COMP3311 23T3   **Assignment 1**   Database Systems
                         Example Test Cases

Last updated: **Sunday 24th September 3:46pm**
Most recent changes are shown in red ... older changes are shown in brown.

[Assignment Spec] [Database Design] **[Examples]**

The following will give some sample inputs and outputs that you can use to estimate the correctness of your views and functions. At present it just shows output from a few simple queries.

These examples are by no means exhaustive, and more cases will be used in the auto-marking; it is up to you to perform comprehensive checking of your solution.

Note that the default behaviour when you raise an error is to print a line giving you the CONTEXT in the PLpgSQL code where the error was raised. We did not show the CONTEXT message in the examples below. For you to prevent the message, use the psql command:

```
\set verbosity terse
```

Of course, this will probably prevent the CONTEXT message appearing if your code has a genuine error, so rather than turning the message off, you could always just ignore it. Whether it's on or off does not affect the auto-marking.

Examples for BeerDB

```
-- How many breweries are there?

ass1=# select count(*) from Breweries;
 count
-------
   297
(1 row)

-- How many different beers are there?

ass1=# select count(*) from Beers;
 count
-------
   985
(1 row)


-- Expected output for assignment views


ass1=# select * from q1 order by state;
       state       | nbreweries
```

```
------------------+------------
 ACT              |          2
 New South Wales  |         55
 Queensland       |         14
 South Australia  |         10
 Tasmania         |          5
 Victoria         |         43
 Western Australia|          9
(7 rows)




ass1=# select * from q2 order by style;
     style       | min_abv | max_abv
-----------------+---------+---------
 Imperial IPA    |       9 |      20
 Imperial Stout  |       8 |      19
(2 rows)




ass1=# select * from q3 order by style;
         style            | lo_abv | hi_abv | min_abv | max_ab
--------------------------+--------+--------+---------+------
 Alcohol-free Lager       |      0 |      0 |     0.1 |     0
 Alcohol-free Pale Ale    |      0 |      0 |     0.1 |     0
 Black IPA                |    6.1 |   13.2 |       5 |
 Dark Ale                 |    5.2 |    9.4 |       4 |
 Dark Lager               |    4.7 |    5.4 |       4 |
 Double IPA               |    7.7 |   11.1 |       7 |
 Hazy Triple IPA          |     10 |   11.3 |       9 |
 Imperial IPA             |      8 |     41 |       9 |
 Imperial Pastry Stout    |     10 |   13.2 |       9 |
 Imperial Red IPA         |    6.9 |   12.3 |       6 |
 Imperial Stout           |    7.7 |     18 |       8 |
 Lager                    |    4.2 |    5.5 |     4.5 |     5
 Marzen                   |    5.3 |    6.3 |       4 |
 Milk Stout               |    5.1 |    7.3 |       4 |
 Milkshake IPA            |    6.4 |   10.1 |       5 |
 Non-Alcoholic IPA        |      0 |      0 |     0.1 |     0
 Non-Alcoholic Lager      |      0 |    0.5 |     0.1 |     0
 Non-alcoholic Hefeweizen |      0 |      0 |     0.1 |     0
 Oatmeal Stout            |      6 |    8.3 |       5 |
 Pale Lager               |    4.4 |    5.1 |       3 |
 Pastry Stout             |      6 |   13.4 |       5 |
 Porter                   |      5 |    8.2 |       4 |
 Quadrupel                |    9.7 |   11.3 |       9 |
 Saison                   |    3.5 |    7.2 |       3 |
 Strong Dark Ale          |    8.5 |    9.2 |       8 |
 Vanilla Ice Cream Ale    |      7 |    7.3 |       6 |
 West Coast IPA           |      6 |    8.2 |       5 |
(27 rows)
```

```
ass1=# select * from q4 order by brewery
         brewery          | rating
--------------------------+--------
 Trillium Brewing Company |    9.2
(1 row)



ass1=# select * from q5('extra') order by beer;
         beer          |  container   | std_drinks
-----------------------+--------------+------------
 Corona Extra          | 355ml bottle |        1.3
 Extra Special Bitter  | 375ml can    |        2.6
(2 rows)

ass1=#  select * from q5('fairy floss') order by beer;
       beer        | container | std_drinks
-------------------+-----------+------------
 Fairy Floss Sour  | 440ml can |        3.0
(1 row)

ass1=# select * from q5('oop') order by beer;
     beer      | container | std_drinks
---------------+-----------+------------
 Fly the Coop  | 440ml can |        2.9
 Hoopy Aid     | 500ml can |        2.6
 Supertrooper  | 440ml can |        3.5
(3 rows)

ass1=# select * from q5('Four') order by beer;
         name          | container | std_drinks
-----------------------+-----------+------------
 Four Seasons - Autumn | 440ml can |        2.1
 Four Seasons - Winter | 440ml can |        3.5
 Six Four Four         | 440ml can |        2.9
(3 rows)

ass1=# select * from q5('zz') order by beer;
         beer          |  container   | std_drinks
-----------------------+--------------+------------
 Mind Fuzz             | 473ml can    |        2.3
 Peroni Nastro Azzurro | 330ml bottle |        1.3
 The Toques of Hazzard | 473ml can    |        3.5
 Turbo Fuzz            | 440ml can    |        3.5
(4 rows)



ass1=# select * from q6('australia') order by country;
  country  | first | nbeers | rating
-----------+-------+--------+--------
```

```
 Australia |  2000 |    652 |    7.4
(1 row)


ass1=# select * from q6('aust') order by country;
  country  | first | nbeers | rating
-----------+-------+--------+--------
 Australia |  2000 |    652 |    7.4
 Austria   |  1994 |      1 |    7.0
(2 rows)


ass1=# select * from q6('land') order by country;
   country    | first | nbeers | rating
-------------+-------+--------+--------
 England     |  2016 |      8 |    6.4
 Netherlands |  2018 |      9 |    6.7
 New Zealand |  2018 |     84 |    7.4
 Poland      |  2016 |      4 |    6.5
 Scotland    |  2010 |     13 |    8.2
(5 rows)


ass1=# select * from q6('oo') order by country;
 country | first | nbeers | rating
---------+-------+--------+--------
(0 rows)




-- Notice that the final row does not have a trailing '+'
-- This is because the return string is not '\n'-terminated
-- Note also that since q7() returns a single value, we don't need '

ass1=# select q7(123);
         q7
--------------------
 No such beer (123)
(1 row)


ass1=# select q7(366);
            q7
---------------------------
 "Acronym Abuse"          +
   no ingredients recorded
(1 row)


ass1=# select q7(891);
            q7
----------------------------
 "Mellow Mood"             +
   contains:               +
     Bananas (adjunct)     +
     Coconut (adjunct)     +
     Lactose (adjunct)     +
     Maple syrup (adjunct) +
```

```
      Oats (grain)          +
      Peaches (adjunct)     +
      Strawberries (adjunct)+
      Vanilla (adjunct)     +
(1 row)


ass1=# select q7(893);
          q7
----------------------
 "Metaverse"          +
   contains:          +
     Amarillo (hop)   +
     Bru-1 (hop)      +
     Cascade (hop)    +
     Cashmere (hop)   +
     Centennial (hop)+
     Citra (hop)      +
     Columbus (hop)   +
     El dorado (hop)  +
     Galaxy (hop)     +
     Idaho7 (hop)     +
     Mosaic (hop)     +
     Simcoe (hop)
(1 row)


ass1=# select q7(1202);
               q7
-----------------------------
 "The Future is Bright"     +
   contains:                +
     Azacca (hop)           +
     Cashmere (hop)         +
     Idaho7 (hop)           +
     Mosaic (hop)           +
     Pale malt (grain)      +
     Torrified wheat (grain)+
     Vienna malt (grain)    +
     Warrior (hop)
(1 row)


ass1=# select q7(1226);
               q7
-----------------------------
 "Timothy Tamothy Slamothy"+
   contains:               +
     Amber malt (grain)    +
     Cacao (adjunct)       +
     Carafa (grain)        +
     Caramel malt (grain)  +
     Chocolate malt (grain)+
     Lactose (adjunct)     +
     Magnum (hop)          +
     Oats (grain)
```

```
(1 row)


ass1=# select * from q8('korb') order by beer;
   beer   |        brewery         |          hops
----------+------------------------+------------------------
 Korben D | Akasha Brewing Company | Centennial,Mosaic,Simcoe
(1 row)


ass1=# select * from q8('hoppiness') order by beer;
        beer        |          brewery           | hops
--------------------+----------------------------+------
 Liquid Hoppiness   | Sierra Nevada Brewing Company | Casca
 Pursuit of Hoppiness | Hargreaves Hill Brewing Co  | Galax
(2 rows)


ass1=# select * from q8('yakima') order by beer;
     beer       |               brewery               |
----------------+-------------------------------------+---
 Yakima Valley  | Garage Project+Trillium Brewing Company | no
 Yakimanian    | One Drop Brewing Co.                 | no
(2 rows)


ass1=# select * from q8('dank') order by beer;
        beer         |         brewery          |
ps
--------------------+--------------------------+------
-----------------------------
 Dank you for Hopping | Chur (Behemoth) Brewing   | no ho
 Dankful            | Sierra Nevada Brewing Company | Chino
o7,Mosaic,Nelson sauvin,Zappa
 The Dank           | Batch Brewing Co         | no ho
 The Dank           | Kaiju! Beer              | no ho
(4 rows)


ass1=# select * from q8('zzz') order by beer;
 beer | brewery | hops
------+---------+------
(0 rows)


ass1=# select * from q8('zz') order by beer;
        beer          |          brewery          |
---------------------+---------------------------+-------
 Mind Fuzz           | Phantom Beer              | no hops
 Peroni Nastro Azzurro | Birra Peroni Industriale  | no hops
 The Toques of Hazzard | Parallel49 Brewing Company | no hops
 Turbo Fuzz          | Garage Project            | Galaxy,
(4 rows)


-- A very long tuple displays best in "extended" mode
-- In "extended" mode, each field is displayed on a separate line
-- This particular beer has a large number of collaborating breweri
```

```
ass1=# \x
Expanded display is on.
ass1=# select * from q8('show') order by beer;
-[ RECORD 1 ]--------------------------------------------------
beer    | Best in Show
brewery | Barossa Valley Brewing+Bentspoke Brewing Co+Grifter
hops    | Citra,Eclipse,Idaho7,Salvo,Trident



ass1=# select * from q9(0);
       brewery       | collaborator
---------------------+--------------
 No such brewery (0) | none
(1 row)


ass1=# select * from q9(49);
 brewery | collaborator
---------+--------------
 Brewdog | none
(1 row)


ass1=# select * from q9(149);
      brewery       | collaborator
--------------------+---------------
 Humble Sea Brewing | Garage Project
(1 row)


ass1=# select * from q9(267);
 brewery |     collaborator
---------+------------------------
 To Ol   | Moon Dog Craft Brewery
(1 row)


ass1=# select * from q9(118);
    brewery     |      collaborator
----------------+--------------------------
 Garage Project | Balter Brewing Co
                | Cloudburst Brewing
                | Highland Park Brewery
                | Humble Sea Brewing
                | Modern Times Beer
                | Monkish Brewing Company
                | Other Half Brewing
                | Trillium Brewing Company
(8 rows)


ass1=# select * from q9(183);
 brewery |       collaborator
---------+-----------------------------
 Moo Brew | Barossa Valley Brewing
          | Bentspoke Brewing Co
```

```
              | Grifter Brewing Co
              | Moffat Beach Brewing Company
              | Moon Dog Craft Brewery
              | Otherside Brewing Co
(6 rows)


ass1=# select * from q9(184);
        brewery          |          collaborator
-------------------------+-------------------------------
 Moon Dog Craft Brewery  | Barossa Valley Brewing
                         | Bentspoke Brewing Co
                         | Grifter Brewing Co
                         | Moffat Beach Brewing Company
                         | Moo Brew
                         | Otherside Brewing Co
                         | To Ol
                         | Yulli's Brews
(8 rows)
```