LAB SHEET 01

MOBSTER<MID, Mname, MAlias,Life,YearsActive, Comments>

REFERENCE<RefId, RefTitle, PubData,RetrievedDate,Pages,PublicationName,Remarks>

REFLIST<MID, RefNo, RefID>

1.Write relational algebra queries to find the answers.

a) Find the mobsters who had some association with President Jayawardane according to the comments <name of the mobster>

π_Mname (σ_Comments="President Jayawardane") (MOBSTER)

b) Find the mobsters having at least two (02) references <name of the mobster>

T1(MID, No_of_ref) ⟵ MID_ Σ_$COUNT_{RefNo}$ (REFLIST) [Σ = Aggregate function]

T2 ⟵ σ_No-of_ref >= 2 (T1)

Res ⟵ π_Mname (T2 * MOBSTER)

c) Find the references having more than (03) three mobsters <Reference title>

T3(RefID, No_of_mob) ⟵ RefID _ Σ_$COUNT_{MID}$ (REFLIST)

T4 ⟵ σ_No-of_mob > 3 (T3)

Result ⟵ π_RefTitle (T4 * REFERENCE)

2.Write SQL queries to find the answers

a) Find the mobsters who had some association with President Jayawardane according to the comments <name of the mobster>

```
SELECT Mname FROM MOBSTER
WHERE Comments LIKE '%President Jayawardana%';
```

b) Find the mobsters having at least two (02) references <name of the mobster>

```
SELECT DISTINCT M.Mname FROM MOBSTER M
JOIN REFLIST R ON M.MID = R.MID
GROUP BY M.MID, M.Mname
HAVING COUNT(R.RefNo) >= 2;
```

c) Find the references having more than (03) three mobsters <Reference title>

```
SELECT DISTINCT R.RefTitle
FROM REFERENCE R
JOIN REFLIST RL ON R.RefId = RL.RefID
GROUP BY R.RefId, R.RefTitle
HAVING COUNT(RL.MID) > 3;
```