East West University

Department of CSE
Course Code: CSE302
Course Title: Database System

Assignment:03
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Submitted To:
Mahmuda Rawnak Jahan(MRJ)
Lecturer
Department of CSE

Submitted By:
Abdul Wadud
ID:2022-2-60-133

File Uploaing:

```
--File Uploading
@D:\Projects\SQL_Files\banking.sql
```

Task-1
Execution:

```
--Finding all name and cities of branches
SELECT branch_name, branch_city
FROM branch
WHERE assets > 100000;
```

Output:

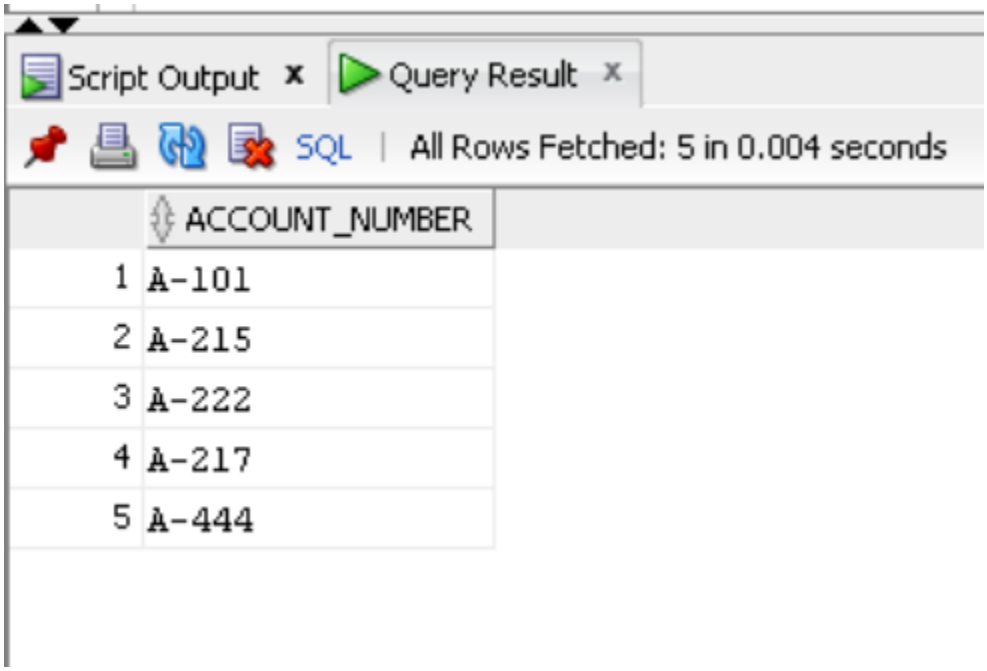
Script Output | Query Result | SQL | All Rows Fetched: 9 in 0.007 seconds

	BRANCH_NAME	BRANCH_CITY
1	Downtown	Brooklyn
2	Redwood	Palo Alto
3	Perryridge	Horseneck
4	Mianus	Horseneck
5	Round Hill	Horseneck
6	Pownal	Bennington
7	North Town	Rye
8	Brighton	Brooklyn
9	Central	Rye

Task-2
Execution:

```
--Finding all account numbers in downtown branch or balance (600 to 750)
SELECT account_number
FROM account
WHERE branch_name = 'Downtown' OR balance>=600 AND balance<=750;
```

Output:



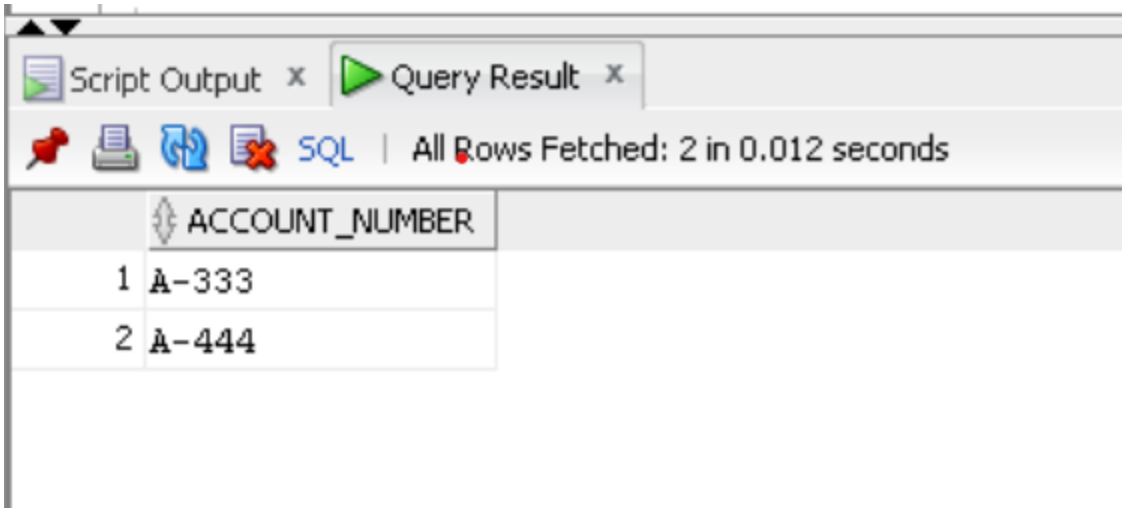
	ACCOUNT_NUMBER
1	A-101
2	A-215
3	A-222
4	A-217
5	A-444

Task-3

Execution:

```
--Finding all account numbers which are opened in Rye city branch
SELECT account.account_number
FROM account
JOIN branch ON account.branch_name = branch.branch_name
WHERE branch.branch_city = 'Rye';
```

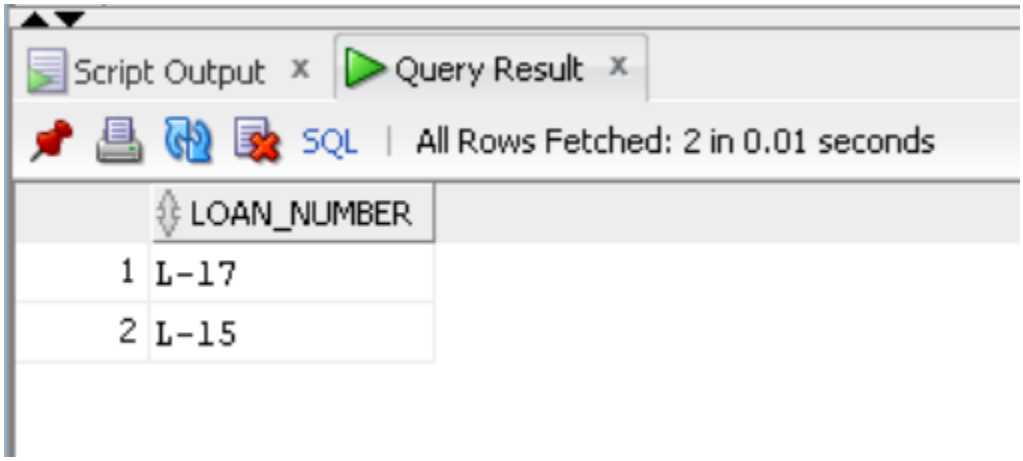
Output:



Task-4
Execution:

```
--Finding all loan numbers which are >=1000 and customers from Harrison City
SELECT loan.loan_number
FROM loan
JOIN borrower ON loan.loan_number = borrower.loan_number
JOIN customer ON borrower.customer_name = customer.customer_name
WHERE loan.amount >= 1000 AND customer.customer_city = 'Harrison';
```

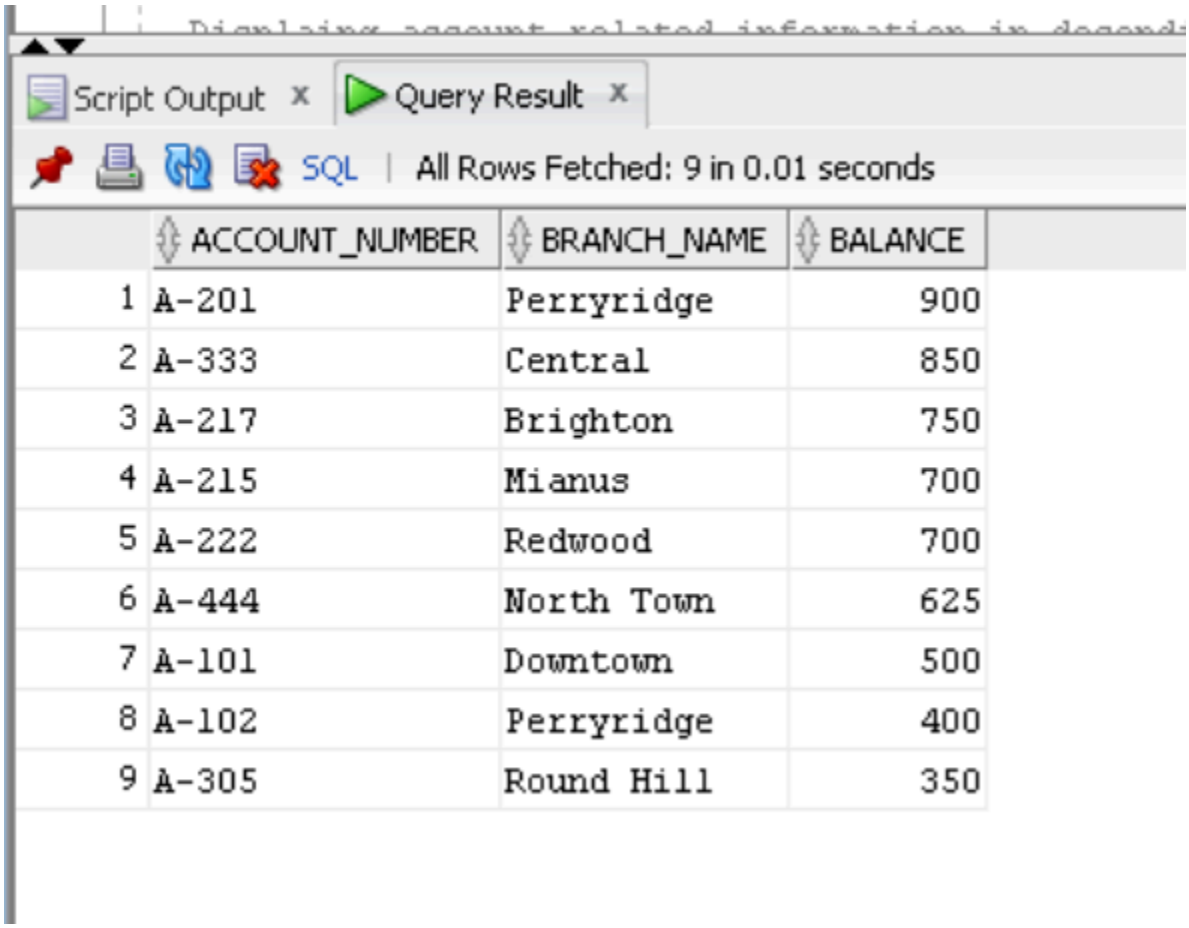
Output:



Task-5
Execution:

```
--Displaing account related information in decending order of balance
SELECT *
FROM account
ORDER BY balance DESC;
```

Output:



Script Output | Query Result

SQL | All Rows Fetched: 9 in 0.01 seconds

	ACCOUNT_NUMBER	BRANCH_NAME	BALANCE
1	A-201	Perryridge	900
2	A-333	Central	850
3	A-217	Brighton	750
4	A-215	Mianus	700
5	A-222	Redwood	700
6	A-444	North Town	625
7	A-101	Downtown	500
8	A-102	Perryridge	400
9	A-305	Round Hill	350

Task-6

Execution:

```
--Displaying customer related information in alphabetic order of customer cities
SELECT *
FROM customer
ORDER BY customer_city ASC;
```

Output:

Script Output | Query Result

SQL | All Rows Fetched: 15 in 0.007 seconds

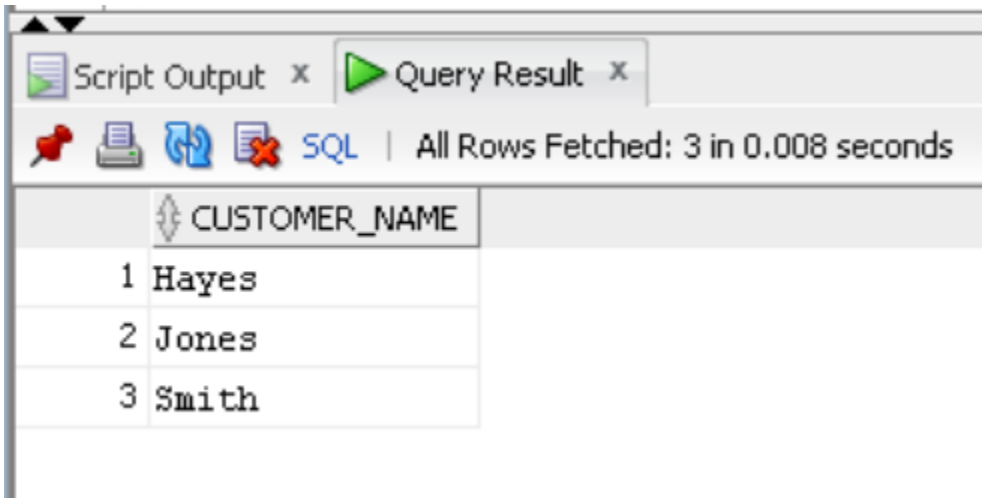
	CUSTOMER_NAME	CUSTOMER_STREET	CUSTOMER_CITY
1	Brooks	Senator	Brooklyn
2	Hayes	Main	Harrison
3	Jones	Main	Harrison
4	Johnson	Alma	Palo Alto
5	Adams	Spring	Pittsfield
6	Lindsay	Park	Pittsfield
7	Williams	Nassau	Princeton
8	Curry	North	Rye
9	McBride	Safety	Rye
10	Smith	Main	Rye
11	Majeris	First	Rye
12	Jackson	University	Salt Lake
13	Green	Walnut	Stamford
14	Turner	Putnam	Stamford
15	Glenn	Sand Hill	Woodside

Task-7

Execution:

```
--Finding all customer names who have an account as well as a loan
SELECT depositor.customer_name
FROM depositor
INTERSECT
SELECT borrower.customer_name
FROM borrower;
```

Output:

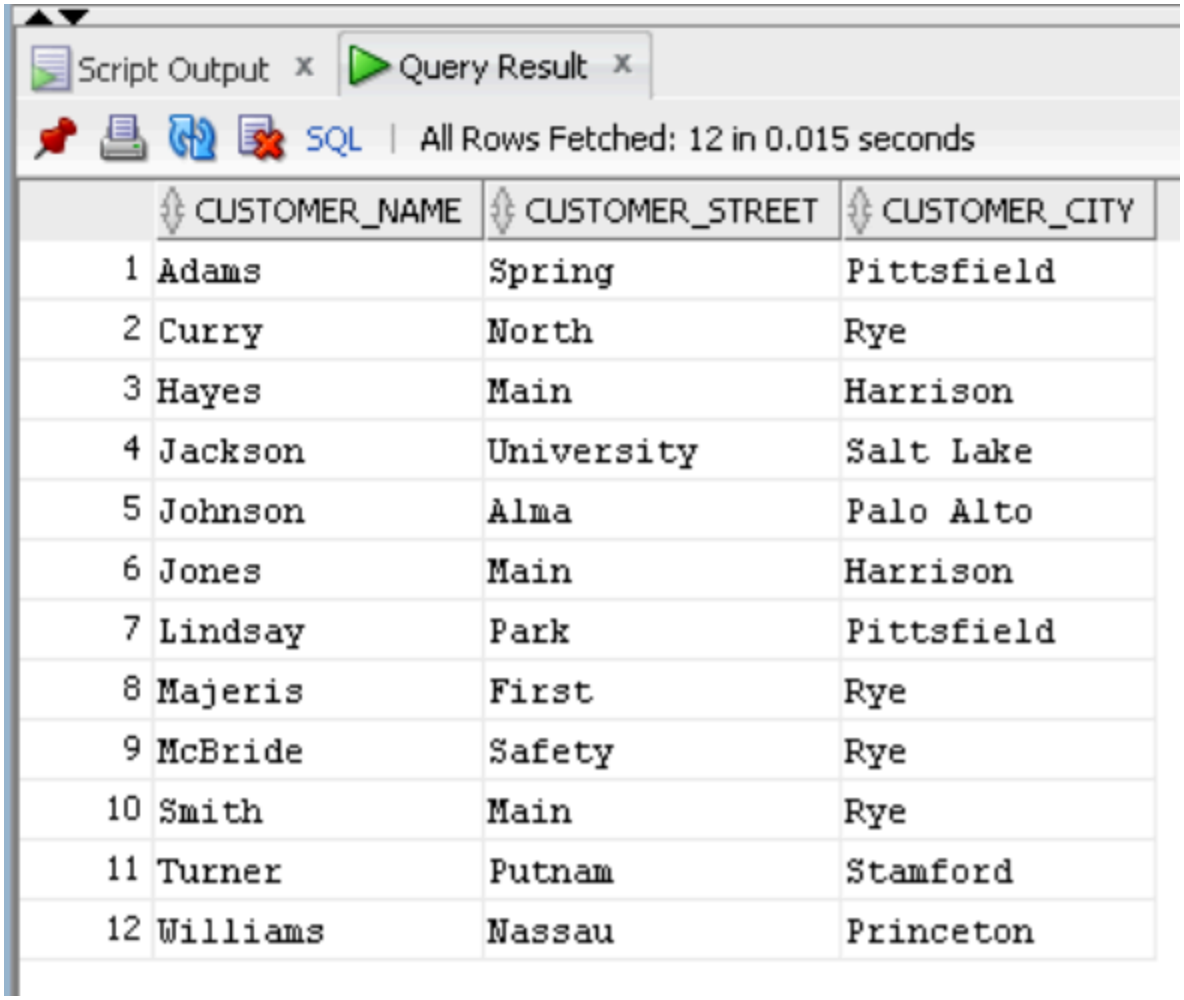


Task-8

Execution:

```
--Finding all customer related information who have an account or a loan
SELECT customer.*
FROM customer
JOIN depositor ON customer.customer_name = depositor.customer_name
UNION
SELECT customer.*
FROM customer
JOIN borrower ON customer.customer_name = borrower.customer_name;
```

Output:



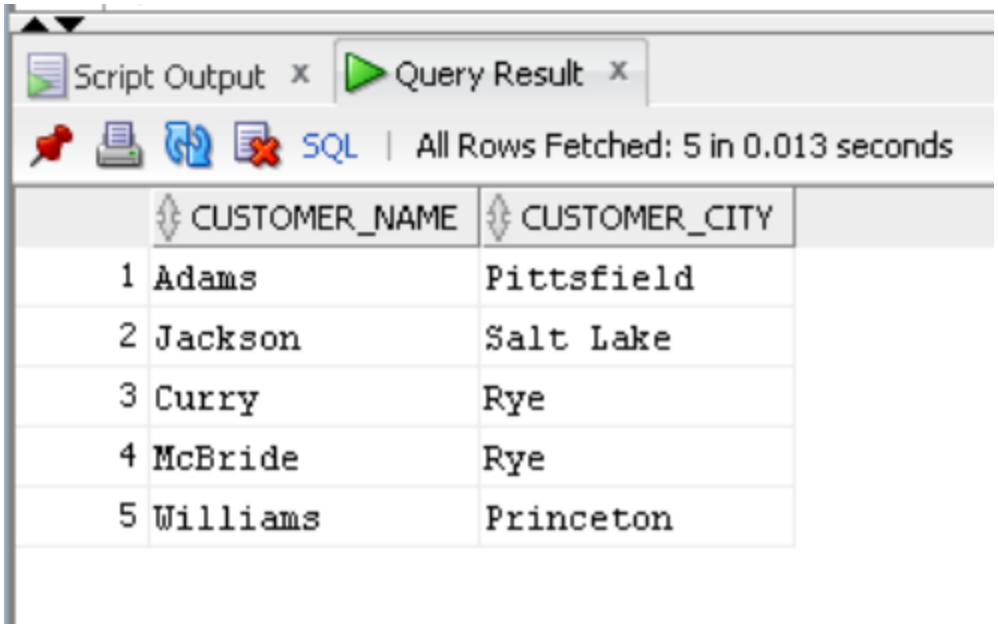
	CUSTOMER_NAME	CUSTOMER_STREET	CUSTOMER_CITY
1	Adams	Spring	Pittsfield
2	Curry	North	Rye
3	Hayes	Main	Harrison
4	Jackson	University	Salt Lake
5	Johnson	Alma	Palo Alto
6	Jones	Main	Harrison
7	Lindsay	Park	Pittsfield
8	Majeris	First	Rye
9	McBride	Safety	Rye
10	Smith	Main	Rye
11	Turner	Putnam	Stamford
12	Williams	Nassau	Princeton

Task-9

Execution:

```
--Finding all customer names and their cities who have a loan but not an account
SELECT customer.customer_name, customer.customer_city
FROM customer
JOIN borrower ON customer.customer_name = borrower.customer_name
WHERE customer.customer_name NOT IN (SELECT customer_name FROM depositor);
```

Output:

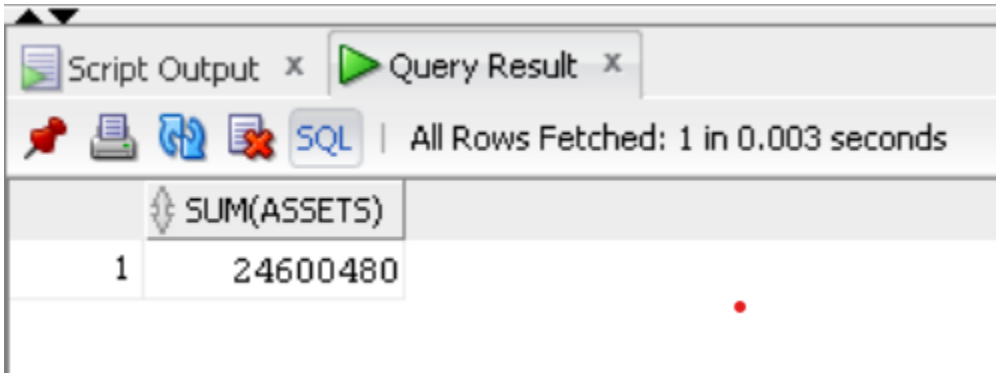


	CUSTOMER_NAME	CUSTOMER_CITY
1	Adams	Pittsfield
2	Jackson	Salt Lake
3	Curry	Rye
4	McBride	Rye
5	Williams	Princeton

Task-10
Execution:

```
--Finding total assets of all branches
SELECT SUM(assets) FROM branch;
```

Output:



	SUM(ASSETS)
1	24600480

Task-11
Execution:

```sql
--Finding average balance of accounts at each branch
SELECT branch_name, AVG(balance)
FROM account
GROUP BY branch_name;
```

Output:

Script Output | Query Result

SQL | All Rows Fetched: 8 in 0.006 seconds

	BRANCH_NAME	AVG(BALANCE)
1	Central	850
2	Downtown	500
3	Perryridge	650
4	Mianus	700
5	North Town	625
6	Round Hill	350
7	Redwood	700
8	Brighton	750

Task-12

Execution:

```sql
--Finding average balance of accounts at each branch city
SELECT branch.branch_city, AVG(account.balance)
FROM account
JOIN branch ON account.branch_name = branch.branch_name
GROUP BY branch.branch_city;
```

Output:

Script Output | Query Result

SQL | All Rows Fetched: 4 in 0.008 seconds

	BRANCH_CITY	AVG(ACCOUNT.BALANCE)
1	Palo Alto	700
2	Brooklyn	625
3	Horseneck	587.5
4	Rye	737.5

Task-13

Execution:

```
--Finding the lowest amount of loan at each branch
SELECT branch_name, MIN(amount)
FROM loan
GROUP BY branch_name;
```

Output:

Script Output | Query Result

SQL | All Rows Fetched: 7 in 0.007 seconds

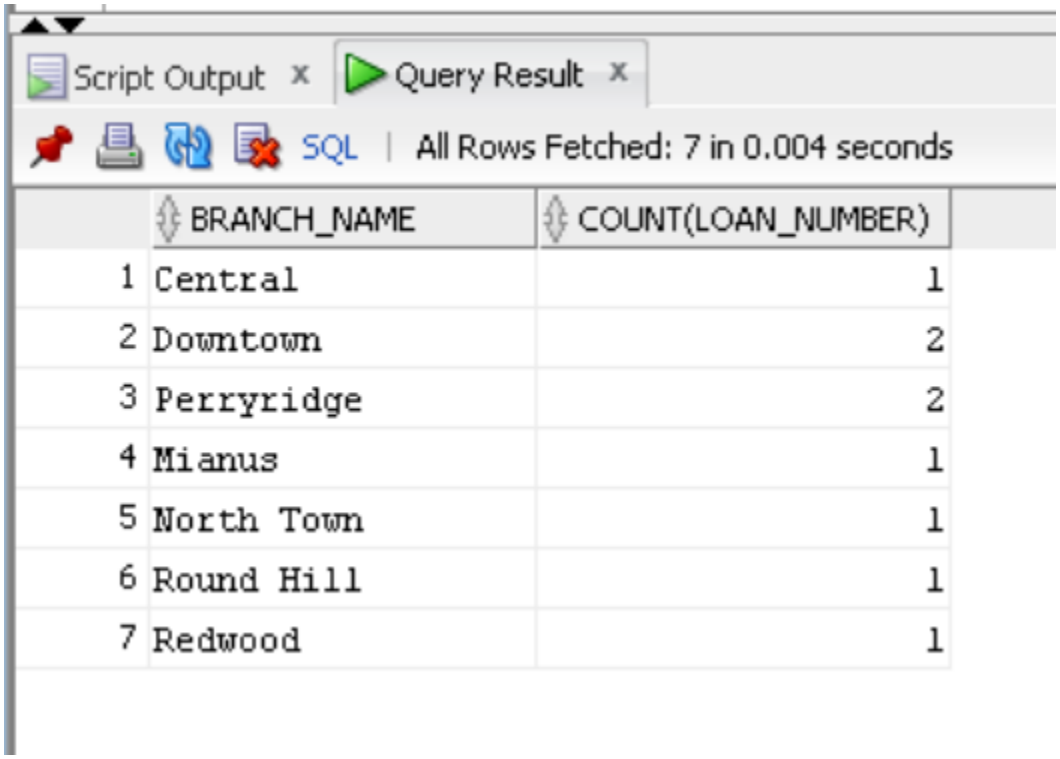
	BRANCH_NAME	MIN(AMOUNT)
1	Central	570
2	Downtown	1000
3	Perryridge	1300
4	Mianus	500
5	North Town	7500
6	Round Hill	900
7	Redwood	2000

Task-14

Execution:

```
--Finding total number of loan at each branches
SELECT branch_name, COUNT(loan_number)
FROM loan
GROUP BY branch_name;
```

Output:



Script Output | Query Result

SQL | All Rows Fetched: 7 in 0.004 seconds

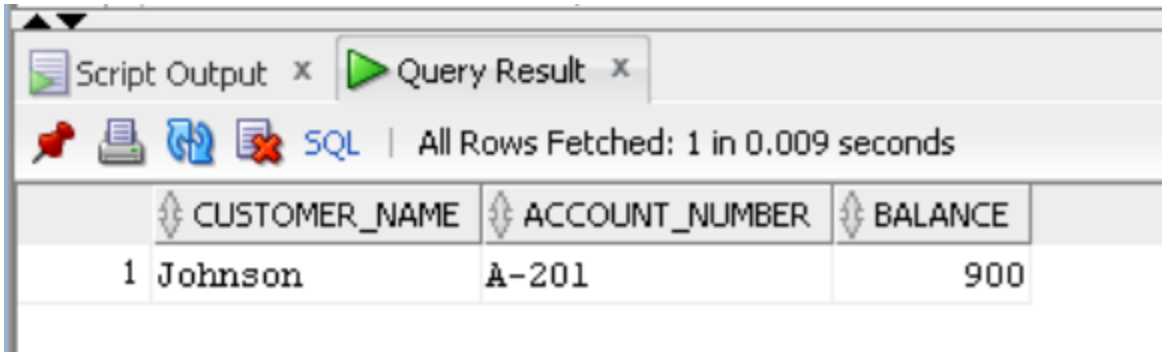
	BRANCH_NAME	COUNT(LOAN_NUMBER)
1	Central	1
2	Downtown	2
3	Perryridge	2
4	Mianus	1
5	North Town	1
6	Round Hill	1
7	Redwood	1

Task-15

Execution:

```
--Finding customer name and account number of the account which has the highest balance
SELECT depositor.customer_name, account.account_number, account.balance
FROM account
JOIN depositor ON account.account_number = depositor.account_number
WHERE balance = (SELECT MAX(balance) FROM account);
```

Output:


Script Output
Query Result
SQL
All Rows Fetched: 1 in 0.009 seconds
CUSTOMER_NAME
ACCOUNT_NUMBER
BALANCE
1
Johnson
A-201
900