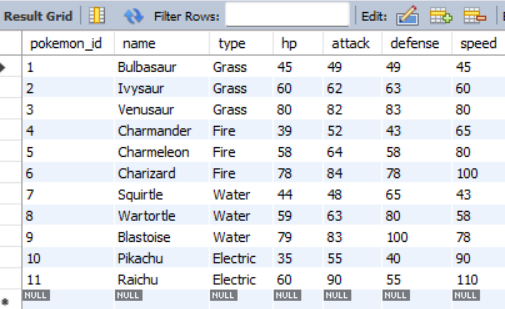
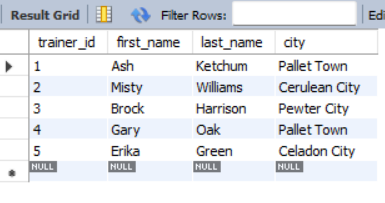
**SQL Query Report(Lab 4)**

1. **Create Tables and insert the data.**
2. CREATE TABLE pokemon(
3. pokemon\_id INT PRIMARY KEY,
4. name VARCHAR(50),
5. type VARCHAR(20),
6. hp INT,
7. attack INT,
8. defense INT,
9. speed INT
10. );
11. CREATE TABLE trainer(
12. trainer\_id INT PRIMARY KEY,
13. first\_name VARCHAR(30),
14. last\_name VARCHAR(30),
15. city VARCHAR(30)
16. );
17. INSERT INTO pokemon(pokemon\_id, name, type, hp, attack, defense, speed)
18. VALUES
19. (1, 'Bulbasaur', 'Grass', 45, 49, 49, 45),
20. (2, 'Ivysaur', 'Grass', 60, 62, 63, 60),
21. (3, 'Venusaur', 'Grass', 80, 82, 83, 80),
22. (4, 'Charmander', 'Fire', 39, 52, 43, 65),
23. (5, 'Charmeleon', 'Fire', 58, 64, 58, 80),
24. (6, 'Charizard', 'Fire', 78, 84, 78, 100),
25. (7, 'Squirtle', 'Water', 44, 48, 65, 43),
26. (8, 'Wartortle', 'Water', 59, 63, 80, 58),
27. (9, 'Blastoise', 'Water', 79, 83, 100, 78),
28. (10, 'Pikachu', 'Electric', 35, 55, 40, 90),
29. (11, 'Raichu', 'Electric', 60, 90, 55, 110);
30. INSERT INTO trainer(trainer\_id, first\_name, last\_name, city)
31. VALUES
32. (1, 'Ash', 'Ketchum', 'Pallet Town'),
33. (2, 'Misty', 'Williams', 'Cerulean City'),
34. (3, 'Brock', 'Harrison', 'Pewter City'),
35. (4, 'Gary', 'Oak', 'Pallet Town'),
36. (5, 'Erika', 'Green', 'Celadon City');

*Output Tables :*

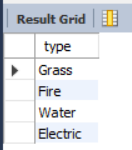
**** ****

**2. Write a query to display the different types of Pokémon available in the pokemon table. Ensure that each type is listed only once.**

SELECT DISTINCT type

FROM pokemon;

Output:

****

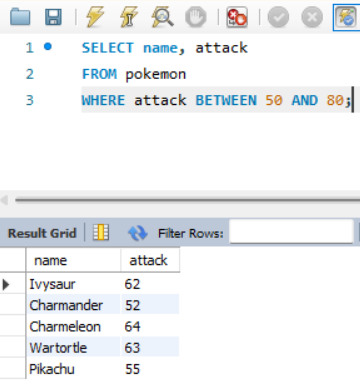
**3. List all Pokémon whose attack stat is between 50 and 80, inclusive.**

SELECT name, attack

FROM pokemon

WHERE attack BETWEEN 50 AND 80;

Output:

****

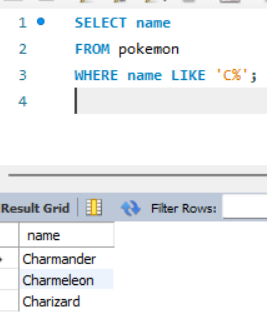
**4. Find all Pokémon whose names start with the letter ’C’.**

SELECT name

FROM pokemon

WHERE name LIKE 'C%';

Output:

****

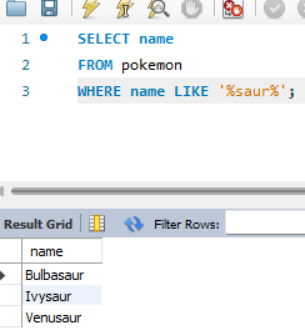
**5. Find all Pokémon whose names contain ‘saur’ anywhere in their names.**

SELECT name

FROM pokemon

WHERE name LIKE '%saur%';

Output :

****

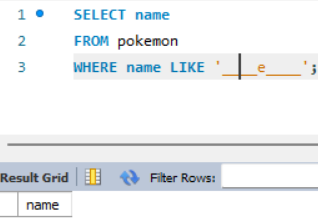
**6. Find all Pokémon whose names have exactly 9 characters and the fifth character is ’e’.**

SELECT name

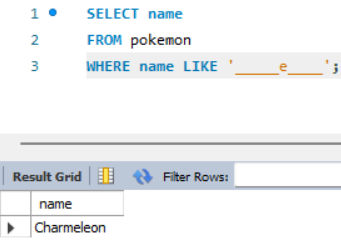
FROM pokemon

WHERE name LIKE '\_\_\_\_e\_\_\_\_';

Output:

** (No name with such structure)**

*If we set ‘e’ as the 6th character :*

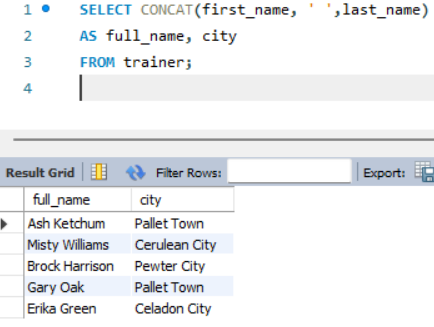


**7. Create a query to display the full names (first name and last name concatenated) of all trainers, along with their city.**

SELECT CONCAT(first\_name, ' ', last\_name) AS full\_name, city

FROM trainer;

Output:

****

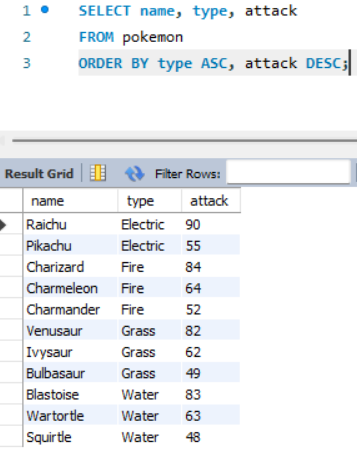
**8. List all Pokémon sorted first by type in ascending order and then by attack stat in descending order.**

SELECT name, type, attack

FROM pokemon

ORDER BY type ASC, attack DESC;

Output:

****

**9. Create the trainer\_pokemon Table.**

CREATE TABLE trainer\_pokemon (

    trainer\_id INT,

    pokemon\_id INT

);

**10. Add a foreign key constraint on trainer\_id referencing trainer(trainer\_id) and another on pokemon\_id referencing pokemon(pokemon\_id).**

ALTER TABLE trainer\_pokemon

ADD CONSTRAINT fk\_trainer

FOREIGN KEY (trainer\_id) REFERENCES trainer(trainer\_id);

ALTER TABLE trainer\_pokemon

ADD CONSTRAINT fk\_pokemon

FOREIGN KEY (pokemon\_id) REFERENCES pokemon(pokemon\_id);