

Assignment 1

Example Test Cases

Last updated: **Sunday 27th February 3:07pm**

Most recent changes are shown in **red** ... older changes are shown in **brown**.

[\[Assignment Spec\]](#) [\[Database Design\]](#) [\[Schema in SQL\]](#) [\[check1.sql\]](#) **[Examples]** [\[Fixes+Updates\]](#)

The following give some sample inputs and outputs that you can use to estimate the correctness of your views and functions. These examples are by no means exhaustive, and more cases will be used in the auto-marking, so 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 `mymy1`

```
mymy=# select * from q1 order by unswid;
```

unswid	name
3001394	Jeffrey Caldwell
3087372	Philip Lun
3108948	Sugianto Arsie
3122927	Seaton Warburton
3132303	Amy Berg
3134147	Hannah Kola
3160479	Ksenia Mardakhaeva
3163349	Kerry Plant
3173796	Adam Rositano
3187169	Giles Erol
3207313	Livio Tjia
3209530	Su Song
3229297	Yoke Anthoney
3245227	Pollyanna Risk
3272803	Jesus Ferrer
3294743	Deviani Hongganata

(16 rows)

```
mymy=# select * from q2;
```

unswid	name	course_cnt
--------	------	------------

```
9511757 | Rochayah Machali | 39
(1 row)
```

```
mymy=# select * from q3 order by unswid;
unswid | name
-----+-----
3163431 | Dale Frye
(1 row)
```

```
mymy=# select * from q4 order by unswid;
unswid | name
-----+-----
3031788 | Melinda Uon
3129900 | Veronica Kirkhope
3205692 | Yvette Doumani
3255084 | Yoke Tan Mustafa
3293851 | Jakov Le Hoang
3310373 | Tessa Marinakis
3315968 | Beifang Ai Ximin
3366245 | Aniruddha Jandu
3385445 | Paul Took
(9 rows)
```

```
mymy=# select * from q5a;
term | min_fail_rate
-----+-----
Sem1 2010 | 0.0370
(1 row)
```

```
-- empty record for COMP3311 from 2016 to 2019
mymy=# select * from q5b;
term | min_fail_rate
-----+-----
(0 rows)
```

```
mymy=# select q6(1013430, 'COMP9332');
q6
----
63
(1 row)
```

```
mymy=# select q6(1200044, 'MMAN3210');
q6
----
100
(1 row)
```

```
-- The student didn't enrol in COMP3311
mymy=# select q6(1123474,'COMP3311');
  q6
----

(1 row)


mymy=# select * from q7(2003,'S1') order by code;
  code
-----
COMP4001
COMP4133
COMP4151
COMP4211
COMP4415
COMP9008
COMP9020
COMP9021
COMP9022
COMP9024
COMP9101
COMP9201
COMP9221
COMP9243
COMP9314
COMP9316
COMP9331
COMP9414
(18 rows)


mymy=# select * from q7(2008,'S1') order by code;
  code
-----
COMP4001
COMP4141
COMP4211
COMP4415
COMP4511
COMP9009
COMP9020
COMP9021
COMP9024
COMP9032
COMP9041
COMP9101
COMP9102
COMP9152
COMP9153
COMP9201
COMP9222
COMP9243
COMP9283
```

```

COMP9314
COMP9317
COMP9331
COMP9335
COMP9414
COMP9801
COMP9814
COMP9912
COMP9945
(28 rows)

```

```

my=my=# select * from q7(2013,'S2') order by code;
      code

```

```

-----
COMP4121
COMP4418
COMP9020
COMP9021
COMP9024
COMP9032
COMP9041
COMP9151
COMP9171
COMP9181
COMP9222
COMP9331
COMP9335
COMP9336
COMP9415
COMP9431
COMP9511
COMP9945
(18 rows)

```

```
-- q8 ... term transcripts
```

```
-- empty table for 1234567 as the zid is invalid
```

```

my=my=# select * from q8(1234567);
      term | termwam | termuocpassed
-----+-----+-----
(0 rows)

```

```

my=my=# select * from q8(3489313);
      term | termwam | termuocpassed
-----+-----+-----
12s1 |      82 |           24
12s2 |      69 |           24
13x1 |      74 |           12
OVAL  |      75 |           60
(4 rows)

```

```
mymy=# select * from q8(1053721);
term | termwam | termuocpassed
-----+-----+-----
07a2 |      79 |           24
08s1 |      87 |           18
08s2 |      77 |            6
09s1 |      84 |           18
09s2 |      80 |           18
10x1 |      71 |            6
10s1 |      80 |           12
10s2 |      67 |           12
11s1 |      78 |            6
11s2 |      80 |            6
OVAL |      79 |          126
(11 rows)
```

```
-- the student (3202320) fails all the courses in term 10x1 and 12x1
-- for some terms, i.e. 09s1, the student's course details are shown as follows:
```

```
--   code   | term | mark | grade | uoc
-----+-----+-----+-----+-----
--  COMP1917 | 09s1 |   83 |  DN   |    6
--  ENGG1000 | 09s1 |   65 |  CR   |    6
--  MATH1131 | 09s1 |   46 |  PC   |    6
--  PHYS1121 | 09s1 |   31 |  FL   |    6
```

```
-- Thus, termuocpassed = 6 + 6 + 6 = 18
-- termwam = round(((83 * 6) + (65 * 6) + (46 * 6) + (31 * 6))/(6 + 6 + 6 + 6)) = round(56.25)
```

```
mymy=# select * from q8(3202320);
term | termwam | termuocpassed
-----+-----+-----
09s1 |      56 |           18
09s2 |      56 |           24
10x1 |      37 |            6
10s1 |      48 |           12
10s2 |      41 |           12
11x1 |      47 |            3
11s1 |      55 |           18
11s2 |      65 |           30
12x1 |      38 |            6
12s1 |      55 |           12
12s2 |      53 |           12
OVAL |      52 |          141
(12 rows)
```

```
-- the student (2009693) failed all the courses in term 08s1, 10s1 and 11s2
```

```
mymy=# select * from q8(2009693);
term | termwam | termuocpassed
-----+-----+-----
06s1 |      78 |           26
06s2 |      61 |           20
07a1 |      65 |           21
07a2 |      35 |            4
```

```

08s1 |      30 |
09s2 |      74 |      12
10s1 |      27 |
10s2 |      60 |      6
11s1 |      57 |      12
11s2 |      43 |
OVAL |      53 |      101
(11 rows)

```

```
-- all grades for this student are RC or RS, which are passed-grades and null-mark grades
```

```
mymy=# select * from q8(2261154);
```

```
term | termwam | termuocpassed
```

```
-----+-----
```

```

03s1 |      |      24
03s2 |      |      24
06s1 |      |      24
06s2 |      |      24
OVAL |      |      96

```

```
(5 rows)
```

```
-- Non-existent group ID
```

```
mymy=# select * from q9(1234);
```

```
ERROR:  No such group 1234
```

```
-- Program Groups --
```

```
-- enumerated program groups
```

```
mymy=# select * from q9(20026);
```

```
objtype | objcode
```

```
-----+-----
```

```
program | 3403
```

```
(1 row)
```

```
mymy=# select * from q9(113111) order by objcode;
```

```
objtype | objcode
```

```
-----+-----
```

```
program | 3408
```

```
program | 4054
```

```
program | 4055
```

```
(3 rows)
```

```
mymy=# select * from q9(113167) order by objcode;
```

```
objtype | objcode
```

```
-----+-----
```

```
program | 3648
```

```
program | 3651
```

```
program | 3652
```

```
program | 3653
```

```
program | 3749
```

```
program | 3982
```

```
(6 rows)
```

```
mymy=# select * from q9(116990) order by objcode;
  objtype | objcode
-----+-----
 program | 4405
 program | 4421
 program | 4422
 program | 4423
 program | 4424
 program | 4425
 program | 4430
 program | 4437
 program | 4445
(9 rows)

-- pattern-based program groups

mymy=# select * from q9(115901);
  objtype | objcode
-----+-----
 program | 3426
(1 row)

mymy=# select * from q9(117030) order by objcode;
  objtype | objcode
-----+-----
 program | 5740
 program | 9200
 program | 9210
 program | 9220
 program | 9230
(5 rows)

mymy=# select * from q9(116738) order by objcode;
  objtype | objcode
-----+-----
 program | 4400
 program | 4405
 program | 4421
 program | 4422
 program | 4423
 program | 4424
 program | 4441
 program | 4442
 program | 4443
 program | 4445
(10 rows)

-- Stream Groups --

-- there are no pattern-based stream groups

-- enumerated stream groups
```

```
mymy=# select * from q9(1530) order by objcode;
  objtype | objcode
-----+-----
  stream  | BINFA1
(1 row)
```

```
mymy=# select * from q9(6793) order by objcode;
  objtype | objcode
-----+-----
  stream  | ECONA1
  stream  | ECONE1
  stream  | ECONJ1
(3 rows)
```

```
mymy=# select * from q9(5181) order by objcode;
  objtype | objcode
-----+-----
  stream  | ANATA1
  stream  | BIOCA1
  stream  | BIOCC1
  stream  | BIOCE1
  stream  | BIOSG1
  stream  | BIOTA1
  stream  | FOODH1
  stream  | GEOGG1
  stream  | MATHM1
  stream  | MATHN1
  stream  | MATHT1
  stream  | MATSB1
  stream  | MICRB1
  stream  | MICRC1
  stream  | NEURS1
  stream  | PATHA1
  stream  | PHARA1
  stream  | PHSLA1
  stream  | PSYCA1
  stream  | VISNA1
(20 rows)
```

```
-- Subject Groups --
```

```
-- pattern is 'FREE2###'
```

```
mymy=# select * from q9(1053);
  objtype | objcode
-----+-----
(0 rows)
```

```
-- pattern is 'all/F=ARTSC'
```

```
mymy=# select * from q9(1045);
  objtype | objcode
-----+-----
(0 rows)
```



```
-- pattern is 'GENG####'
omymy=# select * from q9(1371);
 objtype | objcode
-----+-----
(0 rows)

-- pattern is individual course codes, except CEIC100[01]
mymy=# select * from q9(1117) order by objcode;
 objtype |  objcode
-----+-----
subject | BABS1201
subject | BIOM1010
subject | BIOS1301
subject | CEIC1000
subject | CEIC1001
subject | CHEM1011
subject | CHEM1021
subject | CHEM1031
subject | CHEM1041
subject | COMP1921
subject | CVEN1300
subject | CVEN1701
subject | ELEC1111
subject | GEOS1111
subject | GEOS3321
subject | GMAT1110
subject | GMAT1400
subject | MATH1081
subject | MATS1101
subject | MINE1010
subject | MINE1300
subject | MMAN1130
subject | MMAN1300
subject | PHYS1231
subject | PSYC1001
subject | PTRL1010
subject | SOLA1070
(27 rows)

-- pattern is 'COMP3###'
mymy=# select * from q9(1023) order by objcode;
 objtype | objcode
-----+-----
subject | COMP3111
subject | COMP3120
subject | COMP3121
subject | COMP3131
subject | COMP3141
subject | COMP3151
subject | COMP3152
subject | COMP3153
subject | COMP3161
subject | COMP3171
```

```
subject | COMP3211
subject | COMP3221
subject | COMP3222
subject | COMP3231
subject | COMP3241
subject | COMP3311
subject | COMP3331
subject | COMP3411
subject | COMP3421
subject | COMP3431
subject | COMP3441
subject | COMP3511
subject | COMP3601
subject | COMP3710
subject | COMP3711
subject | COMP3720
subject | COMP3821
subject | COMP3881
subject | COMP3891
subject | COMP3901
subject | COMP3902
subject | COMP3931
(32 rows)
```

```
-- enumerated subject groups
```

```
mymy=# select * from q9(7571);
objtype | objcode
-----+-----
subject | ARTS2090
(1 row)
```

```
mymy=# select * from q9(7499);
objtype | objcode
-----+-----
subject | COMP1917
subject | COMP1911
subject | ENGG1811
(3 rows)
```

```
-- subject groups with child groups
```

```
mymy=# select * from q9(1144) order by objcode;
objtype | objcode
-----+-----
subject | CHEM1011
subject | CHEM1031
subject | COMP1911
subject | ENGG1000
subject | ENGG1811
subject | MATH1131
subject | MATH1141
subject | MATH1231
subject | MATH1241
```

```

subject | MATS1101
subject | PHYS1121
subject | PHYS1131
(12 rows)

```

```
mymy=# select * from q9(1166) order by objcode;
```

```

objtype | objcode
-----+-----
subject | BIOM1010
subject | BIOS1301
subject | CEIC1000
subject | CEIC1001
subject | CHEM1011
subject | CHEM1021
subject | CHEM1031
subject | CHEM1041
subject | COMP1921
subject | CVEN1300
subject | CVEN1701
subject | ELEC1111
subject | GEOS1111
subject | GEOS3321
subject | GMAT1110
subject | GMAT1400
subject | MATH1081
subject | MATS1101
subject | MINE1010
subject | MINE1300
subject | MMAN1130
subject | MMAN1300
subject | PHYS1231
subject | PTRL1010
subject | SOLA1070
(25 rows)

```

```
-- Pre-reqs
```

```
-- not a pre-req for anything
```

```
mymy=# select * from q10('COMP9318') order by q10;
```

```

q10
----
(0 rows)

```

```
mymy=# select * from q10('COMP9321') order by q10;
```

```

q10
-----
COMP9322
(1 row)

```

```
mymy=# select * from q10('COMP3311') order by q10;
```

```

q10
-----
COMP4314

```

```
COMP9315
COMP9318
COMP9321
(4 rows)
```

```
mymy=# select * from q10('MMAN2600') order by q10;
      q10
```

```
-----
AERO3630
MECH3204
MECH3540
MECH3601
MECH3602
MECH3610
MECH9620
MECH9720
MECH9751
MMAN3210
NAVL3610
(11 rows)
```

```
mymy=# select * from q10('COMP1927') order by q10;
      q10
```

```
-----
BINF3020
COMP2121
COMP2911
COMP3111
COMP3121
COMP3141
COMP3151
COMP3152
COMP3153
COMP3222
COMP3231
COMP3311
COMP3331
COMP3411
COMP3891
COMP3931
COMP4141
COMP4181
COMP6752
COMP9319
COMP9417
COMP9444
COMP9517
COMP9844
(24 rows)
```

Examples for mymy2

```
mymy2=# select * from q1;
```

```
  unswid |          name
```

```
-----+-----
```

```
3179190 | Akinola Goldberger
```

```
3286128 | Karen Lau
```

```
(2 rows)
```

```
mymy2=# select * from q2;
```

```
  unswid |          name          | course_cnt
```

```
-----+-----+-----
```

```
9511757 | Rochayah Machali |          39
```

```
(1 row)
```

```
mymy2=# select * from q3;
```

```
  unswid |          name
```

```
-----+-----
```

```
3341420 | Betty Liu Chong
```

```
3261810 | Jared Thomas
```

```
3225933 | Jinglan Ren Chaofeng
```

```
3128590 | Lisa Tung
```

```
3119230 | Catherine Matousek
```

```
3049611 | Xianfeng Ma Xue Mei
```

```
3038152 | Glen Paull
```

```
(7 rows)
```

```
mymy2=# select * from q4;
```

```
  unswid |          name
```

```
-----+-----
```

```
3075778 | Gabrielle Hadassin
```

```
3233721 | Adrian Fong
```

```
3246503 | Jialu Wang
```

```
3256340 | Anastasi Spichopoulos
```

```
3273463 | Rodney Haran
```

```
3297644 | Natalia Varas
```

```
3309508 | Brooke Horlyck
```

```
3349456 | Shaoquett Almir
```

```
3350435 | Stuart Trudgeon
```

```
3388096 | Leopold Seeto
```

```
9175698 | Chia- Liu
```

```
(11 rows)
```

```
mymy2=# select * from q5a;
```

```
  term | min_fail_rate
```

```
-----+-----
```

```
(0 rows)
```

```
mymy2=# select * from q5b;
```

```
  term | min_fail_rate
```

```
-----+-----  
2019 T1 |      0.0482  
(1 row)
```

```
mymy2=# select * from q6(1174803, 'COMP9318');  
q6  
----  
73  
(1 row)
```

```
mymy2=# select * from q6(1183756, 'COMM8000');  
q6  
----  
88  
(1 row)
```

```
mymy2=# select * from q6(1194619, 'AVIA5039');  
q6  
----  
56  
(1 row)
```

```
mymy2=# select * from q7(2015, 'S2');  
code  
-----  
COMP9024  
COMP9331  
COMP4418  
COMP9415  
COMP9441  
COMP9336  
COMP9335  
COMP9020  
COMP9021  
COMP9511  
COMP9041  
COMP4121  
COMP9222  
COMP9161  
COMP9431  
COMP9945  
COMP9032  
(17 rows)
```

```
mymy2=# select * from q7(2017, 'S1');  
code  
-----  
COMP9021  
COMP9020  
COMP9945
```

COMP9319
 COMP9414
 COMP4141
 COMP9102
 COMP9024
 COMP9153
 COMP9201
 COMP9331
 COMP9101
 COMP9243
 COMP9801
 COMP9814
 COMP9211
 (16 rows)

my2=# select * from q8(3077101);

term	termwam	termuocpassed
15s1	73	24
15s2	73	24
16s1	73	24
16s2	78	24
17s1	85	18
17s2	81	24
18x1	75	6
18s1	84	24
18s2	80	24
OVAL	78	192

(10 rows)

my2=# select * from q8(3068493);

term	termwam	termuocpassed
15s1	52	12
15s2	37	
16s1	54	18
16s2	59	12
17x1		
17s1	36	6
17s2	33	6
18x1	37	
18s1	53	12
18s2	56	18
19T1	65	12
19T2	64	6
OVAL	48	102

(13 rows)

my2=# select * from q8(3216260);

term	termwam	termuocpassed
------	---------	---------------

17s1		72		24
17s2		83		24
18s1		82		24
18s2		90		18
19T1		89		18
19T2		76		18
19T3		75		15
OVAL		81		141

(8 rows)

```
mymy2=# select * from q9(1144) order by objcode;
objtype | objcode
```

```
-----+-----
subject | CHEM1011
subject | CHEM1031
subject | COMP1911
subject | ENGG1000
subject | ENGG1811
subject | MATH1131
subject | MATH1141
subject | MATH1231
subject | MATH1241
subject | MATS1101
subject | PHYS1121
subject | PHYS1131
(12 rows)
```

```
mymy2=# select * from q9(112270) order by objcode;
objtype | objcode
```

```
-----+-----
program | 5231
program | 5499
program | 5740
program | 5750
program | 7339
program | 8619
program | 9200
program | 9210
program | 9220
program | 9230
program | 9231
(11 rows)
```

```
mymy2=# select * from q9(119393) order by objcode;
objtype | objcode
```

```
-----+-----
subject | DPST1013
subject | DPST1023
subject | MATH1131
subject | MATH1141
subject | PHYS1121
subject | PHYS1131
subject | PHYS1141
```


(7 rows)

```
mymy2=# select * from q9(119460) order by objcode;
```

```
objtype | objcode
```

```
-----+-----
```

```
subject | CVEN1300
```

```
subject | DPST1072
```

```
subject | ENGG1300
```

```
subject | MATH2011
```

```
subject | MATH2018
```

```
subject | MATH2019
```

```
subject | MATH2069
```

```
subject | MATH2111
```

```
subject | MATH2121
```

```
subject | MATH2221
```

```
subject | MINE1300
```

```
subject | MMAN1300
```

(12 rows)

```
mymy2=# select q10('COMP6080') order by q10;
```

```
q10
```

```
-----
```

(0 rows)

```
mymy2=# select q10('COMP1511') order by q10;
```

```
q10
```

```
-----
```

```
COMP1521
```

```
COMP1531
```

```
COMP1927
```

```
COMP2041
```

```
COMP2111
```

```
COMP2121
```

```
COMP2521
```

```
COMP9334
```

```
ELEC2117
```

(9 rows)

```
mymy2=# select q10('COMP3311') order by q10;
```

```
q10
```

```
-----
```

```
COMP4314
```

```
COMP9313
```

```
COMP9315
```

```
COMP9318
```

```
COMP9321
```

```
COMP9323
```

(6 rows)

```
mymy2=# select q10('COMP2521') order by q10;
```

```
q10
```

```
-----
```

```
COMP2511
```

COMP2911
COMP3121
COMP3141
COMP3151
COMP3161
COMP3231
COMP3311
COMP3331
COMP3411
COMP3431
COMP3821
COMP3891
COMP3900
COMP4141
COMP6451
COMP6452
COMP6714
COMP6721
COMP6841
COMP9313
COMP9315
COMP9318
COMP9319
COMP9417
COMP9444
COMP9517
COMP9844
(28 rows)