University of Colombo School of Computing

SCS 2209 - Database II

Labsheet 01

Consider the following Relations regarding Mobsters of Sri Lanka, when answering Q3 and Q4

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

REFERENCE <RefID, RefTitle, PubDate, RetrievedDate, Pages, PublicationName, Remarks> REFLIST <MID. RefNo, RefID>

3. Write Relational Algebra queries to find the answers to the following user queries. The labels to be displayed in the output are given with respect to each query.

a) Find the mobsters who had some association with President Jayawardane according to the comments. <Name of the mobster> [05 marks]

$\pi_{Mname}(\sigma_{Comments \text{ CONTAINS "President Jayawardane"}}(MOBSTER))$

b) Find the mobsters having at least two (02) references <Name of the mobster> [05 marks]

$\pi_{Mname}(\sigma_{count(REFLIST.RefNo) \geq 2}(MOBSTER \bowtie_{MOBSTER.MID=REFLIST.MID} REFLIST))$

c) Find the references having more than (03)three mobsters <Reference Title> [05 marks]

$\pi_{RefTitle}(\sigma_{count(REFLIST.MID) > 3}(MOBSTER \bowtie_{MOBSTER.MID=REFLIST.MID} REFLIST))$

4.Write SQL queries to find the answers to the user queries a) - c) given in Q3. The labels to be displayed in the output are given with respect to each query.

SELECT Mname
FROM MOBSTER
WHERE Comments LIKE '%President Jayawardane%';

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

SELECT RefTitle
FROM REFLIST
GROUP BY RefTitle
HAVING COUNT(REFLIST.MID) > 3;