

MINI PROJECT ASSIGNMENT

TEAM NO. 11

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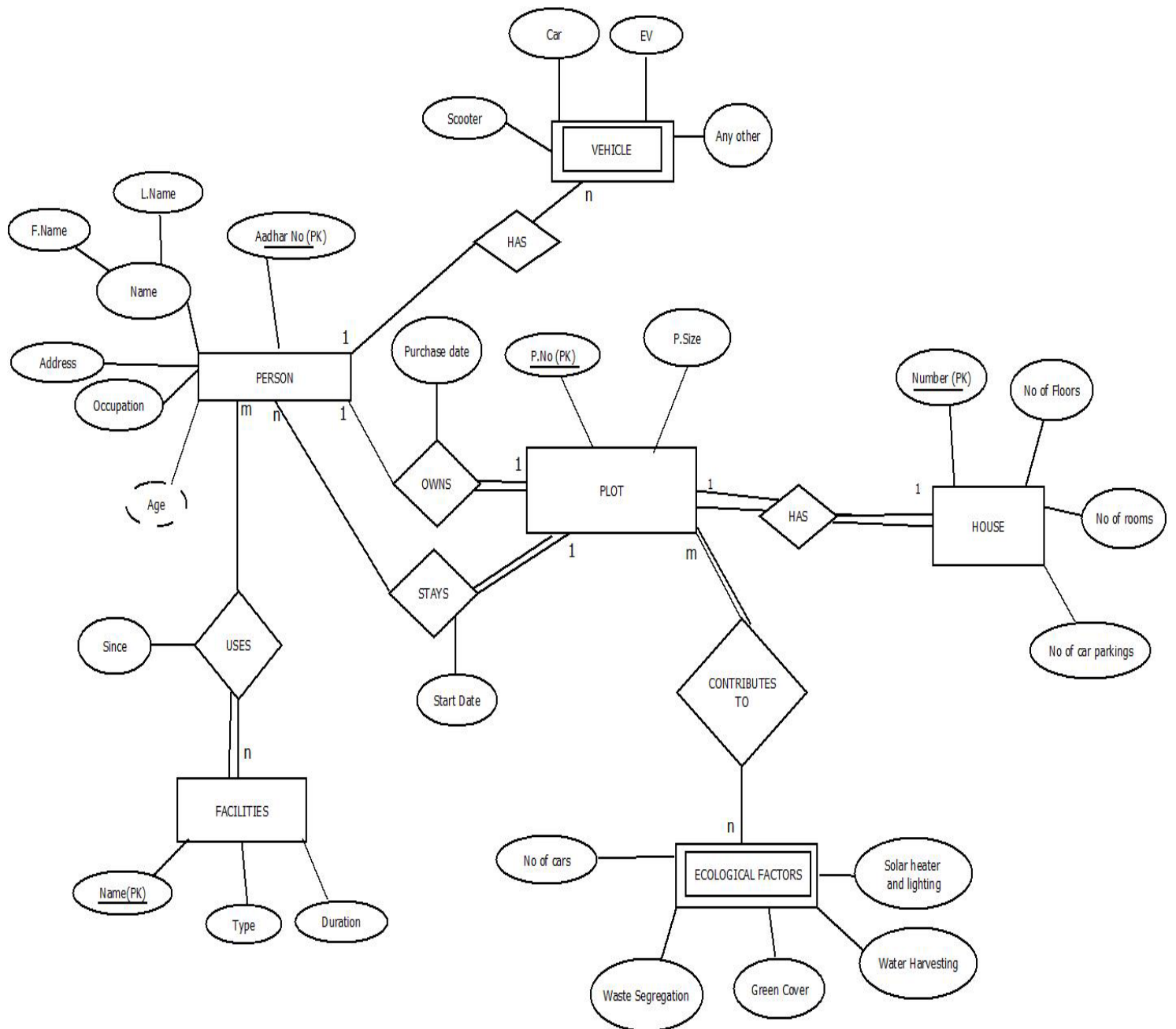
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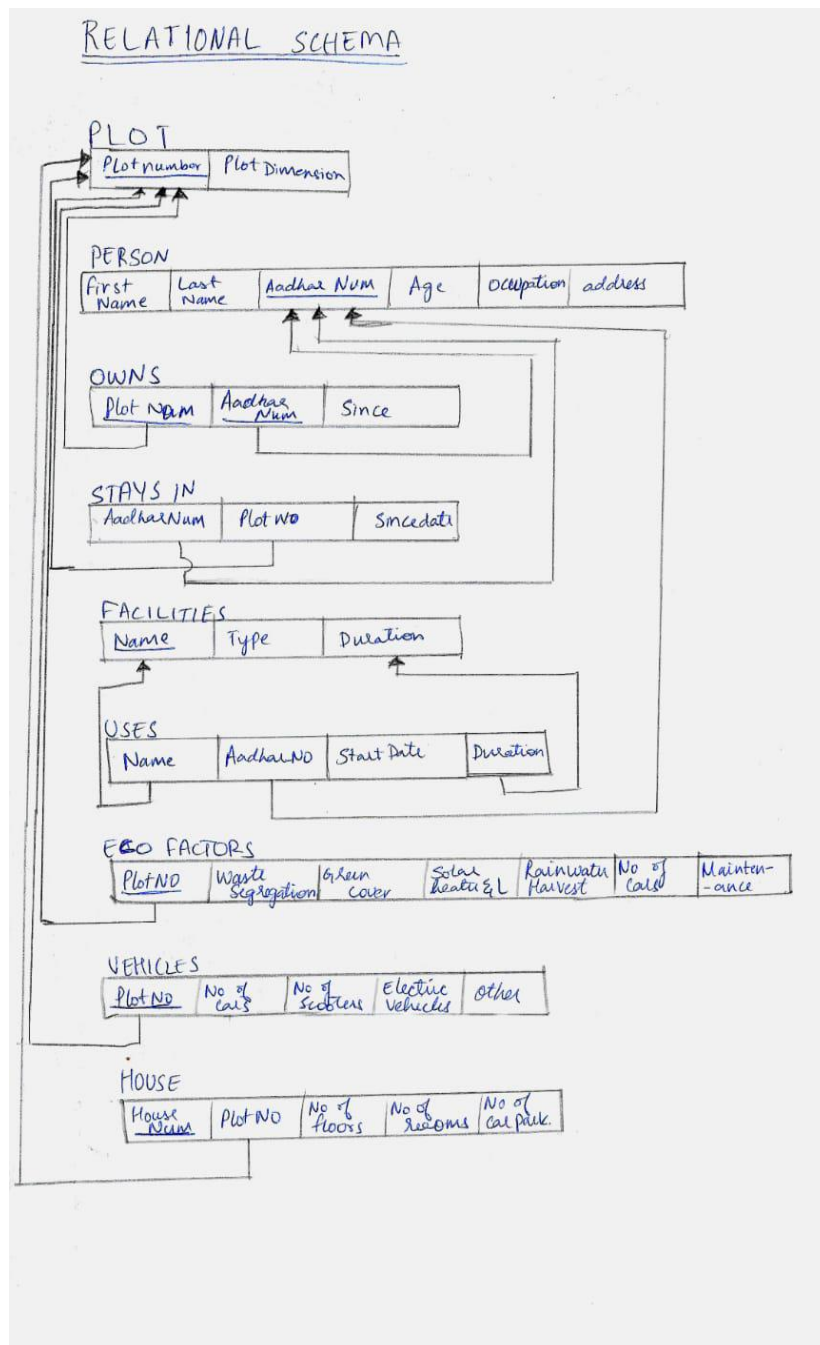
COLONY PLOT OWNERS DATABASE:

PROBLEM STATEMENT: This database needs to store information about plot owners and the facilities they use of the colony they are residing in. Ecological factors such as contribution to preserve the greenery and cleanliness is to be measured. Hence maintenance fee is calculated.

E-R DIAGRAM:



RELATIONAL SCHEMA:



VIEW CREATION:

```
colony_db=# CREATE VIEW main_view AS
colony_db=# SELECT a.plot_number, a.waste_segregation,a.green_cover , b.no_of_cars, b.Electric_Vehicles
colony_db=# FROM eco_factors as a LEFT JOIN vehicles as b
colony_db=# ON a.plot_number = b.plot_number;
CREATE VIEW
colony_db=# select * from main_view;
 plot_number | waste_segregation | green_cover | no_of_cars | electric_vehicles
-----+-----+-----+-----+-----
          1 | dry waste         | YES         |          2 |              0
          2 | dry waste         | YES         |          1 |              0
          3 | no                | NO          |          2 |              1
          4 | no                | NO          |          3 |              1
          5 | wet waste         | NO          |          2 |              1
          6 | no                | YES         |          1 |              0
          7 | no                | NO          |          4 |              2
          8 | wet waste         | NO          |          1 |              0
          9 | e waste           | YES         |          2 |              0
         10 | e waste           | YES         |          2 |              1
(10 rows)

colony_db=# select plot_number from main_view where no_of_cars>2;
 plot_number
-----
          4
          7
(2 rows)
```

SQL QUERIES:

1. LIST the plot numbers and check whether they have solar heating and lighting.

```
colony_db=# select plot_number, solar_heating_and_ligthing from eco_factors;
plot_number | solar_heating_and_ligthing
-----+-----
          1 | NO
          2 | NO
          3 | NO
          4 | NO
          5 | YES
          6 | YES
          7 | YES
          8 | YES
          9 | YES
         10 | YES
(10 rows)
```

2. LIST the names of all the facilities in the colony.

```
colony_db=# select name from facilities;
name
-----
Gym
Pool
Park
Club House
Badminton Court
BB Court
Amphitheatre
Movie Hall
Library
(9 rows)
```

3. Find the plot numbers, Aadhar numbers and the year since the plot was owned of people who own the plot and stay inside the colony itself.

```
colony_db=# select * from owns where aadhar_num in (select aadhar_no from person where address='Inside Colony');
plot_num | aadhar_num | since
-----+-----+-----
        4 | 9876 5467 3252 | 2016
        6 | 4511 8125 9134 | 2018
        8 | 5478 7601 6591 | 2021
(3 rows)
```

4. Find the first name of the people who own the plot which pays a maintenance of more than Rs 20000.

```
colony_db=# select Fname from person where aadhar_no in (select aadhar_num from owns where plot_num in ( select plot_number from eco_factors
where maintenance>20000));
  fname
-----
Virat
Mukesh
Harshad
Sameer
Pranav
(5 rows)
```

5. Find the first and last names of people who stay outside the colony.

```
colony_db=# select Fname, Lname from person group by aadhar_no having address='Outside Colony';
  fname | lname
-----+-----
Virat   | Sharma
Anish   | Kohli
Prithvi | Shaw
Pranav  | Bidare
Harshad | Mehta
Sam      | Gayle
Srushti | S
(7 rows)
```