

CMPUT 291/Fall 2020 – Project2 Evaluation

Demo Mark: \_\_\_\_\_/80, Report Mark: \_\_\_\_\_/15, Group Cooperation Mark: \_\_\_\_\_/5,

Total Mark: 97/100. TA: \_\_\_\_\_ Date: \_\_\_\_\_/\_\_\_\_\_/2020

Name	CCID	Present
1.		
2.		
3.		

Member CCID whose code is demoed: \_\_\_\_\_ On time? \_\_\_\_\_

Late submission Penalty: \_\_\_\_\_ (10% for one day late, 20% for two day late, 100% for more)

Edit Penalty: \_\_\_\_\_ (10% for each 1-10 chars edits, 20% for 11-20 chars; 20 edits is the limit)

Bonus: \_\_\_\_\_ (self assessment)

**Phase 1: Building a document store** 8.5 **[10 points]**

Start the program with Port 27012 (or a port that is available) and the test data files (Posts.json, Votes.json and Tags.json) in the current directory. To time the program, start the program as "time python3 ...".

**mongod --port 27012 --dbpath ~/mongodb\_data\_folder &**

Phase 1 must be done under 5min (6min if terms index is created). Otherwise, the mark is zero.

1.5 [3 points] The program is efficient; 1.5 marks if done under .4 min (5min with terms index) and 3 marks if done under 3 min (4min with terms index).

Check using the time function as discussed above.

```
real    4m34.525s
user    2m21.668s
sys     0m10.495s
```

Start a MongoDB client session at Port 27012 and check the followings.

1 [1 points] A database named 291db is created if it does not exist.

Check using "show dbs".

3 [3 points] Collections Post, tags and votes are created successfully (1 mark for each).

Check using "use 291db" followed by "show collections".

1 [3 points] The collections contain the correct data.

Check using "db.Posts.find({Id : "20"})".

**For Group of size 3**      [-3 points]

Check the terms field for Post ID 20 using "db.Posts.find({Id : "20"})". The terms array should look like this:

✓ **"Terms" : [ "you", "have", "upstart", "can", "catch", "the", "shutdown", "event", "and", "run", "script", "when", "caught" ]**

✓      [-3 point] "terms" is NOT added as a field to rows in Posts.

- ✓ [-1 point] Terms of length 1 and 2 are kept.
- ✓ [-1 point] Duplicate terms (case-insensitive) are kept.
- ✓ [-1 point] The terms are NOT indexed.

```
Check using "db.Posts.getIndexes()".

Output: [ { "v" : 2,"key" : { "_id" : 1},"name" : "_id_"},

        { "v" : 2, "key" : { "Terms" : 1}, "name" : "Terms_1" } ]
```

Phase 2: Operating on the document store \_\_\_\_ [70 points]

Operations in Phase 2 are expected to be **instant**, meaning they should be done under 1sec. A search or action that takes more than 1sec will be penalized 1 mark for each additional second up to **50% of the mark**. For example, a search that takes 3sec will lose 2 marks. A search/action that takes more than **10 sec** will be considered as **fail**. While running Phase 2, open a terminal and connect to MongoDB server on the same port to check the database content (when needed).

1. User initial screen 6 [6 points]

- 1 [-1 point] Program asks user to provide a user id.
- a) Input a user id 10, the program will print a report.

the number of questions owned	the average score for those questions	the number of answers owned	average score for those answers	the number of votes registered for the user
1	10	4	7	0

- 1 [-5 point] All elements displayed correctly (-1 point for each mistake).

2. Post a question 14 [14 points]

- a) As User ID "10", ask the following question:

Title	Body	Tags
Problem with SQLite	How to install SQLite?	sqlite, install, software

- 1 [1 points] The post is recorded in the database.
- Check with `db.Posts.find({"Title": "Problem with SQLite" })`
- 1 [2 points] The provided title and body are recorded. (-1 for each missing/incorrect field).
- 1 [1 points] The tags are recorded for the new post.
- 1 [1 points] A unique post id is assigned.
- 1 [1 points] The post type id is set to 1 as it is a question.
- 1 [1 points] The post creation date is set to the current date.
- 2 [2 points] The quantities Score, ViewCount, AnswerCount, CommentCount, and FavoriteCount are all set to zero. (-1 for each incorrect value, 0 point for 2 or more mistakes)
- 1 [1 points] the content license is set to "CC BY-SA 2.5".
- 1 [1 points] The owner user id should be set to the user posting it (10).

```
>db.Tags.find({$or:[{"TagName":"sqlite"}, {"TagName":"install"}, {"TagName":"software"}]})
```

\_\_\_\_ [1 points] The following tags are updated in Tags collection.(Tags are case-insensitive)  
Check with db.Tags.find({"TagName": "sqlite" }) for sqlite and similarly other tags.

Tag ID	Tag name	Count
1837	sqlite	61(was 60) ✓
63	install	60(was 59) ✓

[2 points] The following tag does not exist and is inserted.

Tag ID	Tag name	Count
?(unique tag id)	software	1(was 0) ✓

3. Search for questions <sup>11.5</sup> [13 points]

a) As User ID "10", search with the following keywords: **"Pixelbook"**, **"u201cBinary"**, **"zeroshell"**

The answer should include the following posts(blue indicate the field is optional):

Post Id	Title	Post type id	CreationDate	Score	Answer Count
419047	Routing from 2 WAN to same LAN ✓	1	2018-01-23T10:02:15.587	1	1
146848	How is it possible that dpkg isn't necessary for installing deb packages? ✗	1	2014-07-24T20:31:33.460	3	4
473203	Performance of Linux Apps on Chrome OS ✓	1	2018-10-04T11:06:16.343	3	1
600493	Self signed SSL in Zeroshell ✓	1	2020-07-27T05:28:34.370	0	0
555524	Replace racoon with strongswan ✓	1	2019-12-04T10:20:29.623	0	1
499659	LINUX: tar: You may not specify more than one '-Acdrux', '--delete' or '--test-label' option ✓	1	2019-02-09T15:54:53.120	-1	3
525501	Airmon-ng not working on Crostini ✓	1	2019-06-17T20:02:21.757	1	0
563311	Bypass X forwarding to sommelier during XRDP session (via xorg) on Crostini ✓	1	2020-01-22T00:33:37.700	0	1

6.5 [8 points] All rows are correctly returned (-1.5 for each missing/extra row, -1.5 for each missing/wrong value).

b) Select Post Id "499659", Title: "LINUX: tar: You may not specify..."

This result should be shown.

Id	499659
PostTypeId	1
AcceptedAnswerId	499662
CreationDate	2019-02-09T15:54:53.120
Score	-1
ViewCount	3647 (was 3646)
Body	<p><code>sudo tar xuzf splunk-7.2.4-8a94541dcfac-Linux-x86_64.tgz -C /opt</code></p>\n\n<p>I get the following .....
OwnerUserId	336042
LastEditorUserId	138261
LastEditDate	2019-02-09T16:14:47.570
LastActivityDate	2019-02-09T16:14:47.570
Title	LINUX: tar: You may not specify more than one '-Acctrux', '--delete' or '--test-label' option
Tags	<linux><tar><chrome-os>
AnswerCount	3
CommentCount	2
ContentLicense	CC BY-SA 4.0

1 [1 points] The post can be selected for post actions.

2 [2 points] All fields are shown(-1 for each missing field).

2 [2 points] After a question is selected, the view count of the question is increased by one. (The new "ViewCount" should be 3647; if the result shows the old viewCount, then use db.Posts.find({"Id":"499659"}) to check if the database is updated);

4. Question action-Answer 2 [12 points]

a) As user ID "10", select post ID "499659" from last search and post an answer.

Try to answer the question with the following text.

Text	Check the document on LINUX website.
------	--------------------------------------

>db.Posts.find({"Body":"Check the document on LINUX website."})

1 [1 points] The answer is inserted into the database.

1 [1 points] A unique pid is assigned.

1 [1 points] The post type ID is set to 2.

- 1

[1 points] The post date is set to the current date.
- 1

[1 points] The parent id should be set to the id of the question (499659).
- 2

[2 points] Quantities Score and CommentCount are all set to zero. (-1 for each incorrect quantity)
- 1

[1 points] the content license is set to "CC BY-SA 2.5".
- 1

[1 point] the owner user id should be set to the user posting it (10)

5. Question action-List answers 9 [9 points]

a) As user ID "10", search for questions with the keyword "CMPUT291". Select post ID 5, which is the only match.

Post Id	Title	Post type id	CreationDate	Score	Answer Count
5	On Linux, is there an rc.local equivalent for shutdown?	1	2010-08-10T19:37:25.837	11	5

Once the question has been selected, list all the answers associated with this question.

Post ID	Post type ID	Body(first 80 characters)	Creation date	score
8*	2	<p>Not really (at least, to my knowledge).</p>\n\n<p>If you've got SystemV styl	2010-08-10T19:39:46.827	8
20	2	<p>If you have upstart, you can catch the shutdown event and run a script when i	2010-08-10T19:44:31.123	1
1688	2	<p><a href=\"http://wiki.archlinux.org/index.php/Arch_VServer#.2Fetc.2Frc.shutdown	2010-09-06T21:44:47.807	4
3408	2	<p>In <a href=\"http://gentoo.org\" rel=\"nofollow\">Gentoo</a> the \"local\" sc	2010-10-22T15:18:31.677	1
18703	2	<p>It is generally possible, but depends on the init-scripts system you have. If	2011-08-14T00:07:17.877	3

- 5

[5 points] Fields body, creation date and score are shown correctly for all 5 rows. (-1 for each missing/incorrect value)
- 2

[2 point] Accepted answer is in the first row and is marked (e.g. with a \*). (-1 if not the first row, another -1 if not marked)

1 [1 point] Only the first 80 characters of the body are shown.

b) select answer with Post ID 8. This result should display

Id	8
PostTypeId	2
ParentId	5
CreationDate	2010-08-10T19:39:46.827
Score	8
Body	<p>Not really (at least, to my knowledge).</p>\n\n<p>If you've got SystemV styl .....
OwnerUserId	22
LastEditorUserId	33055
LastEditDate	2013-04-28T19:45:13.400
LastActivityDate	2013-04-28T19:45:13.400
CommentCount	0
ContentLicense	CC BY-SA 3.0

Select answer with Post ID 8

1 [1 point] The user should be able to select an answer to see all fields of the answer from Posts.

6. Question/Answer action-Vote 7 [7 points]

As user ID "10", from the last listing, select answer with Post ID 8 and vote on the post.

1 [1 points] The vote is recorded in Votes collection with a unique vote id.

>db.Votes.find({"PostId":"8"})

1 [1 points] the post id set to the 8.

1 [1 points] vote type id set to 2.

1 [1 points] the creation date set to the current date.

1 [1 points] User ID is set to be 10.

1 [1 points] The score field in Posts is increased to 9.(Originally the score was 8)

>db.Posts.find({"Id":"8"})

1 [1 points] Attempt to vote again; The vote is rejected for the second time.

7. Anonymous user operations      [9 points]

a) Start the program with no user id.

1 [1 point] No report is shown. The program shows the list of operations.

b) Search for "**Pixelbook**" and select post ID 499659, Title: "LINUX: tar: You may not specify...".

Answer the question with the following text.

Text	Check the document on ChromeOS website.
------	---

1.5 [1.5 point] The answer is recorded.

>db.Posts.find({"Body":"Check the document on ChromeOS website."})

1.5 [1.5 point] The answer does not have the "OwnerId" field.

c) Try to vote post ID 499659 without a user id.

2[2 points] Attempt to vote this post twice; both votes are successfully recorded in Votes.

>db.Votes.find({"PostId":"499659"})

1 [1 points] User ID is not added. ✗

2 [2 points] The score field in Posts is increased by two (before:-1, after:1). ✓

>db.Posts.find({"Id":"499659"})

For Group of size 3 \_\_\_\_ [-2 points]

✓ \_\_\_\_ [-2 points] The indexed terms are NOT used when searching for questions using keywords.  
Check the code for this.

Main menu \_\_\_\_ [-6 points]

✓ \_\_\_\_ [-1 point] Program does not properly guide the users to perform the tasks.

✓ \_\_\_\_ [-3 points] The system terminates only if the user explicitly chooses to do so (deduct 1 mark for each inappropriate termination with the maximum deduction of 3)

✓ \_\_\_\_ [-1 point] After each action, the user could not return to the main menu for further operations.

✓ \_\_\_\_ [-1 point] There isn't an option to end the program.

Reports \_\_\_\_ [15 points]

✓ \_\_\_\_ [4 points] General overview of the system with a small user guide

✓ \_\_\_\_ [4 points] A detailed design of the software with a focus on the components required to deliver the major functions of the application.

✓ \_\_\_\_ [3 points] Testing strategy

✓ \_\_\_\_ [4 points] Source code quality: easy to read and properly commented code (1 mark)

Group Cooperation \_\_\_\_ [5 points]

✓ \_\_\_\_ [1.5 point] The project break-down between partners is well-explained.

✓ \_\_\_\_ [1.5 point] the time spent and the progress made for each partner is stated.

✓ \_\_\_\_ [1 point] the person responsible for each task is stated.

✓ \_\_\_\_ [1 point] the method of coordination is discussed.

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