SOLUTION TO OPTIONAL HOMEWORK 7

Problem 1 (Exercise 5.24)

a. First of all, we create a view that list all customers and houses that they are interested in.

```
CREATE VIEW CUSTOMERHOUSE
AS
SELECT C.Id, H.Address
FROM CUSTOMER C, HOUSE H
WHERE NOT EXISTS (
      (SELECT P.Feature
      FROM PREFERENCE P
      WHERE P.CustId = C.Id)
      EXCEPT
      (SELECT A.Feature
      FROM AMENITY A
      WHERE A.Address = H.Address))
```

Now, to answer the question, we can write the following SQL statement

```
SELECT C.Id, C.Name
FROM CUSTOMER C
WHERE NOT EXISTS (
      (SELECT H.Address
      FROM HOUSE H
      WHERE H.AgentId = '007'))
      EXCEPT
      (SELECT CH.Address
      FROM CUSTOMERHOUSE CH
      WHERE CH.Id = C.Id)
```

b. Let us name the query in the above answer "CLIENTOF007".

```
SELECT P.Feature, COUNT(*)
FROM PREFERENCE  P, CLIENTOF007 C
WHERE P.CustId = C.Id
GROUP BY P.Feature
HAVING COUNT(*) > 3
```

Problem 2 (Exercise 5.25)

```
SELECT P.Id, P.Name
FROM PERSON P
WHERE 99 = (SELECT COUNT(*)
                FROM PERSON PP
                WHERE PP.Age > P.age)
```