IT214 Database Management Systems
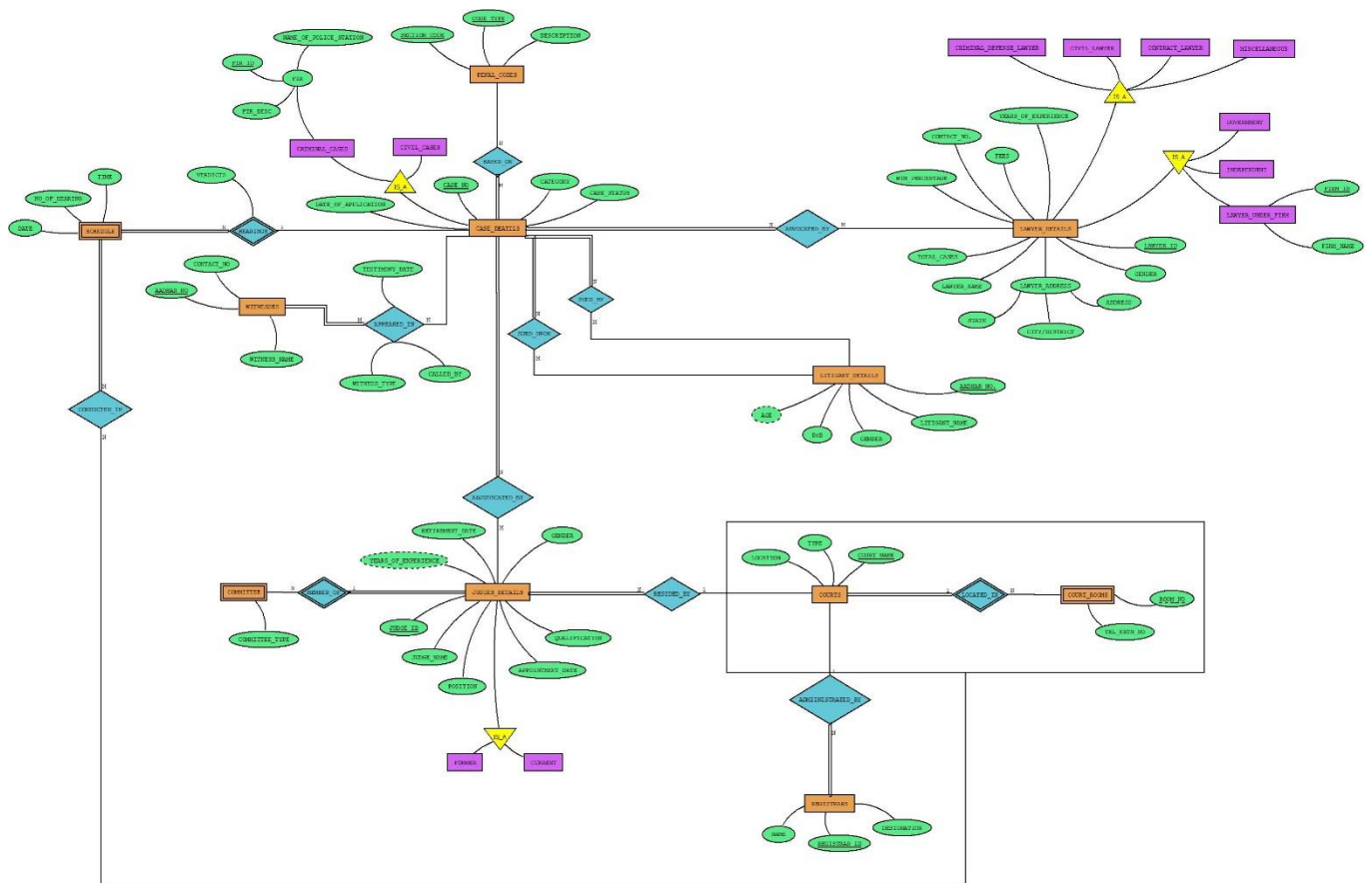
Report File

Group Members

Harsh Rajwani 202201027

Bhavya Kantelia 202201029

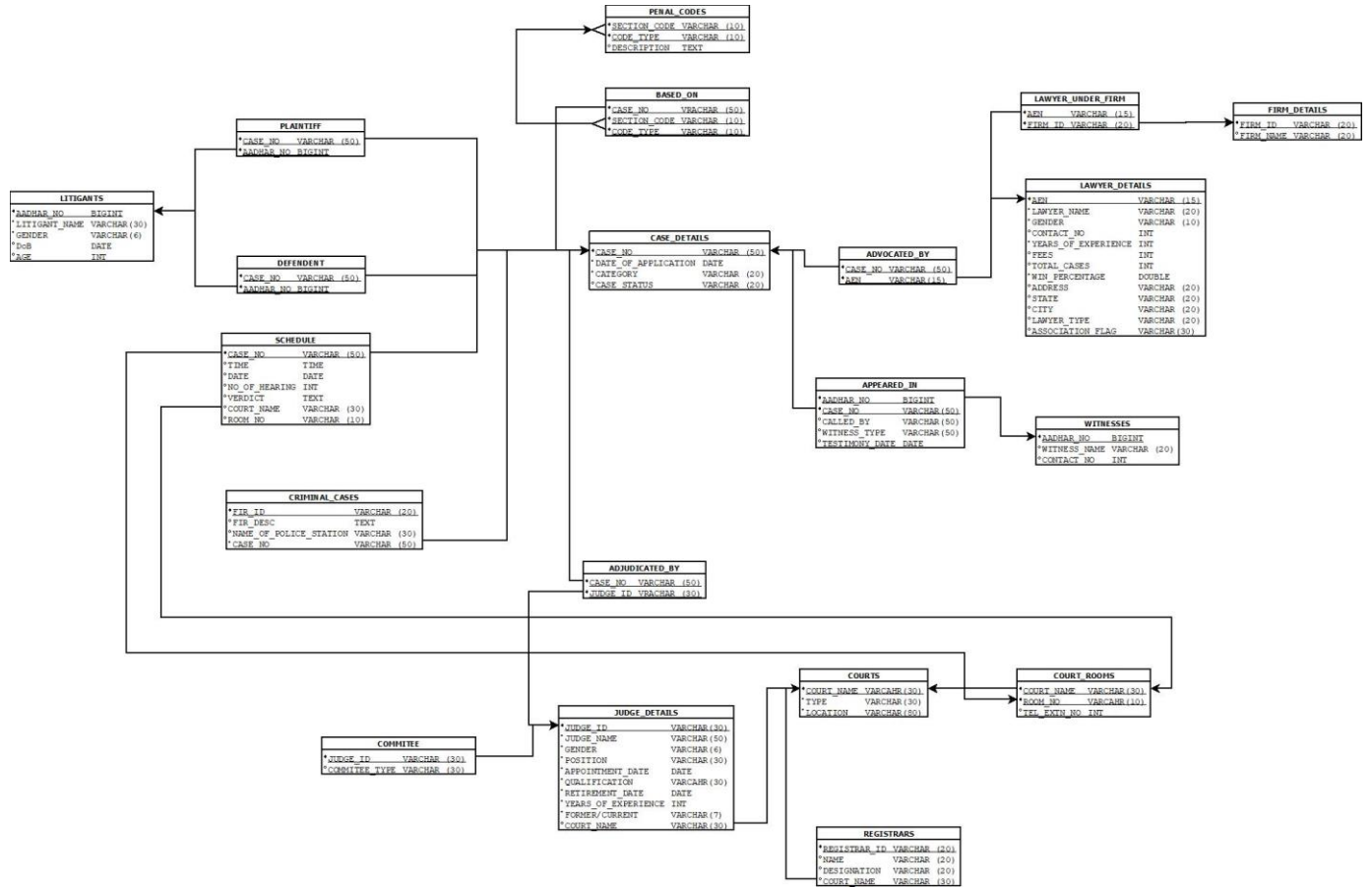Namra Monpara 202201055

Ishan Savaliya 202201087

Entity Relationship Diagram (ERD)

Relational Schema

PENAL_CODES
- *SECTION_CODE VARCHAR (10)
- *CODE_TYPE VARCHAR (10)
- °DESCRIPTION TEXT

BASED_ON
- *CASE_NO VRACHAR (50)
- *SECTION_CODE VARCHAR (10)
- *CODE_TYPE VARCHAR (10)

LAWYER_UNDER_FIRM
- *AEN VARCHAR (15)
- *FIRM_ID VARCHAR (20)

FIRM_DETAILS
- *FIRM_ID VARCHAR (20)
- °FIRM_NAME VARCHAR (20)

PLAINTIFF
- *CASE_NO VARCHAR (50)
- *AADHAR_NO BIGINT

LITIGANTS
- *AADHAR_NO BIGINT
- *LITIGANT_NAME VARCHAR(30)
- °GENDER VARCHAR(6)
- °DoB DATE
- °AGE INT

DEFENDENT
- *CASE_NO VARCHAR (50)
- *AADHAR_NO BIGINT

CASE_DETAILS
- *CASE_NO VARCHAR (50)
- *DATE_OF_APPLICATION DATE
- *CATEGORY VARCHAR (20)
- °CASE_STATUS VARCHAR (20)

ADVOCATED_BY
- *CASE_NO VARCHAR (50)
- *AEN VARCHAR (15)

LAWYER_DETAILS
- *AEN VARCHAR (15)
- °LAWYER_NAME VARCHAR (20)
- °GENDER VARCHAR (10)
- °CONTACT_NO INT
- °YEARS_OF_EXPERIENCE INT
- °FEES INT
- °TOTAL_CASES INT
- °WIN_PERCENTAGE DOUBLE
- °ADDRESS VARCHAR (20)
- °STATE VARCHAR (20)
- °CITY VARCHAR (20)
- °LAWYER_TYPE VARCHAR (20)
- °ASSOCIATION_FLAG VARCHAR(30)

SCHEDULE
- *CASE_NO VARCHAR (50)
- *TIME TIME
- *DATE DATE
- °NO_OF_HEARING INT
- °VERDICT TEXT
- °COURT_NAME VARCHAR (30)
- °ROOM_NO VARCHAR (10)

APPEARED_IN
- *AADHAR_NO BIGINT
- *CASE_NO VARCHAR(50)
- °CALLED_BY VARCHAR (50)
- °WITNESS_TYPE VARCHAR (50)
- °TESTIMONY_DATE DATE

WITNESSES
- *AADHAR_NO BIGINT
- °WITNESS_NAME VARCHAR (20)
- °CONTACT_NO INT

CRIMINAL_CASES
- *FIR_ID VARCHAR (20)
- *FIR_DESC TEXT
- °NAME_OF_POLICE_STATION VARCHAR (30)
- *CASE_NO VARCHAR (50)

ADJUDICATED_BY
- *CASE_NO VARCHAR (50)
- *JUDGE_ID VRACHAR (30)

COURTS
- *COURT_NAME VARCAHR(30)
- *TYPE VARCHAR (30)
- *LOCATION VARCHAR (80)

COURT_ROOMS
- *COURT_NAME VARCHAR(30)
- *ROOM_NO VARCAHR(10)
- °TEL_EXTN_NO INT

COMMITEE
- *JUDGE_ID VARCHAR (30)
- °COMMITEE_TYPE VARCHAR (30)

JUDGE_DETAILS
- *JUDGE_ID VARCHAR(30)
- *JUDGE_NAME VARCHAR(50)
- °GENDER VARCHAR (6)
- °POSITION VARCHAR(30)
- °APPOINTMENT_DATE DATE
- °QUALIFICATION VARCAHR(30)
- °RETIREMENT_DATE DATE
- °YEARS_OF_EXPERIENCE INT
- °FORMER/CURRENT VARCHAR (7)
- °COURT_NAME VARCHAR(30)

REGISTRARS
- *REGISTRAR_ID VARCHAR (20)
- °NAME VARCHAR (20)
- °DESIGNATION VARCHAR (20)
- °COURT_NAME VARCHAR (30)

DDL Queries

1) CREATE TABLE LAWYER_DETAILS(

      AEN VARCHAR(30) PRIMARY KEY,

      LAWYER_NAME VARCHAR(20) NOT NULL,

      LAWYER_TYPE VARCHAR(30) ,

      GENDER VARCHAR(6) NOT NULL,

      CONTACT_NO BIGINT NOT NULL,

      YEARS_OF_EXPERIENCE INT NOT NULL,

      FEES INT ,

      TOTAL_CASES INT NOT NULL,

      WIN_PERCENTAGE DOUBLE PRECISION NOT NULL,

      ADDRESS VARCHAR(50),

      STATE VARCHAR(20),

      CITY VARCHAR(20),

      ASSOCIATION_FLAG VARCHAR(20),

);

2) CREATE TABLE CASE_DETAILS (

      CASE_NO VARCHAR(50) PRIMARY KEY,

      DATE_OF_APPLICATION DATE NOT NULL,

      CATEGORY VARCHAR(50) NOT NULL,

      CASE_STATUS VARCHAR(50) NOT NULL,

```sql
);


3) CREATE TABLE PENAL_CODE(

    SECTION_CODE VARCHAR(10) ,
    CODE_TYPE VARCHAR(10),
    DESCRIPTION TEXT NOT NULL,
    PRIMARY KEY(SECTION_CODE,CODE_TYPE)

);


4) CREATE TABLE BASED_ON(

    CASE_NO VARCHAR(50) REFERENCES
    CASE_DETAILS(CASE_NO) ON UPDATE CASCADE ON
    DELETE CASCADE,
    CODE_TYPE VARCHAR(10) ,
    SECTION_CODE VARCHAR(10) ,
    PRIMARY KEY(CASE_NO,CODE_TYPE,SECTION_CODE),
    FOREIGN KEY(CODE_TYPE,SECTION_CODE)
    REFERENCES PENAL_CODE ON UPDATE CASCADE ON
    DELETE CASCADE,

);
```

```sql
5) CREATE TABLE ADVOCATED_BY(

        CASE_NO VARCHAR(50) REFERENCES CASE_DETAILS ON
         UPDATE CASCADE ON DELETE CASCADE,
        AEN VARCHAR(30) REFERENCES LAWYER_DETAILS ON
        UPDATE CASCADE ON DELETE CASCADE,
        PRIMARY KEY(CASE_NO,AEN)


);


6) CREATE TABLE FIRM_DETAILS(

        FIRM_ID VARCHAR(20) PRIMARY KEY,
        FIRM_NAME VARCHAR(50) NOT NULL


);


7) CREATE TABLE LAWYER_UNDER_FIRM(

        AEN VARCHAR(30) REFERENCES LAWYER_DETAILS ON
        UPDATE CASCADE ON DELETE CASCADE,
        FIRM_ID VARCHAR(20) REFERENCES FIRM_DETAILS ON
        UPDATE CASCADE ON DELETE CASCADE,
        PRIMARY KEY(AEN,FIRM_ID)


);
```

```sql
8) CREATE TABLE CRIMINAL_CASES(

       FIR_ID VARCHAR(20) PRIMARY KEY,
       FIR_DESC TEXT NOT NULL,
       POLICE_STATION VARCHAR(30),
       CASE_NO VARCHAR(50)  REFERENCES CASE_DETAILS
       ON UPDATE CASCADE ON DELETE CASCADE,

);


9) CREATE TABLE LITIGANTS(

       AADHAR_NO BIGINT PRIMARY KEY,
       LITIGANT_NAME VARCHAR(30) NOT NULL,
       GENDER VARCHAR(6) NOT NULL,
       Dob DATE NOT NULL,
       AGE INT NOT NULL
);


10) CREATE TABLE PLAINTIFF(

       CASE_NO VARCHAR(50) REFERENCES CASE_DETAILS ON
       UPDATE CASCADE ON DELETE CASCADE,
       AADHAR_NO BIGINT REFERENCES LITIGANTS ON
       UPDATE CASCADE ON DELETE CASCADE,
       PRIMARY KEY(CASE_NO,AADHAR_NO)
);
```

11) CREATE TABLE DEFENDENT(

   CASE_NO VARCHAR(50) REFERENCES CASE_DETAILS ON
   UPDATE CASCADE ON DELETE CASCADE,
   AADHAR_NO BIGINT REFERENCES LITIGANTS ON
   UPDATE CASCADE ON DELETE CASCADE,
   PRIMARY KEY(CASE_NO,AADHAR_NO)
);

12) CREATE TABLE JUDGE_DETAILS(

   JUDGE_ID VARCHAR(30) PRIMARY KEY,
   JUDGE_NAME VARCHAR(50) NOT NULL,
   GENDER VARCHAR(6) NOT NULL,
   POSITION VARCHAR(30) NOT NULL,
   APPOINTMENT_DATE DATE NOT NULL,
   QUALIFICATION VARCHAR(30) NOT NULL,
   RETIREMENT_DATE DATE NOT NULL,
   YEARS_OF_EXPERIENCE INT NOT NULL,
   FORMER_CURRENT VARCHAR(7) NOT NULL,
   COURT_NAME VARCHAR(30) NOT NULL

);

```sql
13) CREATE TABLE COURTS(

        COURT_NAME VARCHAR(30) PRIMARY KEY,
        TYPE VARCHAR(30) NOT NULL,
        LOCATION VARCHAR(80) NOT NULL

);


14) CREATE TABLE COURT_ROOMS(

        COURT_NAME VARCHAR(30) REFERENCES COURTS ON
        UPDATE CASCADE ON DELETE CASCADE,
        ROOM_NO VARCHAR(10) ,
        TEL_EXTN_NO INT,
        PRIMARY KEY(COURT_NAME,ROOM_NO)

);


15) CREATE TABLE REGISTRARS(

        REGISTRAR_ID VARCHAR(20) PRIMARY KEY,
        NAME VARCHAR(30) NOT NULL,
        DESIGNATION VARCHAR(20) NOT NULL,
        COURT_NAME VARCHAR(30) REFERENCES COURTS ON
        UPDATE CASCADE ON DELETE CASCADE

);
```

```sql
16) CREATE TABLE COMMITEE(

        JUDGE_ID VARCHAR(30) REFERENCES JUDGE_DETAILS
        ON UPDATE CASCADE ON DELETE CASCADE,
        COMMITEE_TYPE VARCHAR(30) ,
        PRIMARY KEY(JUDGE_ID,COMMITEE_TYPE)

);


17) CREATE TABLE WITNESSES(

        AADHAR_NO BIGINT PRIMARY KEY,
        WITNESS_NAME VARCHAR(50),
        CONTACT_NO BIGINT

);


18) CREATE TABLE ADJUDICATED_BY(

        CASE_NO VARCHAR(50) REFERENCES CASE_DETAILS ON
        UPDATE CASCADE ON DELETE CASCADE,
        JUDGE_ID VARCHAR(30) REFERENCES JUDGE_DETAILS
        ON UPDATE CASCADE ON DELETE CASCADE,
        PRIMARY KEY(CASE_NO,JUDGE_ID)

);
```

```sql
19) CREATE TABLE SCHEDULE(

        CASE_NO VARCHAR(50) REFERENCES CASE_DETAILS
        ON UPDATE CASCADE ON DELETE CASCADE,
        "TIME" TIME,
        "DATE" DATE,
        NO_OF_HEARING INT NOT NULL,
        VERDICT TEXT,
        COURT_NAME VARCHAR(30),
        ROOM_NO VARCHAR(10),
        FOREIGN KEY(COURT_NAME,ROOM_NO) REFERENCES
        COURT_ROOMS ON UPDATE CASCADE ON DELETE
        CASCADE,
        PRIMARY
        KEY(CASE_NO,"TIME","DATE",COURT_NAME,ROOM_NO)

);
20) CREATE TABLE APPEARED_IN(

        AADHAR_NO BIGINT REFERENCES  WITNESSES ,
        CASE_NO VARCHAR(50) REFERENCES CASE_DETAILS,
        WITNESS_TYPE VARCHAR(50),
        CALLED_BY VARCHAR(50),
        TESTIMONY_DATE DATE ,
        PRIMARY KEY(AADHAR_NO , CASE_NO)

);
```

Insert Queries

1) INSERT INTO PENAL_CODE

VALUES

('53','IPC','Punishments'),

('53A','IPC','Construction of reference to transportation'),

('54','IPC','Commutation of sentence of death'),

('55','IPC','Commutation of sentence of imprisonment for life.'),

('55A','IPC','Definition of appropriate Government.'),

…….

2) INSERT INTO CASE_DETAILS

VALUES

('GOA100010070301', '2008-09-17', 'Criminal appeal', 'Reopened'),

('JAM100020085302', '2004-06-28', 'Transfer petition(criminal)', 'New Filing'),

('KER100030040303', '2016-10-13', 'Transferred Case(civil)', 'Entry of Judgment'),

('ARU100040055304', '2010-02-09', 'writ to petition(criminal)', 'Placed on Inactive Status'),

('UP100050070305', '2005-11-04', 'Sub Moto Transfer Petition(Civil)', 'Set for Review'),

……..

3) INSERT INTO FIRM_DETAILS

VALUES

('CAM-001', 'Cyril Amarchand Mangaldas'),

('SAMC-002', 'Shardul Amarchand Mangaldas & Co'),

('AZB-003', 'AZB & Partners'),

('KC-004', 'Khaitan & Co'),

('TL-005', 'Trilegal'),

('LLL-006', 'Luthra & Luthra Law Offices (L&L Partners),'),

('JSA-007', 'J. Sagar Associates (JSA),'),

....

4) INSERT INTO COURTS
VALUES
('Gauhati High Court', 'High Court', 'Guwahati, Assam'),

('The Supreme Court of India','Supreme Court','New Delhi, Delhi'),

('Allahabad High Court', 'High Court', 'Allahabad, Uttar Pradesh'),

('Bombay High Court', 'High Court', 'Mumbai, Maharashtra'),

('Calcutta High Court', 'High Court', 'Kolkata, West Bengal'),

('Chhattisgarh High Court', 'High Court', 'Bilaspur, Chhattisgarh'),

....

5) INSERT INTO COURT_ROOMS (COURT_NAME, ROOM_NO, TEL_EXTN_NO) VALUES
('The Supreme Court of India', '01', 1001),

('The Supreme Court of India', '02', 1002),

('The Supreme Court of India', '03', 1003),

('The Supreme Court of India', '04', 1004),

('The Supreme Court of India', '05', 1005),

....

6) INSERT INTO LITIGANTS (AADHAR_NO, LITIGANT_NAME, GENDER, Dob, AGE) VALUES

(100000000001, 'Aarav Singh', 'Male', '1990-03-15', 34),

(100000000002, 'Neha Sharma', 'Female', '1985-07-22', 39),

(100000000003, 'Vikram Verma', 'Male', '1978-11-10', 46),

(100000000004, 'Priya Gupta', 'Female', '1983-05-03', 41),

(100000000005, 'Rahul Kumar', 'Male', '1976-09-18', 48),

(100000000006, 'Anjali Patel', 'Female', '1992-12-30', 32),

(100000000007, 'Amit Singh', 'Male', '1980-04-25', 44),

....

7) INSERT INTO REGISTRARS (REGISTRAR_ID, NAME, DESIGNATION, COURT_NAME) VALUES

('REG021', 'Alok Kumar', 'District Registrar', 'Delhi High Court'),

('REG022', 'Pooja Sharma', 'Assistant Registrar', 'Delhi High Court'),

('REG023', 'Manish Singh', 'Senior Registrar', 'Delhi High Court'),

('REG024', 'Sneha Verma', 'Deputy Registrar', 'Delhi High Court'),

('REG025', 'Amit Patel', 'Registrar General', 'Delhi High Court'),

....

8) INSERT INTO LAWYER_DETAILS(AEN,LAWYER_NAME,LAWYER_TYPE,GENDER,CONTACT_NO,YEARS_OF_EXPERIANCE,FEES,WIN_PERCENTAGE,ADDRESS,STATE,CITY,ASSOCIATION_FLAG,TOTAL_CASES)

VALUES

('PUN098765432137', 'Vikram Singh', 'Civil_Lawyer', 'Male', 9876543226, 10, 40000, 65, '456, Green Avenue, Amritsar', 'Punjab', 'Amritsar', 'Independent', 120),

('KER065432109839', 'Sneha Nair', 'Criminal_Defense_Lawyer', 'Female', 8765432127, 8, NULL, 60, '789, MG Road, Thrissur', 'Kerala', 'Thrissur', 'Government', 80),

('RAJ012345678941', 'Amit Sharma', 'Contract_Lawyer', 'Male', 7654321116, 12, 35000, 70, '101, Civil Lines, Ajmer', 'Rajasthan', 'Ajmer', 'Independent', 150),

('JHA087654321037', 'Ritu Kumar', 'Miscellaneous', 'Female', 6543211003, 11, 28000, 55, '234, Bank More, Dhanbad', 'Jharkhand', 'Dhanbad', 'Lawyer under firm', 100),

……..

9) INSERT INTO JUDGE_DETAILS VALUES

('HC101JD', 'Justice Ramesh Kumar', 'Male', 'Chief Justice', '2010-01-01', 'LLB, LLM', '2030-01-01', 25, 'current', 'Supreme Court of India'),

('HC102JD', 'Justice Anjali Sharma', 'Female', 'Judge', '2012-03-05', 'LLB, PhD', '2042-03-05', 21, 'current', 'Supreme Court of India'),

('HC103JD', 'Justice Amit Singh', 'Male', 'Judge', '2015-07-10', 'LLB, LLM', '2045-07-10', 12, 'current', 'Supreme Court of India'),

('HC104JD', 'Justice Meera Rao', 'Female', 'Judge', '2018-09-20', 'LLB', '2022-09-20', 29, 'former', 'Supreme Court of India'),

('HC201JD', 'Justice Prakash Patel', 'Male', 'Chief Justice', '2008-04-03', 'LLB, LLM', '2028-04-03', 28, 'current', 'Delhi High Court'),

…….

10) INSERT INTO DEFENDENT VALUES

('GOA100010070301', 100000000221),

('JAM100020085302', 100000000222),

('KER100030040303', 100000000223),

('ARU100040055304', 100000000224),

('UP100050070305', 100000000225),

('PUN100060085306', 100000000226),

('GUJ100070040307', 100000000227),

……..

11) INSERT INTO PLAINTIFF (CASE_NO, AADHAR_NO) VALUES

('GOA100010070301', 100000000001),

('JAM100020085302', 100000000002),

('KER100030040303', 100000000003),

('ARU100040055304', 100000000004),

('UP100050070305', 100000000005),

('PUN100060085306', 100000000006),

('GUJ100070040307', 100000000008),

……..

12) INSERT INTO CRIMINAL_CASES (FIR_ID, FIR_DESC, POLICE_STATION, CASE_NO) VALUES

('RAJ120000002', 'A burglary case', 'Jaipur', 'RAJ100090095318'),

('KER120000003', 'A fraud case', 'Kochi', 'KER100010010319'),

('MP120000004', 'A robbery case', 'Indore', 'MP100060085324'),

('TN120000005', 'A vandalism case', 'Chennai', 'TN100030050339'),

('BHR120000006', 'A kidnapping case', 'Patna', 'BHR100050025350'),

……

13) INSERT INTO ADVOCATED_BY

VALUES

('GOA100010070301', 'GOA012345678901'), ('GOA100010070301', 'GOA098765432109'),

('JAM100020085302', 'JAM034567890123'), ('JAM100020085302', 'JAM012345678901'),

('ARU100040055304', 'ARUN023456789012'), ('ARU100040055304', 'ARUN045678901234'),

('RAJ100080015308', 'RAJ034567890123'), ('RAJ100080015308', 'RAJ056789012345'),

('KER100090030309', 'KER078901234567'), ('KER100090030309', 'KER056789012345'),

....

14) INSERT INTO ADJUDICATED_BY

VALUES

('GOA100010070301', 'HC301JD'),

('JAM100020085302', 'HC2102JD'),

('KER100030040303', 'HC1301JD'),

('ARU100040055304', 'HC2002JD'),

('UP100050070305', 'HC501JD'),

('PUN100060085306', 'HC1601JD'),

....

15) INSERT INTO SCHEDULE VALUES

('JAM100020085302', '10:59:00.000000','2004-07-28', 1,'Pending', 'Jammu and Kashmir High Court', '01'),

('JAM100020085302', '11:59:00.000000','2004-08-04', 2,'Pending', 'Jammu and Kashmir High Court', '02'),

('JAM100020085302', '12:59:00.000000','2004-08-11', 3,'Pending', 'Jammu and Kashmir High Court', '03'),

('JAM100020085302', '13:59:00.000000','2004-08-18', 4,NULL, 'Jammu and Kashmir High Court', '05'),

……..

16) INSERT INTO LAWYER_UNDER_FIRM
VALUES
 ('JHA087654321037', 'LLL-006'),

('TNB012345678942', 'TL-005'),

('GJ087654321039', 'DD-009'),

('MP012345678944', 'KC-004'),

('RJ065432109843', 'SAMC-002'),

('MP098765432142', 'IL-008'),

…….

17) INSERT INTO COMMITTEE (JUDGE_ID, COMMITEE_TYPE)
VALUES
('HC601JD', 'Finance Committee'),

('HC602JD', 'Finance Committee'),

('HC601JD', 'Administrative Committee'),

('HC603JD', 'Administrative Committee');

('HC801JD', 'Finance Committee'),

('HC802JD', 'Finance Committee'),

…….

18) INSERT INTO BASED_ON

VALUES

('GOA100010070301', '420','IPC'),

('JAM100020085302', '302','IPC'),

('KER100030040303', '303','IPC'),

('ARU100040055304', '354','IPC'),

('UP100050070305', '305','IPC'),

('PUN100060085306', '306','IPC'),

('GUJ100070040307', '307','IPC'),

('RAJ100080015308', '308','IPC'),

....

19) INSERT INTO WITNESSES VALUES

(100200000001, 'Diya Kantelia', 9876543210),

(100200000002, 'Aayushi Savaliya', 9876543211),

(100200000003, 'Himani Monapara', 9876543212),

(100200000004, 'Nikita Rajwani', 9876543213),

....

20) INSERT INTO APPEARED_IN (AADHAR_NO, CASE_NO, CALLED_BY, WITNESS_TYPE, TESTIMONY_DATE)

VALUES

(100200000001, 'BHR100050035314', 'Plaintiff Side', 'Eyewitness', '2003-10-17'),

(100200000002, 'BHR100050035314', 'Plaintiff Side', 'Expert Witness', '2003-09-17'),

(100200000003, 'BHR100050035314', 'Defendent Side', 'Eyewitness', '2003-09-17'),

(100200000004, 'BHR100050035314', 'Plaintiff Side', 'Material Witness', '2003-10-17'),

....

SQL Queries

1) Check status of his/her case

SELECT * FROM PLAINTIFF AS P NATURAL JOIN
CASE_DETAILS AS CD WHERE P. AADHAR_NO=100000000001;

OUTPUT:

	case_no character varying (50)	aadhar_no bigint	date_of_application date	category character varying (50)	case_status character varying (50)
1	GOA100010070301	100000000001	2008-09-17	Criminal appeal	Reopened

2) Retrieve the next hearing date of his/her case.

SELECT FROM DEFENDENT AS D NATURAL JOIN SCHEDULE
AS S WHERE D. AADHAR_NO=100000000222;

OUTPUT:

	case_no character varying (50)	aadhar_no bigint	TIME time without time zone	s_date date	no_of_hearing integer	verdict text	court_name character varying (30)	room_no character vary
1	JAM100020085302	100000000222	10:59:00	2004-07-28	1	Pending	Jammu and Kashmir High Court	01
2	JAM100020085302	100000000222	11:59:00	2004-08-04	2	Pending	Jammu and Kashmir High Court	02
3	JAM100020085302	100000000222	12:59:00	2004-08-11	3	Pending	Jammu and Kashmir High Court	03
4	JAM100020085302	100000000222	13:59:00	2004-08-18	4	[null]	Jammu and Kashmir High Court	05

3) By number of cases won.

SELECT * FROM LAWYER_DETAILS ORDER BY
(TOTAL_CASES*WIN_PERCENTAGE/100) DESC;

OUTPUT:

	aen [PK] character varying (30)	lawyer_name character varying (20)	gender character varying (6)	fees integer	win_percentage double precision	contact_no bigint
1	ASS054321098735	Rajesh Das	Male	42000	75	5432109892
2	GJ065432109854	Komal Shah	Female	42000	75	8765432142
3	GJ065432109850	Ankita Shah	Female	42000	75	8765432138
4	GJ087654321042	Manoj Shah	Male	42000	75	6543211008
5	GJ012345678959	Aarti Patel	Female	42000	75	7654321134
6	GJ065432109842	Suresh Shah	Male	42000	75	8765432130
7	GJ054321098751	Jay Patel	Male	40000	70	5432109908
8	GJ054321098755	Neel Patel	Male	40000	70	5432109912
9	GJ012345678943	Raj Patel	Male	40000	70	7654321118
10	GJ054321098739	Kartik Patel	Male	40000	70	5432109896
11	GJ087654321054	Jagruti Shah	Female	41000	70	6543211020
12	GJ012345678947	Priya Patel	Female	38000	70	7654321122
13	GJ054321098743	Rahul Patel	Male	40000	70	5432109900
14	GJ012345678951	Trisha Patel	Female	41000	70	7654321126
15	GJ054321098747	Arjun Patel	Male	40000	70	5432109904
16	GJ012345678955	Hiral Patel	Female	41000	70	7654321130
17	GJ065432109858	Krinal Shah	Female	40000	70	8765432146
18	GJ065432109846	Prachi Shah	Female	40000	70	8765432134
19	RAJ012345678941	Amit Sharma	Male	35000	70	7654321116

4) By percentage of cases won over total cases.

SELECT * FROM LAWYER_DETAILS ORDER BY
YEARS_OF_EXPERIENCE DESC;

OUTPUT:

	aen [PK] character varying (30)	lawyer_name character varying (20)	gender character varying (6)	fees integer	win_percentage double precision	contact_no bigint
1	GJ065432109842	Suresh Shah	Male	42000	75	8765432130
2	GJ065432109854	Komal Shah	Female	42000	75	8765432142
3	ASS054321098735	Rajesh Das	Male	42000	75	5432109892
4	GJ065432109850	Ankita Shah	Female	42000	75	8765432138
5	GJ012345678959	Aarti Patel	Female	42000	75	7654321134
6	GJ087654321042	Manoj Shah	Male	42000	75	6543211008
7	GJ065432109846	Prachi Shah	Female	40000	70	8765432134
8	GJ054321098743	Rahul Patel	Male	40000	70	5432109900
9	GJ054321098751	Jay Patel	Male	40000	70	5432109908
10	RAJ012345678941	Amit Sharma	Male	35000	70	7654321116
11	GJ012345678943	Raj Patel	Male	40000	70	7654321118
12	GJ012345678947	Priya Patel	Female	38000	70	7654321122
13	GJ054321098747	Arjun Patel	Male	40000	70	5432109904
14	GJ012345678955	Hiral Patel	Female	41000	70	7654321130
15	GJ065432109858	Krinal Shah	Female	40000	70	8765432146
16	GJ054321098755	Neel Patel	Male	40000	70	5432109912
17	GJ012345678951	Trisha Patel	Female	41000	70	7654321126
18	GJ087654321054	Jagruti Shah	Female	41000	70	6543211020
19	GJ054321098739	Kartik Patel	Male	40000	70	5432109896

5) By years of experience.

SELECT * FROM LAWYER_DETAILS ORDER BY
 YEARS_OF_EXPERIENCE DESC;

OUTPUT:

	aen [PK] character varying (30)	lawyer_name character varying (20)	gender character varying (6)	fees integer	years_of_experience integer	win_percentage double precision	contact_no bigint
1	ORI065432109840	Alok Mishra	Male	30000	13	65	8765432128
2	GJ087654321046	Riya Shah	Female	39000	12	65	6543211012
3	TN678901234567	Anjali Menon	Female	58000	12	35	8765432109
4	KER078901234567	Sneha Nair	Female	58000	12	35	987654321
5	RAJ012345678941	Amit Sharma	Male	35000	12	70	7654321116
6	GJ098765432145	Preeti Patel	Female	38000	12	65	9876543234
7	KER567890123456	Anjali Menon	Female	58000	12	35	987654321
8	GJ012345678947	Priya Patel	Female	38000	12	70	7654321122
9	JAM034567890123	Ananya Gupta	Female	55000	12	35	6543210987
10	GJ054321098739	Kartik Patel	Male	40000	12	70	5432109896
11	GJ065432109842	Suresh Shah	Male	42000	12	75	8765432130
12	GUJ123450987654	Aarti Shah	Female	53000	11	35	6543210987
13	JHA087654321037	Ritu Kumar	Female	28000	11	55	6543211003
14	PUN078901234567	Aryan Singh	Male	51000	11	40	3210987654
15	RJ065432109843	Rahul Jain	Male	30000	11	55	8765432131
16	GUJ078901234567	Priya Shah	Female	53000	11	35	6543210987
17	AP056789012345	Ananya Reddy	Female	52000	11	35	987654321
18	AP789012345678	Amit Kumar	Male	51000	11	40	8765432109
19	TN056789012345	Vikram Raj	Male	51000	11	40	3210987654

6) By consultancy fees.

SELECT * FROM LAWYER_DETAILS ORDER BY FEES DESC;

OUTPUT:

	aen [PK] character varying (30)	lawyer_name character varying (20)	gender character varying (6)	fees integer	years_of_experience integer	win_percentage double precision	contact_no bigint
1	WB054321098742	Ritika Sen	Female	[null]	8	55	5432109899
2	WB087654321041	Debjani Ghosh	Female	[null]	6	45	6543211007
3	WB012345678958	Sukanya Bose	Female	[null]	6	55	7654321133
4	WB012345678954	Shubham Bose	Male	[null]	4	50	7654321129
5	WB087654321057	Subhash Ghosh	Male	[null]	3	45	6543211023
6	WB012345678946	Sujata Bose	Female	[null]	7	55	7654321121
7	WB098765432152	Rajat Das	Male	[null]	3	50	9876543241
8	WB065432109849	Soumyadeep Sen	Male	[null]	6	45	8765432137
9	WB054321098754	Subho Sen	Male	[null]	3	50	5432109911
10	WB065432109845	Rahul Sen	Male	[null]	7	45	8765432133
11	WB098765432144	Arindam Das	Male	[null]	6	50	9876543233
12	WB012345678950	Tanaya Bose	Female	[null]	7	55	7654321125
13	WB065432109853	Anirban Sen	Male	[null]	4	45	8765432141
14	WB087654321045	Arnav Ghosh	Male	[null]	6	45	6543211011
15	WB065432109857	Somnath Sen	Male	[null]	5	50	8765432145
16	WB087654321053	Amit Ghosh	Male	[null]	4	45	6543211019
17	WB098765432156	Anisha Das	Female	[null]	4	45	9876543245
18	WB054321098746	Madhumita Sen	Female	[null]	5	55	5432109903
19	BEN054321098736	Neha Das	Female	[null]	11	55	5432109893

7) By advocates field of speciality.

SELECT * FROM LAWYER_DETAILS WHERE
 LAWYER_TYPE='Contract_Lawyer';

OUTPUT:

	aen [PK] character varying (30)	lawyer_name character varying (20)	gender character varying (6)	fees integer	years_of_experience integer	win_percentage double precision	contact_no bigint	lawyer_type character varying (30)
1	RAJ012345678941	Amit Sharma	Male	35000	12	70	7654321116	Contract_Lawyer
2	ORI065432109840	Alok Mishra	Male	30000	13	65	8765432128	Contract_Lawyer
3	GJ012345678943	Raj Patel	Male	40000	11	70	7654321118	Contract_Lawyer
4	GJ065432109842	Suresh Shah	Male	42000	12	75	8765432130	Contract_Lawyer
5	GJ098765432141	Aryan Patel	Male	38000	8	65	9876543230	Contract_Lawyer
6	RJ065432109843	Rahul Jain	Male	30000	11	55	8765432131	Contract_Lawyer
7	GJ054321098739	Kartik Patel	Male	40000	12	70	5432109896	Contract_Lawyer
8	GJ087654321042	Manoj Shah	Male	42000	9	75	6543211008	Contract_Lawyer
9	GJ012345678947	Priya Patel	Female	38000	12	70	7654321122	Contract_Lawyer
10	GJ065432109846	Prachi Shah	Female	40000	11	70	8765432134	Contract_Lawyer
11	GJ012345678948	Nisha Gupta	Female	28000	10	45	7654321123	Contract_Lawyer
12	GJ098765432145	Preeti Patel	Female	38000	12	65	9876543234	Contract_Lawyer
13	GJ054321098743	Rahul Patel	Male	40000	11	70	5432109900	Contract_Lawyer
14	GJ087654321046	Riya Shah	Female	39000	12	65	6543211012	Contract_Lawyer
15	GJ012345678951	Trisha Patel	Female	41000	11	70	7654321126	Contract_Lawyer
16	GJ065432109850	Ankita Shah	Female	42000	10	75	8765432138	Contract_Lawyer
17	GJ098765432149	Aarav Patel	Male	38000	9	65	9876543238	Contract_Lawyer
18	GJ054321098747	Arjun Patel	Male	40000	8	70	5432109904	Contract_Lawyer
19	GJ087654321050	Smita Shah	Female	39000	7	65	6543211016	Contract_Lawyer

8) To find top 10 independent lawyers by total cases that are contract lawyer, has fees less than 50000, has minimum 10 years of experience, has won more than half of his cases and is located in Gujarat

SELECT * FROM LAWYER_DETAILS

WHERE LAWYER_TYPE='Contract_Lawyer'

AND ASSOCIATION_FLAG='Independent'

AND FEES<50000 AND YEARS_OF_EXPERIENCE>10

AND WIN_PERCENTAGE>50

AND STATE='Gujarat'

ORDER BY TOTAL_CASES DESC LIMIT 10;

OUTPUT:

	aen [PK] character varying (30)	lawyer_name character varying (20)	gender character varying	fees integer	years_of_experi integer	total_cases integer	win_percenta double precis	contact_no bigint	lawyer_type character varying (30)	association_f character var	state characte
1	GJ054321098739	Kartik Patel	Male	40000	12	160	70	5432109896	Contract_Lawyer	Independ...	Gujarat
2	GJ054321098743	Rahul Patel	Male	40000	11	160	70	5432109900	Contract_Lawyer	Independ...	Gujarat
3	GJ012345678951	Trisha Patel	Female	41000	11	160	70	7654321126	Contract_Lawyer	Independ...	Gujarat
4	GJ012345678947	Priya Patel	Female	38000	12	160	70	7654321122	Contract_Lawyer	Independ...	Gujarat
5	GJ012345678943	Raj Patel	Male	40000	11	160	70	7654321118	Contract_Lawyer	Independ...	Gujarat
6	GJ087654321046	Riya Shah	Female	39000	12	150	65	6543211012	Contract_Lawyer	Independ...	Gujarat
7	GJ065432109846	Prachi Shah	Female	40000	11	150	70	8765432134	Contract_Lawyer	Independ...	Gujarat
8	GJ065432109842	Suresh Shah	Male	42000	12	150	75	8765432130	Contract_Lawyer	Independ...	Gujarat
9	GJ098765432157	Vidhi Patel	Female	38000	11	120	65	9876543246	Contract_Lawyer	Independ...	Gujarat
10	GJ098765432145	Preeti Patel	Female	38000	12	120	65	9876543234	Contract_Lawyer	Independ...	Gujarat

9) To study past cases of a particular type of case.

SELECT * FROM CASE_DETAILS WHERE
CATEGORY='CRIMINAL APPEAL';

OUTPUT:

	case_no [PK] character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)
1	DEL10004005063	2009-10-06	Criminal appeal	Reopened
2	UP10003004089	2016-01-30	Criminal appeal	Set for Review
3	MP100010035132	2017-12-23	Criminal appeal	Reopened
4	GOA100020001251	2008-07-23	Criminal appeal	Reopened
5	GOA100010070301	2008-09-17	Criminal appeal	Reopened

10) To refer to different sections of IPC, CRPC and CPC

SELECT * FROM PENAL_CODE WHERE CODE_TYPE='IPC' AND
SECTION_CODE='370A';

OUTPUT:

	section_code [PK] character varying (10)	code_type [PK] character varying (10)	description text
1	420	IPC	Cheating and dishonestly inducing delivery of proper...

11) Find the case status of a given case:

SELECT CASE_STATUS FROM CASE_DETAILS WHERE
CASE_NO=<VALUE>;

OUTPUT:

	case_status character varying (50) 🔒
1	Reopened

12) Check status of his/her clients case:

SELECT LITIGANT_NAME AS CLIENT_NAME, LAWYER_NAME,
CD.* FROM LITIGANTS AS L
NATURAL JOIN PLAINTIFF AS P NATURAL JOIN
CASE_DETAILS AS CD NATURAL JOIN ADVOCATED_BY AS AB
NATURAL JOIN LAWYER_DETAILS AS LD
WHERE L.AADHAR_NO=<VALUE>
UNION
SELECT LITIGANT_NAME AS
CLIENT_NAME,LAWYER_NAME,CD.* FROM LITIGANTS AS L
NATURAL JOIN DEFENDENT AS D NATURAL JOIN
CASE_DETAILS AS CD NATURAL JOIN ADVOCATED_BY AS AB
NATURAL JOIN LAWYER_DETAILS AS LD
WHERE L.AADHAR_NO=<VALUE>;

OUTPUT:

	client_name character varying (30)	lawyer_name character varying (20)	case_no character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)
1	Amit Singh	Vikrant Desai	GUJ100030015125	2019-07-22	Transfer petition(civil)	Reopened

13) To use past verdicts as evidence in current case

SELECT C.CASE_NO,S.VERDICT,S.COURT_NAME,S.S_DATE AS
 DATE_OF_CASE, C.CATEGORY,C.CASE_STATUS,P.* FROM
SCHEDULE AS S
NATURAL JOIN CASE_DETAILS AS C
NATURAL JOIN BASED_ON AS B
JOIN PENAL_CODE AS P ON
P.SECTION_CODE=B.SECTION_CODE AND
P.CODE_TYPE=B.CODE_TYPE
WHERE S.VERDICT='GUILTY' OR S.VERDICT='NOT GUILTY';

OUTPUT:

	case_no character varying (50)	verdict text	court_name character varying (30)	date_of_case date	category character varying (50)	case_status character varying (50)	section_code character varying (10)	code_ty characte
1	RAJ10008007502	Guilty	Rajasthan High Court	2010-11-23	writ petition(criminal)	End Pending–Active	502	IPC
2	UP10006008504	Guilty	Allahabad High Court	2010-01-09	Civil appeal	New Filing	504	IPC
3	TN10001006005	Not Guilty	Madras High Court	2012-06-05	Transferred Case(criminal)	Reactivated	505	IPC
4	MAH10005003007	Guilty	Bombay High Court	2018-10-15	Contempt petition(criminal)	Placed on Inactive Status	507	IPC
5	BHR10007002508	Not Guilty	Patna High Court	2020-02-27	Election Petition(Civil)	Reopened	508	IPC
6	MP10009004009	Guilty	Madhya Pradesh High Court	2017-05-02	Curative Petition(Civil)	Set for Review	509	IPC
7	PUN10001001510	Guilty	Punjab and Haryana High Court	2006-07-14	Review petition(civil)	Begin Pending–Inactive	510	IPC
8	DEL10006001074	Not Guilty	Delhi High Court	2014-04-05	Transferred Case(civil)	Placed on Inactive Status	420	IPC

Total rows: 23 of 23   Query complete 00:00:00.058

14) Check status of his/her clients case

SELECT L.LITIGANT_NAME,CD.* FROM LITIGANTS AS L
 NATURAL JOIN PLAINTIFF AS P NATURAL JOIN
CASE_DETAILS AS CD WHERE L.AADHAR_NO=<VALUE>
UNION
SELECT L.LITIGANT_NAME,CD.* FROM LITIGANTS AS L
NATURAL JOIN DEFENDENT AS D NATURAL JOIN
CASE_DETAILS AS CD WHERE L.AADHAR_NO=<VALUE>;

OUTPUT:

	litigant_name character varying (30)	case_no character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)
1	Ajay Verma	AP100010075123	2016-04-30	Miscellaneous Application	Reopened Dispositions

15) Retrieve the next hearing date of his/her client

SELECT L.LITIGANT_NAME,CD.* FROM LITIGANTS AS L
NATURAL JOIN PLAINTIFF AS P NATURAL JOIN
CASE_DETAILS AS CD WHERE CD.CASE_NO=<VALUE>
UNION
SELECT L.LITIGANT_NAME,CD.* FROM LITIGANTS AS L
 NATURAL JOIN DEFENDENT AS D NATURAL JOIN
CASE_DETAILS AS CD WHERE CD.CASE_NO=<VALUE>;

OUTPUT:

	litigant_name character varying (30)	case_no character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)
1	Rohit Verma	GUJ100070040307	2009-08-19	Special leave petition(civil)	Reopened Dispositions
2	Sneha Sharma	GUJ100070040307	2009-08-19	Special leave petition(civil)	Reopened Dispositions

16) To find past record of person

SELECT L.LITIGANT_NAME,CD.* FROM LITIGANTS AS L
 NATURAL JOIN PLAINTIFF AS P NATURAL JOIN
CASE_DETAILS AS CD WHERE L.AADHAR_NO=100000000227
UNION
SELECT L.LITIGANT_NAME,CD.* FROM LITIGANTS AS L
 NATURAL JOIN DEFENDENT AS D NATURAL JOIN
CASE_DETAILS AS CD WHERE L.AADHAR_NO=100000000227

OUTPUT:

	litigant_name character varying (30)	case_no character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)
1	Rohit Verma	MAH100040055322	2001-09-26	Special Reference Case	Entry of Judgment
2	Rohit Verma	GUJ100070040307	2009-08-19	Special leave petition(civil)	Reopened Dispositions
3	Rohit Verma	KER100010010319	2014-04-14	Contempt petition(criminal)	Reopened
4	Rohit Verma	RAJ100080015308	2017-02-28	Special leave to petition(criminal)	Begin Pending−Active
5	Rohit Verma	GUJ100080080317	2016-10-01	Special leave petition(civil)	Reopened

17) Give the past details of the litigants of a case

SELECT L.LITIGANT_NAME,CD.* FROM LITIGANTS AS L
 NATURAL JOIN PLAINTIFF AS P NATURAL JOIN
CASE_DETAILS AS CD WHERE
CD.CASE_NO='GUJ100070040307'
UNION
SELECT L.LITIGANT_NAME,CD.* FROM LITIGANTS AS L
 NATURAL JOIN DEFENDENT AS D NATURAL JOIN
CASE_DETAILS AS CD WHERE
CD.CASE_NO='GUJ100070040307'

OUTPUT:

	litigant_name character varying (30)	case_no character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)
1	Rohit Verma	GUJ100070040307	2009-08-19	Special leave petition(civil)	Reopened Dispositions
2	Sneha Sharma	GUJ100070040307	2009-08-19	Special leave petition(civil)	Reopened Dispositions

18) To find the data from the previous hearings of a current case

SELECT CD.,S. FROM SCHEDULE AS S NATURAL JOIN

CASE_DETAILS AS CD

WHERE CD.CASE_NO='JAM100020085302' AND S.VERDICT IS
 NOT NULL

OUTPUT:

	case_no character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)	case_no character varying (50)	TIME time without time zone	s_date date	no_of_hearing integer	verdic text
1	JAM100020085302	2004-06-28	Transfer petition(criminal)	New Filing	JAM100020085302	10:59:00	2004-07-28	1	Pendi
2	JAM100020085302	2004-06-28	Transfer petition(criminal)	New Filing	JAM100020085302	11:59:00	2004-08-04	2	Pendi
3	JAM100020085302	2004-06-28	Transfer petition(criminal)	New Filing	JAM100020085302	12:59:00	2004-08-11	3	Pendi

19) Get the details of witnesses from plaintiff side which will be

present in the next hearing of case

SELECT W.*,JUDGE_ID,JUDGE_NAME,COURT_NAME

FROM (SELECT * FROM WITNESSES NATURAL JOIN
APPEARED_IN)AS W NATURAL JOIN

SCHEDULE AS S NATURAL JOIN ADJUDICATED_BY AS AB

NATURAL JOIN JUDGE_DETAILS AS JD

WHERE CALLED_BY='PLAINTIFF SIDE' AND S.VERDICT

ISNULL AND S.S_DATE=TESTIMONY_DATE

OUTPUT:

	aadhar_no bigint	witness_name character varying (50)	contact_no bigint	case_no character varying (50)	witness_type character varying (50)	called_by character varying (50)	testimony_date date	judge_id character varying (30)	judge_name character vary
1	100200000001	Diya Kantelia	9876543210	BHR100050035314	Eyewitness	Plaintiff Side	2003-10-17	HC801JD	Justice Ajay K
2	100200000004	Nikita Rajwani	9876543213	BHR100050035314	Material Witness	Plaintiff Side	2003-10-17	HC801JD	Justice Ajay K

20) Select lawyer from a particular state

SELECT * FROM LAWYER_DETAILS WHERE AEN LIKE '%MAH%' ;

OUTPUT:

	aen [PK] character varying (30)	lawyer_name character varying (20)	lawyer_type character varying (30)	gender character varying (6)	contact_no bigint	years_of_experience integer	fees integer	total_cases integer	win_percentage double precision
1	MAH023456789012	Vidya Deshmukh	Criminal_Defense_Lawyer	Female	8765432109	10	50000	200	35
2	MAH045678901234	Rahul Sharma	Criminal_Defense_Lawyer	Male	7654321098	11	53000	180	40
3	MAH456789012345	Neha Desai	Civil_Lawyer	Female	6543210987	11	53000	200	35
4	MAH567890123456	Vivek Shah	Civil_Lawyer	Male	5432109876	9	45000	160	40

21) Retrieve all past case history of all plaintiff and defendent of a particular Case given the Case_no

SELECT L.LITIGANT_NAME,CD.* FROM LITIGANTS AS L

NATURAL JOIN PLAINTIFF AS P

NATURAL JOIN CASE_DETAILS AS CD

WHERE L.AADHAR_NO IN (SELECT L.AADHAR_NO FROM

 LITIGANTS AS L NATURAL JOIN PLAINTIFF AS P NATURAL

JOIN CASE_DETAILS AS CD WHERE

CD.CASE_NO='GUJ100070040307')

UNION

SELECT L.LITIGANT_NAME,CD.* FROM LITIGANTS AS L

NATURAL JOIN DEFENDENT AS D

NATURAL JOIN CASE_DETAILS AS CD

WHERE L.AADHAR_NO IN (SELECT L.AADHAR_NO FROM

 LITIGANTS AS L NATURAL JOIN DEFENDENT AS D NATURAL

JOIN CASE_DETAILS AS CD WHERE

CD.CASE_NO='GUJ100070040307')

OUTPUT:

	litigant_name character varying (30)	case_no character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)
1	Rohit Verma	GUJ100070040307	2009-08-19	Special leave petition(civil)	Reopened Dispositions
2	Rohit Verma	GUJ100080080317	2016-10-01	Special leave petition(civil)	Reopened
3	Rohit Verma	MAH100040055322	2001-09-26	Special Reference Case	Entry of Judgment
4	Sneha Sharma	GUJ100070040307	2009-08-19	Special leave petition(civil)	Reopened Dispositions

22) Find criminal cases

SELECT * FROM CASE_DETAILS AS C WHERE C.CATEGORY LIKE '%CRIMINAL%';

OUTPUT:

	case_no [PK] character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)
1	GUJ10002000501	2004-02-18	Special leave petition(criminal)	Reopened Dispositions
2	RAJ10008007502	2010-09-23	writ petition(criminal)	End Pending−Active
3	TN10001006005	2012-04-05	Transferred Case(criminal)	Reactivated
4	MAH10005003007	2018-08-15	Contempt petition(criminal)	Placed on Inactive Status
5	TN10007007057	2006-03-20	Transfer petition(criminal)	Reopened
6	MAH10008004058	2014-09-12	writ petition(criminal)	Entry of Judgment
7	AP10003002562	2012-02-19	writ to petition(criminal)	Placed on Inactive Status
8	RAJ10006003565	2007-12-25	Special leave to petition(criminal)	Reactivated
9	TN10009004568	2011-05-10	Transferred Case(criminal)	Reopened

Total rows: 94 of 94   Query complete 00:00:00.119

23) Find civil cases

SELECT * FROM CASE_DETAILS AS C WHERE C.CATEGORY
LIKE '%CIVIL%' OR C.CATEGORY LIKE '%CIVIL%';

OUTPUT:

	case_no [PK] character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)
1	UP10006008504	2009-11-09	Civil appeal	New Filing
2	BHR10007002508	2019-12-30	Election Petition(Civil)	Reopened
3	MP10009004009	2017-03-02	Curative Petition(Civil)	Set for Review
4	PUN10001001510	2006-05-14	Review petition(civil)	Begin Pending−Inactive
5	AP10001008551	2003-08-14	Transferred Case(civil)	Placed on Inactive Status
6	DEL10002006052	2011-04-05	Contempt petition(civil)	Reopened Dispositions
7	RAJ10004002554	2008-10-17	Election Petition(Civil)	Reactivated
8	GUJ10005001564	2018-03-14	Special leave petition(civil)	Begin Pending−Active
9	BHR10002005570	2016-06-13	writ to petition(civil)	Set for Review

Total rows: 76 of 76   Query complete 00:00:00.293

24) Find miscellaneous cases

SELECT * FROM CASE_DETAILS AS C WHERE C.CATEGORY NOT LIKE '%CRIMINAL%' AND C.CATEGORY NOT LIKE '%CIVIL%' AND C.CATEGORY NOT LIKE '%CIVIL%';

OUTPUT:

	case_no [PK] character varying (50)	date_of_application date	category character varying (50)	case_status character varying (50)
1	GUJ10002000501	2004-02-18	Special leave petition(criminal)	Reopened Dispositions
2	RAJ10008007502	2010-09-23	writ petition(criminal)	End Pending−Active
3	KER10004002003	2015-07-12	Death reference case	Begin Pending−Active
4	UP10006008504	2009-11-09	Civil appeal	New Filing
5	TN10001006005	2012-04-05	Transferred Case(criminal)	Reactivated
6	GUJ10003004506	2005-10-28	Sub Moto Transfer Petition(Criminal)	Entry of Judgment
7	MAH10005003007	2018-08-15	Contempt petition(criminal)	Placed on Inactive Status
8	BHR10007002508	2019-12-30	Election Petition(Civil)	Reopened
9	MP10009004009	2017-03-02	Curative Petition(Civil)	Set for Review

Total rows: 220 of 220   Query complete 00:00:00.202

25) Find the complete working details of a particular court for a particular judge heading a particular committee

SELECT R.*,JD.JUDGE_NAME,CO.COMMITEE_TYPE

FROM REGISTRARS AS R NATURAL JOIN COURTS AS C

NATURAL JOIN JUDGE_DETAILS AS JD NATURAL JOIN

COMMITTEE AS CO WHERE C.COURT_NAME='ALLAHABAD

HIGH COURT' AND JD.JUDGE_NAME='JUSTICE SUNIL GUPTA'

AND CO.COMMITEE_TYPE='FINANCE COMMITTEE'

OUTPUT:

	registrar_id character varying (20)	name character varying (30)	designation character varying (20)	court_name character varying (30)	judge_name character varying (50)	commitee_type character varying (50)
1	REG021	Alok Kumar	District Registrar	Delhi High Court	Justice Prakash Patel	Finance Committee
2	REG022	Pooja Sharma	Assistant Registrar	Delhi High Court	Justice Prakash Patel	Finance Committee
3	REG023	Manish Singh	Senior Registrar	Delhi High Court	Justice Prakash Patel	Finance Committee
4	REG024	Sneha Verma	Deputy Registrar	Delhi High Court	Justice Prakash Patel	Finance Committee
5	REG025	Amit Patel	Registrar General	Delhi High Court	Justice Prakash Patel	Finance Committee

Normalization Proofs

1) ADJUDICATED_BY

ADJUDICATED_BY	
◆CASE_NO	VARCHAR (50)
◆JUDGE_ID	VRACHAR (30)

As the table consist of two attributes which are both keys, there are no FDs. And thus is in BCNF.

Key: {CASE_NO, JUDGE_ID}

2) ADVOCATED_BY

ADVOCATED_BY	
◆CASE_NO	VARCHAR (50)
◆AEN	VARCHAR(15)

As the table consist of two attributes which are both keys, there are no FDs. And thus is in BCNF.

Key: {CASE_NO, AEN}

3) APPEARED IN

APPEARED_IN	
◆AADHAR_NO	BIGINT
◆CASE_NO	VARCHAR(50)
○CALLED_BY	VARCHAR(50)
○WITNESS_TYPE	VARCHAR(50)
○TESTIMONY_DATE	DATE

Minimal FD Set:

{AADHAR_NO, CASE_NO} → CALLED_BY

{AADHAR_NO, CASE_NO} → WITNESS_TYPE

{AADHAR_NO, CASE_NO} → TESTIMONY_DATE

Check BCNF condition:

{AADHAR_NO, CASE_NO}$^+$ = {AADHAR_NO, CASE_NO, CALLED_BY, WITNESS_TYPE, TESTIMONY_DATE}

As for every X→Y, X⁺ = R, therefore BCNF condition is followed.

Key: {AADHAR_NO, CASE_NO}

4) BASED_ON

BASED_ON	
CASE_NO	VRACHAR (50)
SECTION_CODE	VARCHAR (10)
CODE_TYPE	VARCHAR (10)

As the table consist of three attributes which are all keys, there are no FDs. And thus is in BCNF.

Key: {CASE_NO, SECTION_CODE,CODE_TYPE}

5) CASE_DETAILS

CASE_DETAILS	
CASE_NO	VARCHAR (50)
DATE_OF_APPLICATION	DATE
CATEGORY	VARCHAR (20)
CASE_STATUS	VARCHAR (20)

Minimal FD Set:

CASE_NO → DATE_OF_APPLICATION

CASE_NO → CATEGORY

CASE_NO → CASE_STATUS

Check BCNF condition:

CASE_NO⁺ = {CASE_NO, DATE_OF_APPLICATION, CATEGORY, CASE_STATUS}

As for every X→Y, X⁺ = R, therefore BCNF condition is followed.

Key: CASE_NO

6) COMMITTEE

COMMITEE	
JUDGE_ID	VARCHAR (30)
COMMITEE_TYPE	VARCHAR (30)

Minimal FD Set:

JUDGE_ID → COMMITTEE_TYPE

Check BCNF condition:

JUDGE_ID$^+$ = {JUDGE_ID, COMMITTEE_TYPE}

As for every X→Y, X$^+$ = R, therefore BCNF condition is followed.

Key: JUDGE_ID

7) COURT_ROOM

Minimal FD Set:

{COURT_NAME, ROOM_NO} → TEL_EXTN_NO

Check BCNF condition:

{COURT_NAME, ROOM_NO }$^+$ = {COURT_NAME, ROOM_NO, TEL_EXTN_NO}

As for every X→Y, X$^+$ = R, therefore BCNF condition is followed.

Key: {COURT_NAME, ROOM_NO}

8) COURTS

Minimal FD Set:

COURT_NAME → TYPE

COURT_NAME → LOCATION

Check BCNF condition:

COURT_NAME$^+$ = {COURT_NAME, TYPE, LOCATION}

As for every X→Y, X$^+$ = R, therefore BCNF condition is followed.

Key: COURT_NAME

9) CRIMINAL_CASES

CRIMINAL_CASES	
◆FIR_ID	VARCHAR (20)
°FIR_DESC	TEXT
°NAME_OF_POLICE_STATION	VARCHAR (30)
◆CASE_NO	VARCHAR (50)

Minimal FD Set:

FIR_ID → NAME_OF_POLICE_STATION

FIR_ID → CASE_NO

FIR_ID → FIR_DESC

Check for BCNF condition:

FIR_ID^+ = {FIR_ID, NAME_OF_POLICE_STATION, CASE_NO, FIR_DESC}

As for every X→Y, X^+ = R, therefore BCNF condition is followed.

Key: FIR_ID

10) DEFENDANT

DEFENDENT	
◆CASE_NO	VARCHAR (50)
◆AADHAR_NO	BIGINT

As the table consist of two attributes which are both keys, there are no FDs. And thus is in BCNF.

Key: {CASE_NO,AADHAR_NO}

11) FIRM_DETAILS

FIRM_DETAILS	
◆FIRM_ID	VARCHAR (20)
°FIRM_NAME	VARCHAR (20)

Minimal FD Set:

FIRM_ID → FIRM_NAME

Check for BCNF condition:

FIRM_ID$^+$ = {FIRM_ID, FIRM_NAME}

As for every X→Y, X$^+$ = R, therefore BCNF condition is followed.

Key: FIRM_ID

12) JUDGE_DETAILS

Minimal FD Set:

JUDGE_ID → JUDGE_NAME

JUDGE_ID → GENDER

JUDGE_ID → POSITION

JUDGE_ID → APPOINTMENT_DATE

JUDGE_ID → QUALIFICATION

JUDGE_ID → RETIREMENT_DATE

JUDGE_ID → YEARS_OF_EXPERIANCE

JUDGE_ID → FORMER/CURRENT

JUDGE_ID → COURT_NAME

Check for BCNF condition:

JUDGE_ID$^+$ = {GENDER, POSITION, APPOINTMENT_DATE, QUALIFICATION, RETIREMENT_DATE, YEARS_OF_EXPERIANCE, FORMER/CURRENT, COURT_NAME, JUDGE_NAME, JUDGE_ID}

As for every X→Y, X⁺ = R, therefore BCNF condition is followed.

<u>Key</u>: JUDGE_ID

13) LAWYER_DETAILS

LAWYER_DETAILS	
♦AEN	VARCHAR (15)
♦LAWYER_NAME	VARCHAR (20)
♦GENDER	VARCHAR (10)
°CONTACT_NO	INT
♦YEARS_OF_EXPERIANCE	INT
°FEES	INT
°TOTAL_CASES	INT
♦WIN_PERCENTAGE	DOUBLE
°ADDRESS	VARCHAR (20)
°STATE	VARCHAR (20)
°CITY	VARCHAR (20)
°LAWYER_TYPE	VARCHAR (20)
°ASSOCIATION_FLAG	VARCHAR(30)

<u>Minimal FD Set</u>:

AEN → LAWYER_NAME

AEN → GENDER, CONTACT_NO

AEN → YEARS_OF_EXPERIANCE

AEN → FEES

AEN → TOTAL_CASES

AEN → WIN_PERCENTAGE

AEN → LAWYER_TYPE

AEN → ASSOCIATION_FLAG

AEN → ADDRESS

AEN → STATE

AEN → CITY

<u>Check for BCNF condition</u>:

AEN⁺ = {AEN, LAWYER_NAME, GENDER, CONTACT_NO, YEARS_OF_EXPERIANCE, FEES, TOTAL_CASES, WIN_PERCENTAGE, LAWYER_TYPE, ASSOCIATION_FLAG, ADDRESS, STATE, CITY}

As for every X→Y, X⁺ = R, therefore BCNF condition is followed.

<u>Key</u>: AEN

14) LAWYER_UNDER_FIRM

LAWYER_UNDER_FIRM	
♦AEN	VARCHAR (15)
♦FIRM_ID	VARCHAR (20)

As the table consist of two attributes which are both keys, there are no FDs. And thus is in BCNF.

<u>Key</u>: { AEN , FIRM_ID}

15) LITIGANTS

LITIGANTS	
♦AADHAR_NO	BIGINT
♦LITIGANT_NAME	VARCHAR(30)
♦GENDER	VARCHAR(6)
∘DoB	DATE
∘AGE	INT

<u>Minimal FD Set</u>:

AADHAR_NO → LITIGANT_NAME

AADHAR_NO → GENDER

AADHAR_NO → DOB

AADHAR_NO → AGE

<u>Check for BCNF condition</u>:

AADHAR_NO⁺ = {AADHAR_NO, LITIGANT_NAME, GENDER, DOB, AGE}

As for every X→Y, X⁺ = R, therefore BCNF condition is followed.

<u>Key</u>: AADHAR_NO

16) PENAL_CODE

PENAL_CODES

◆ SECTION_CODE	VARCHAR (10)
◆ CODE_TYPE	VARCHAR (10)
○ DESCRIPTION	TEXT

Minimal FD Set:

{SECTION_CODE, CODE_TYPE} → DESCRIPTION

Check for BCNF condition

{SECTION_CODE, CODE_TYPE }+ = {SECTION_CODE, CODE_TYPE, DESCRIPTION}

As for every X→Y, X+ = R, therefore BCNF condition is followed.

Key: {SECTION_CODE, CODE_TYPE}

17) PLAINTIFF

PLAINTIFF

◆ CASE_NO	VARCHAR (50)
◆ AADHAR_NO	BIGINT

As the table consist of two attributes which are both keys, there are no FDs. And thus is in BCNF.

Key: {CASE_NO, AADHAR_NO}

18) REGISTRARS

REGISTRARS

◆ REGISTRAR_ID	VARCHAR (20)
○ NAME	VARCHAR (20)
○ DESIGNATION	VARCHAR (20)
○ COURT_NAME	VARCHAR (30)

Minimal FD Set:

REGISTRAR_ID → NAME

REGISTRAR_ID → DESIGNATION

REGISTRAR_ID → COURT_NAME

Check for BCNF condition

REGISTRAR_ID$^+$ = {REGISTRAR_ID, NAME, DESIGNATION, COURT_NAME}

As for every X→Y, X$^+$ = R, therefore BCNF condition is followed.

Key: REGISTRAR_ID

19) SCHEDULE

Minimal FD Set:

CASE_NO → TIME, DATE

CASE_NO → NO_OF_HEARING

CASE_NO → VERDICT

CASE_NO → COURT_NAME

CASE_NO → ROOM_NO

Check for BCNF condition:

CASE_NO$^+$ = {CASE_NO, TIME, DATE, NO_OF_HEARING, VERDICT, COURT_NAME, ROOM_NO}

As for every X→Y, X$^+$ = R, therefore BCNF condition is followed.

Key: CASE_NO

20) WITNESSES

```
         WITNESSES
 ◆AADHAR_NO       BIGINT
 ○WITNESS_NAME  VARCHAR (20)
 ○CONTACT_NO     INT
```

Minimal FD Set:

AADHAR_NO → WITNESS_NAME

AADHAR_NO → CONTACT_NO

Check for BCNF condition:

$AADHAR\_NO^+$ = {AADHAR_NO, WITNESS_NAME, CONTACT_NO}

As for every X→Y, X^+ = R, therefore BCNF condition is followed.

Key: AADHAR_NO