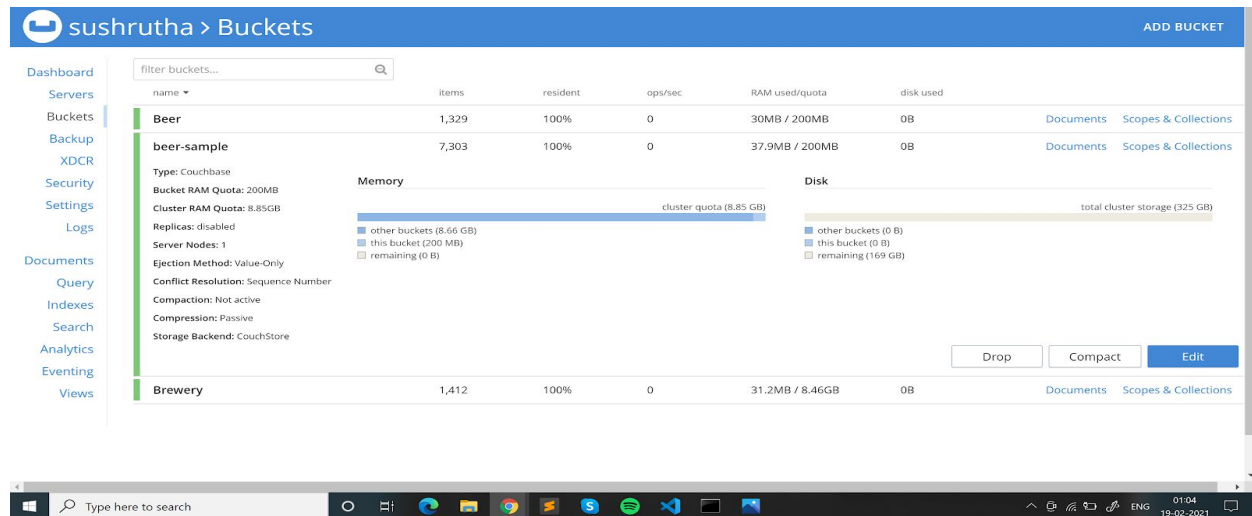


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Assignment:

1. Import 'beer-sample' bucket

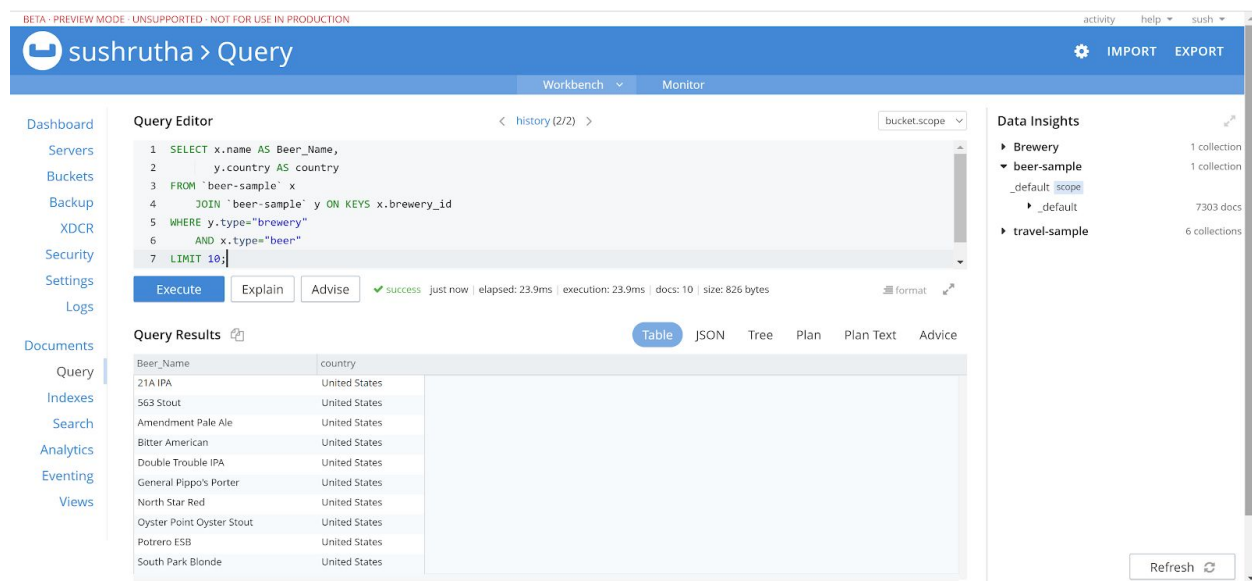


The screenshot shows the Couchbase Cloud 'Buckets' page for user 'sushrutha'. The 'Beer' bucket is selected, displaying its configuration and usage. The 'Memory' bar shows 37.9MB / 200MB used, and the 'Disk' bar shows 0B / 325 GB used. The 'Beer' bucket has 1,329 items, 100% resident, and 0 ops/sec. The 'Brewery' bucket has 1,412 items, 100% resident, and 0 ops/sec.

2. Write a join query to fetch the Top 10 brewery(type="beer") and their country(type="brewery") which produces more varieties of beers.

Query:

```
SELECT x.name AS Beer_Name,  
       y.country AS country  
FROM `beer-sample` x  
JOIN `beer-sample` y ON KEYS x.brewery_id  
WHERE y.type="brewery"  
AND x.type="beer"  
LIMIT 10;
```



The screenshot shows the Couchbase Cloud 'Query' page. The query editor contains the SQL query. The 'Query Results' tab is active, displaying a table with 10 rows of results. The 'Data Insights' panel on the right shows the collection 'beer-sample' with 7303 docs.

Beer_Name	country
21A IPA	United States
563 Stout	United States
Amendment Pale Ale	United States
Bitter American	United States
Double Trouble IPA	United States
General Pippo's Porter	United States
North Star Red	United States
Oyster Point Oyster Stout	United States
Potrero ESB	United States
South Park Blonde	United States

3. Write a mapreduce to get the number of breweries based on country.
Please attach the mapreduce code and json output screenshot.

CODE:

The screenshot shows a MapReduce job interface. On the left, the Map function is defined as follows:

```
function (doc, meta) {
  if(doc.type=="brewery")
    emit(doc.country, null);
}
```

On the right, the Reduce function is shown as:

```
1 _count
```

Below the code, there are buttons for "Make Copy" and "Save Changes". At the bottom, there is a "Results" section with a filter: "filter: ?limit=6&stale=false&connection_timeout=60000&inclusive_end=true&skip=0&full_set=true&group=true". There are also buttons for "Development Time Subset", "Full Cluster Data Set", and "Show Results".

OUTPUT:

The screenshot shows a web browser displaying the JSON output of the MapReduce job. The output is as follows:

```
{
  "rows": [
    {
      "key": "",
      "value": 1
    },
    {
      "key": "Argentina",
      "value": 2
    },
    {
      "key": "Aruba",
      "value": 1
    },
    {
      "key": "Australia",
      "value": 14
    },
    {
      "key": "Austria",
      "value": 10
    },
    {
      "key": "Belgium",
      "value": 99
    }
  ]
}
```

4. XDCR:

a) Add a new bucket "Brewery".

The screenshot shows the Couchbase bucket configuration page for a bucket named "Brewery". The page displays various settings and metrics:

- Type:** Couchbase
- Bucket RAM Quota:** 8.46GB
- Cluster RAM Quota:** 8.85GB
- Replicas:** 1
- Server Nodes:** 1
- Ejection Method:** Value-Only
- Conflict Resolution:** Sequence Number
- Compaction:** Not active
- Compression:** Passive
- Storage Backend:** CouchStore

On the right, there are two bar charts:

- Memory:** A bar chart showing the memory usage of the bucket. The cluster quota is 8.85 GB. The bucket is using 8.46 GB, leaving 400 MB for other buckets.
- Disk:** A bar chart showing the disk usage of the bucket. The total cluster storage is 325 GB. The bucket is using 0 B, leaving 169 GB for other buckets.

At the bottom right, there are buttons for "Drop", "Compact", and "Edit".

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b) Create a XDCR with a filter(type='brewery') to replicate only the brewery entity from 'beer-sample' bucket.

The screenshot shows the Couchbase XDCR Replications page. The left sidebar contains navigation links: Dashboard, Servers, Buckets, Backup, XDCR, Security, Settings, Logs, Documents, Query, Indexes, Search, Analytics, Eventing, and Views. The main content area is titled 'sushrutha > XDCR Replications' and includes buttons for 'ADD REPLICATION' and 'ADD REMOTE'. It displays a table of 'Remote Clusters' with one entry: 'Sushrutha' at IP '127.0.0.1:8091'. Below this is the 'Outgoing Replications' section, showing a replication from source bucket 'beer-sample' to destination bucket 'Brewery' on remote cluster 'Sushrutha', with status 'replicating'. An 'Active Filters' dropdown is open, showing the filter 'REGEXP_CONTAINS(type,"brewery")'.

5. CLI:

a) Add a new bucket "Beer".

The screenshot shows the Couchbase Buckets interface. The left sidebar contains navigation links: Dashboard, Servers, Buckets, Backup, XDCR, Security, Settings, Logs, Documents, Query, Indexes, Search, Analytics, Eventing, and Views. The main content area is titled 'filter buckets...' and shows a table of buckets. The 'Beer' bucket is selected, showing details: Type: Couchbase, Bucket RAM Quota: 200MB, Cluster RAM Quota: 8.85GB, Replicas: 1, Server Nodes: 1, Ejection Method: Value-Only, Conflict Resolution: Sequence Number, Compaction: Not active, Compression: Passive, Storage Backend: CouchStore. Below the details are 'Memory' and 'Disk' usage charts. A 'Command Prompt' window is open in the foreground, showing the command: `c:\Program Files\Couchbase\Server\bin>couchbase-cli bucket-create -c couchbase://127.0.0.1 --username Administrator --password Accolite@11 --bucket Beer --bucket-type couchbase --bucket-ramsize 200` and the output: `SUCCESS: Bucket created`.

b) Using CLI - do a cbexport of the entire `beer-sample`

```

Command Prompt

C:\Program Files\Couchbase\Server\bin>cbexport json -c couchbase://127.0.0.1 -u Administrator -p Accolite@11 -b beer-sample -o D:/beer-sample.json -f lines -t 4
JSON exported to 'D:/beer-sample.json' successfully
Documents exported: 7303 Documents skipped: 0

C:\Program Files\Couchbase\Server\bin>
    
```

c) And do a cbimport with “brewery_id” as primary key. As a result, in the new bucket - only “beer” documents will be imported with their respective brewery name as meta().id

BETA · PREVIEW MODE · UNSUPPORTED · NOT FOR USE IN PRODUCTION

activity help sush

sushrutha > Buckets

ADD_BUCKET

Dashboard

Servers

Buckets

Backup

XDCR

Security

Settings

Logs

Documents

Query

Indexes

Search

Analytics

Eventing

Views

filter buckets...

name	items	resident	ops/sec	RAM used/quota	disk used
Beer	1,329	100%	0	30MB / 200MB	0B

Type: Couchbase

Bucket RAM Quota: 200MB

Cluster RAM Quota: 8.85GB

Replicas: 1

Server Nodes: 1

Ejection Method: Value-Only

Conflict Resolution: Sequence Number

Compaction: Not active

Compression: Passive

Storage Backend: CouchStore

Memory

cluster quota (8.85 GB)

other buckets (8.66 GB)

this bucket (200 MB)

remaining (0 B)

Disk

total cluster storage (325 GB)

other buckets (0 B)

this bucket (0 B)

remaining (166 GB)

beer-sample

Brewery

Documents

Scopes & Collections

Command Prompt

```

C:\Program Files\Couchbase\Server\bin>cbimport json -c couchbase://127.0.0.1 -u Administrator -p Accolite@11 -b Beer -f lines -d file://D:/beer-sample.json -t 4 -g %brewery_id%
2021-02-19T00:51:28.516+05:30 ERROR: Failed to import document 5: Error in key expression at char 0, field 'brewery_id' does not exist -- jsontextdata.(*JSONSource).handleError() at source.go:379
2021-02-19T00:51:28.518+05:30 ERROR: Failed to import document 9: Error in key expression at char 0, field 'brewery_id' does not exist -- jsontextdata.(*JSONSource).handleError() at source.go:379
2021-02-19T00:51:28.522+05:30 ERROR: Failed to import document 11: Error in key expression at char 0, field 'brewery_id' does not exist -- jsontextdata.(*JSONSource).handleError() at source.go:379
2021-02-19T00:51:28.523+05:30 ERROR: Failed to import document 25: Error in key expression at char 0, field 'brewery_id' does not exist -- jsontextdata.(*JSONSource).handleError() at source.go:379
2021-02-19T00:51:28.523+05:30 ERROR: Failed to import document 1: Error in key expression at char 0, field 'brewery_id' does not exist -- jsontextdata.(*JSONSource).handleError() at source.go:379
2021-02-19T00:51:28.523+05:30 ERROR: Failed to import document 16: Error in key expression at char 0, field 'brewery_id' does not exist -- jsontextdata.(*JSONSource).handleError() at source.go:379
2021-02-19T00:51:28.523+05:30 ERROR: Failed to import document 24: Error in key expression at char 0, field 'brewery_id' does not exist -- jsontextdata.(*JSONSource).handleError() at source.go:379
2021-02-19T00:51:28.523+05:30 ERROR: Failed to import document 30: Error in key expression at char 0, field 'brewery_id'
    
```

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d) Share your observation on counts with screenshot.

