


Andrew Abbott
MSDS 7346
Mini-Project 2
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Step 1: Sign up for a MongoDB Atlas Account

 **mongoDB** Cloud Manager

Andrew ▾

Account Settings

Profile Personalization Organizations Public API Access

User Name

anabbott@smu.edu

User names may not be changed.

Email Address

anabbott@smu.edu

Mobile Phone Number

(832)766-2061

This number is used for sending SMS alerts. Please include the full country code for non-US numbers.

Password

Please note that your username, email, and password are also used for [jira.mongodb.org](#).

Two-Factor Authentication

Enable 2FA

Use the **edit button** on the right to change your number, authentication method, or generate recovery codes.

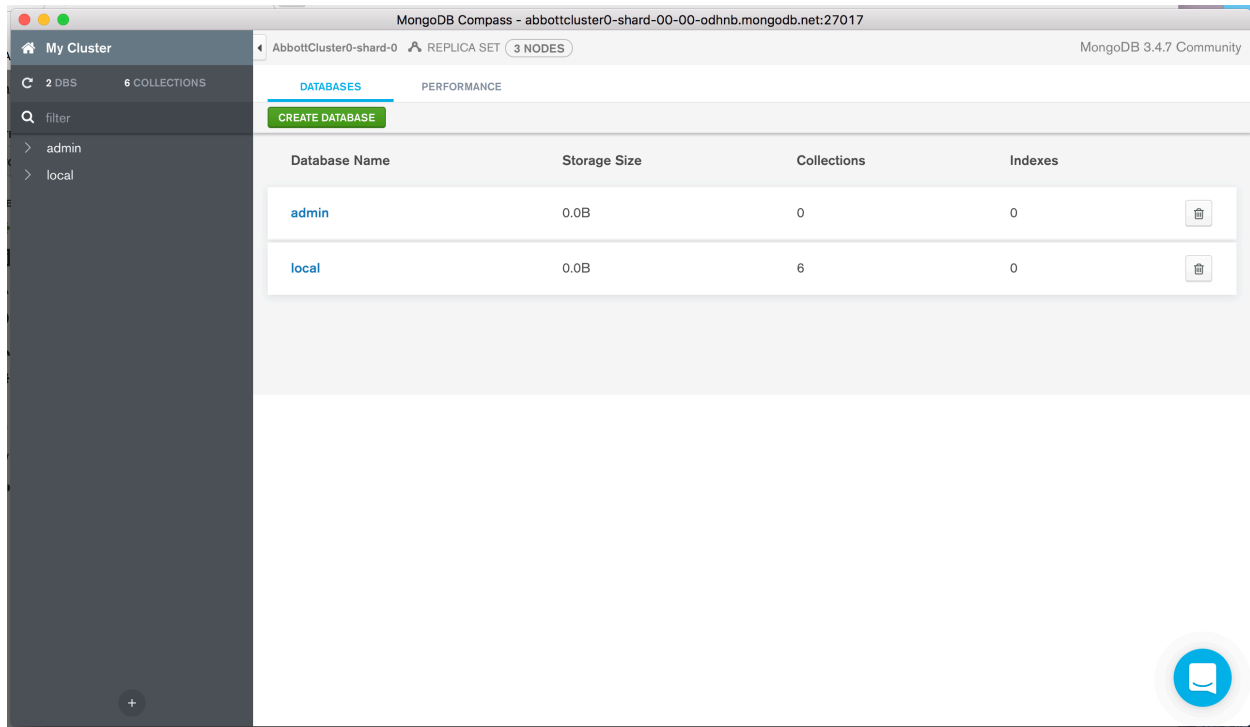
Step 2: Create a cluster in MongoDB Atlas

The screenshot shows the MongoDB Atlas interface. At the top, it says 'mongoDB Atlas' and 'Central Time (US & Canada)'. Below the header, there's a 'CONTEXT' dropdown set to 'Project 0' and a 'PROJECT' dropdown set to 'SMU > PROJECT 0'. The main heading is 'Clusters'. On the left sidebar, there are links for 'Clusters', 'Stitch Apps', 'Alerts', 'Backup', 'Users', 'Settings', 'Orgs and Projects', 'Docs', and 'Support'. The 'Clusters' tab is active, showing a search bar 'Find a cluster...' and a list of clusters. The first cluster is 'AbbottCluster0' in a 'SANDBOX' environment, version 3.4.9. It has buttons for 'METRICS', 'CONNECT', and a menu icon. Below the cluster name, it shows 'INSTANCE SIZE M0', 'TYPE Replica Set - nodes', and 'LINKED STITCH APP None Linked - Link Application'. To the right of the cluster details, there are four performance graphs: 'Operations R: 0 W: 0' (100.0/s), 'Logical Size 0.0 B' (512.0 MB max), 'Connections 0' (100), and 'Last 6 Hours' for each. A green 'Build a New Cluster' button is in the top right. A green 'Upgrade' button is in the bottom right of the cluster details panel.

Step 3: Download MongoDB Compass

The screenshot shows the 'MongoDB Compass - Connect' window. On the left, there's a sidebar with 'NEW CONNECTION', 'FAVORITES', and 'RECENT CONNECTIONS'. The main area is titled 'Connect to Host'. It contains several input fields and dropdown menus: 'Hostname' (localhost), 'Port' (27017), 'Authentication' (None), 'Replica Set Name' (empty), 'Read Preference' (Primary), 'SSL' (Off), 'SSH Tunnel' (Off), and 'Favorite Name' (e.g. Shared Dev, QA Box, PRODUCTION). A green 'CONNECT' button is at the bottom right. A blue speech bubble icon is in the bottom right corner.

Step 4: Connect MongoDB Compass to Atlas's cluster



Step 5: Experiment with Compass as stated

Using mongoimport to import the postcode.csv file to Atlas:

```
MiniProject2 — -bash — 80x24
0-00-odhnb.mongodb.net:27017 --db postcode --type csv --file ~/postcode.csv --headerline --authenticationDatabase admin --ssl --username anabbott --password m3rlin
2017-09-25T19:22:04.575-0500 no collection specified
2017-09-25T19:22:04.575-0500 using filename 'postcode' as collection
2017-09-25T19:22:04.575-0500 Failed: open /Users/andrewabbott/postcode.csv: no such file or directory
2017-09-25T19:22:04.575-0500 imported 0 documents
Andrews-MBP:MiniProject2 andrewabbott$ mongoimport --host abbotcluster0-shard-00-00-odhnb.mongodb.net:27017 --db postcode --type csv --file ~/Documents/Courses/MSDS7346\ Cloud\ Computing\ MiniProject2\ postcode.csv --headerline --authenticationDatabase admin --ssl --username anabbott --password m3rlin
2017-09-25T19:24:03.493-0500 no collection specified
2017-09-25T19:24:03.493-0500 using filename 'postcode' as collection
2017-09-25T19:24:04.225-0500 connected to: abbotcluster0-shard-00-00-odhnb.mongodb.net:27017
2017-09-25T19:24:06.495-0500 [#####.....] postcode.postcode 6
72KB/2.18MB (30.1%)
2017-09-25T19:24:09.496-0500 [#####.....] postcode.postcode 1
.57MB/2.18MB (72.2%)
2017-09-25T19:24:11.610-0500 [#####.....] postcode.postcode 2
.18MB/2.18MB (100.0%)
2017-09-25T19:24:11.611-0500 imported 39734 documents
Andrews-MBP:MiniProject2 andrewabbott$
```

Verify the import:

SMU > PROJECT 0 > ABBOTTCUSTER0-SHARD-0

abbottcluster0-shard-00-00-odhnb.mongodb.net:27017

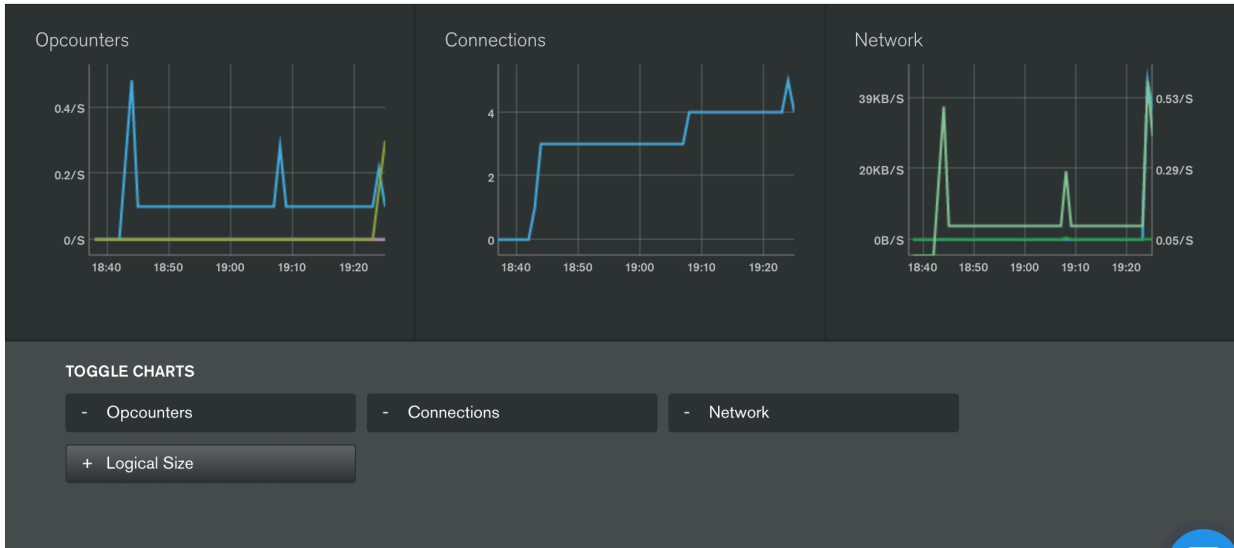
VERSION DATA SIZE

3.4.7 0 B

Status

GRANULARITY **Auto** ZOOM **1 hour** CURRENT DISPLAY 9/25/2017 06:26pm to 9/25/2017 07:26pm AT 1 MINUTE **EXPORT**

GRANULARITY **ADD CHART** ☐ DISPLAY OPCOUNTERS ON SEPARATE CHARTS ☒ DISPLAY TIMELINE ANNOTATIONS



MongoDB Compass - abbotcluster0-shard-00-00-odhnb.mongodb.net:27017/postcode.postcode

My Cluster: 3 DBS, 7 COLLECTIONS

filter: admin, local, postcode

postcode

Documents: 39.7k, Total Size: 5.1MB, Avg. Size: 136B, Indexes: 1, Total Size: 360.0KB, Avg. Size: 360.0KB

postcode.postcode

DOCUMENTS SCHEMA EXPLAIN PLAN INDEXES VALIDATION

FILTER { "filter" : "example" } OPTIONS FIND

Query returned 39734 documents. Displaying documents 1-20

INSERT DOCUMENT

```
{
  "_id": ObjectId("59c99e24e7be8f19b3d2e630"),
  "PostOfficeName": "Aberdeen Bazar",
  "Pincode": 744104,
  "DistrictsName": "ASN Islands",
  "City": "Port Blair",
  "State": "Andaman Nicobar"
}
```

```
{
  "_id": ObjectId("59c99e24e7be8f19b3d2e631"),
  "PostOfficeName": "Bakultala",
  "Pincode": 744208,
  "DistrictsName": "ASN Islands",
  "City": "Port Blair",
  "State": "Andaman Nicobar"
}
```

```
{
  "_id": ObjectId("59c99e24e7be8f19b3d2e632"),
  "PostOfficeName": "Campbell Bay",
  "Pincode": 744302,
  "DistrictsName": "ASN Islands",
  "City": "Port Blair",
  "State": "Andaman Nicobar"
}
```

```
{
  "_id": ObjectId("59c99e24e7be8f19b3d2e633"),
  "PostOfficeName": "Diplinur",
  "Pincode": 744302,
  "DistrictsName": "ASN Islands",
  "City": "Port Blair",
  "State": "Andaman Nicobar"
}
```


MongoDB Compass - abbottcluster0-shard-00-00-odhnb.mongodb.net:27017/postcode.postcode

My Cluster

3 DBS 7 COLLECTIONS

filter

admin

local

postcode

postcode

AbbottCluster0-shard-0 REPLICA SET 3 NODES

MongoDB 3.4.7 Community

DOCUMENTS 39.7k TOTAL SIZE 5.1MB AVG. SIZE 136B INDEXES 1 TOTAL SIZE 360.0KB AVG. SIZE 360.0KB

postcode.postcode

DOCUMENTS SCHEMA EXPLAIN PLAN INDEXES VALIDATION

FILTER { "City" : "Hyderabad" } PROJECT { "project" : 1 } SORT { "sort" : 1 }

OPTIONS EXPLAIN RESET

SKIP 0 LIMIT 0

VIEW DETAILS AS VISUAL TREE RAW JSON

Query Performance Summary

Documents Returned: 246	Actual Query Execution Time (ms): 17
Index Keys Examined: 0	Sorted in Memory: no
Documents Examined: 39734	No index available for this query.

COLLSCAN

nReturned: 246 Execution Time: 20 ms

Documents Examined: 39734

DETAILS

For all sections of this project I had no collaborators and used only the guides and prompts on the MongoDB site.