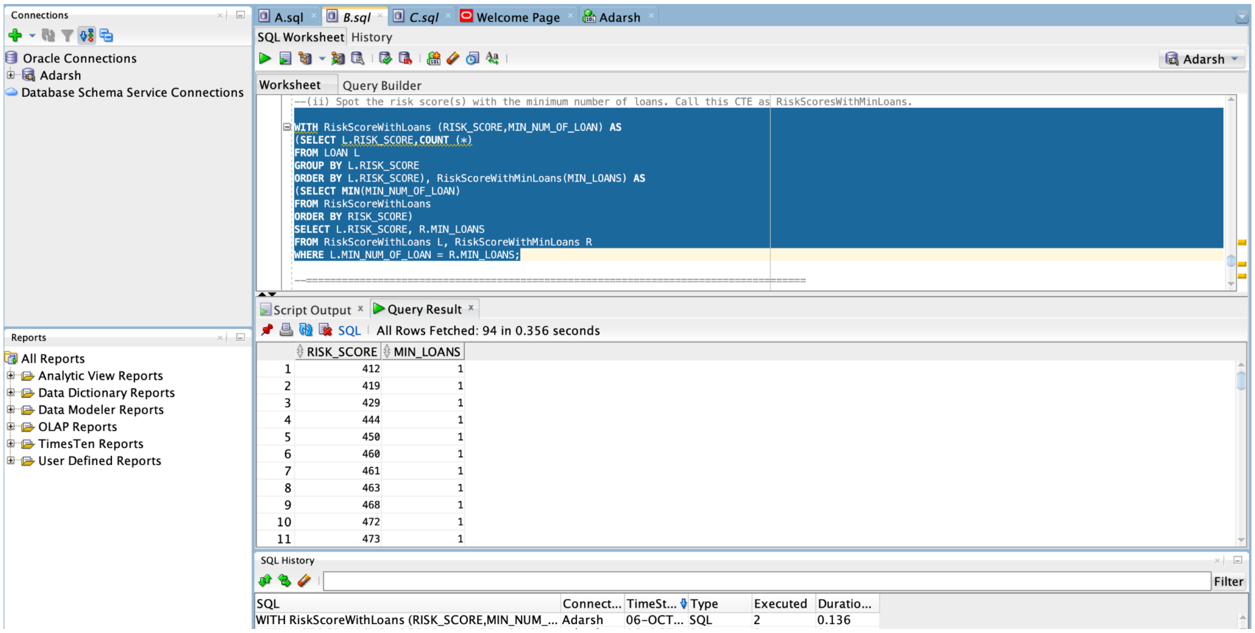
--(ii) Spot the risk score(s) with the minimum number of loans. Call this CTE as RiskScoresWithMinLoans.



```
--(ii) Spot the risk score(s) with the minimum number of loans. Call this CTE as RiskScoresWithMinLoans.

WITH RiskScoreWithLoans (RISK_SCORE,MIN_NUM_OF_LOAN) AS
(SELECT L.RISK_SCORE,COUNT (*)
FROM LOAN L
GROUP BY L.RISK_SCORE
ORDER BY L.RISK_SCORE), RiskScoreWithMinLoans(MIN_LOANS) AS
(SELECT MIN(MIN_NUM_OF_LOAN)
FROM RiskScoreWithLoans
ORDER BY RISK_SCORE)
SELECT L.RISK_SCORE, R.MIN_LOANS
FROM RiskScoreWithLoans L, RiskScoreWithMinLoans R
WHERE L.MIN_NUM_OF_LOAN = R.MIN_LOANS;

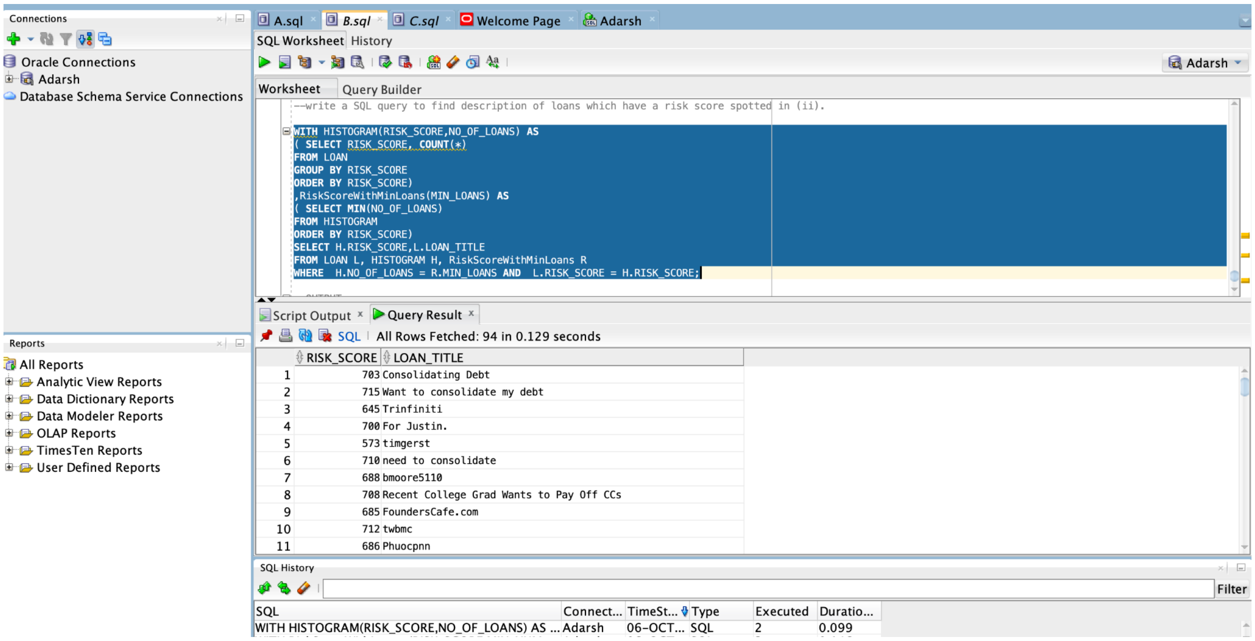
--=============================================================================
```

All Rows Fetched: 94 in 0.356 seconds

	RISK_SCORE	MIN_LOANS
1	412	1
2	419	1
3	429	1
4	444	1
5	450	1
6	460	1
7	461	1
8	463	1
9	468	1
10	472	1
11	473	1

SQL	Connect...	TimeSt...	Type	Executed	Duratio...
WITH RiskScoreWithLoans (RISK_SCORE,MIN_NUM_...	Adarsh	06-OCT...	SQL	2	0.136

--(iii) Using your Histogram and RiskScoresWithMinLoans CTE,
--write a SQL query to find a description of loans which have a risk score spotted in (ii).



```
--write a SQL query to find description of loans which have a risk score spotted in (ii).

WITH HISTOGRAM(RISK_SCORE,NO_OF_LOANS) AS
( SELECT RISK_SCORE, COUNT(*)
FROM LOAN
GROUP BY RISK_SCORE
ORDER BY RISK_SCORE)
,RiskScoreWithMinLoans(MIN_LOANS) AS
( SELECT MIN(NO_OF_LOANS)
FROM HISTOGRAM
ORDER BY RISK_SCORE)
SELECT H.RISK_SCORE,L.LOAN_TITLE
FROM LOAN L, HISTOGRAM H, RiskScoreWithMinLoans R
WHERE  H.NO_OF_LOANS = R.MIN_LOANS AND  L.RISK_SCORE = H.RISK_SCORE;
```

All Rows Fetched: 94 in 0.129 seconds

	RISK_SCORE	LOAN_TITLE
1	703	Consolidating Debt
2	715	Want to consolidate my debt
3	645	Trinfiniti
4	700	For Justin.
5	573	timgerst
6	710	need to consolidate
7	688	bmoore5110
8	708	Recent College Grad Wants to Pay Off CCs
9	685	FoundersCafe.com
10	712	twbmc
11	686	Phuocpnn

SQL	Connect...	TimeSt...	Type	Executed	Duratio...
WITH HISTOGRAM(RISK_SCORE,NO_OF_LOANS) AS ...	Adarsh	06-OCT...	SQL	2	0.099