Experiment-3

Student Name: Sukhmandeep Singh UID: 23BCS13741

Branch: BE- CSE Section/Group: Kargil 2- A

Semester: Fifth Date of Performance: 25/08/2025

Subject Name: ADBMS Subject Code: 23CSP-333

1. Aim:

[EASY] Find the strongest unique shinobi (highest ID excluding duplicates).

[EASY] Find jutsu name and description that were never used in battle.

[EASY] Find the total times each jutsu was used.

[LEETCODE 1890] Write a solution to report the latest login for all users in the year 2020. Do not include the users who did not login in 2020.

2. Objective:

To design and implement SQL queries using subqueries and relational operations for retrieving meaningful insights from datasets, and to practice solving database problems such as duplicate elimination, unused records detection, aggregation, and time-based filtering.

3. DBMS script and output:

```
CREATE TABLE Shinobi (
shinobi_id INT
);

INSERT INTO Shinobi (shinobi_id)

VALUES (1), (2), (3), (4), (5), (5), (6), (7), (8), (9), (9), (3);

SELECT MAX(shinobi_id)

FROM Shinobi

WHERE shinobi_id NOT IN (
SELECT shinobi_id

FROM Shinobi

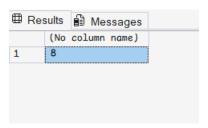
GROUP BY shinobi_id

HAVING COUNT(shinobi_id) > 1
);
```

```
----- EASY-----
CREATE TABLE Jutsu (
ID INT PRIMARY KEY IDENTITY,
[NAME] NVARCHAR(50),
[DESCRIPTION] NVARCHAR(250)
);
CREATE TABLE Jutsu Usage (
ID INT PRIMARY KEY IDENTITY,
JUTSU ID INT FOREIGN KEY REFERENCES Jutsu (ID),
CHAKRA COST INT,
TIMES USED INT
);
INSERT INTO Jutsu VALUES ('Rasengan', 'Spiraling chakra sphere created by
Naruto')
INSERT INTO Jutsu VALUES ('Chidori', 'High-speed lightning blade by Sasuke')
INSERT INTO Jutsu VALUES ('Amaterasu', 'Black flames that never extinguish
by Itachi')
INSERT INTO Jutsu Usage VALUES (3, 90, 5)
INSERT INTO Jutsu Usage VALUES (2, 70, 7)
INSERT INTO Jutsu Usage VALUES (3, 90, 4)
INSERT INTO Jutsu Usage VALUES (3, 90, 9)
SELECT * FROM Jutsu
SELECT * FROM Jutsu Usage
SELECT ID, [NAME], [DESCRIPTION]
FROM Jutsu
WHERE ID NOT IN (
 SELECT DISTINCT JUTSU ID FROM Jutsu Usage
);
    ------ EASY-----
SELECT J.[NAME],
 (SELECT SUM(U.TIMES_USED)
 FROM Jutsu Usage U
 WHERE U.JUTSU ID = J.ID) AS [TOTAL USAGE]
FROM Jutsu J;
```

----- LEETCODE------ SELECT user_id, MAX(time_stamp) as 'last_stamp' FROM Logins

WHERE YEAR(time_stamp)='2020' GROUP BY user_id



| | ID | NAME | | DESCRIPTION | l | |
|-----|---------|-----------|------|---|---------------|----------------------|
| 1 | 1 | Rasengan | | Spiraling chakra sphere created by Naruto | | |
| 2 | 2 | Chidori | | High-speed lightning blade by Sasuke | | |
| 3 3 | | Amaterasu | | Black flam | es that never | extinguish by Itachi |
| | ID | JUTSU_ID | | CHAKRA_COST | TIMES_USED | |
| 1 | 1 | 3 | | 90 | 5 | |
| 2 | 2 | 2 | | 70 | 7 | - |
| 3 | 3 | 3 | | 90 | 4 | - |
| 4 | 4 | 3 | | 90 | 9 | |
| | ID | NAME | | DESCRIPTION | | |
| 1 | 1 | Rasengan | | Spiraling chakra sphere created by Naruto | | |
| | NAME TO | | TOTA | AL_USAGE | | |
| 1 | Ras | Rasengan | | L | | |
| 2 | Chidori | | 7 | | | |
| 3 | Amate | | 18 | | | |

