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--=====CIS310 ASSIGNMENT 7=======
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/*
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SUBMISSION DATE: 4/3/2023
*/
--HINT:
--Check table contents to write the most appropriate query.
--FORMATTING MATTERS

--1. For every property, list the management office number, property
address, monthly rent,
--owner number, owner’s first name, and owner’s last name.

SELECT P.OFFICE_NUM, P.ADDRESS, P.MONTHLY_RENT,
O.OWNER_NUM, O.FIRST_NAME AS OWNER_FNAME, O.LAST_NAME AS OWNER_LNAME
      FROM PROPERTY P INNER JOIN OWNER O ON P.OWNER_NUM = O.OWNER_NUM;

--2. For every open or service scheduled service requests, list the
property ID, description, and status.

SELECT PROPERTY_ID, DESCRIPTION, STATUS
      FROM SERVICE_REQUEST
                  WHERE STATUS = 'Open' OR STATUS = 'Scheduled';

--3. For every service request for furniture replacement, list the
property ID,
--management office number, address, estimated hours, spent hours, owner
number,
--and owner’s last name.

SELECT P.PROPERTY_ID, P.OFFICE_NUM, P.ADDRESS,
SR.EST_HOURS, SR.SPENT_HOURS, P.OWNER_NUM, O.LAST_NAME
      FROM PROPERTY P INNER JOIN SERVICE_REQUEST SR ON P.PROPERTY_ID =
SR.PROPERTY_ID
      INNER JOIN SERVICE_CATEGORY SC ON SR. CATEGORY_NUMBER =
SC.CATEGORY_NUM
      INNER JOIN OWNER O ON P.OWNER_NUM = O.OWNER_NUM
                  WHERE SC.CATEGORY_DESCRIPTION = 'Furniture Replacement';

--4.List the first and last names of all owners who own a two-bedroom
property.
-- Use the IN operator in your query.

SELECT FIRST_NAME, LAST_NAME
      FROM OWNER
                  WHERE OWNER_NUM IN (SELECT OWNER_NUM

      FROM PROPERTY

            WHERE BDRMS = 2);
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--5. Repeat Exercise 4, but this time use the EXISTS operator in your
query.

SELECT FIRST_NAME, LAST_NAME
      FROM OWNER O
                  WHERE EXISTS (SELECT *
                                                            FROM PROPERTY P
                                                                  WHERE BDRMS
= 2

      AND O.OWNER_NUM = P.OWNER_NUM);

--6. List the property IDs of any pair of properties that have the same
number of bedrooms.
--For example, one pair would be property ID 2 and property ID 6,
--because they both have four bedrooms. The first property ID listed
should be the major sort key
--and the second property ID should be the minor sort key.

SELECT A.PROPERTY_ID, B.PROPERTY_ID
      FROM PROPERTY A INNER JOIN PROPERTY B ON A.BDRMS = B.BDRMS
                  WHERE A.PROPERTY_ID < B.PROPERTY_ID;

--7. List the office number, address, and monthly rent for properties
--whose owners live in Washington State or own two-bedroom properties.
SELECT *
      FROM PROPERTY;

SELECT OFFICE_NUM, ADDRESS, MONTHLY_RENT
      FROM PROPERTY P
                  WHERE EXISTS (SELECT *
                                                            FROM OWNER O
                                                                  WHERE STATE
= 'WA'
                                                                  AND
P.OWNER_NUM = O.OWNER_NUM)
UNION
SELECT OFFICE_NUM, ADDRESS, MONTHLY_RENT
      FROM PROPERTY
                  WHERE OWNER_NUM IN (SELECT OWNER_NUM

      FROM PROPERTY

            WHERE BDRMS = 2);

--8. List the office number, address, and monthly rent for properties
--whose owners live in Washington State and own a two-bedroom property.

SELECT OFFICE_NUM, ADDRESS, MONTHLY_RENT
      FROM PROPERTY P
                  WHERE EXISTS (SELECT *
                                                            FROM OWNER O
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                                                                  WHERE STATE
= 'WA'
                                                                  AND
P.OWNER_NUM = O.OWNER_NUM)
INTERSECT
SELECT OFFICE_NUM, ADDRESS, MONTHLY_RENT
      FROM PROPERTY
                  WHERE OWNER_NUM IN (SELECT OWNER_NUM

      FROM PROPERTY

            WHERE BDRMS = 2);

--9. List the office number, address, and monthly rent for properties
--whose owners live in Washington State but do not own two-bedroom
properties.

SELECT OFFICE_NUM, ADDRESS, MONTHLY_RENT
      FROM PROPERTY P
                  WHERE EXISTS (SELECT *
                                                        FROM OWNER O
                                                              WHERE STATE
= 'WA'
                                                              AND
P.OWNER_NUM = O.OWNER_NUM)
EXCEPT
SELECT OFFICE_NUM, ADDRESS, MONTHLY_RENT
      FROM PROPERTY
                  WHERE OWNER_NUM IN (SELECT OWNER_NUM

      FROM PROPERTY

            WHERE BDRMS = 2);

--10. Find the service ID and property ID for each service request
--whose estimated hours is greater than the number of estimated hours on
every service request
--on which the category number is 5.
--MUST USE ANY/ALL OPERATOR

SELECT SERVICE_ID, PROPERTY_ID
      FROM SERVICE_REQUEST
                  WHERE EST_HOURS > ALL (SELECT EST_HOURS

            FROM SERVICE_REQUEST

                        WHERE CATEGORY_NUMBER = 5);

--11. List the address, square footage, owner number, service ID, number
of estimated hours,
--and number of spent hours for each service request on which the category
number is 4.

SELECT ADDRESS, SQR_FT, OWNER_NUM, SERVICE_ID, EST_HOURS, SPENT_HOURS
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     FROM PROPERTY INNER JOIN SERVICE_REQUEST ON PROPERTY.PROPERTY_ID =
SERVICE_REQUEST.PROPERTY_ID
                 WHERE CATEGORY_NUMBER = 4;

--12. Repeat Exercise 11, but this time be sure each property is included
--regardless of whether the property currently has any service requests
for category 4.

SELECT ADDRESS, SQR_FT, OWNER_NUM, SERVICE_ID, EST_HOURS, SPENT_HOURS
     FROM PROPERTY INNER JOIN SERVICE_REQUEST ON PROPERTY.PROPERTY_ID =
SERVICE_REQUEST.PROPERTY_ID
                 WHERE SERVICE_REQUEST.PROPERTY_ID = ANY (SELECT
PROPERTY_ID

                                                      FROM SERVICE_REQUEST);
```