

3. List the staff in descending order of salary.

```
SELECT staff_No, salary
FROM Staff
ORDER BY __salary DESC_____
```

4. Find the number of different properties viewed in April 2004.

```
SELECT __count (distinct propert_no)
FROM Viewing
WHERE viewDate BETWEEN '1-Apr-04' AND '30-Apr-04'
```

5. Find the minimum, maximum and average staff salary.

```
SELECT _min(salary)_____, _max(salary)_, _avg(salary)_____
FROM Staff
```

6. 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 branchNo, _count(staffno)_, __sum(salary)_____
FROM Staff
GROUP BY branchNo
HAVING __count(staffNo) >1
```

7. List the staff who work in the branch whose stree adress is '163 Main Street'

```
SELECT staffNo, fName, lName,  
FROM Staff  
WHERE _branchNo_____ = (SELECT branchNo  
FROM _branch_____  
WHERE _street='163 Main str'_)
```

8. Find all staff whose salary is larger than the salary of every staff member at branch with branchNo B003.

```
SELECT staffNo, fName, lName, position, salary  
FROM Staff  
WHERE _salary > ALL_____ (SELECT salary  
FROM _staff_____  
WHERE brancNo='B003')
```

9. For each branch, list the numbers and names of staff who manage properties, including the city in which the branch is located and the properties that the staff manage.

```
SELECT b.branchNo, b.city, s.staffNo, fName, lName, properyNo  
FROM Branch AS b, Staff AS s, _propertyforRent p  
WHERE b.branchNo = s.branchNo AND _s.staffNo=p.staffno
```

10. List the clients who have viewed a property.

```
SELECT clientNo, fName, lName, propertyNo, viewDate  
FROM _client natural innerjoin viewing_____
```

11. Find the list of all cities where there is both a branch office and a property

```
(SELECT city
FROM Branch)
INTERSECT
(SELECT city
FROM PropertyforRent)
```

12. Give all managers 5% increase to their salary

```
UPDATE staff
SET salary=salary*1.05
WHERE position='Manager'
```

13. Delete all viewings that belong to property with property number PG4.

```
DELETE FROM viewing
WHERE propertyNo='P64'
```

A- Consider the following relation schema for an airline database.

customer(id, name, age, gender)

onFlight(id, flightNo, flightDate)

flightInfo(flightNo, fromCity, toCity, startTime, duration)

Assume all flights take place every day. Fill in the missing slots in each of the queries below. Each slot is worth 2 pts, except the first one, which is worth 1 pt.

1. Names of all customers above the age of 10

```
SELECT _____name
FROM customer
WHERE _____ age>10
```

2. Flights (flightNo, flightDate) on which there are at least two customers

```
SELECT f1.flightNo, f1.flightDate
FROM onFlight as f1, onFlight as f2
WHERE f1.flightNo = f2.flightNo AND f1.flightDate=f2.flightDate AND
_____ f1.id <> f2.id
```

3. Flights (flightNo, flightDate) on which there are at least two customers, as well as the number of passengers on the flights

```
SELECT flightNo, flightDate, count(id) as howMany
FROM onFlight
GROUP BY _____ flightNo, flightDate
HAVING _____ howMany>1
```

4. Names of passengers who flew on flight “TK102” at least once

```
SELECT name
FROM customer, onFlight
WHERE _____ customer.id=onFlight.id AND
_____ onFlight.flightNo=”TK102”
```

5. Names of customers who never flew on any flight

```
SELECT name
FROM customer _____ left outer join flight
WHERE _____ flightNo = NULL
```

6. Names of customers who flew on the same flight as Mr. Joe

```
WITH joeFlight(flightNo) AS
    SELECT flightNo
    FROM _____ customer natural inner join onFlight
    WHERE name = “Joe”
SELECT name
FROM customer, onFlight, joeFlight
WHERE _____ customer.id = onFlight.id AND
_____ onFlight.flightNo = joeFlight.flightNo
```

7. The number of passengers on flight “TK101” on “1/2/1999”

```
SELECT _____ count(id )  
  
FROM onFlight  
  
WHERE flightNo= “TK101” AND flightDate=“1/2/1999”
```

8. The most popular destination (i.e. the city which received the most number of travellers)

```
WITH city_tourists(toCity,HowMany) AS  
  
    SELECT toCity, count(*)  
  
    FROM onFlight natural inner join flightInfo  
  
    GROUP BY toCity  
  
WITH mostTourist(HowMany) AS  
  
    SELECT _____ max(HowMany)  
  
    FROM _____ city_tourists  
  
SELECT toCity  
  
FROM _____ city_tourists, mostTourist  
  
WHERE _____ city_tourists.HowMany =  
  
mostTourist.HowMany
```

9. How many passengers ever flew to Istanbul? If somebody travelled to Istanbul more than one time, only one of those visits should be counted.

```
SELECT _____ count (distinct id)  
  
FROM onFlight natural inner join flightInfo  
  
WHERE to_city = “Istanbul”
```

