COMP3311 22T1 Database Systems

Assignment 2
Testing

Last updated: **Monday 28th March 11:30pm**

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

[Assignment Spec] [Database Design] [SQL Schema] **[Testing]** [Sample Outputs] [Fixes+Updates]

A shell script is available to assist with testing:

```
/home/cs3311/web/22T1/assignments/ass2/check
```

Note that the check script can only be used on Linux platforms. For Windows local users, you can run each test case and compare the results manually on your local machine. Then upload your codes and run the check script on d.cse server.

First, get test cases (tests.zip for both Linux and MacOS) and the check script (check for Linux or check for MacOS) into your working directory. Extract test cases from the zip file. Keep them in the tests folder. Below is the commands on the server. Download the files to your home machine by clicking the file names above.

```
vxdb$ cd /localstorage/YourZid
vxdb$ cp /home/cs3311/web/22T1/assignments/ass2/check .
vxdb$ cp /home/cs3311/web/22T1/assignments/ass2/tests.zip .
vxdb$ unzip tests.zip -d tests
Archive:  tests.zip
  inflating: tests/01.expected
 extracting: tests/02.expected
  inflating: tests/03.expected
 extracting: tests/04.expected
 extracting: tests/05.expected
...
```

Put all your Python scripts in the same directory of `check`. If you list all files and directories in your working directory. You should at least have: **check** script, your python scripts **q1.py**, **q2.py**, **q3.py**, **q4.py**, and **tests/** folder which includes all test cases.

```
vxdb$ ls
check q1.py q2.py q3.py q4.py xtras.sql tests tests.zip
```

Next, load the IMDB database if you don't have one or if you want a fresh copy.

```
... login to d.cse and source env as usual ...
vxdb$ dropdb imdb  ... if you already had such a database
vxdb$ createdb imdb
vxdb$ bzcat /home/cs3311/web/22T1/assignments/ass2/database/imdb.dump.bz2 | psql imdb
```

Load **xtras.sql** if you defined any view or function.

```
vxdb$ psql imdb -f xtras.sql
```

Now you can run `check` script to check your outputs and running times. This may take a while, especially if some of your queries are slow.

```
vxdb$ ./check
Test 01 PASSED (.18s)
Test 02 PASSED (.20s)
Test 03 PASSED (.18s)
Test 04 PASSED (.05s)
Test 05 PASSED (.05s)
Test 06 PASSED (.25s)
Test 07 PASSED (.05s)
Test 08 PASSED (.12s)
...
```

Cases 1--6 test `q1.sql`. Cases 7--15 test `q2.sql`. Cases 16--25 test `q3.sql`. Cases 26--39 test `q4.sql`. See the `tests/tests` script file for details of each case. If your output has the same records to the expected one but in an incorrect order, or your output is incorrect, you may get the following messages:

```
vxdb$ ./check
Test 01 Different order (.18s)
Check differences using 'diff tests/01.observed tests/01.expected'
...
Test 10 FAILED (.20s)
Check differences using 'diff tests/10.observed tests/10.expected'
...
```

If you have errors, you can always look at the expected results and compare them manually to your results. If you think that any of our expected results are incorrect, let us know and we can make a new version of `check` that you can reload.