Assignment 2 Template

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Note: Please edit the name and student ID number to reflect your identity and do not modify the design and layout of the cover page (font, font size, spacing, etc.). Also, do not change the page layout in the given assignment template.

SCREENSHOT OF DESIGNER VIEW FROM PHPMYADMIN (You may put this in sideways if required)
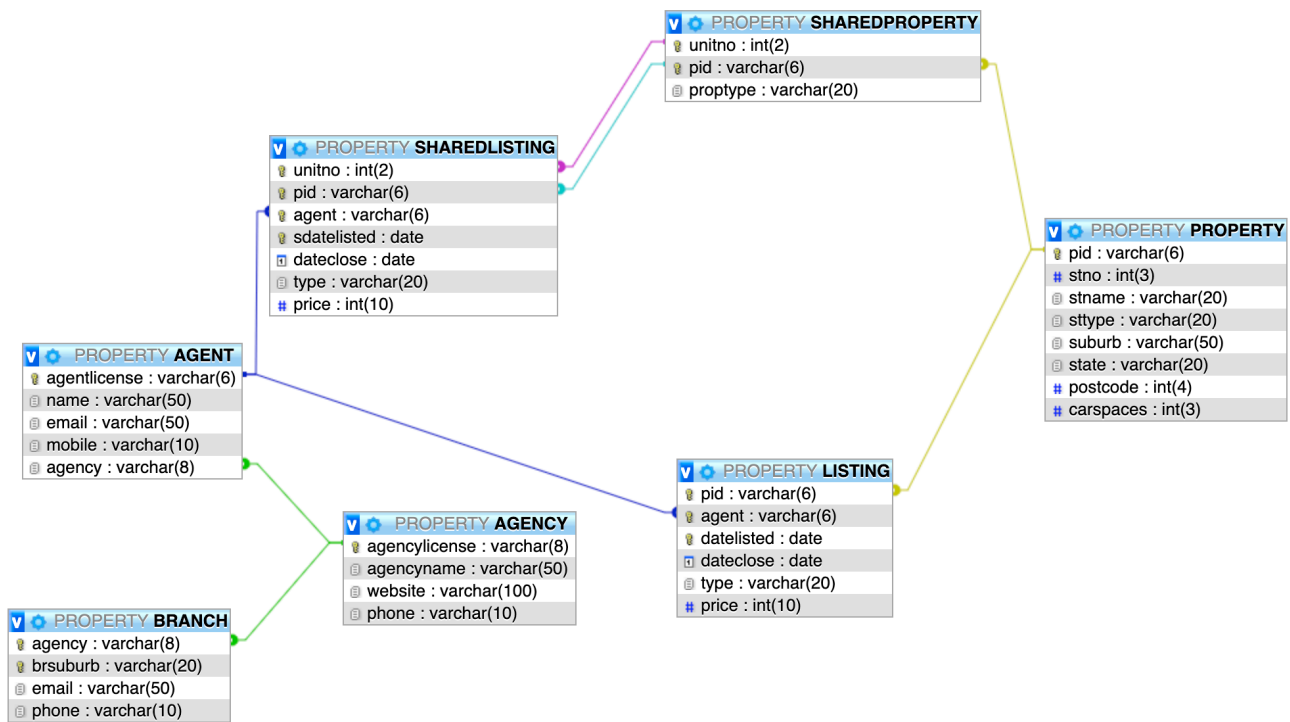
Query 1: List all townhouses sold in the suburb Annandale in 2016

QUERY SQL

CREATE VIEW query_1 AS(
SELECT S.pid
FROM SHAREDPROPERTY AS S, PROPERTY AS P, SHAREDLISTING AS L
WHERE proptype = 'townhouse' AND S.pid = P.pid AND suburb = 'Annandale' AND S.pid = L.pid AND
S.unitno = L.unitno AND dateclose LIKE '2016%' AND L.type = 'sell')

QUERY OUTPUT (SCREENSHOT)

Query 2: Find the suburbs that have not had any sales since 2017

QUERY SQL

CREATE VIEW query_2 AS(
SELECT DISTINCT P.suburb
FROM PROPERTY AS P , LISTING AS L, SHAREDPROPERTY AS SP, SHAREDLISTING AS SL
WHERE P.pid = L.pid AND L.type = 'sell' AND P.suburb NOT IN (
   SELECT A.suburb
   FROM PROPERTY AS A, LISTING AS B
   WHERE A.pid = B.pid AND B.type = 'sell' AND dateclose IN (
      SELECT dateclose
      FROM LISTING
      GROUP BY dateclose
      HAVING dateclose > '2017-01-01'))
      OR SL.pid = SP.pid AND SL.unitno = SP.unitno AND SP.pid = P.pid AND SL.type = 'sell' AND P.suburb
NOT IN (
      SELECT C.suburb
      FROM PROPERTY AS C, SHAREDPROPERTY AS D, SHAREDLISTING AS E
      WHERE E.pid = D.pid AND E.unitno = D.unitno AND D.pid = C.pid AND E.type = 'sell' AND dateclose
IN (
      SELECT dateclose
      FROM SHAREDLISTING
      GROUP BY dateclose
      HAVING dateclose > '2017-01-01')))

QUERY OUTPUT (SCREENSHOT)

Query 3: Find the total number of apartments available for rent on Parramatta Road

QUERY SQL

CREATE VIEW query_3 AS(
SELECT COUNT(*)
FROM SHAREDPROPERTY AS SP, PROPERTY AS P, SHAREDLISTING AS SL
WHERE SP.proptype = 'apartment'
        AND P.pid = SP.pid AND P.stname = 'Parramatta' AND P.sttype = 'Road'
    AND SL.pid = SP.pid AND SL.unitno = SP.unitno AND SL.type = 'rent'
AND SL.dateclose IS NULL)

QUERY OUTPUT (SCREENSHOT)

✔ Showing rows 0 - ... ⓘ (Query took 0.0019 seconds.)

```
SELECT * FROM `query_3`
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

> >> ☐ Show all | Number of rows: 25 ⬍   Filter rows: Search this table

+ Options
COUNT(*)
1

> >> ☐ Show all | Number of rows: 25 ⬍   Filter rows: Search this table

Query results operations

🖨 Print ✂ Copy to clipboard 🗐 Export 📊 Display chart 🗃 Create view

Query 4: Which street in the suburb Camperdown has the highest average rent

QUERY SQL

```
CREATE VIEW query_4 AS(
SELECT P.stname, P.sttype
FROM PROPERTY AS P
RIGHT JOIN(
    SELECT pid,price
    FROM(SELECT pid,price
        FROM LISTING
        WHERE type = 'rent'
        UNION ALL
            SELECT pid,price
            FROM SHAREDLISTING
            WHERE type = 'rent')PE) AS PE
        ON P.pid = PE.pid
WHERE P.suburb = 'Camperdown'
GROUP BY P.stname, P.sttype
ORDER BY AVG(PE.price)
DESC LIMIT 1)
```

QUERY OUTPUT (SCREENSHOT)

✔ Showing rows 0 - ... ❓ (Query took 0.0022 seconds.)

SELECT * FROM `query_4`

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

> >> ☐ Show all | Number of rows: 25 ⬍ Filter rows: Search this table

+ Options

stname	sttype
Pyrmont Bridge	Road

> >> ☐ Show all | Number of rows: 25 ⬍ Filter rows: Search this table

Query results operations

🖨 Print ▪️ Copy to clipboard 📥 Export 📊 Display chart 📋 Create view

Query 5: What is the total value of properties sold by Poh Ling from Trusted Real Estate since 2014

QUERY SQL

```
CREATE VIEW query_5 AS(
SELECT SUM(price)
FROM(SELECT L.price
    FROM LISTING AS L, AGENT AS A, AGENCY AS Y
    WHERE Y.agencylicense = A.agency AND L.agent = A.agentlicense AND L.dateclose >= '2014-01-01' AND
L.type = 'sell' AND A.name = 'Poh Ling' AND Y.agencyname = 'Trusted Real Estate'
    UNION ALL(
        SELECT SL.price
        FROM SHAREDLISTING AS SL, AGENT AS B, AGENCY AS C
        WHERE C.agencylicense = B.agency AND SL.agent = B.agentlicense AND SL.dateclose >= '2014-01-01'
AND SL.type = 'sell' AND B.name = 'Poh Ling' AND C.agencyname = 'Trusted Real Estate'))A)
```

QUERY OUTPUT (SCREENSHOT)

✔ Showing rows 0 - ... ⓘ (Query took 0.0026 seconds.)

`SELECT * FROM ` `query_5`

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

> >> ☐ Show all | Number of rows: 25 ⬍   Filter rows: Search this table

+ Options

SUM(price)
412000

> >> ☐ Show all | Number of rows: 25 ⬍   Filter rows: Search this table

Query results operations

🖨 Print 📋 Copy to clipboard 📤 Export 📊 Display chart 📥 Create view

Query 6: Which suburb's properties have always been sold in less than 4 weeks

QUERY SQL

```
CREATE VIEW query_6 AS(
SELECT A.suburb
FROM PROPERTY AS A
GROUP BY A.suburb
HAVING A.suburb NOT IN (SELECT B.suburb
        FROM PROPERTY AS B, LISTING AS C
        WHERE B.pid = C.pid AND (C.type = 'rent' OR DATEDIFF(C.dateclose , C.datelisted) > 28) AND
B.suburb NOT IN(
        SELECT D.suburb
        FROM PROPERTY AS D
        GROUP BY D.suburb
        HAVING D.suburb NOT IN(
          SELECT E.suburb
          FROM PROPERTY AS E, SHAREDPROPERTY AS SP, SHAREDLISTING AS SL
          WHERE E.pid = SP.pid AND SP.pid = SL.pid AND SP.unitno = SL.unitno AND (SL.type = 'sell' OR
DATEDIFF(SL.dateclose , SL.sdatelisted) > 28)))))
```

QUERY OUTPUT (SCREENSHOT)

✓ Showing rows 0 - ... ⊙ (Query took 0.0032 seconds.)

```
SELECT * FROM `query_6`
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

> >> ☐ Show all | Number of rows: 25 ↕   Filter rows: Search this table

+ Options
suburb
Kangaroo Point
South Brisbane
West End
Woollongabba

> >> ☐ Show all | Number of rows: 25 ↕   Filter rows: Search this table

Query results operations

🖶 Print ✂ Copy to clipboard 📋 Export 📊 Display chart 📇 Create view

Query 7: What is the average number of car spaces available for houses on Pyrmont Bridge Road

QUERY SQL

CREATE VIEW query_7 AS(
SELECT AVG(carspaces)
FROM PROPERTY
WHERE stname = 'Pyrmont Bridge' AND sttype = 'Road' AND pid NOT IN (
   SELECT pid FROM SHAREDPROPERTY))

QUERY OUTPUT (SCREENSHOT)

✔ Showing rows 0 - ... ⓘ (Query took 0.0021 seconds.)

SELECT * FROM `query_7`

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

> >> ☐ Show all | Number of rows: 25 ◆   Filter rows: Search this table

+ Options
AVG(carspaces)
        7.2500

> >> ☐ Show all | Number of rows: 25 ◆   Filter rows: Search this table

Query results operations

🖨 Print ➡ Copy to clipboard 📋 Export 📊 Display chart 🗔 Create view

Query 8: Which suburb(s) has had the highest increase in average rent between 2014 and 2016

QUERY SQL

```
CREATE VIEW query_8 AS(
SELECT P.suburb
FROM (PROPERTY AS P
RIGHT JOIN(
   SELECT pid,price
   FROM(SELECT pid,price
      FROM LISTING
      WHERE dateclose LIKE '2014%' AND type = 'rent'
      UNION ALL
        SELECT pid,price
        FROM SHAREDLISTING
        WHERE dateclose LIKE '2014%' AND type = 'rent')PE) AS PE
   ON P.pid = PE.pid),
   PROPERTY AS X RIGHT JOIN(
      SELECT pid,price
      FROM(SELECT pid,price
         FROM LISTING
         WHERE dateclose LIKE '2016%' AND type = 'rent'
         UNION ALL
         SELECT pid,price
         FROM SHAREDLISTING
         WHERE dateclose LIKE '2016%' AND type = 'rent')APE) AS APE
      ON X.pid = APE.pid
GROUP BY P.suburb
ORDER BY (AVG(PE.price) - AVG(APE.price))
DESC LIMIT 1)
```

QUERY OUTPUT (SCREENSHOT)

Challenge Query 1: List the properties that have been sold by real estate agencies that are located in the same suburb as the property.

QUERY SQL

```
CREATE VIEW challenge_query_1 AS(
SELECT pid
FROM(
   SELECT P.pid
   FROM PROPERTY AS P, LISTING AS L
   WHERE P.pid = L.pid AND L.type = 'sell' AND L.pid IN (
      SELECT LA.pid
      FROM LISTING AS LA, AGENT AS AG
      WHERE LA.agent = AG.agentlicense AND AG.agentlicense IN(
         SELECT BG.agentlicense
         FROM AGENT AS BG, AGENCY AS AY
         WHERE BG.agency = AY.agencylicense AND AY.agencylicense IN(
            SELECT CY.agencylicense
            FROM AGENCY AS CY, BRANCH AS BR
            WHERE CY.agencylicense = BR.agency AND BR.brsuburb = P.suburb
         )))
   UNION ALL(
      SELECT PY.pid
      FROM PROPERTY AS PY, SHAREDPROPERTY AS SP
      WHERE PY.pid = SP.pid AND SP.pid IN(
         SELECT SHP.pid
         FROM SHAREDPROPERTY AS SHP, SHAREDLISTING AS SL
         WHERE SHP.pid = SL.pid AND SHP.unitno = SL.unitno AND SL.type = 'sell' AND SL.pid IN(
            SELECT SHL.pid
            FROM SHAREDLISTING AS SHL, AGENT AS DT
            WHERE SHL.agent = DT.agentlicense AND DT.agentlicense IN(
               SELECT ET.agentlicense
               FROM AGENT AS ET, AGENCY AS DY
               WHERE ET.agency = DY.agencylicense AND DY.agencylicense IN(
                  SELECT EY.agencylicense
                  FROM AGENCY AS EY, BRANCH AS CH
                  WHERE EY.agencylicense = CH.agency AND CH.brsuburb = PY.suburb))))))X)
```

QUERY OUTPUT (SCREENSHOT)

Showing rows 0 - ... (Query took 0.0060 seconds.)

`SELECT * FROM `challenge_query_1``

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

> >> ☐ Show all | Number of rows: 25 ▴ Filter rows: Search this table

+ Options

	pid
☐ Edit Copy Delete	182710
☐ Edit Copy Delete	292741
☐ Edit Copy Delete	000001
☐ Edit Copy Delete	271649
☐ Edit Copy Delete	281712
☐ Edit Copy Delete	000002
☐ Edit Copy Delete	000003
☐ Edit Copy Delete	928174
☐ Edit Copy Delete	654192

☐ Check all   With selected: Edit Copy Delete Export

Challenge Query 2: Who is the most successful real estate agent in 2018 (Hint: who has sold and rented properties of the greatest value)

QUERY SQL

CREATE VIEW challenge_query_2 AS(
SELECT agent
FROM LISTING
WHERE dateclose LIKE '2018%'
GROUP BY agent
HAVING SUM(price) >= ALL(
    SELECT SUM(price)
    FROM LISTING
    WHERE dateclose LIKE '2018%'
GROUP BY agent))

QUERY OUTPUT (SCREENSHOT)

✅ Showing rows 0 - ... ⓘ (Query took 0.0014 seconds.)

SELECT * FROM `challenge_query_2`

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

> >> ☐ Show all | Number of rows: 25 ⬍   Filter rows: Search this table

+ Options
agent
s81739

> >> ☐ Show all | Number of rows: 25 ⬍   Filter rows: Search this table

Query results operations

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Challenge Query 3: List the agencies that have property listings in every suburb

QUERY SQL

QUERY OUTPUT (SCREENSHOT)

Challenge Query 4: Which real estate agency (or agencies) has most number of open houses available for inspection on 24 April 2018

QUERY SQL

QUERY OUTPUT (SCREENSHOT)

QUERY SQL