Query 1-1

Display realtor staff number, name, position, annual salary as Annual Salary and monthly salary as Monthly Salary. Round monthly salary to 2 decimal places.
Sort output by staff number ascending.

```
Numb Staff Name                         Position            Annual Salary Monthly Salary
----     -------------------------------------- -------------------- ------------- --------------
```

```sql
SELECT st_staffno as "Numb Staff", st_name as "Name", st_position as "Position", st_salary as
"Annual Salary", ROUND((st_salary/12),2) as "Monthly Salary"
FROM staff
ORDER BY st_staffno;
```

Query 1-2

For rental properties that have been rented for less than the listing rental rate (REN_RATE), display rental property number, street, city, state, zip, the listing rent rate and actual rental rate.

```
Prop Street                 City              St Zip C Contract Rate  Rent Rate
---- ------------------------ -------------------- -- ----- ------------- ----------
```

```sql
SELECT rp_propertyno as "Prop", rp_street as "Street", rp_city as "City", rp_state as "St",
rp_zipcode as "Zip", rp_rent as "C Contract", ren_rate as "Rent Rate"
FROM rentproperty INNER JOIN rental
ON (rentproperty.rp_propertyno = rental.ren_rp_propertyno)
WHERE ren_rate>rp_rent;
```

Query 1-3

For each listed rental property, display the rental property number, street, city, state, type, number of rooms, rent, owners first and last name, listing agents name and commission and listing branch name. Order by listing agent.

```
Prop Street                 City           St Type            Rooms      Rent Owner First  Owner
Last Name Listing Agent     Comm Percent Branch
---- ------------------------ -------------------- -- --------------- ---------- ---------- ------------ ----------------
---------------- ------------ ---------
SELECT RP_PROPERTYNO as "Prop",
RP_STREET as "Street",
RP_CITY as "City",
RP_STATE as "St",
RP_TYPE as "Type",
RP_ROOMS as "Rooms",
RP_RENT as "Rent",
OW_FIRSTNAME as "Rent Owner First Name",
OW_LASTNAME as "Owner Last Name",
ST_NAME as "Agent",
ST_COMMPERC as "Comm Percent",
BR_BRANCHNAME as "Branch"
FROM rentproperty INNER JOIN owner
ON (rp_ow_ownerno = ow_ownerno))
INNER JOIN staff ON (rp_st_staffno = st_staffno
INNER JOIN branch ON (br_branchno = st_br_branchno)
ORDER BY ST_NAME;
```

Query 1-4

Display all information for staff hired on or after 1/1/95 and on or before 12/14/02.

```
ST_S   ST_NAME    ST_POSITION    S   ST_BIRTHD   ST_HIREDA    ST_SALARY
ST_COMMPERC   ST_B    ST_S
---- -------------------------------------- ------------------- - --------- --------- ---------- ----------- ---- ----
SELECT ST_STAFFNO as "ST_S",
ST_NAME,
ST_POSITION,
ST_SEX as "S",
ST_BIRTHDATE as "ST_BIRTHD",
ST_HIREDATE as "ST_HIREDA",
ST_SALARY,
ST_COMMPERC,
ST_BR_BRANCHNO as "ST_B"
FROM staff
WHERE st_hiredate BETWEEN TO_DATE('01/01/1995', 'MM/DD/YYYY') AND
TO_DATE('12/14/2002', 'MM/DD/YYYY')
```

Query 1-5

For each viewing list clients first and last name, the view date, the property number and the branch number. Order the results by client last name, client first name.

```
Client Name                View Date Prop Branch
-------------------------- --------- ---- ------
SELECT
CONCAT(CONCAT(CL_FIRSTNAME,' '),CL_LASTNAME) as "Client Name",
VW_VIEWDATE as "View Date",
VW_RP_PROPERTYNO as "Prop",
BR_BRANCHNO as "Branch"
FROM (viewing INNER JOIN client ON vw_cl_clientno = cl_clientno)
INNER JOIN rentproperty ON vw_rp_propertyno = rp_propertyno
INNER JOIN branch ON rp_br_branchno = br_branchno
ORDER BY CL_LASTNAME, CL_FIRSTNAME;
```

Query 1-6

Display the names of staff who are serving as the listing agent for at least one rental property that has not yet been viewed. Hint: a set operation would be useful here.

```
Realtor Name
----------------------------------------
```

SELECT st_name as "Realtor Name" FROM staff

MINUS

SELECT st_name FROM (staff INNER JOIN rentproperty ON rp_st_staffno = st_staffno) INNER JOIN viewing ON vw_rp_propertyno = rp_propertyno

Query 1-7

List the property number, street, city, state, zip code, viewing date and comments for each property viewing. Order results by property number and viewing date ascending where the record has a comment that mentions horses.

```
Prop Street                   City              St Zip   View Date Comment
---- ------------------------ ----------------- -- ----- --------- ----------------------
```

```sql
SELECT rp_propertyno as "Prop",
rp_street as "Street",
rp_city as "City",
rp_state as "St",
rp_zipcode as "Zip",
vw_viewdate as "View Date",
vw_comment as "Comment"
FROM (rentproperty INNER JOIN viewing ON vw_rp_propertyno = rp_propertyno)
WHERE vw_comment LIKE '%horses%'
ORDER BY rp_propertyno, vw_viewdate;
```

Query 1-8

List rental property number, street, city, state & zip code, staff name for property that the listing agent and the leasing agent were the same person. Order by rental property number ascending.

```
Prop Street                 City            St Zip   Agent Name
---- ----------------------- ------------------ -- ----- --------------------------------------
```

SELECT rp_propertyno as "Prop",
rp_street as "Street",
rp_city as "City",
rp_state as "St",
rp_zipcode as "Zip",
st_name as "Agent Name"
FROM ((rentproperty INNER JOIN staff ON st_staffno = rp_st_staffno)
INNER JOIN rental ON st_staffno = ren_st_staffno)
WHERE rp_propertyno = ren_rp_propertyno
ORDER BY rp_propertyno;

Query 1-9

For each staff member, display staff number and name along with number of properties listed as "Properties Listed". Order results by staff number ascending. Include all staff members that are not listing any properties.

```
#    Agent Name                            Properties Handled
---- ------------------------------------- ------------------
```

```sql
SELECT st_staffno as "#",
st_name as "Agent Name",
COUNT(rp_st_staffno) as "Properties Handled"
FROM (staff LEFT OUTER JOIN rentproperty ON st_staffno = rp_st_staffno)
GROUP BY st_staffno, st_name
ORDER BY st_staffno;
```

Query 1-10

Display all information on rental property owners who live in Houston. Order by last name, first name ascending.

```
Owner Owner Name                        Address                                         Phone
----  --------------------------------- ------------------------------------------------ ----------
SELECT ow_ownerno as "Owner",
CONCAT (CONCAT(CONCAT(CONCAT(ow_firstname,' '),ow_midinitial), ' '), ow_lastname)as
"Owner Name",
ow_address as "Address",
ow_phone as "Phone"
FROM owner
WHERE ow_address LIKE '%Houston%'
ORDER BY ow_lastname, ow_firstname;
```

Query 1-11

Display owner last and first name for owners that have the same last name but a different first name. Order by owner last name.

```
OW_LASTNAME     OW_FIRSTNAME
--------------- ------------
SELECT owner1.ow_lastname,
owner1.ow_firstname
FROM owner owner1 JOIN owner owner2 ON owner1.ow_lastname= owner2.ow_lastname
AND
owner1.ow_firstname <> owner2.ow_firstname
ORDER BY ow_lastname;
```

Query 1-12

Display all information on staff whose position is either Manager or Supervisor and do not have a birth date recorded. Use the "IN" function.

```
ST_S ST_NAME                        ST_POSITION       S ST_BIRTHD ST_HIREDA
ST_SALARY ST_COMMPERC ST_B ST_S
---- --------------------------------------- ------------------- - --------- --------- ---------- ----------- ---- ----
SELECT ST_STAFFNO as "ST_S",
ST_NAME ,
ST_POSITION ,
ST_SEX as "S",
ST_BIRTHDATE as "ST_BIRTHD",
ST_HIREDATE as "ST_HIREDA",
ST_SALARY ,
ST_COMMPERC ,
ST_BR_BRANCHNO as "ST_B"

FROM staff
WHERE st_position IN ('Manager', 'Supervisor') AND st_birthdate IS NULL ;
```

Query 1-13

For each rental property listed, display the rental property number, listing agent staff number, name, positon, sex birthdate, hire date, salary, percent commission and branch number and name. Include only agents whose birthdays are after 01 Jan 1970. Order by branchno, staffno.

```
RP_P ST_S ST_NAME                         ST_POSITION       S ST_BIRTHD ST_HIREDA
ST_SALARY ST_COMMPERC ST_B ST_S BR_BRANCHNAME
---- ---- ---------------------------------------- -------------------- - --------- --------- ---------- ----------- ---- ----
---------------
SELECT rp_propertyno as "RP_P",
st_staffno as "ST_S",
st_name,
st_position,
st_sex as "S",
st_birthdate as "ST_BIRTHD",
st_hiredate as "ST_HIREDA",
st_salary,
st_commperc,
br_branchno as "ST_B",
br_branchname as "BR_BRANCHNAME"
FROM rentproperty INNER JOIN staff ON rentproperty.rp_st_staffno = st_staffno
INNER JOIN branch ON st_br_branchno = br_branchno
WHERE st_birthdate > TO_DATE('01/01/1970', 'MM/DD/YYYY')
ORDER BY br_branchno, st_staffno;
```

Query 1-14

Display branch name and total staff salary as "Salary Budget" for branches that have a total salary budget of $100,000 or more.

Branch   Salary Budget

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

SELECT br_branchname as "Branch",
SUM(st_salary) as "Salary Budget"
FROM staff INNER JOIN branch ON st_br_branchno = br_branchno
HAVING SUM(st_salary) >= 100000
GROUP BY br_branchname;

Query 1-15

For each branch, list the branch number, number of employees as '# Staff', total salary budget as "Total Salary".

```
Branch    # Staff Total Salary
------ ---------- ------------
SELECT st_br_branchno as "Branch",
COUNT(*) as "# Staff",
SUM(st_salary) as "Total Salary"
FROM staff
GROUP BY st_br_branchno;
```

Query 2-1

Display date and total number of viewings held on this date as "Number of Viewings". Include dates that had more than one viewing. Order by the view date.

```
Viewing Date                         Number of Viewings
-------------------------------------- ------------------
```
SELECT vw_viewdate as "Viewing Date", COUNT(*) as "Number of Viewings"
FROM viewing
HAVING COUNT(*)>1
GROUP BY vw_viewdate
ORDER BY vw_viewdate;

Query 2-2

Display staff number, name and salary for staff who earn the highest salary of all staff who are not managers.

```
ST_S ST_NAME                         ST_SALARY
---- ------------------------------- ----------
```
SELECT st_staffno, st_name, st_salary
FROM staff
WHERE st_salary = (SELECT MAX(st_salary) FROM staff WHERE st_position <> 'Manager')

Query 2-3

Display rental property number and the number of times the property has been viewed as "Times Viewed". Include properties that have not yet been viewed.

RP_P Times Viewed

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

SELECT rp_propertyno, COUNT(vw_viewdate) as "Times Viewed"
FROM viewing right join rentproperty on vw_rp_propertyno = rp_propertyno
GROUP BY rp_propertyno

Query 2-4

For each rental property, list the address, include street, city, state. Also list rental type and number of days listed as "Number of Days Listed". Order results by rental type ascending and number of days listed descending. Instead of using today's date to determine days listed, use 31-dec-2006

```
RP_STREET              RP_CITY              RP RP_TYPE       Number of Days Listed
----------------------- -------------------- -- --------------- ---------------------
```

```sql
SELECT rp_street, rp_city, rp_state, rp_type, date '2006-12-31' - rp_datelisted as "Number of Days Listed"
FROM rentproperty
ORDER BY 4, 5 DESC;
```

Query 2-5

Display all information for realtors who are supervisors and who make less than the average supervisor salary.

```
ST_S ST_NAME                        ST_POSITION        S ST_BIRTHD ST_HIREDA
ST_SALARY ST_COMMPERC ST_B ST_S
---- --------------------------------------- ------------------- - --------- --------- ---------- ----------- ---- ----
SELECT *
FROM staff
WHERE st_position = 'Supervisor'
AND
st_salary < (SELECT AVG(st_salary) FROM staff WHERE st_position = 'Supervisor');
```

Query 2-6

Display realtor staff number, name, annual salary as Annual Salary, monthly salary as Monthly Salary, and age as Age. Round monthly salary to 2 decimal places. Round age to years. Sort output by staff age descending. If there is no birthdate on the record, then list the age as "Unknown"

```
ST_S ST_NAME                           Annual Salary Monthly Salary Age
---- -------------------------------------- ------------- -------------- -------
```

```sql
SELECT st_staffno, st_name, st_salary as "Annual Salary",
ROUND(st_salary/12,2) as "Monthly Salary",
TO_CHAR(ROUND((sysdate-st_birthdate)/362.25, 0), '999') as "Age"
FROM staff
WHERE st_birthdate IS NOT NULL

UNION

SELECT st_staffno, st_name, st_salary as "Annual Salary",
ROUND(st_salary/12,2) as "Monthly Salary",
'Unknown' "Age"
FROM Staff
WHERE st_Birthdate IS NULL
ORDER by 5 DESC;
```

Query 2-7

For each branch, list the branch email address, the number of characters in the email address as "Length of Email Address" and the number of characters preceding the @ as "Characters Preceding the @" Order the result by email length descending.

```
BR_EMAIL                Length of Email Address Characters Preceding the @
------------------------ ----------------------- -------------------------
```
SELECT br_email,
LENGTH(br_email) as "Length of Email Address",
SUBSTR(INSTR(br_email, '@'),1)-1 as "Characters Preceding the @"
FROM branch
ORDER BY 2 DESC;

Query 2-8

Display owner first, last name and phone number. Format the phone number as xxx-xxx-xxxx. If no phone number is available, display "No Phone Available". Hint: you may find a set operation helpful here

```
OW_FIRSTNAME OW_LASTNAME Phone Number
------------ --------------- ------------------
SELECT
OW_FIRSTNAME ,
OW_LASTNAME ,
CASE
        WHEN OW_PHONE IS NULL
        THEN 'No Phone Available'

        WHEN OW_PHONE IS NOT NULL
        THEN SUBSTR(OW_PHONE, 1, 3) ||'-'||SUBSTR(OW_PHONE, 4,
3)||'-'||SUBSTR(OW_PHONE, 7, 4)
END as "Phone Number"
FROM owner
```

Query 2-9

Display rental property street, city, state, type number of day it has been listed order by number of days listed descending. Round the number days listed to 0 decimal places. Instead of using sysdate to determine the number of days listed, please use 31-dec-2006.

```
RP_STREET              RP_CITY              RP RP_TYPE        Number of Days Listed
------------------------ -------------------- -- -------------- ---------------------
```
```
SELECT
RP_STREET ,
RP_CITY ,
RP_STATE ,
RP_TYPE ,
ROUND(TO_DATE('31-dec-2006') - RP_DATELISTED,0) as "Number of Days Listed"
FROM rentproperty
ORDER BY 5 DESC
```

Query 2-10

For each rental property, display branch name and city, property number, street and city. Include branches that do not have any rental properties. Order result by branch name ascending.

```
BR_BRANCHNAME          BR_CITY            RP_P RP_STREET           RP_CITY
-------------------- -------------------- ---- ------------------------ --------------------
```

```
SELECT br_branchname,
br_city,
br_street,
rp_propertyno,
rp_street,
rp_city
FROM rentproperty RIGHT JOIN branch ON rp_br_branchno = br_branchno
ORDER BY br_branchname;
```