Part one: Schema creation and Data loading part:

a) If table are already present then run (clean\_data.sql) in sqlldr

b) Run majestic\_schema.sql file to create the schema/table.

c) TO load the data in to the table need to run (load\_data.sh) file

First make it executable using chmod +x load\_data.sh

then (./load\_data.sh <username> <password>)

Then in my case below time is being taken by following table

Table MAJESTIC:

1000000 Rows successfully loaded.

Check the log file:

load\_majestic.log

for more information about the load.

19 seconds (it is time taken)

Table MAJESTIC\_INDEX1:

1000000 Rows successfully loaded.

Check the log file:

load\_majestic\_index1.log

for more information about the load.

29 seconds (it is time taken)

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Table MAJESTIC\_INDEX2:

1000000 Rows successfully loaded.

Check the log file:

load\_majestic\_index2.log

for more information about the load.

23 seconds (it is time taken)

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Table MAJESTIC\_INDEX3:

1000000 Rows successfully loaded.

Check the log file:

load\_majestic\_index3.log

for more information about the load.

31 seconds (it is time taken)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

D) EXECUTING QUERY TIMING

first write " set timing on"

then execute query

for sql "@Assigment3/query\_india\_domains"

Majestic

3084 rows selected.

Elapsed: 00:00:00.12

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Majestic\_Index1

3084 rows selected.

Elapsed: 00:00:00.07

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Majestic\_Index2

3084 rows selected.

Elapsed: 00:00:00.11

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Majestic\_Index3

3084 rows selected.

Elapsed: 00:00:00.06

--------------------------------------------------

For sql "@Assigment3/query\_top\_domains"

Majestic

62 rows selected.

Elapsed: 00:00:00.06

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Majestic\_Index1

62 rows selected.

Elapsed: 00:00:00.41

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Majestic\_Index2

62 rows selected.

Elapsed: 00:00:00.01

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Majestic\_Index3

62 rows selected.

Elapsed: 00:00:01.17

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For sql query @Assigment3/query\_wikipedia

Majestic

GLOBALRANK

----------

7

Elapsed: 00:00:00.06

Majestic\_Index1

GLOBALRANK

----------

7

Elapsed: 00:00:00.09

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Majestic\_Index2

GLOBALRANK

----------

7

Majestic\_Index3

Elapsed: 00:00:00.05

GLOBALRANK

----------

7

Elapsed: 00:00:00.08

-----------------------------------------------------------------------

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part two: Node js programming with web:**

In order to start first run below command

Step 1:First install the all the require NPM module

npm install mustachex

npm install express

npm install body-parser

npm install oracledb

**Step 2: Run the export.sh file to import the all the required path**

TO make it executable CHMODE +x export.sh

RUN : ./export.sh

Or run below commands:

export LD\_LIBRARY\_PATH=/people/cs/m/mxb135330/software/instantclient:$LD\_LIBRARY\_PATH

export OCI\_LIB\_DIR=/people/cs/m/mxb135330/software/instantclient

export OCI\_INC\_DIR=/people/cs/m/mxb135330/software/instantclient/sdk/include

export PATH=/people/cs/m/mxb135330/software/nodejs-0.12.7/bin:$PATH

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a) Then node majestic.js <username> <password> <port>

once port 6363 is running then below are the url to check the following qurey:

b) To find out the ranking of the domain:

**example : input : facebook.com**

**output: Global Rank: 2**

**Domain: facebook.com**

For no index i,e majestic: http://csgrads1.utdallas.edu:6363/domain/no\_idx

For majestic index1 : http://csgrads1.utdallas.edu:6363/domain/idx1

For majestic index2 : http://csgrads1.utdallas.edu:6363/domain/idx3

For majestic index3 : http://csgrads1.utdallas.edu:6363/domain/idx3

c) To find out the all the TLD belongs to certain Domain:

For no index i,e majestic: http://csgrads1.utdallas.edu:6363/tld/no\_idx

For majestic index1 : http://csgrads1.utdallas.edu:6363/tld/idx1

For majestic index2 : http://csgrads1.utdallas.edu:6363/tld/idx3

For majestic index3 : http://csgrads1.utdallas.edu:6363/tld/idx3

If user input the incorrect input or something went wrong the corresponding error page will be displayed.

No Domain with such name in MAJESTIC

No Domain with such name in MAJESTIC\_INDEX1

No Domain with such name in MAJESTIC\_INDEX2

No Domain with such name in MAJESTIC\_INDEX3

Invalid Entry for TLD

d)

Same thing can be done for Majestic2.js file.

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Part3:

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Curl\_testing

Below commands are present in query1\_curl, and query2\_curl files and to run all the below query at the same you need to run these two files

.Before running you might need to make it executable.

Before executing this first run the majestic.js file in one putty session and then you need to open another putty session to run the below commands to

see the result.

time curl --data "tld=in" http://csgrads1.utdallas.edu:6363/search\_no\_idx

real 0m0.217s

user 0m0.003s

sys 0m0.002s

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

time curl --data "tld=in" http://csgrads1.utdallas.edu:6363/search\_idx1

real 0m0.209s

user 0m0.003s

sys 0m0.002s

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

time curl --data "tld=in" http://csgrads1.utdallas.edu:6363/search\_idx2

real 0m0.218s

user 0m0.001s

sys 0m0.004s

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

time curl --data "tld=in" http://csgrads1.utdallas.edu:6363/search\_idx3

real 0m0.588s

user 0m0.002s

sys 0m0.003s

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CURL testing for tld query

Type below command: and will get result

time curl --data "tld=in" http://csgrads1.utdallas.edu:6363/search\_tld\_no\_idx

real 0m0.229s

user 0m0.002s

sys 0m0.004s

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

time curl --data "tld=in" http://csgrads1.utdallas.edu:6363/search\_tld\_idx1

real 0m0.166s

user 0m0.002s

sys 0m0.004s

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

time curl --data "tld=in" http://csgrads1.utdallas.edu:6363/search\_tld\_idx2

real 0m0.168s

user 0m0.002s

sys 0m0.003s

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

time curl --data "tld=in" http://csgrads1.utdallas.edu:6363/search\_tld\_idx3

real 0m0.166s

user 0m0.001s

sys 0m0.004s

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Apache JMeter Testing:

There are two js files :

1. Majestic.js

2. Majestic2.js (with implementation of ORAWRAP)

Name of the test plan = mentions the JMX file name of our test plan.

Result Tab = mentions the name of the result tab in Jmeter\_result.xlsx.

Name of the test plan Result Tab

domain\_no\_idx.jmx Query\_1\_no\_idx

indomain\_idx1.jmx Query\_1\_idx1

domain\_idx2.jmx Query\_1\_idx2

domain\_idx3.jmx Query\_1\_idx3

tld\_no\_idx.jmx Query\_2\_no\_idx

tld\_idx1.jmx Query\_2\_idx1

tld\_idx2.jmx Query\_2\_idx2

tld\_idx3.jmx Query\_2\_idx3

NOTE: After allexamination of Jmeter test plan, we observe that the Jmeter Test Output in

“Majestic.js” has large values for maximum time taken as compared to “Majestic2.js”.

Also we see throughput decreased significantly for Jmeter Test with implementation of module Orawrap.

So with implementation of Orawrap will help us handle more concurrent user at the same time and it

Provides optimized solution.