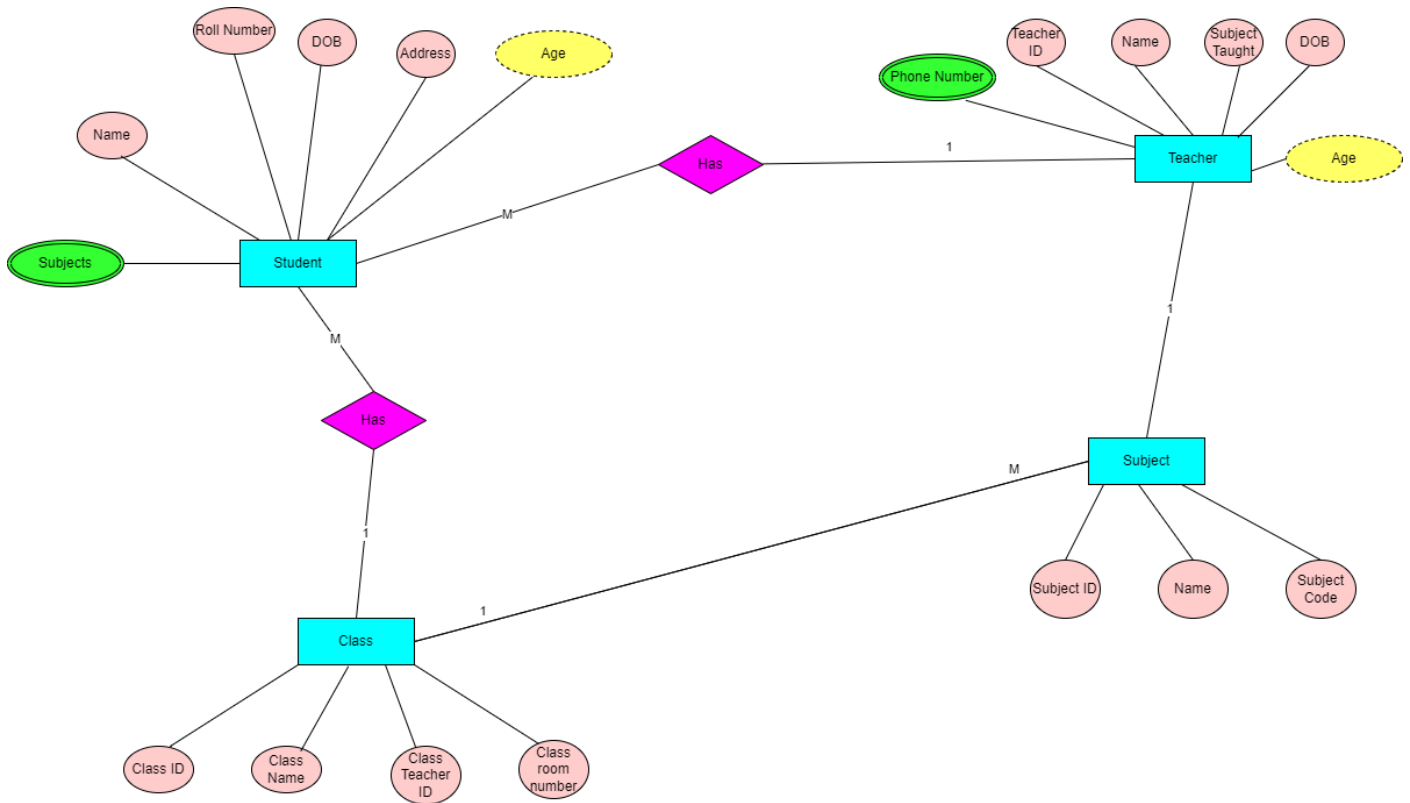


DATABASE TASK

1. ER Diagram for School Management System



2. Create a Database

```
SQL Shell (psql)
template0 | postgres | UTF8 | libc | English_India.1252 | English_India.1252 |
=c/postgres |
postgres=CTC/postgres
template1 | postgres | UTF8 | libc | English_India.1252 | English_India.1252 |
=c/postgres |
postgres=CTC/postgres
(4 rows)

postgres=# create user anna with password 'mypass';
CREATE ROLE
postgres=# \c mydb;
You are now connected to database "mydb" as user "postgres".
mydb=#
mydb=#
mydb=#
mydb=#
mydb=# create schema schoolmanagement;
CREATE SCHEMA
mydb=# create table schoolmanagement.test(entities CHAR(15), attributes CHAR(20));
CREATE TABLE
mydb=# select * from schoolmanagement.test;
 entities | attributes
-----+-----
(0 rows)

mydb=#
```

3. Adding Tables and inserting data

```
SQL Shell (psql)
psql (16.2)
WARNING: Console code page (437) differs from Windows code page (1252)
        8-bit characters might not work correctly. See psql reference
        page "Notes for Windows users" for details.
Type "help" for help.

postgres=# create database mydatabase;
CREATE DATABASE
postgres=# \c mydatabase;
You are now connected to database "mydatabase" as user "postgres".
mydatabase=# create table mytable(id serial primary key,Entities VARCHAR(100),Attributes VARCHAR(500), Relationship VARCHAR(200));
CREATE TABLE
mydatabase=# insert into mytable(Entities,Attributes,Relationship) values('Student','Name','One to One');
INSERT 0 1
mydatabase=# insert into mytable(Entities,Attributes,Relationship) values('Student','Name','One to One'),('Student','Roll Number','One to One'),('Student','Subjects','One to Many'),('Students','DOB','One to One');
INSERT 0 4
mydatabase=# select * from mytable;
 id | entities | attributes | relationship
-----+-----+-----+-----
  1 | Student  | Name       | One to One
  2 | Student  | Name       | One to One
  3 | Student  | Roll Number | One to One
  4 | Student  | Subjects   | One to Many
  5 | Students | DOB        | One to One
(5 rows)

mydatabase=#
```

4. Adding 100 rows

```
SQL Shell (psql)
74 | Tallie      | 34-991      | 7/30/1987 | English | 101 Pine Ln | 21
75 | Laird       | 21-840      | 9/18/1974 | History | 456 Elm Ave | 80
76 | Uri         | 53-391      | 5/10/1959 | Art     | 123 Main St | 18
77 | Koralle     | 80-056      | 4/14/1989 | History | 123 Main St | 30
78 | Irwin       | 86-377      | 7/14/1970 | Science | 456 Elm Ave | 34
79 | Carolynne   | 16-496      | 7/14/1988 | English | 101 Pine Ln | 65
80 | Yetty       | 28-473      | 8/4/1988  | Mathematics | 123 Main St | 49
81 | Price       | 96-839      | 5/24/1994 | English | 789 Oak Blvd | 53
82 | Marty       | 37-771      | 9/6/1958  | Mathematics | 123 Main St | 45
83 | Timotheus   | 41-705      | 9/23/1973 | History | 456 Elm Ave | 31
84 | Aaron       | 92-467      | 8/20/1952 | Mathematics | 456 Elm Ave | 60
85 | Caria       | 74-916      | 9/22/1952 | English | 101 Pine Ln | 67
86 | Hurley      | 84-346      | 5/10/1976 | Art     | 101 Pine Ln | 68
87 | Wylma       | 88-694      | 6/19/1963 | Science | 789 Oak Blvd | 73
88 | Paolina     | 69-552      | 5/19/2000 | English | 456 Elm Ave | 64
89 | Cammy       | 40-651      | 5/5/1975  | History | 123 Main St | 68
90 | Tammie      | 84-159      | 2/4/1974  | Science | 789 Oak Blvd | 54
91 | Clio        | 83-444      | 10/21/1985 | Science | 789 Oak Blvd | 50
92 | Sheri       | 85-738      | 8/19/1995 | Art     | 456 Elm Ave | 76
93 | Lilith      | 94-603      | 9/9/1985  | English | 123 Main St | 46
94 | Edmund      | 54-110      | 4/12/1985 | History | 123 Main St | 31
95 | Mayor       | 42-209      | 3/3/1959  | English | 789 Oak Blvd | 78
96 | Borden      | 76-454      | 12/29/1985 | Mathematics | 789 Oak Blvd | 51
97 | Colleen     | 91-327      | 2/21/1974 | Mathematics | 456 Elm Ave | 46
98 | Morgan      | 71-048      | 4/1/1995  | Science | 123 Main St | 65
99 | Jeniece     | 37-481      | 2/8/1999  | Mathematics | 789 Oak Blvd | 64
100 | Neile       | 74-019      | 3/13/1985 | Science | 456 Elm Ave | 29
(100 rows)
```

```

SQL Shell (psql)
r VARCHAR(100));
CREATE TABLE
mytask=# COPY student FROM 'C:\Users\HP\Downloads\teachers.csv' WITH (FORMAT CSV,HEADER);
ERROR: could not open file "C:\Users\HP\Downloads\teachers.csv" for reading: Permission denied
HINT: COPY FROM instructs the PostgreSQL server process to read a file. You may want a client-side facility such as psql's \copy.
mytask=# COPY student FROM 'C:\Users\HP\Downloads\teachers.csv' WITH (FORMAT CSV,HEADER);
ERROR: duplicate key value violates unique constraint "student_pkey"
DETAIL: Key (id)=(1) already exists.
CONTEXT: COPY student, line 2
mytask=# COPY teachers FROM 'C:\Users\HP\Downloads\teachers.csv' WITH (FORMAT CSV,HEADER);
COPY 100
mytask=# select * from teachers;

```

id	name	subject_taught	teacher_id	dob	age	phone_number
1	Deeyn	History	7156-3628-4520	6/25/1963	28	163-503-2683
2	Daune	English	6918-8177-9610	1/20/1997	33	377-887-8769
3	Sean	Science	2404-4040-9605	4/20/1997	37	209-158-7411
4	Theresa	Art	2478-8707-3103	2/21/1975	65	441-529-1002
5	Julina	Science	3131-4461-3794	12/18/1990	78	122-649-8695
6	Paco	Science	2918-0574-3509	3/8/1993	55	892-160-7922
7	Brigit	Mathematics	7308-5955-2229	9/19/1992	48	029-093-9129
8	Aila	English	4198-5863-3220	11/2/1967	58	590-243-4201
9	Nettle	Science	3583-5123-5007	7/19/1957	98	869-077-8819
10	Sile	Art	0684-3740-7895	3/12/1966	75	052-645-5941
11	Emmi	Art	0165-4780-1450	8/9/1982	54	998-079-7472
12	Tamara	English	1930-4685-0713	7/16/1952	48	220-215-6448
13	Katharine	History	8208-5295-7799	11/9/1957	46	065-680-7409
14	Adey	Art	2334-6173-0800	8/8/1951	43	504-126-3945
15	Joycelin	English	5213-2629-0984	11/13/1963	69	391-185-3780
16	Maximo	History	0549-6610-7375	7/7/1967	29	015-860-0381
17	Delmore	History	7466-6864-0865	1/3/1989	42	165-009-6529
18	Tobe	Art	1959-8930-9543	3/31/1989	55	752-469-0175
19	Simonne	History	4836-7695-0296	5/29/1963	60	461-304-4043
20	Vance	Science	7195-1289-1855	2/27/1962	65	851-656-2360
21	Jacobo	Mathematics	0139-5998-3793	11/8/1997	53	154-597-9128
22	Fedora	English	0778-3603-5775	9/20/2000	30	705-023-0913
23	Kellen	Science	5071-8710-4734	7/8/1978	46	518-335-9578
24	Ynez	Science	1980-4914-8445	6/5/1958	45	641-225-3852
25	Hally	History	6510-7930-9832	1/30/1950	67	416-145-4942
26	Violet	History	5138-5087-5194	7/14/1994	32	421-303-4569
27	Adolpho	History	7586-9538-3540	9/16/1953	53	559-376-0628
28	Slade	History	5747-1515-2063	1/24/1962	72	551-472-8192
29	Coreline	English	8378-4607-4120	4/17/1968	43	910-685-2918
30	Keene	English	8747-3241-0880	7/10/1980	52	484-966-7713

5. Select query with and without conditions

```

SQL Shell (psql)

mytask=#
mytask=#
mytask=#
mytask=#
mytask=# select * from student where subject='English';
ERROR: column "subject" does not exist
LINE 1: select * from student where subject='English';
                                     ^
HINT: Perhaps you meant to reference the column "student.subjects".
mytask=# select * from student where subjects='English';

```

id	name	roll_number	dob	subjects	address	age
1	Gabie	29-394	10/19/1967	English	123 Main St	31
7	Nannie	12-815	2/13/1985	English	789 Oak Blvd	78
9	Lila	68-273	10/17/1975	English	456 Elm Ave	42
11	Jeffie	70-033	11/4/1994	English	789 Oak Blvd	56
15	Tani	87-386	8/11/1958	English	789 Oak Blvd	28
20	Waldon	05-054	1/19/1971	English	123 Main St	36
21	Rochester	49-511	9/10/1955	English	789 Oak Blvd	41
23	Betsy	61-887	1/29/1966	English	101 Pine Ln	48
26	Gomy	58-199	4/21/1960	English	123 Main St	26
30	Inglebert	83-190	2/11/1963	English	456 Elm Ave	67
31	Merci	68-588	3/2/1972	English	789 Oak Blvd	33
34	Tudor	38-030	7/27/1952	English	101 Pine Ln	49
35	Killy	56-419	2/2/1954	English	456 Elm Ave	53
42	Eldridge	01-666	4/14/1990	English	101 Pine Ln	55
47	Inessa	21-531	1/30/1980	English	789 Oak Blvd	65
50	Duffy	75-092	4/25/1997	English	456 Elm Ave	47
62	Donn	97-507	2/1/1962	English	456 Elm Ave	77
71	Jae	66-557	1/30/1976	English	101 Pine Ln	41
73	Clank	14-793	6/19/1988	English	101 Pine Ln	29
74	Tallie	24-991	7/30/1987	English	101 Pine Ln	21
79	Carolynne	16-496	7/14/1988	English	101 Pine Ln	65
81	Price	96-839	5/24/1994	English	789 Oak Blvd	53
85	Caria	74-916	9/22/1952	English	101 Pine Ln	67
88	Paolina	69-552	5/19/2000	English	456 Elm Ave	64
93	Lilith	94-603	9/9/1985	English	123 Main St	46
95	Mayor	42-209	3/3/1959	English	789 Oak Blvd	78

(26 rows)

```

mytask=#

```


SQL Shell (psql)

92	Sheri	85-738	8/19/1995	Art	456 Elm Ave	76
93	Lilith	94-603	9/9/1985	English	123 Main St	46
94	Edmund	54-110	4/12/1985	History	123 Main St	31
95	Mayor	42-209	3/3/1959	English	789 Oak Blvd	78
96	Borden	76-454	12/29/1985	Mathematics	789 Oak Blvd	51
97	Colleen	91-327	2/21/1974	Mathematics	456 Elm Ave	46
98	Morgan	71-048	4/1/1995	Science	123 Main St	65
99	Jeniece	37-481	2/8/1999	Mathematics	789 Oak Blvd	64
100	Neile	74-019	3/13/1985	Science	456 Elm Ave	29

(100 rows)

```
mytask=# select * from student;
```

id	name	roll_number	dob	subjects	address	age
1	Gabie	29-394	10/19/1967	English	123 Main St	31
2	Melesa	53-293	4/4/1972	Science	456 Elm Ave	31
3	Ginevra	08-213	2/19/1987	History	789 Oak Blvd	52
4	Millard	46-485	6/6/1959	Mathematics	101 Pine Ln	28
5	Winonah	73-997	1/26/1972	Mathematics	789 Oak Blvd	69
6	Garner	46-510	5/11/1978	Science	123 Main St	51
7	Nannie	12-815	2/13/1985	English	789 Oak Blvd	78
8	Paulo	08-149	10/26/1961	Science	456 Elm Ave	80
9	Lila	68-273	10/17/1975	English	456 Elm Ave	42
10	Hortense	73-257	10/12/1994	Art	456 Elm Ave	32
11	Jeffie	70-033	11/4/1994	English	789 Oak Blvd	56
12	Nana	62-802	3/7/1992	Mathematics	456 Elm Ave	43
13	Kylen	19-555	1/2/1956	Science	789 Oak Blvd	39
14	Amble	24-234	1/17/1992	History	456 Elm Ave	39
15	Tani	87-386	8/11/1958	English	789 Oak Blvd	28

6. Delete Query

SQL Shell (psql)

```
ERROR: column "subject" of relation "student" does not exist
LINE 1: insert into student(name, roll_number,dob,subject,address,ag...
              ^
mytask=# Insert into student(name, roll_number,dob,subjects,address,age) values('Aiswarya Lakshmi','956-213','24-07-2002','English','Koottalakalam_House','22');
ERROR: duplicate key value violates unique constraint "student_pkey"
DETAIL:  Key (id)=(7) already exists.
mytask=# delete from student;
DELETE 100
mytask=# select * from student;
 id | name | roll_number | dob | subjects | address | age
-----+-----+-----+-----+-----+-----+-----
(0 rows)

mytask=#
```

7. Update Query

```
mytask=# select * from teachers;
```

id	name	subject_taught	teacher_id	dob	age	phone_number
1	Deeyn	History	7156-3628-4520	6/25/1963	28	163-503-2683
2	Daune	English	6918-8177-9610	1/20/1997	33	377-887-8769
3	Sean	Science	2494-4040-9605	4/20/1997	37	289-158-7411
4	Theresa	Art	2478-8707-3103	2/21/1975	65	441-529-1002
5	Julina	Science	3131-4461-3794	12/18/1990	78	122-649-8695
6	Paco	Science	2918-0574-3509	3/8/1993	55	892-160-7922
7	Brigit	Mathematics	7308-5955-2229	9/19/1992	48	029-093-9129
8	Aila	English	4190-5863-3220	11/2/1967	58	590-243-4201
9	Nettle	Science	3583-5133-5087	7/19/1957	80	869-077-8819
10	Sile	Art	0684-3748-7895	3/12/1966	75	052-645-5941
11	Emmi	Art	0165-4780-1459	8/9/1982	54	998-079-7472
12	Tamara	English	1930-4685-0713	7/16/1952	48	220-215-6448
13	Katharine	History	8208-5295-7799	11/9/1957	46	065-680-7409
14	Adey	Art	2334-6173-0800	8/8/1951	43	504-126-3945
15	Joycelin	English	5313-2629-0984	11/13/1963	69	391-185-3780
16	Maximo	History	0549-6610-7375	7/7/1967	29	015-860-0381
17	Delmore	History	7466-6864-0865	1/3/1989	42	165-009-6529
18	Tobe	Art	1959-8930-9543	3/31/1989	55	752-469-0175
19	Simonne	History	4836-7695-0296	5/29/1963	60	461-304-4043
20	Vance	Science	7105-1380-4855	3/27/1963	65	851-656-3360

```

mytask=#
mytask=#
mytask=#
mytask=# update teachers SET subject_taught='History' WHERE name='Aila';
UPDATE 1
mytask=# select * from teachers;

```

id	name	subject_taught	teacher_id	dob	age	phone_number
1	Deeyn	History	7156-3628-4520	6/25/1963	28	163-503-2683
2	Daune	English	6918-8177-9610	1/20/1997	33	377-887-8769
3	Sean	Science	2494-4040-9605	4/20/1997	37	289-158-7411
4	Theresa	Art	2478-8707-3103	2/21/1975	65	441-529-1002
5	Julina	Science	3131-4461-3794	12/18/1990	78	122-649-8695
6	Paco	Science	2918-0574-3509	3/8/1993	55	892-160-7922
7	Brigit	Mathematics	7308-5955-2229	9/19/1992	48	029-093-9129
9	Nettle	Science	3583-5133-5087	7/19/1957	80	869-077-8819
10	Sile	Art	0684-3748-7895	3/12/1966	75	052-645-5941
11	Emmi	Art	0165-4780-1459	8/9/1982	54	998-079-7472

```

Select SQL Shell (psql)

```

67	Gian	History	4393-0890-9635	2/13/1966	62	171-922-4036
68	Rockey	History	3805-2426-7080	8/29/1975	30	020-619-9695
69	Grenville	Art	6067-6116-6127	2/5/1968	56	966-699-8680
70	Bethany	English	4152-6378-7444	6/4/1994	60	696-334-0848
71	Aloisia	Mathematics	7238-6333-8551	12/30/1994	48	950-775-8748
72	Talbot	English	9294-4550-8464	5/22/1998	79	086-673-0573
73	Alameda	Art	4735-1440-8937	4/21/1960	65	195-721-6776
74	Juan	History	8825-2721-3949	5/13/1967	77	700-274-7306
75	Marc	Art	8380-2575-4797	2/2/1978	37	847-565-2662
76	Sabine	Science	0995-4147-4753	10/3/1982	28	737-918-3782
77	Nanon	Art	7300-9616-7593	1/21/1978	40	705-325-5562
78	Stanfield	Science	3285-2764-0995	7/9/1957	59	962-600-0611
79	Koral	English	1088-2314-8896	5/20/1956	41	685-948-7370
80	Isidoro	Mathematics	7263-9251-9331	2/28/2000	80	619-790-8349
81	Rickard	Science	0321-1041-9319	12/1/1969	75	198-240-8904
82	Vladimir	Science	7956-9060-5535	11/9/1954	29	088-855-4058
83	Paulo	Mathematics	4826-7986-2506	6/7/1999	36	320-980-2855
84	Merilee	English	8596-7116-3826	9/19/1976	56	202-408-1343
85	Micky	Art	2890-1053-1365	3/17/1952	52	592-219-9082
86	Josephine	History	2388-6141-1554	5/30/1961	64	786-227-9201
87	Trace	Science	2310-4660-8298	10/9/1954	48	920-423-5929
88	Terrel	History	8048-0562-9643	6/1/1959	28	695-079-8310
89	Ewell	History	7602-5935-9637	10/26/1971	44	064-543-7353
90	Noratio	History	9500-1456-6427	3/27/1083	57	897-494-0041
91	Sammy	English	7061-7651-0931	8/17/1059	77	557-522-6999
92	Booth	Science	7149-1225-5700	4/3/1957	62	699-573-0004
93	Helsa	History	8226-1427-8995	8/6/1981	65	835-853-0708
94	Mahmud	History	2038-6705-6724	4/8/1972	30	812-728-8086
95	Brand	History	6932-2061-0930	4/14/1964	73	127-382-8146
96	Evelina	English	0418-7274-8204	9/13/1974	42	723-988-4737
97	Eustacia	Science	9337-7324-7312	9/30/1981	80	581-499-2307
98	Riordan	Mathematics	9698-6329-4369	7/4/1976	61	635-802-5538
99	Margaretta	English	0043-9100-2357	5/25/1965	53	994-030-5537
100	Gabriell	English	7464-5506-9053	5/1/1965	36	581-092-4066
8	Aila	History	4190-5863-3220	11/2/1967	58	590-243-4201

(100 rows)
-- More --