

1. Import `beer-sample` bucket.

The screenshot shows a web browser window displaying the 'my-cluster > Buckets' page. The browser's address bar shows the URL: `localhost:8091/ui/index.html#/buckets?scenarioBucket=beer-sample&scenarioZoom=minute&scenario=7iez5js8c`. The page has a blue header with the 'my-cluster' logo and a search bar. A sidebar on the left contains navigation links: Dashboard, Servers, Buckets (selected), XDCR, Security, Settings, Logs, Documents, Query, Indexes, Search, Analytics, Eventing, and Views. The main content area displays a table of buckets with the following data:

name	items	resident	ops/sec	RAM used/quota	disk used	
beer	1,329	100%	0	30.7MB / 2.47GB	25.3MB	Documents Statistics
beer-sample	7,303	42.5%	0	38.6MB / 100MB	48.8MB	Documents Statistics
brewery	7,303	100%	0	33.3MB / 3.9GB	10.4MB	Documents Statistics

The Windows taskbar at the bottom shows the search bar with the text 'Type here to search', several application icons, and the system clock displaying '23:43' and '18/02/2021'.

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 beer.name AS Brewery_Name,  
       brewery.country AS Country  
FROM `beer-sample` beer  
      INNER JOIN `beer-sample` brewery ON KEYS  
beer.brewery_id  
WHERE beer.type="beer"  
      AND brewery.type="brewery"  
LIMIT 10;
```

The screenshot displays the Google Cloud Platform Query Editor interface. The top navigation bar includes the 'my-cluster' logo and a 'Query' dropdown menu. Below this, there are tabs for 'Query Workbench' and 'Query Monitor'. The main area is divided into three sections: 'Query Editor', 'Query Results', and a schema view on the right.

Query Editor: The SQL query is entered in the editor, and the 'Execute' button is highlighted. The status bar indicates the query was successful, executed 4 minutes ago, and returned 10 documents.

Query Results: The results are displayed in a table with two columns: 'Brewery_Name' and 'Country'. The table shows the top 10 breweries based on the number of beer varieties they produce.

Brewery_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

Schema View: The right-hand side shows the schema for the 'beer-sample' dataset. It lists fields for 'type' (beer and brewery) and their respective attributes, such as 'abv', 'brewery_id', 'category', 'description', 'ibu', 'name', 'srm', 'style', 'type', 'upc', 'updated', 'address', 'city', 'code', 'country', 'description', 'geo', 'name', 'phone', 'state', 'type', 'updated', and 'website'.

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

Map:

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

Reduce (built in: [_count](#), [_sum](#), [_stats](#))

```
_count
```

1

Output:

Please see the next page.

localhost:8091/ui/index.html#/views/_design~2Fdev_my-view?scenarioBucket=beer-sample&scenarioZoom=minute&scenario=7iez5js0c&bucket=beer-sample&type=development&vi...

Settings
Logs
Documents
Query
Indexes
Search
Analytics
Eventing
Views

```
7  "srm": 0.0,  
8  "type": "beer",  
9  "upc": 0,  
10 "updated": "2010-07-22 20:00:20"  
11 }
```

View Index Code

Map

```
1 function (doc, meta) {  
2   if(doc.type=="brewery")  
3     emit(doc.country, null);  
4 }
```

Reduce (built in: _count, _sum, _stats)

```
1 _count
```

Make Copy Save Changes

Results filter: ?limit=6&stale=false&connection_timeout=60000&inclusive_end=true&skip=18&full_set=&group=true

Development Time Subset Full Cluster Data Set

< > Show Results

Key Value

Apps Gmail YouTube Maps 30 Cool CSS Anima... Foobar_Challenge/... Meet - ijn-brcn-xjn manideep-1/SAU-2... srinivasa-sameer/S... SAU'21 Feb Batch 2

Results filter: ?limit=6&stale=false&connection_timeout=60000&inclusive_end=true&skip=18&full_set=&group=true

Development Time Subset Full Cluster Data Set

< > Show Results

Key	Value
"Estonia" undefined	1
"Finland" undefined	2
"France" undefined	11
"French Polynesia" undefined	1
"Germany" undefined	117
"Greece" undefined	2

4. XDCR:

- Add a new bucket “Brewery”.
- Create a XDCR with a filter(type='brewery') to replicate only the brewery entity from 'beer-sample' bucket.

The screenshot shows the Elasticsearch XDCR Replications page in a web browser. The browser's address bar shows the URL: `localhost:8091/ui/index.html#!/replications?scenarioBucket=beer-sample&scenarioZoom=minute&scenario=7iez5js8c`. The page title is "my-cluster > XDCR Replications". On the right, there are buttons for "ADD REPLICATION" and "ADD REMOTE".

On the left sidebar, the "XDCR" menu item is selected. The main content area is titled "Remote Clusters" and shows a table with the following data:

name	IP/hostname
my-cluster	127.0.0.1:8091

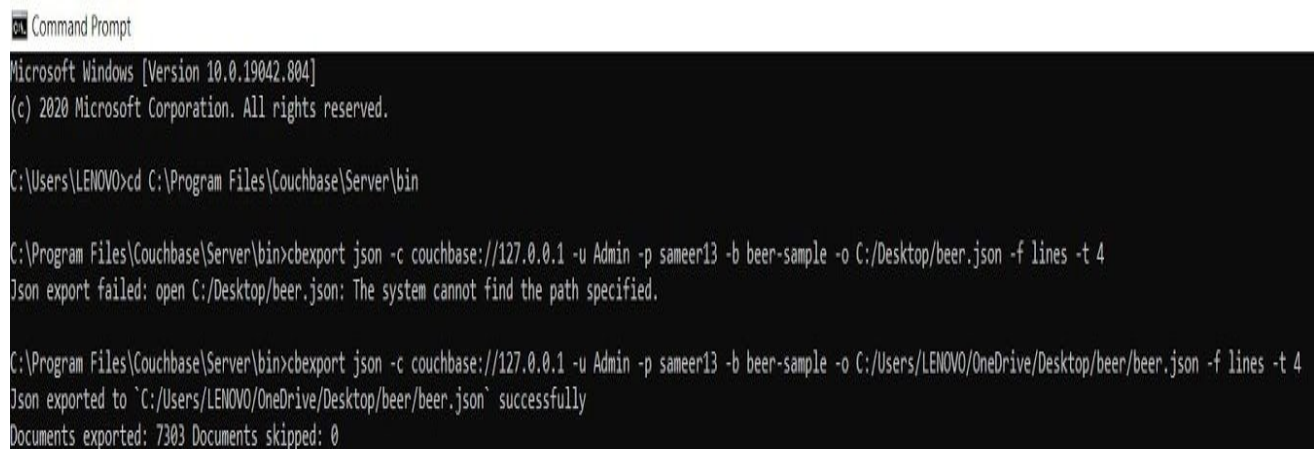
Below the "Remote Clusters" table, there is a section for "Active Filters" with a dropdown menu showing "type='brewery'". Below this, there is a table showing the replication details:

source bucket	destination bucket	remote cluster	status	actions
beer-sample	brewery	my-cluster	replicating	<button>Delete</button> <button>Edit</button> <button>Pause</button>

At the bottom of the page, there is a section for "XDCR Stats" with a right arrow icon.

5. CLI:

- a) Add a new bucket “Beer”.
- b) Using CLI - do a cbexport of the entire `beer-sample`
- 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
- d) Share your observation on counts with screenshot.



```
Command Prompt
Microsoft Windows [Version 10.0.19042.804]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\LENOVO>cd C:\Program Files\Couchbase\Server\bin

C:\Program Files\Couchbase\Server\bin>cbexport json -c couchbase://127.0.0.1 -u Admin -p sameer13 -b beer-sample -o C:/Desktop/beer.json -f lines -t 4
Json export failed: open C:/Desktop/beer.json: The system cannot find the path specified.

C:\Program Files\Couchbase\Server\bin>cbexport json -c couchbase://127.0.0.1 -u Admin -p sameer13 -b beer-sample -o C:/Users/LENOVO/OneDrive/Desktop/beer/beer.json -f lines -t 4
Json exported to `C:/Users/LENOVO/OneDrive/Desktop/beer/beer.json` successfully
Documents exported: 7303 Documents skipped: 0
```

localhost:8091/ui/index.html#/documents/editor?scenarioBucket=beer-sample&scenarioZoom=minute&scenario=7iez5js8c&bucket=beer

my-cluster > Documents

CLASSIC EDITOR ADD DOCUMENT

Dashboard Servers Buckets XDCR Security Settings Logs Documents Query Indexes Search Analytics Eventing Views

Bucket: beer show top keys Limit: 100 Offset: 0

100 Results for beer, limit: 100, offset: 0

id 21st_amendme 3_fontein... zestekerij 512_brewing co aass_brewery abbaye_de_jeff abbaye_de_ma abbaye_notre_dame_00_s... aberdeen_brewing

Edit Document

21st_amendment_brewery_cafe Q Data Metadata

```
1 {
2   "meta": {
3     "id": "21st_amendment_brewery_cafe",
4     "rev": "11-1664e751996600000000000000000000",
5     "expiration": 0,
6     "flags": 33554438,
7     "type": "json"
8   },
9   "xattrs": {}
10 }
```

Cancel Save

malt aroma. Medium mouth feel with malt e:"American-Style Pa... mbachtelijke_geuzestekerij","description": "00:20","abv":5,"c... erman-style amber ale that is fermented fold" in German and ref... description:"The Norwegian Juleøl can be en or Blonde Ales are one of the fastest growing beer sy drinking Blonde with a... ("category": "Belgian and French Ale", description: "Reddish-brown colour, with a very compact head and an aroma of figs, feels like honey in the mouth. The alcohol profile is a major component in the... ("description":"","ibu":0,"name":"Scottish Ale","srm":0,"type":"beer","updated":"2010-07-22 20:00:20","abv":4.8,"brewery_id":"aberdeen_brewing","upc":0)

Type here to search

ENG IN 22:55 18/02/2021

localhost:8091/ui/index.html#/documents/editor?scenarioBucket=beer-sample&scenarioZoom=minute&scenario=7iez5js8c&bucket=beer

my-cluster > Documents

CLASSIC EDITOR ADD DOCUMENT

Dashboard Servers Buckets XDCR Security Settings Logs Documents Query Indexes Search Analytics Eventing Views

Bucket: beer show top keys Limit: 100 Offset: 0

100 Results for beer, limit: 100, offset: 0

id 21st_amendme 3_fontein... zestekerij 512_brewing co aass_brewery abbaye_de_jeff abbaye_de_ma abbaye_notre_dame_00_s... aberdeen_brewing

Edit Document

21st_amendment_brewery_cafe Q Data Metadata

```
1 {
2   "abv": 5.2,
3   "description": "Rich golden hue color. Floral hop with sweet malt aroma. Medium mouth feel with malt sweetness, hop quenching flavor and well-balanced bitterness.",
4   "style": "American-Style Pale Ale",
5   "type": "beer",
6   "brewery_id": "21st_amendment_brewery_cafe",
7   "category": "North American Ale",
8   "ibu": 0,
9   "name": "Amendment Pale Ale",
10  "srm": 0,
11  "upc": 0,
12  "updated": "2010-07-22 20:00:20"
13 }
```

Cancel Save

malt aroma. Medium mouth feel with malt e:"American-Style Pa... mbachtelijke_geuzestekerij","description": "00:20","abv":5,"c... erman-style amber ale that is fermented fold" in German and ref... description:"The Norwegian Juleøl can be en or Blonde Ales are one of the fastest growing beer sy drinking Blonde with a... ("category": "Belgian and French Ale", description: "Reddish-brown colour, with a very compact head and an aroma of figs, feels like honey in the mouth. The alcohol profile is a major component in the... ("description":"","ibu":0,"name":"Scottish Ale","srm":0,"type":"beer","updated":"2010-07-22 20:00:20","abv":4.8,"brewery_id":"aberdeen_brewing","upc":0)

Type here to search

ENG IN 22:55 18/02/2021

localhost:8091/ui/index.html#/documents/editor?scenarioBucket=beer-sample&scenarioZoom=minute&scenario=7iez5js8c&bucket=beer

Apps Gmail YouTube Maps Cool CSS Anima... FooBar_Challenge/... Meet - ijin-brn-xjn mahideep-1/SAU-2... srinivasa:sameer/S... SAU'21 Feb Batch 2

my-clu

Dashboard Servers Buckets XDCR Security Settings Logs Documents Query Indexes Search Analytics Eventing Views

Command Prompt

```
cute.func1() at source.go:217
2021-02-18T22:51:44.959+05:30 ERROR: Error in key expression at char 0, field 'brewery_id' does not exist -- jsondata.(*Parallelizer).Exe
cute.func1() at source.go:217
2021-02-18T22:51:45.016+05:30 ERROR: Error in key expression at char 0, field 'brewery_id' does not exist -- jsondata.(*Parallelizer).Exe
cute.func1() at source.go:217
2021-02-18T22:51:45.083+05:30 ERROR: Error in key expression at char 0, field 'brewery_id' does not exist -- jsondata.(*Parallelizer).Exe
cute.func1() at source.go:217
2021-02-18T22:51:45.146+05:30 ERROR: Error in key expression at char 0, field 'brewery_id' does not exist -- jsondata.(*Parallelizer).Exe
cute.func1() at source.go:217
2021-02-18T22:51:45.166+05:30 ERROR: Error in key expression at char 0, field 'brewery_id' does not exist -- jsondata.(*Parallelizer).Exe
cute.func1() at source.go:217
2021-02-18T22:51:45.185+05:30 ERROR: Error in key expression at char 0, field 'brewery_id' does not exist -- jsondata.(*Parallelizer).Exe
cute.func1() at source.go:217
2021-02-18T22:51:45.214+05:30 ERROR: Error in key expression at char 0, field 'brewery_id' does not exist -- jsondata.(*Parallelizer).Exe
cute.func1() at source.go:217
2021-02-18T22:51:45.219+05:30 ERROR: Error in key expression at char 0, field 'brewery_id' does not exist -- jsondata.(*Parallelizer).Exe
cute.func1() at source.go:217
JSON import failed: 5891 documents were imported, 1412 documents failed to be imported
JSON import failed: Some errors occurred while transferring data, see logs for more details
C:\Program Files\Couchbase\Server\bin>
```

Retrieve Docs

< prev batch | next batch >

medium mouth feel with malt
style Pa...
geuzestekerij", "description": ""
T...
ember ale that is fermented
n and ref...
Norwegian Juleøl can be

Ales are one of the fastest growing beer
asy drinking Blonde with a...

(Category: Belgian and French Ale, description: Reddish-brown colour, with a very compact head and an
aroma of figs, feels like honey in the mouth. The alcohol profile is a major component in the ...
("description": "", "ibu": 0, "name": "Scottish Ale", "srm": 0, "type": "beer", "updated": "2010-07-22
20:00:20", "abv": 4.8, "brewery_id": "aberdeen_brewing", "upc": 0)

Cancel Save

Type here to search

ENG IN 22:55 18/02/2021