/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\* \*\*

\*\* CHAPTER 9. Practical 1. \*\*

\*\* Standard Subqueries \*\*

\*\* \*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

Use database0

SELECT \* FROM dept

SELECT \* FROM salesperson

SELECT \* FROM sale

SELECT \* FROM contact

SELECT \* FROM company

--p1) Show the full name of the salesperson(s) (could be more than one)

-- who has/have the largest sales target.

-- (Answer - Billy Custard)

SELECT fname, lname

FROM salesperson

WHERE sales\_target in ( SELECT MAX(sales\_target)

FROM salesperson)

fname lname

--------------- ---------------

Billy Custard

-- Question, was it safe to say '=' instead of 'IN'? Why?

Already used in as safer when there may be multiple results from the subquery

--p2) We would like to write a query that displays the number '3'.

-- Why? Because that is the answer to "How many people have sold?".

-- Before starting, run the two queries supplied below, and work out the result (3) manually.

-- We think there are only 2 ways of doing it. See if you can work out the 2 ways.

-- Then try to write SQL that mimics exactly what you just did manually.

-- It can be done using a simple subquery.

-- You may think of a way of doing it without a subquery.

-- Don't try any sort of JOIN!

SELECT emp\_no AS 'emp nos of the people' FROM salesperson

SELECT emp\_no AS 'emp nos who have sold' FROM sale ORDER BY emp\_no

-- The answer is 3 so surely either coded solution query must start with:

SELECT COUNT(DISTINCT s.emp\_no)

FROM sale s

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\* \*\*

\*\* END OF CHAPTER 9. Practical 1. \*\*

\*\* \*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\* \*\*

\*\* CHAPTER 9. Practical 2. \*\*

\*\* NOT EXISTS and in-line view \*\*

\*\* \*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

--p1) Write a query using NOT EXISTS to find department(s) without salespeople.

-- (Note that this could also be done using a NOT IN test, or an OUTER JOIN...)

SELECT \*

FROM dept d

WHERE NOT EXISTS (SELECT 1

FROM salesperson sp

WHERE sp.dept\_no = d.dept\_no)

dept\_no dept\_name manager sales\_target

----------- -------------------- -------------------- ---------------------------------------

4 Desktop Systems Diver Dan 5.00

--p2) Use an in-line view to display salespeople

-- with the maximum sales\_target for each person's department included in the results.

SELECT sp.dept\_no, sp.fname, sp.lname, sp.sales\_target, sp2.max\_target

FROM salesperson sp

JOIN (SELECT dept\_no, MAX(sales\_target) AS max\_target

FROM salesperson

GROUP BY dept\_no) AS sp2

ON sp.dept\_no = sp2.dept\_no

dept\_no fname lname sales\_target max\_target

----------- --------------- --------------- --------------------------------------- ---------------------------------------

1 Alan Brick 9.00 9.00

2 Billy Custard 14.00 14.00

2 Chris Digger 7.00 14.00

3 Dick Ernst 11.00 13.00

3 Ernest Flipper 12.00 13.00

3 Fred Goalie 13.00 13.00

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\* \*\*

\*\* END OF CHAPTER 9. Practical 2. \*\*

\*\* \*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/