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Experiment No.	C.4
Topic	Crime Records

AIM:	**To perform Date, Time, Arithmetic and Set operation on database**
	Program 1

PROBLEM STATEMENT:	To perform Date, Time, Arithmetic and Set operation on database.
	
	Queries for Set operation -union, intersect, except & union all, intersect all and except all.
	
	Queries for Arithmetic operation -
	    +, -, *, /,
	    Concatenation operator - ||,
	    Logical operator - AND, OR, <>
	    Comparison operator- >, >=, <, <=, !=
	
	Queries for Date and Time-
	    datediff, EXTRACT the date

RESULT:

Criminal Data 1

```
1 •    USE CriminalRecord;
2
3 •    SELECT * FROM CriminalData1;
4 •    SELECT * FROM CriminalData2;
5
```

Result

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

Criminal Data 2

```
1 •    USE CriminalRecord;
2
3 •    SELECT * FROM CriminalData1;
4 •    SELECT * FROM CriminalData2;
5
```

Result

criminal_id	name	birth_place	dob	gender	blood_group	national_id	passport_id	threat_level	previous_occupation_name	previous_occupation_income
2001	Amit Sharma	Delhi	1980-02-10	Male	O+	12345678901	98765432101	Low	Teacher	40000
2002	Pooja Singh	Mumbai	1992-07-15	Female	A-	98765432102	12345678902	High	Nurse	35000
2003	Rajesh Kumar	Chennai	1985-11-25	Male	B+	65432198703	34567891203	Severe	Engineer	75000
2004	Mohan Sharma	Chennai	1988-03-04	Male	AB+	789123456	275789123	Severe	Chef	40000
2005	Sunita Reddy	Hyderabad	1992-11-21	Female	O-	234567890	274234567	Low	Retail Salesperson	30000
2006	Sneha Gupta	Hyderabad	1995-03-20	Female	O+	78901234506	67890123406	Low	Artist	25000
2007	Anil Verma	Lucknow	1983-12-12	Male	B-	89012345607	78901234507	High	Police Officer	60000
2008	Rita Sharma	Jaipur	1993-05-18	Female	A-	90123456708	89012345608	Severe	Doctor	80000
2009	Sanjay Yadav	Patna	1987-02-19	Male	A+	890123456	406890123	Low	Electrician	42000
2010	Suman Gupta	Ahmedabad	1991-10-30	Female	AB+	23456789010	12345678910	High	Banker	70000
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Union

```
5
6 •    SELECT criminal_id as id, name, current_occupation_name as occupation FROM CriminalData1 WHERE current_occupation_name != "Doctor"
7      UNION
8      SELECT criminal_id, name, current_occupation_name FROM CriminalData2 WHERE current_occupation_name NOT LIKE "%Engineer%";
9
```

Result

id	name	occupation
1000	Ravi Kumar	Security Guard
1001	Priya Sharma	Data Analyst
1002	Rajesh Singh	Nurse
1004	Mohan Sharma	Lawyer
1005	Sunita Reddy	Graphic Designer
1006	Rohit Patel	Pilot
1007	Nisha Gupta	Pharmacist
1008	Sanjay Yadav	Plumber
1009	Aishwarya Gupta	Sales Manager
2002	Pooja Singh	Doctor
2003	Rajesh Kumar	Architect
2004	Mohan Sharma	Lawyer
2005	Sunita Reddy	Graphic Designer

id	name	occupation
1006	Rohit Patel	Pilot
1007	Nisha Gupta	Pharmacist
1008	Sanjay Yadav	Plumber
1009	Aishwarya Gupta	Sales Manager
2002	Pooja Singh	Doctor
2003	Rajesh Kumar	Architect
2004	Mohan Sharma	Lawyer
2005	Sunita Reddy	Graphic Designer
2006	Sneha Gupta	Writer
2007	Anil Verma	Detective
2008	Rita Sharma	Surgeon
2009	Sanjay Yadav	Plumber
2010	Suman Gupta	Investment Ana...

Intersect All

```
12
13 •   SELECT name, dob FROM CriminalData1 WHERE YEAR(dob) < 1990
14 ☒   INTERSECT ALL
15     SELECT name, dob FROM CriminalData2;
16
```

Result

name	dob
Mohan Sharma	1988-03-04
Sanjay Yadav	1987-02-19

Except

```
20
21 •   SELECT name FROM CriminalData1
22 ☒   EXCEPT
23     SELECT name FROM CriminalData2;
24
```

Result

name
Ravi Kumar
Priya Sharma
Rajesh Singh
Anjali Gupta
Rohit Patel
Nisha Gupta
Aishwarya Gupta

Arithmetic Operations

```
28
29 •  SELECT
30     (SELECT AVG(current_occupation_income) FROM CriminalData1) / (SELECT MIN(current_occupation_income) FROM CriminalData2)
31     AS Result;
32
```

Result

Result
2.32666667

Date Operations

```
35
36 •  SELECT criminal_id, name, ROUND(DATEDIFF(CURRENT_TIMESTAMP, dob)/365, 0) AS age FROM CriminalData1;
37
```

Result

criminal_id	name	age
1000	Ravi Kumar	38
1001	Priya Sharma	33
1002	Rajesh Singh	43
1003	Anjali Gupta	28
1004	Mohan Sharma	36
1005	Sunita Reddy	31
1006	Rohit Patel	40
1007	Nisha Gupta	30
1008	Sanjay Yadav	37
1009	Aishwarya Gupta	25