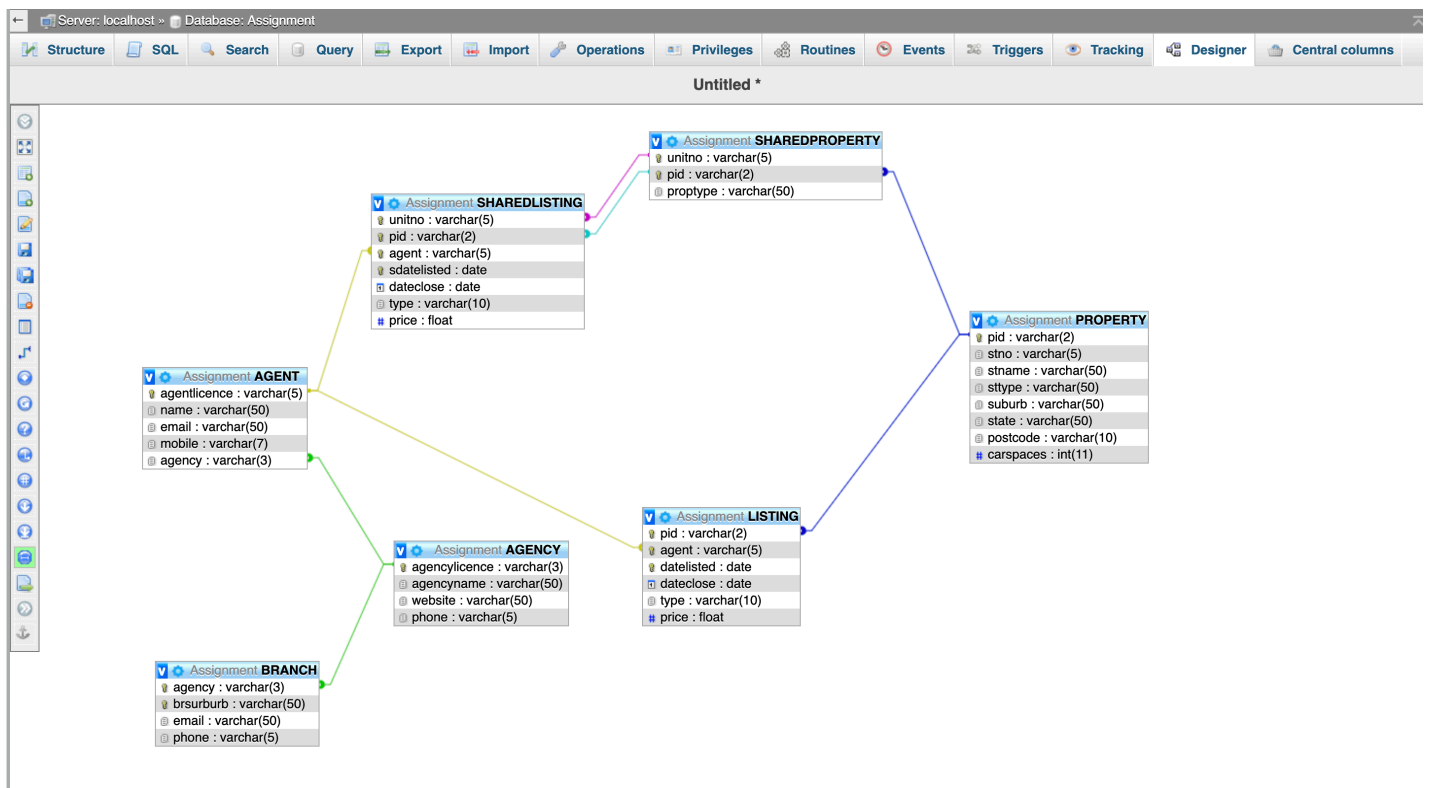


## Assignment 2 Template

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Student Number:	45264700

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

```
SELECT * FROM PROPERTY WHERE pid IN
(SELECT B.pid FROM SHAREDPROPERTY A, SHAREDLISTING B
WHERE A.pid = B.pid AND B.type = 'sell' AND A.proptype = 'townhouse');
```

QUERY OUTPUT (SCREENSHOT)

Showing rows 0 - 1 (2 total, Query took 0.0023 seconds.)

```
SELECT * FROM PROPERTY WHERE pid IN (SELECT B.pid FROM SHAREDPROPERTY A, SHAREDLISTING B WHERE A.pid = B.pid AND B.type = 'sell' AND A.proptype = 'townhouse')
```

☐ Profiling

☐ Show all

Number of rows: 25

Filter rows: Search this table

Sort by key: None

Options

	pid	stno	stname	sttype	suburb	state	postcode	carspaces
<input type="checkbox"/> Edit Copy Delete	b1	001	Asia	Avenue	Annandale	QLD	306	2
<input type="checkbox"/> Edit Copy Delete	b2	001	Africa	Avenue	Annandale	QLD	307	2

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

## QUERY SQL

First step:      CREATE VIEW Uniontable AS

```
SELECT A.pid, A.sdatelisted, A.dateclose, A.type FROM SHAREDLISTING A UNION SELECT B.pid, B.datelisted, B.dateclose, B.type FROM LISTING B
```

Second step:    CREATE VIEW Tablecombined AS

```
SELECT A.pid, A.stname, A.suburb, B.sdatelisted, B.dateclose, B.type FROM PROPERTY A LEFT JOIN Uniontable B ON A.pid = B.pid
```

Third step:      SELECT DISTINCT suburb FROM Tablecombined WHERE suburb NOT IN (

```
SELECT suburb FROM Tablecombined WHERE dateclose > '2017-01-01' AND type = 'sell' GROUP BY suburb HAVING count(*) != 0)
```

## QUERY OUTPUT (SCREENSHOT)

Showing rows 0 - 0 (1 total, Query took 0.0029 seconds.)

```
SELECT DISTINCT suburb FROM tablecombined WHERE suburb NOT IN ( SELECT suburb FROM tablecombined WHERE dateclose > '2017-01-01' AND type = 'sell' GROUP BY suburb HAVING count(*) != 0 )
```

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

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

+ Options  
suburb  
Annandale

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

QUERY SQL

```
SELECT count(*) FROM PROPERTY
WHERE sttype = 'road' AND stname = 'Parramatta' and pid IN (SELECT pid FROM SHAREDPROPERTY
WHERE proptype = 'apartment' AND pid IN (SELECT pid FROM SHAREDLISTING
WHERE type = 'rent' AND dateclose is null));
```

QUERY OUTPUT (SCREENSHOT)

Showing rows 0 - 0 (1 total, Query took 0.0028 seconds.)

```
SELECT count(*) FROM PROPERTY WHERE sttype = 'road' AND stname = 'Parramatta' and pid IN (SELECT pid FROM SHAREDPROPERTY WHERE proptype = 'apartment' AND pid IN (SELECT pid FROM SHAREDLISTING WHERE type = 'rent' AND dateclose is null))
```

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

Show all

Number of rows: 25

Filter rows: Search this table

+ Options

count(\*)

3

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

QUERY SQL

First step:       CREATE VIEW tableunion AS  
SELECT A.pid, A.type, A.price FROM LISTING A UNION SELECT B.pid, B.type, B.price FROM SHAREDLISTING B

Second step:    CREATE VIEW combinetable AS  
SELECT A.pid, A.stname, A.suburb, B.type, B.price FROM PROPERTY A LEFT JOIN tableunion B ON A.pid = B.pid

Third step:       SELECT stname FROM combinetable WHERE type = 'rent' AND suburb = 'Camperdown' GROUP BY  
stname HAVING AVG(price) >= ALL (SELECT AVG(price) FROM combinetable WHERE type = 'rent' AND suburb =  
'Camperdown')

QUERY OUTPUT (SCREENSHOT)

Showing rows 0 - 0 (1 total, Query took 0.0030 seconds.)

SELECT stname FROM combinetable WHERE type = 'rent' AND suburb = 'Camperdown' GROUP BY stname HAVING AVG(price) >= ALL (SELECT AVG(price) FROM combinetable WHERE type = 'rent' AND suburb = 'Camperdown')

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

Show all

Number of rows: 25

Filter rows: Search this table

+ Options

stname

Parramatta

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

QUERY SQL

```
SELECT (SELECT COALESCE(SUM(A.price), 0) FROM SHAREDLISTING A WHERE type = 'sell' AND dateclose >= '2014-01-01' AND AGENT IN (SELECT agentlicence FROM AGENT WHERE name = 'Poh Ling' AND agency IN (SELECT agencylicence FROM AGENCY WHERE agencyname = 'Trusted Real Estate'))))
+ (SELECT COALESCE(SUM(B.price), 0) FROM LISTING B WHERE type = 'sell' AND dateclose >= '2014-01-01' AND AGENT IN (SELECT agentlicence FROM AGENT WHERE name = 'Poh Ling' AND agency IN (SELECT agencylicence FROM AGENCY WHERE agencyname = 'Trusted Real Estate'))))
```

AS Total

QUERY OUTPUT (SCREENSHOT)

Showing rows 0 - 0 (1 total, Query took 0.0045 seconds.)

```
SELECT (SELECT COALESCE(SUM(A.price), 0) FROM SHAREDLISTING A WHERE type = 'sell' AND dateclose >= '2014-01-01' AND AGENT IN (SELECT agentlicence FROM AGENT WHERE name = 'Poh Ling' AND agency IN (SELECT agencylicence FROM AGENCY WHERE agencyname = 'Trusted Real Estate')))) + (SELECT COALESCE(SUM(B.price), 0) FROM LISTING B WHERE type = 'sell' AND dateclose >= '2014-01-01' AND AGENT IN (SELECT agentlicence FROM AGENT WHERE name = 'Poh Ling' AND agency IN (SELECT agencylicence FROM AGENCY WHERE agencyname = 'Trusted Real Estate')))) AS Total
```

Profiling

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

Show all

Number of rows: 25

Filter rows: Search this table

Options

Total32000

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

## QUERY SQL

First step:      CREATE VIEW uniontable AS

```
SELECT A.pid, A.sdatelisted, A.dateclose, A.type FROM SHAREDLISTING A UNION SELECT B.pid, B.datelisted, B.dateclose, B.type FROM LISTING B
```

Second step:    CREATE VIEW tablecombined AS

```
SELECT A.pid, A.stname, A.suburb, B.sdatelisted, B.dateclose, B.type FROM PROPERTY A LEFT JOIN uniontable B ON A.pid = B.pid
```

Third step:      SELECT DISTINCT suburb FROM tablecombined WHERE suburb NOT IN (SELECT suburb FROM tablecombined WHERE type = 'sell' AND dateclose - sdatelisted >= 28)

## QUERY OUTPUT (SCREENSHOT)

Showing rows 0 - 0 (1 total, Query took 0.0082 seconds.)

```
SELECT DISTINCT suburb FROM tablecombined WHERE suburb NOT IN (SELECT suburb FROM tablecombined WHERE type = 'sell' AND dateclose - sdatelisted >= 28)
```

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

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

+ Options

suburb
Camperdown



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

QUERY SQL

SELECT AVG(carspaces) FROM PROPERTY WHERE stname = 'Pyrmont Bridge' AND sttype = 'road' AND pid in (SELECT pid FROM LISTING);

QUERY OUTPUT (SCREENSHOT)

Showing rows 0 - 0 (1 total, Query took 0.0017 seconds.)

SELECT AVG(carspaces) FROM PROPERTY WHERE stname = 'Pyrmont Bridge' AND sttype = 'road' AND pid in (SELECT pid FROM LISTING)

Profiling

Show all

Number of rows: 25

Filter rows: Search this table

+ Options

AVG(carspaces)
3.0000

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

## QUERY SQL

First step:      `CREATE VIEW Total AS SELECT A.pid, A.sdatelisted, A.type, A.price FROM SHAREDLISTING A  
UNION SELECT B.pid, B.datelisted, B.type, B.price FROM LISTING B`

Second step:    `CREATE VIEW THREETABLES AS  
SELECT A.pid, A.suburb, B.sdatelisted, B.type, B.price FROM PROPERTY A LEFT JOIN Total B ON A.pid = B.pid`

Third step:      `SELECT suburb FROM THREETABLES WHERE type = 'rent' AND sdatelisted BETWEEN '2014-01-01'  
AND '2016-01-01' GROUP BY suburb HAVING AVG(price) >= All(SELECT AVG(price) FROM THREETABLES WHERE type  
= 'rent' AND sdatelisted BETWEEN '2014-01-01' AND '2016-01-01' GROUP BY suburb)`

## QUERY OUTPUT (SCREENSHOT)

✓ Showing rows 0 - 0 (1 total, Query took 0.0032 seconds.)

```
SELECT suburb FROM THREETABLES WHERE type = 'rent' AND sdatelisted BETWEEN '2014-01-01' AND '2016-01-01' GROUP BY suburb HAVING AVG(price) >= All(SELECT AVG(price) FROM THREETABLES WHERE type = 'rent' AND sdatelisted  
BETWEEN '2014-01-01' AND '2016-01-01' GROUP BY suburb)
```

☐ Profiling [\[Edit inline\]](#) [\[Edit\]](#) [\[Explain SQL\]](#) [\[Create PHP code\]](#) [\[Refresh\]](#)

☐ Show all | Number of rows:  | Filter rows:

+ Options  
suburb  
Annandale

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

QUERY OUTPUT (SCREENSHOT)

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

SELECT name FROM AGENT WHERE agentlicence in (SELECT agent FROM LISTING WHERE type = 'rent' GROUP BY agent HAVING SUM(price) >=ALL (SELECT SUM(price) FROM LISTING WHERE type = 'rent' GROUP BY agent)) AND agentlicence IN (SELECT agent FROM LISTING WHERE type = 'sell' GROUP BY agent HAVING SUM(price) >=ALL (SELECT SUM(price) FROM LISTING WHERE type = 'sell' GROUP BY agent))

QUERY OUTPUT (SCREENSHOT)

Showing rows 0 - 0 (1 total, Query took 0.0036 seconds.)

```
SELECT name FROM AGENT WHERE agentlicence in (SELECT agent FROM LISTING WHERE type = 'rent' GROUP BY agent HAVING SUM(price) >=ALL (SELECT SUM(price) FROM LISTING WHERE type = 'rent' GROUP BY agent)) AND agentlicence IN (SELECT agent FROM LISTING WHERE type = 'sell' GROUP BY agent HAVING SUM(price) >=ALL (SELECT SUM(price) FROM LISTING WHERE type = 'sell' GROUP BY agent))
```

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

Show all

Number of rows: 25

Filter rows: Search this table

+ Options

name
C Ling

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

SELECT agencyname FROM AGENCY WHERE agencylicence in (SELECT agency FROM AGENT WHERE agentlicence in (SELECT agent FROM LISTING WHERE dateclose = '2018-08-24' GROUP BY agent HAVING count(\*) >= ALL(SELECT count(\*) FROM LISTING WHERE dateclose = '2018-08-24' GROUP BY agent)))

QUERY OUTPUT (SCREENSHOT)

Showing rows 0 - 0 (1 total, Query took 0.0032 seconds.)

SELECT agencyname FROM AGENCY WHERE agencylicence in (SELECT agency FROM AGENT WHERE agentlicence in (SELECT agent FROM LISTING WHERE dateclose = '2018-08-24' GROUP BY agent HAVING count(\*) >= ALL(SELECT count(\*) FROM LISTING WHERE dateclose = '2018-08-24' GROUP BY agent)))

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

Show all

Number of rows: 25

Filter rows: Search this table

+ Options

agencyname
Outstanding Real Estate