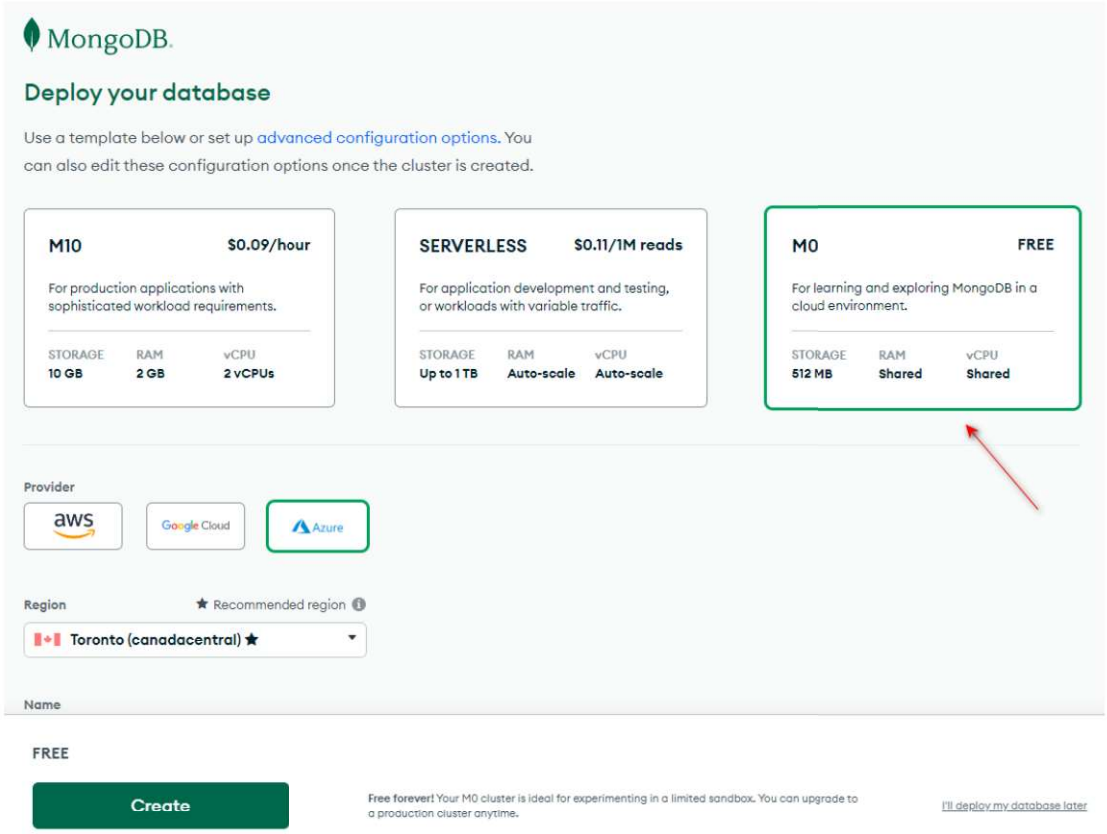
Basic Databases – Lab 07

Setup softwares:

To install MongoDB database and MongoDB Compass software, please follow the instructions provided:

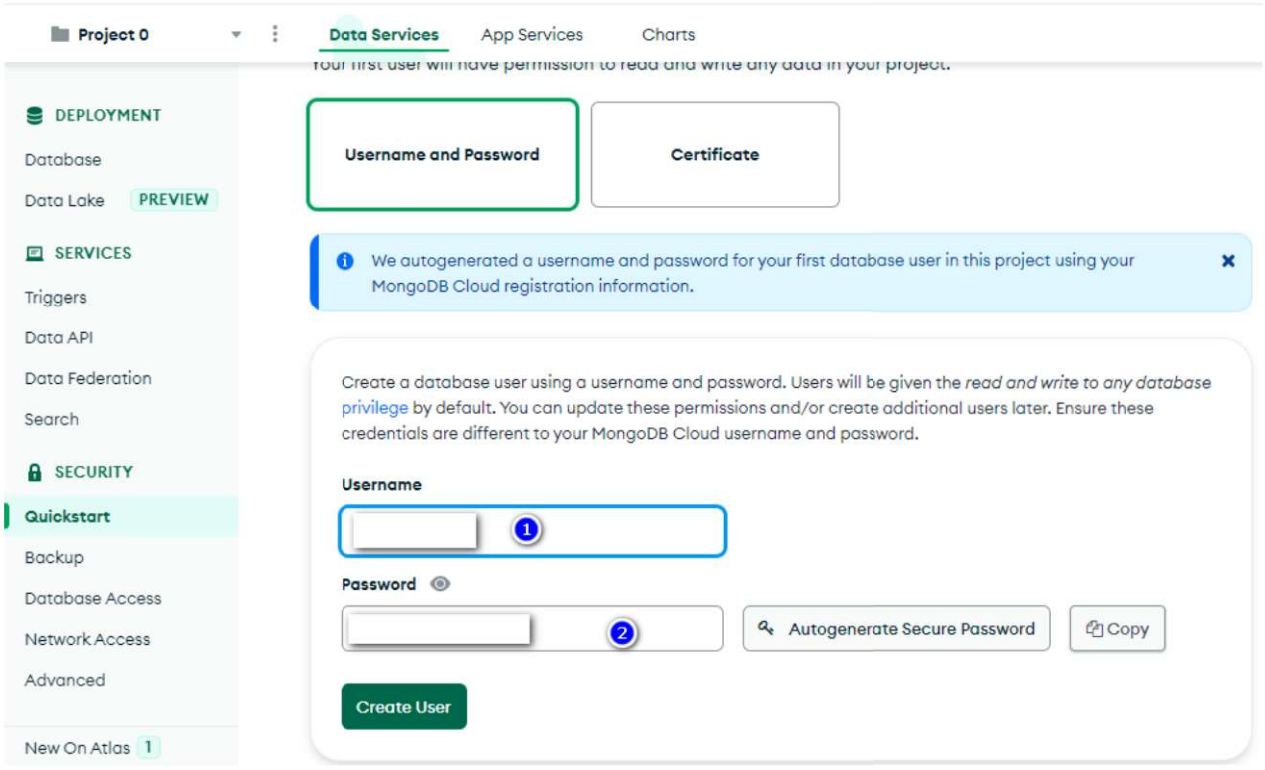
Step 1: Create a MongoDB Database.

- Visit the MongoDB website at https://www.mongodb.com/ to access the necessary resources.
- Follow the instructions provided to create a new MongoDB database.



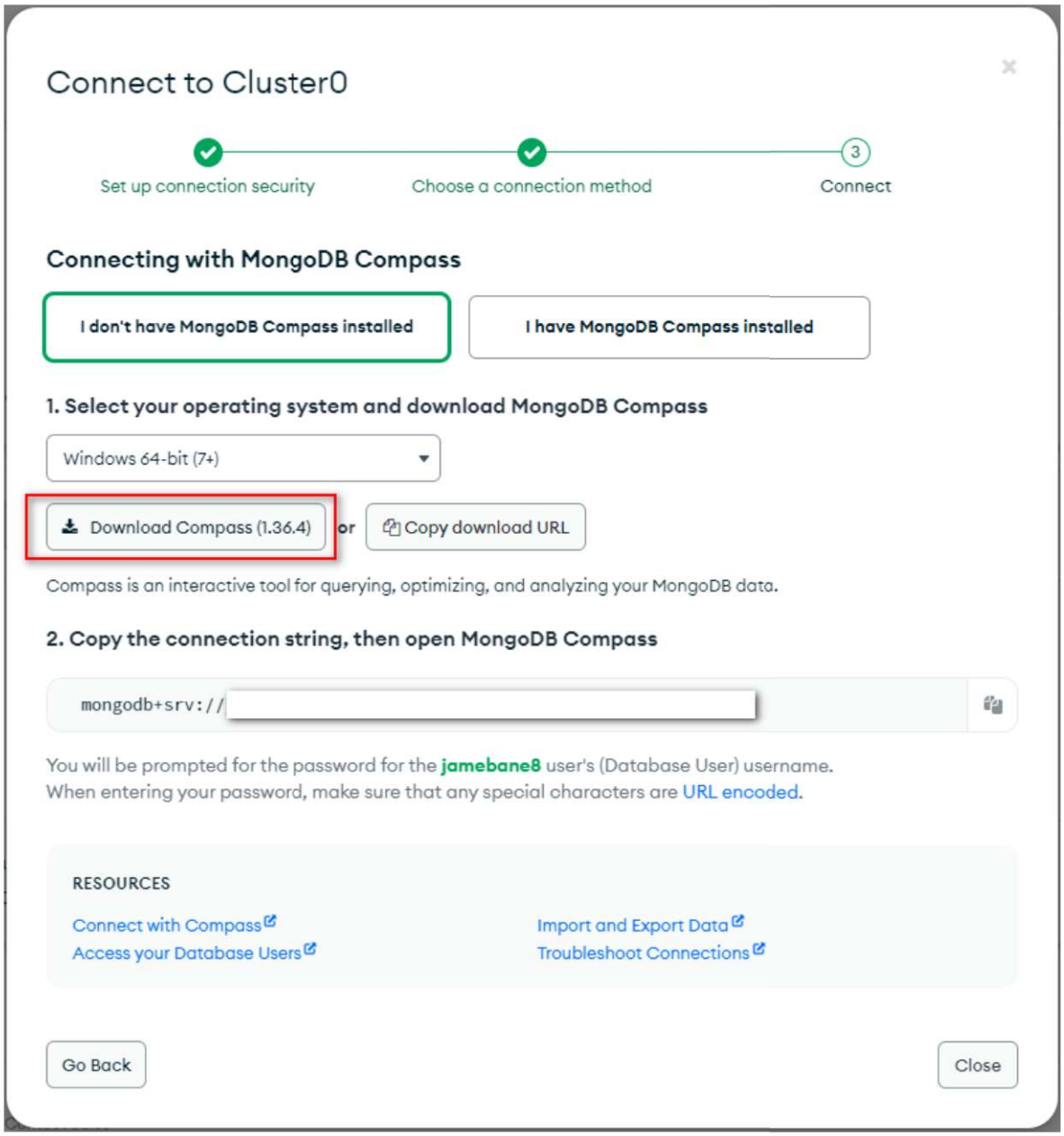
Step 2: Set up Login Account Information.

- As part of the installation process, you will need to set up a login account for MongoDB.
- Follow the instructions to create your account.



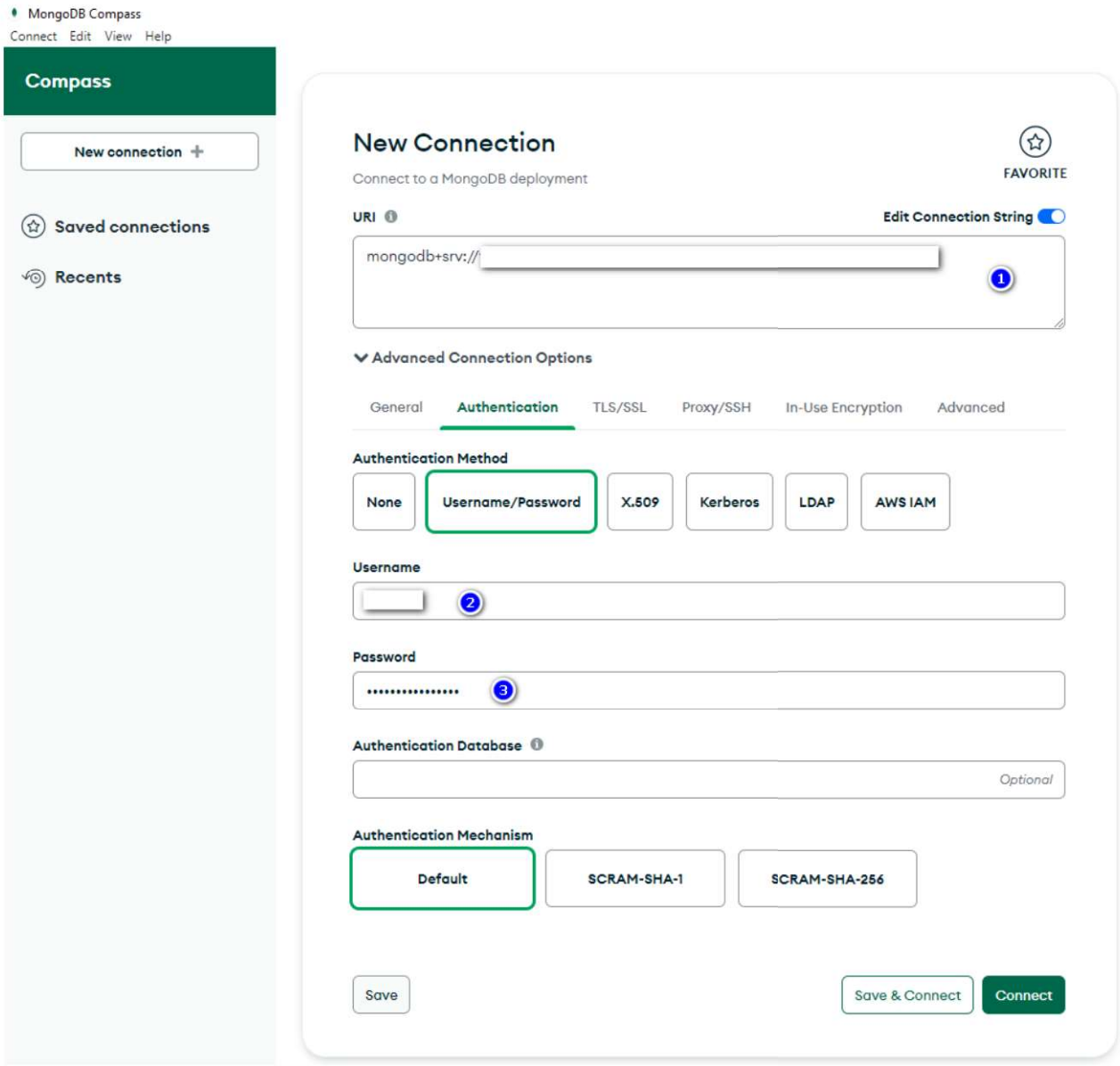
Step 3: Download and Install MongoDB Compass Software

- Find the MongoDB Compass software and select the version compatible with your operating system.
- Download the installation file and run it.
- Follow the on-screen prompts to complete the installation of MongoDB Compass.



Step 4: Connect to the MongoDB Database Using MongoDB Compass.

- Launch MongoDB Compass after the installation process is finished.
- In MongoDB Compass, you will find the connection setup interface.
- Follow the provided instructions to configure the connection string, including the URI, Username, and Password.



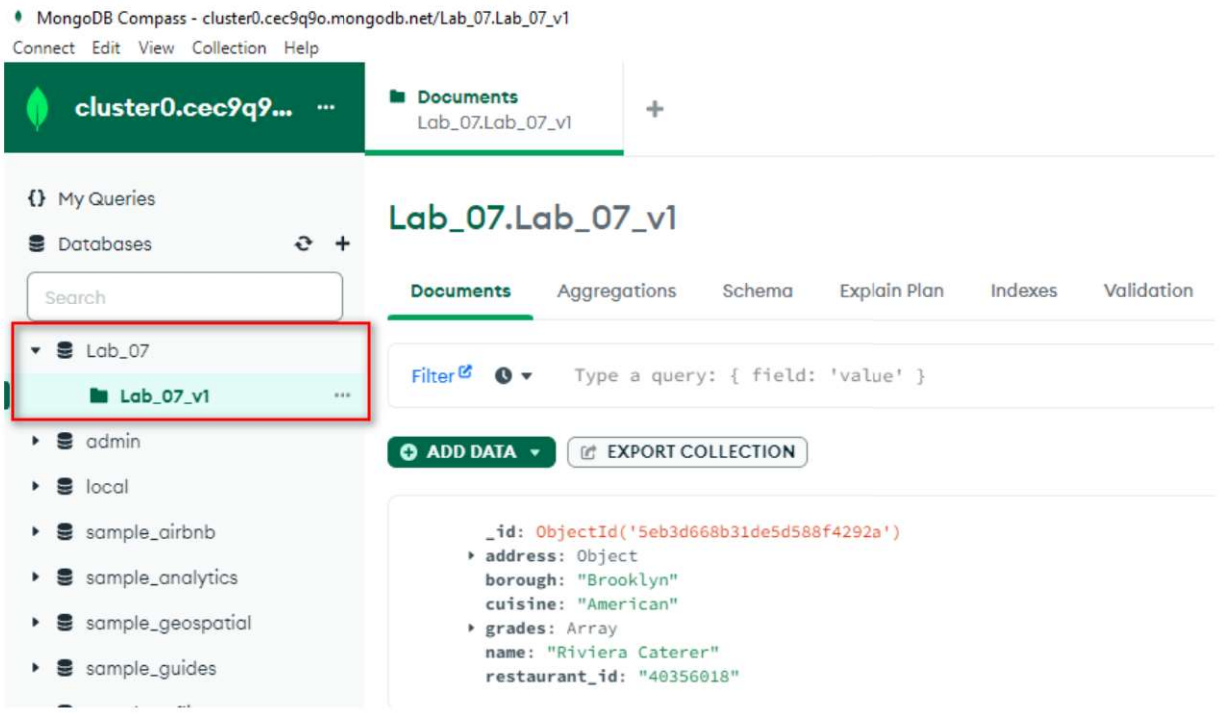
Requirements:

Please use MongoDB Compass software to fulfill the following requirements:

1. Create a new database and collection: **(0.5 point)**

– Use the provided file **Lab_07.json** to create a new database with the specified database name and collection name as shown in the instructions.

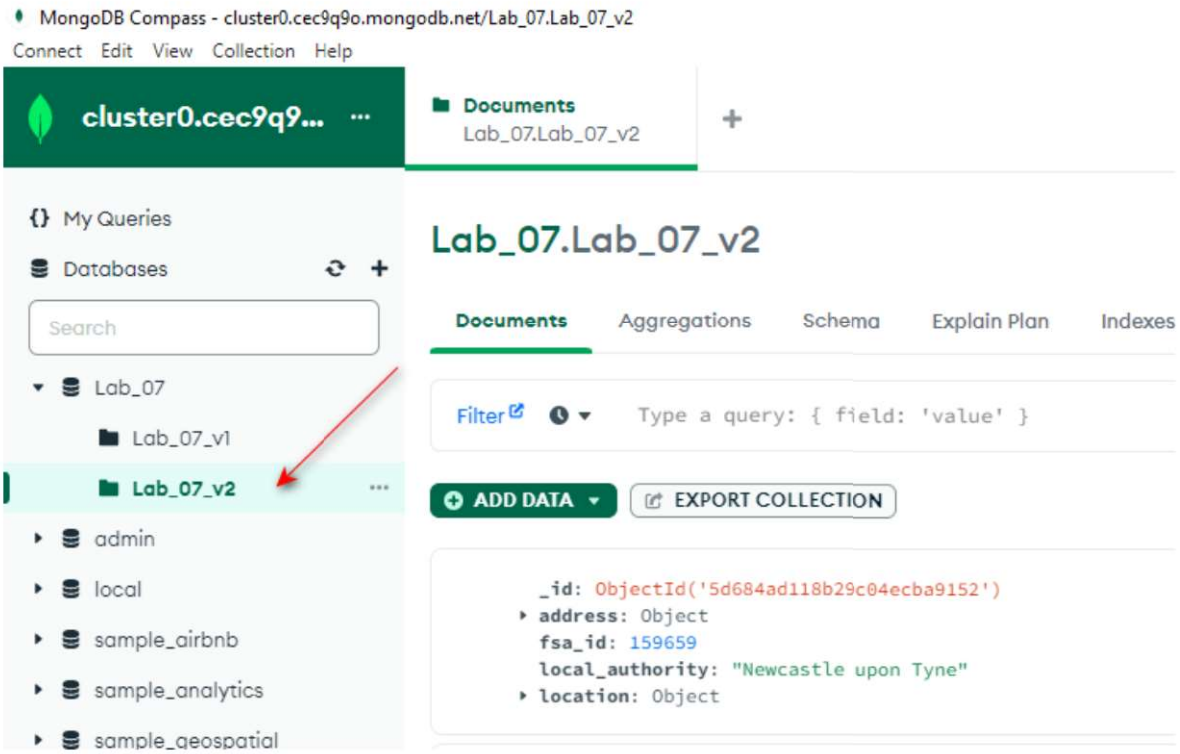
– Import the contents of the JSON file into the newly created collection.



2. Create a new collection: **(0.5 point)**

– Utilize the provided file **Lab_07.csv** to create a new collection with the specified name as shown in the instructions.

– Import the contents of the CSV file into the newly created collection.



3. Perform the following operations on the collection mentioned in the first question: **(4 points)**

a. Create a new document. **(0.5 point)**

b. Display the fields "_id", "address", and "name" for all the documents. **(0.5 point)**

c. Display the fields "grades", "name", and "restaurant_id" but exclude the field "_id" for all the documents. **(0.5 point)**

d. Display the first 10 documents located in the borough of "Brooklyn". **(0.5 point)**

e. Find the documents that have "Rivi" as the first four letters in their name and retrieve the "_id", "address", "borough", "cuisine", and "name" fields. **(0.5 point)**

```
_id: ObjectId('5eb3d668b31de5d588f4292a')
▸ address: Object
borough: "Brooklyn"
cuisine: "American"
name: "Riviera Caterer"
```

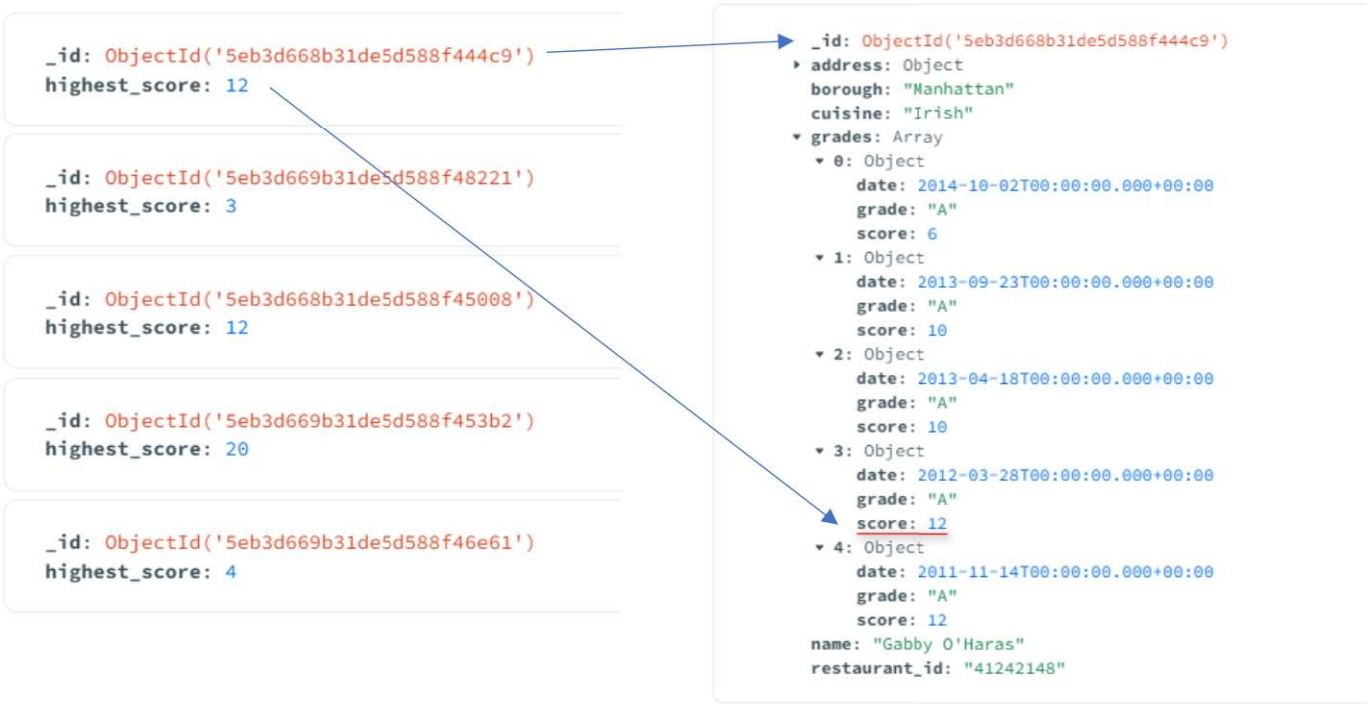
```
_id: ObjectId('5eb3d668b31de5d588f43f39')
▸ address: Object
borough: "Queens"
cuisine: "American"
name: "Riviera"
```


f. Find the documents where the score is greater than 50 but less than 60. **(0.5 point)**


```
_id: ObjectId('5eb3d668b31de5d588f42936')
▸ address: Object
borough: "Brooklyn"
cuisine: "Chinese"
▾ grades: Array
  ▾ 0: Object
      date: 2014-09-16T00:00:00.000+00:00
      grade: "B"
      score: 21
  ▾ 1: Object
      date: 2013-08-28T00:00:00.000+00:00
      grade: "A"
      score: 7
  ▾ 2: Object
      date: 2013-04-02T00:00:00.000+00:00
      grade: "C"
      score: 56        (50 < 56 < 60)
  ▾ 3: Object
      date: 2012-08-15T00:00:00.000+00:00
      grade: "B"
      score: 27
  ▾ 4: Object
      date: 2012-03-28T00:00:00.000+00:00
      grade: "B"
      score: 27
name: "May May Kitchen"
restaurant_id: "40358429"
```


g. Sort the document's name in descending order along with all the columns. **(0.5 point)**

h. Find the highest score for each document. **(0.5 point)**



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