**Solution 7**

**Solution 7a  
a) Find the total number of Managers and the sum of their salaries.**

SELECT COUNT(\*) AS manager\_count, SUM(salary) AS total\_salary

FROM Staff

WHERE oPosition = 'Manager';

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

Primary Keys: none

Foreign Keys: none

Degree of Resulting View: 2

Cardinality of the Resulting View: 1

Content Overview based on the attributes required:

A screenshot of a computer

AI-generated content may be incorrect.

**Solution 7b**

b) Find the minimum, maximum, and average staff salary.

SELECT MIN(salary) as minimum\_salary, MAX(salary) as maximum\_salary, AVG(salary) as average\_salary

FROM Staff;

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

Primary Keys: none

Foreign Keys: none

Degree of Resulting View: 3

Cardinality of the Resulting View: 1

Content Overview based on the attributes required:

**A screenshot of a computer

AI-generated content may be incorrect.**

**Solution 7c**

c) For each branch office with more than one member of staff, find the number of staff working in each branch and the sum of their salaries.

SELECT Branch.branchNo, COUNT(\*) AS staff\_count, SUM(Staff.salary) AS total\_salary

FROM Staff

JOIN Branch ON Branch.branchNo = Staff.branchNo

GROUP BY Branch.branchNo

HAVING COUNT(\*) > 1;

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

Primary Keys: Branch table- branchNo (branch.branchNo)

Foreign Keys: staff.branchNo references branch.branchNo

Degree of Resulting View: 3

Cardinality of the Resulting View: 2

Content Overview based on the attributes required:

A screenshot of a computer

AI-generated content may be incorrect.

**Solution 7d**

d) Construct a list of all cities where there is either a branch office or a property.

SELECT city

FROM Branch

UNION

SELECT city

FROM PropertyForRent;

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

Primary Keys: none

Foreign Keys: none

Degree of Resulting View: 1

Cardinality of the Resulting View: 4

Content Overview based on the attributes required:

A screenshot of a computer screen

AI-generated content may be incorrect.

**Solution 7e**

e) Construct a list of all cities where there is both a branch office or a property.

SELECT city

FROM Branch

INTERSECT

SELECT city

FROM PropertyForRent;

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

Primary Keys: none

Foreign Keys: none

Degree of Resulting View: 1

Cardinality of the Resulting View: 3

Content Overview based on the attributes required:

A screenshot of a computer

AI-generated content may be incorrect.

**Solution 7f**

f) Find the total number of Assistants, and the sum and average of their salaries.

SELECT COUNT(\*) AS number\_of\_assistants, SUM(salary) AS total\_salary, AVG(salary) AS average\_salry

FROM Staff

WHERE oPosition = 'Assistant';

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

Primary Keys: none

Foreign Keys: none

Degree of Resulting View: 3

Cardinality of the Resulting View: 1

Content Overview based on the attributes required:

A close up of numbers

AI-generated content may be incorrect.

**Solution 7g**

g) For each branch office, list the staff numbers and names of staff who manage properties alongside the properties they manage.

SELECT

Branch.branchNo,

COALESCE(COUNT(DISTINCT Staff.staffNo), 0) AS staff\_count,

MAX(CASE WHEN Staff.oPosition = 'Manager' THEN Staff.fName || ' ' || Staff.lName END) AS manager\_name,

GROUP\_CONCAT(DISTINCT PropertyForRent.propertyNo) AS properties\_managed

FROM Branch

LEFT JOIN Staff ON Branch.branchNo = Staff.branchNo

LEFT JOIN PropertyForRent

ON Staff.staffNo = PropertyForRent.staffNo

AND PropertyForRent.branchNo = Branch.branchNo

GROUP BY Branch.branchNo;

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

Primary Keys: branch.branchNo, staff.staffNo

Foreign Keys: staff.branchNo references (branch.branchNo) , propertyForRent.staffNo (references staff.staffNo), propertyForRent.branchNo (references branch.branchNo)

Degree of Resulting View: 4

Cardinality of the Resulting View: 5

A screenshot of a computer

AI-generated content may be incorrect.