Name	Mayank Ramji Ravariya
UID no.	2022600049
Experiment No.	C.3
Topic	Crime Records

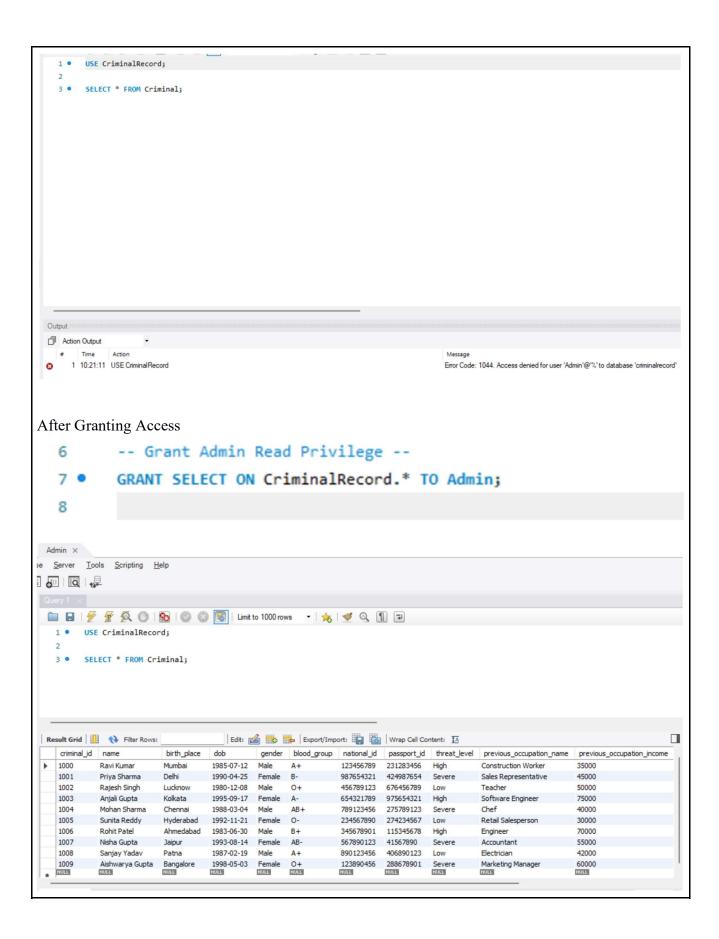| AIM:	To perform DCL, TCL commands
Program 1	
PROBLEM STATEMENT :	To perform DCL, TCL commands ● Data Control Language: Grant, Revoke, Roles ● Transaction Control Language: Commit, Rollback, Savepoint
RESULT:	

RESULT:

Create New User

```
1 •    USE CriminalRecord;
2
3      -- Create a New User DB Admin --
4 •    CREATE USER Admin IDENTIFIED BY "Admin";
5
```
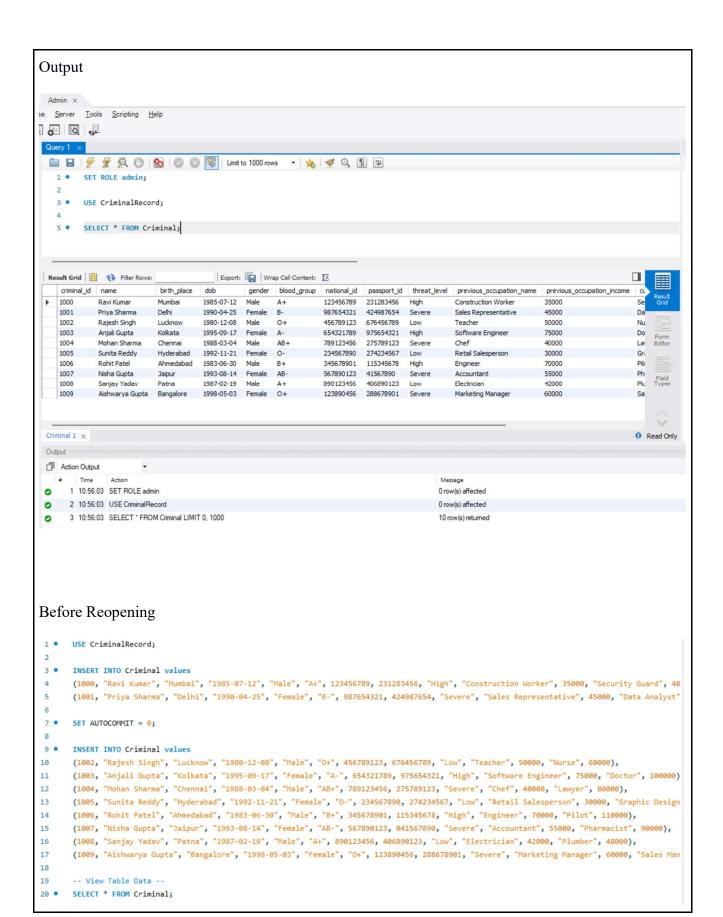
Before Granting Access to Admin

```
1 •   USE CriminalRecord;
2
3 •   SELECT * FROM Criminal;
```

Output

Action Output

#	Time	Action	Message
❌ 1	10:21:11	USE CriminalRecord	Error Code: 1044. Access denied for user 'Admin'@'%' to database 'criminalrecord'

After Granting Access

```
6       -- Grant Admin Read Privilege --
7 •     GRANT SELECT ON CriminalRecord.* TO Admin;
8
```

Admin ✕

se Server Tools Scripting Help

Query 1 ✕

Limit to 1000 rows

```
1 •   USE CriminalRecord;
2
3 •   SELECT * FROM Criminal;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: IA

criminal_id	name	birth_place	dob	gender	blood_group	national_id	passport_id	threat_level	previous_occupation_name	previous_occupation_income
1000	Ravi Kumar	Mumbai	1985-07-12	Male	A+	123456789	231283456	High	Construction Worker	35000
1001	Priya Sharma	Delhi	1990-04-25	Female	B-	987654321	424987654	Severe	Sales Representative	45000
1002	Rajesh Singh	Lucknow	1980-12-08	Male	O+	456789123	676456789	Low	Teacher	50000
1003	Anjali Gupta	Kolkata	1995-09-17	Female	A-	654321789	975654321	High	Software Engineer	75000
1004	Mohan Sharma	Chennai	1988-03-04	Male	AB+	789123456	275789123	Severe	Chef	40000
1005	Sunita Reddy	Hyderabad	1992-11-21	Female	O-	234567890	274234567	Low	Retail Salesperson	30000
1006	Rohit Patel	Ahmedabad	1983-06-30	Male	B+	345678901	115345678	High	Engineer	70000
1007	Nisha Gupta	Jaipur	1993-08-14	Female	AB-	567890123	41567890	Severe	Accountant	55000
1008	Sanjay Yadav	Patna	1987-02-19	Male	A+	890123456	406890123	Low	Electrician	42000
1009	Aishwarya Gupta	Bangalore	1998-05-03	Female	O+	123890456	288678901	Severe	Marketing Manager	60000
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Revoking Access

```
 6        -- Grant Admin Read Privilege --
 7   ●    GRANT SELECT ON CriminalRecord.* TO Admin;

 8

 9        -- Revoke Admin Read Privilege --
10   ●    REVOKE SELECT ON CriminalRecord.* FROM Admin;

11
```

Admin ×

e Server Tools Scripting Help

Query 1 ×

Limit to 1000 rows

```
1  ●   USE CriminalRecord;
2
3  ●   SELECT * FROM Criminal;
```

SQL Additions

Automatic con
disabled. Use th
manually get l
current caret p
toggle autom

Context Help   Snippets

Output

Action Output

#	Time	Action	Message
❌ 1	10:21:11	USE CriminalRecord	Error Code: 1044. Access denied for user 'Admin'@'%' to database 'criminalrecord'
❌ 2	10:23:34	SELECT * FROM Criminal LIMIT 0, 1000	Error Code: 1046. No database selected Select the default DB to be used by double-clicking its name in the SCH...
✅ 3	10:23:38	USE CriminalRecord	0 row(s) affected
✅ 4	10:23:40	SELECT * FROM Criminal LIMIT 0, 1000	10 row(s) returned
❌ 5	10:25:45	USE CriminalRecord	Error Code: 1044. Access denied for user 'Admin'@'%' to database 'criminalrecord'

Create and Assign Role

```
12        -- Create New Role --
13   ●    CREATE ROLE admin;

14

15        -- Modify Role Privileges --
16   ●    GRANT ALL PRIVILEGES ON CriminalRecord.* TO admin;

17
```

Output

Before Reopening

```sql
1 •    USE CriminalRecord;
2
3 •    INSERT INTO Criminal values
4      (1000, "Ravi Kumar", "Mumbai", "1985-07-12", "Male", "A+", 123456789, 231283456, "High", "Construction Worker", 35000, "Security Guard", 40
5      (1001, "Priya Sharma", "Delhi", "1990-04-25", "Female", "B-", 987654321, 424987654, "Severe", "Sales Representative", 45000, "Data Analyst"
6
7 •    SET AUTOCOMMIT = 0;
8
9 •    INSERT INTO Criminal values
10     (1002, "Rajesh Singh", "Lucknow", "1980-12-08", "Male", "O+", 456789123, 676456789, "Low", "Teacher", 50000, "Nurse", 60000),
11     (1003, "Anjali Gupta", "Kolkata", "1995-09-17", "Female", "A-", 654321789, 975654321, "High", "Software Engineer", 75000, "Doctor", 100000)
12     (1004, "Mohan Sharma", "Chennai", "1988-03-04", "Male", "AB+", 789123456, 275789123, "Severe", "Chef", 40000, "Lawyer", 80000),
13     (1005, "Sunita Reddy", "Hyderabad", "1992-11-21", "Female", "O-", 234567890, 274234567, "Low", "Retail Salesperson", 30000, "Graphic Design
14     (1006, "Rohit Patel", "Ahmedabad", "1983-06-30", "Male", "B+", 345678901, 115345678, "High", "Engineer", 70000, "Pilot", 110000),
15     (1007, "Nisha Gupta", "Jaipur", "1993-08-14", "Female", "AB-", 567890123, 041567890, "Severe", "Accountant", 55000, "Pharmacist", 90000),
16     (1008, "Sanjay Yadav", "Patna", "1987-02-19", "Male", "A+", 890123456, 406890123, "Low", "Electrician", 42000, "Plumber", 48000),
17     (1009, "Aishwarya Gupta", "Bangalore", "1998-05-03", "Female", "O+", 123890456, 288678901, "Severe", "Marketing Manager", 60000, "Sales Man
18
19     -- View Table Data --
20 •   SELECT * FROM Criminal;
```

criminal_id	name	birth_place	dob	gender	blood_group	national_id	passport_id	threat_level	previous_occupation_name	previous_occupation_income	cu
1000	Ravi Kumar	Mumbai	1985-07-12	Male	A+	123456789	231283456	High	Construction Worker	35000	Se
1001	Priya Sharma	Delhi	1990-04-25	Female	B-	987654321	424987654	Severe	Sales Representative	45000	Da
1002	Rajesh Singh	Lucknow	1980-12-08	Male	O+	456789123	676456789	Low	Teacher	50000	Nu
1003	Anjali Gupta	Kolkata	1995-09-17	Female	A-	654321789	975654321	High	Software Engineer	75000	Do
1004	Mohan Sharma	Chennai	1988-03-04	Male	AB+	789123456	275789123	Severe	Chef	40000	La
1005	Sunita Reddy	Hyderabad	1992-11-21	Female	O-	234567890	274234567	Low	Retail Salesperson	30000	Gr
1006	Rohit Patel	Ahmedabad	1983-06-30	Male	B+	345678901	115345678	High	Engineer	70000	Pil
1007	Nisha Gupta	Jaipur	1993-08-14	Female	AB-	567890123	41567890	Severe	Accountant	55000	Ph
1008	Sanjay Yadav	Patna	1987-02-19	Male	A+	890123456	406890123	Low	Electrician	42000	Plu
1009	Aishwarya Gupta	Bangalore	1998-05-03	Female	O+	123890456	288678901	Severe	Marketing Manager	60000	Sa
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

After Reopening

criminal_id	name	birth_place	dob	gender	blood_group	national_id	passport_id	threat_level	previous_occupation_name	previous_occupation_income	current
1000	Ravi Kumar	Mumbai	1985-07-12	Male	A+	123456789	231283456	High	Construction Worker	35000	Security
1001	Priya Sharma	Delhi	1990-04-25	Female	B-	987654321	424987654	Severe	Sales Representative	45000	Data A
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

If Commit is Used

```
18
19 •    COMMIT;
20
21      -- View Table Data --
22 •    SELECT * FROM Criminal;
23
```

criminal_id	name	birth_place	dob	gender	blood_group	national_id	passport_id	threat_level	previous_occupation_name	previous_occupation_income	cu
1000	Ravi Kumar	Mumbai	1985-07-12	Male	A+	123456789	231283456	High	Construction Worker	35000	Se
1001	Priya Sharma	Delhi	1990-04-25	Female	B-	987654321	424987654	Severe	Sales Representative	45000	Da
1002	Rajesh Singh	Lucknow	1980-12-08	Male	O+	456789123	676456789	Low	Teacher	50000	Nu
1003	Anjali Gupta	Kolkata	1995-09-17	Female	A-	654321789	975654321	High	Software Engineer	75000	Do
1004	Mohan Sharma	Chennai	1988-03-04	Male	AB+	789123456	275789123	Severe	Chef	40000	La
1005	Sunita Reddy	Hyderabad	1992-11-21	Female	O-	234567890	274234567	Low	Retail Salesperson	30000	Gr
1006	Rohit Patel	Ahmedabad	1983-06-30	Male	B+	345678901	115345678	High	Engineer	70000	Pil
1007	Nisha Gupta	Jaipur	1993-08-14	Female	AB-	567890123	41567890	Severe	Accountant	55000	Ph
1008	Sanjay Yadav	Patna	1987-02-19	Male	A+	890123456	406890123	Low	Electrician	42000	Plu
1009	Aishwarya Gupta	Bangalore	1998-05-03	Female	O+	123890456	288678901	Severe	Marketing Manager	60000	Sa
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Savepoint and Rollback

```sql
1 ● USE CriminalRecord;
2
3 ● SET AUTOCOMMIT = 0;
4
5 ● INSERT INTO Criminal values
6   (1000, "Ravi Kumar", "Mumbai", "1985-07-12", "Male", "A+", 123456789, 231283456, "High", "Construction Worker", 35000, "Security Guard", 40000),
7   (1001, "Priya Sharma", "Delhi", "1990-04-25", "Female", "B-", 987654321, 424987654, "Severe", "Sales Representative", 45000, "Data Analyst", 55000);
8
9 ● SAVEPOINT SP;
10
11 ● INSERT INTO Criminal values
12   (1002, "Rajesh Singh", "Lucknow", "1980-12-08", "Male", "O+", 456789123, 676456789, "Low", "Teacher", 50000, "Nurse", 60000),
13   (1003, "Anjali Gupta", "Kolkata", "1995-09-17", "Female", "A-", 654321789, 975654321, "High", "Software Engineer", 75000, "Doctor", 100000),
14   (1004, "Mohan Sharma", "Chennai", "1988-03-04", "Male", "AB+", 789123456, 275789123, "Severe", "Chef", 40000, "Lawyer", 80000),
15   (1005, "Sunita Reddy", "Hyderabad", "1992-11-21", "Female", "O-", 234567890, 274234567, "Low", "Retail Salesperson", 30000, "Graphic Designer", 45000),
16   (1006, "Rohit Patel", "Ahmedabad", "1983-06-30", "Male", "B+", 345678901, 115345678, "High", "Engineer", 70000, "Pilot", 110000),
17   (1007, "Nisha Gupta", "Jaipur", "1993-08-14", "Female", "AB-", 567890123, 041567890, "Severe", "Accountant", 55000, "Pharmacist", 90000),
18   (1008, "Sanjay Yadav", "Patna", "1987-02-19", "Male", "A+", 890123456, 406890123, "Low", "Electrician", 42000, "Plumber", 48000),
19   (1009, "Aishwarya Gupta", "Bangalore", "1998-05-03", "Female", "O+", 123890456, 288678901, "Severe", "Marketing Manager", 60000, "Sales Manager", 70000);
20
21 ● ROLLBACK TO SP;
22
23   -- View Table Data --
24 ● SELECT * FROM Criminal;
25
```

Output

criminal_id	name	birth_place	dob	gender	blood_group	national_id	passport_id	threat_level	previous_occupation_name	previous_occupation_income	curren
1000	Ravi Kumar	Mumbai	1985-07-12	Male	A+	123456789	231283456	High	Construction Worker	35000	Security
1001	Priya Sharma	Delhi	1990-04-25	Female	B-	987654321	424987654	Severe	Sales Representative	45000	Data Ar
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL