

NOSQL Assignment

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Q1. Import `travel-sample` bucket

The screenshot shows the Accolite_2021 Buckets page. The left sidebar contains a navigation menu with options: Dashboard, Servers, Buckets, Backup, XDCR, Security, Settings, and Logs. The main area displays a table of buckets. The 'travel-sample' bucket is highlighted, showing 63,184 items, 100% resident, 0 ops/sec, 68.8MB / 200MB RAM used/quota, and 95MB disk used. Links for 'Documents' and 'Scopes & Collections' are visible.

name	items	resident	ops/sec	RAM used/quota	disk used
travel-sample	63,184	100%	0	68.8MB / 200MB	95MB

2. Write a query to get the sum of all distances where type="route" for each airline id.

The screenshot shows the Accolite_2021 Query Editor. The query editor contains the following SQL query:

```
1 SELECT sum(distance) as Distance ,count(id) as NO_Routes,airlineid from `travel-sample` where type="route" group by airlineid;
```

The query has been executed successfully. The results are displayed in a table format:

Distance	NO_Routes	airlineid
4239.143522643578	2	airline_2218
3321.7396689426723	6	airline_5439
11293.378451859882	6	airline_1478
6732.565210398121	2	airline_2538
131577.2383141191	30	airline_1908
20840.152833021108	4	airline_1006
125427.4274931057	30	airline_5360
2570.135052669194	10	airline_4438
306537.7088055724	340	airline_690
12524.570256371422	17	airline_3329
51307.37474948181	8	airline_3201
595.2753756507055	12	airline_16262
42317.501052111955	220	airline_16726

3. Write queries to join(LEFT,RIGHT,INNER) type="route"&"airline" and fetch the data whose sourceairport="SFO"

Accolite_2021 > Query

Query Editor

```
1 select * from `travel-sample` A join `travel-sample` B on A.airlineid = meta(B).id where A.sourceairport = "SFO"
```

Execute Explain Advise success 2 min ago | elapsed: 79.8ms | execution: 78.8ms | docs: 183 | size: 667226 bytes

Query Results

Table JSON Tree Plan Plan Text Advice

```
1 {
2   {
3     "A": {
4       "airlineid": "B6",
5       "airlineid": "airline_3029",
6       "destinationairport": "AUS",
7       "distance": 2416.0035377223094,
8       "equipment": "320",
9       "id": 14239,
10      "schedule": {
11        {
12          "day": 0,
13          "flight": "B6555",
14          "utc": "02:34:00"
15        }
16      }
17    }
18  }
19 }
```

Data Insights

travel-sample 6 collections

Refresh

Accolite_2021 > Query

Query Editor

```
1 select * from `travel-sample` A left join `travel-sample` B on A.airlineid = meta(B).id where A.sourceairport = "SFO" and (A.type == "route" and B.type == "airline")
```

Execute Explain Advise success just now | elapsed: 92.8ms | execution: 92.8ms | docs: 183 | size: 667226 bytes

Query Results

Table JSON Tree Plan Plan Text Advice

A							B																																																				
airline	airlineid	destinationairport	distance	equipment	id	schedule	sourceairport	stops	type	callsign	conf																																																
UA	airline_5209	ABQ	1439.2772722093166	CRJ	57626	<table><thead><tr><th>day</th><th>flight</th><th>utc</th></tr></thead><tbody><tr><td>0</td><td>UA702</td><td>18:03:00</td></tr><tr><td>0</td><td>UA677</td><td>12:14:00</td></tr><tr><td>0</td><td>UA216</td><td>04:13:00</td></tr><tr><td>0</td><td>UA018</td><td>01:39:00</td></tr><tr><td>0</td><td>UA695</td><td>19:26:00</td></tr><tr><td>1</td><td>UA967</td><td>18:51:00</td></tr><tr><td>1</td><td>UA571</td><td>14:41:00</td></tr><tr><td>2</td><td>UA874</td><td>02:31:00</td></tr><tr><td>2</td><td>UA091</td><td>20:53:00</td></tr><tr><td>2</td><td>UA437</td><td>22:04:00</td></tr><tr><td>3</td><td>UA967</td><td>23:29:00</td></tr><tr><td>3</td><td>UA645</td><td>09:48:00</td></tr><tr><td>3</td><td>UA687</td><td>23:28:00</td></tr><tr><td>3</td><td>UA757</td><td>10:43:00</td></tr><tr><td>4</td><td>UA962</td><td>07:49:00</td></tr></tbody></table>	day	flight	utc	0	UA702	18:03:00	0	UA677	12:14:00	0	UA216	04:13:00	0	UA018	01:39:00	0	UA695	19:26:00	1	UA967	18:51:00	1	UA571	14:41:00	2	UA874	02:31:00	2	UA091	20:53:00	2	UA437	22:04:00	3	UA967	23:29:00	3	UA645	09:48:00	3	UA687	23:28:00	3	UA757	10:43:00	4	UA962	07:49:00	SFO	0	route	UNITED	Acc
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Accolite_2021 > Query

Workbench Monitor

Query Editor

1 select * from `travel-sample` A right join `travel-sample` B on A.airlineid = meta(B).id where A.sourceairport = "SFO" and (A.type == "route" and B.type=="airline")

Execute Explain Advise success just now | elapsed: 4.3s | execution: 4.3s | docs: 183 | size: 667226 bytes

Query Results

Table JSON Tree Plan Plan Text Advice

```

1 {
2   {
3     "A": {
4       "airline": "FL",
5       "airlineid": "airline_1316",
6       "destinationairport": "ATL",
7       "distance": 3434.7108309317646,
8       "equipment": "73G",
9       "id": 25480,
10      "schedule": [
11        {
12          "day": 0,
13          "flight": "FL993",
14          "utc": "09:17:00"
15        },
16      ]

```

4. Write a mapreduce to get the number of all documents based on entities(type).

View Index Code

Map

```

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

```

Reduce (built in: _count, _sum, _stats)

```

1 _count

```

Results filter: ?limit=6&state=false&connection_timeout=60000&inclusive_end=true&skip=0&full_set=

Development Time Subset Full Cluster Data Set

Key	Value
null undefined	34

Key	Value
"airline" undefined	187
"airport" undefined	1968
"hotel" undefined	917
"landmark" undefined	4495
"route" undefined	24024

5. Refer CLI interface & try to export the travel sample data.

NewBucket	28,579	100%	6198	65.7MB / 13.3GB	4.05MB	Documents Statistics
travel-sample	31,591	100%	0	62.5MB / 100MB	47.4MB	Documents Statistics

```
Administrator: Command Prompt

C:\Program Files\Couchbase\Server\bin>cbexport json -c couchbase://127.0.0.1 -u Admin -p -b travel-sample -o
C:/travelSample.json -f lines -t 4
Json exported to 'C:/travelSample.json' successfully
Documents exported: 31591 Documents skipped: 0

C:\Program Files\Couchbase\Server\bin>cbimport json -c couchbase://127.0.0.1 -u Admin -p -b NewBucket -f line
s -d file://C:/travelSample.json -t 4 -g %id%
JSON 'file://C:/travelSample.json' imported to 'http://127.0.0.1:8091' successfully
Documents imported: 31591 Documents failed: 0
```