BDA LAB 2

NAME : VARUN RAJ S
1BM21CS264
DATE: 1/4/2024

I. Perform the following DB operations using MongoDB.

1. Create a database "Student" with the following attributes Rollno, Age, ContactNo, Email-Id.

2. Insert appropriate values

3. Write query to update Email-Id of a student with rollno 10.

4. . Replace the student name from "ABC" to "FEM" of rollno 11

II. Perform the following DB operations using MongoDB.

1. Create a collection by name Customers with the following attributes.

Cust_id, Acc_Bal, Acc_Type

2. Insert at least 5 values into the table

3. Write a query to display those records whose total account balance is greater than 1200 of account type 'Z' for each customer_id.

4. Determine Minimum and Maximum account balance for each customer_i

```
Microsoft Windows [Version 10.0.22631.3296]
(c) Microsoft Corporation. All rights reserved.

C:\Users\student>mongosh
Current Mongosh Log ID: 660a7bad0cbcfc7aafd14a0d
Connecting to:          mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.2.1
MongoNetworkError: connect ECONNREFUSED 127.0.0.1:27017

C:\Users\student>mongosh "mongodb+srv://cluster0.bjwnzsv.mongodb.net/" --apiVersion 1 --username prithvipscs21 --password yS8gBxwY9hHTmU7T
Current Mongosh Log ID: 660a7bb10c72f70c2cd14a0d
Connecting to:          mongodb+srv://<credentials>@cluster0.bjwnzsv.mongodb.net/?appName=mongosh+2.2.1
Using MongoDB:          7.0.7 (API Version 1)
Using Mongosh:          2.2.1

For mongosh info see: https://docs.mongodb.com/mongodb-shell/

Atlas atlas-14nrww-shard-0 [primary] test> use Student
switched to db Student
Atlas atlas-14nrww-shard-0 [primary] Student> db.Student.insertMany([
...     {Rollno: 10, Age: 20, ContactNo: "1234567890", EmailId: "example1@example.com"},
...     {Rollno: 11, Age: 21, ContactNo: "9876543210", EmailId: "example2@example.com"},
...     // Add more documents as needed
... ])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('660a7d1b0c72f70c2cd14a0e'),
    '1': ObjectId('660a7d1b0c72f70c2cd14a0f')
  }
}
Atlas atlas-14nrww-shard-0 [primary] Student> db.students.updateOne(
...     { "Rollno": 11 },
...     { $set: { "Name": "FEM" } }
... )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 0
}
Atlas atlas-14nrww-shard-0 [primary] Student> db.Student.update({Rollno: 10}, {$set: {EmailId: "newemail@example.com"}})

DeprecationWarning: Collection.update() is deprecated. Use updateOne, updateMany, or bulkWrite.
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

```
    insertedId: null,
    matchedCount: 0,
    modifiedCount: 0,
    upsertedCount: 0
}
Atlas atlas-14nrww-shard-0 [primary] Student> db.Student.update({Rollno: 10}, {$set: {EmailId: "newemail@example.com"}})

DeprecationWarning: Collection.update() is deprecated. Use updateOne, updateMany, or bulkWrite.
{
    acknowledged: true,
    insertedId: null,
    matchedCount: 1,
    modifiedCount: 1,
    upsertedCount: 0
}
Atlas atlas-14nrww-shard-0 [primary] Student>
(To exit, press Ctrl+C again or Ctrl+D or type .exit)
Atlas atlas-14nrww-shard-0 [primary] Student> dB.dropDatabase
ReferenceError: dB is not defined
Atlas atlas-14nrww-shard-0 [primary] Student> db.dropDatabase
[Function: dropDatabase] AsyncFunction {
    apiVersions: [ 1, Infinity ],
    returnsPromise: true,
    serverVersions: [ '0.0.0', '999.999.999' ],
    topologies: [ 'ReplSet', 'Sharded', 'LoadBalanced', 'Standalone' ],
    returnType: { type: 'unknown', attributes: {} },
    deprecated: false,
    platforms: [ 'Compass', 'Browser', 'CLI' ],
    isDirectShellCommand: false,
    acceptsRawInput: false,
    shellCommandCompleter: undefined,
    help: [Function (anonymous)] Help
Atlas atlas-14nrww-shard-0 [primary] Student>
```

```
Connecting to:          mongodb+srv://<credentials>@cluster0.8yhrhz6.mongodb.net/?appName=mongosh+2.2.1
Using MongoDB:          7.0.7 (API Version 1)
Using Mongosh:          2.2.1
mongosh 2.2.2 is available for download: https://www.mongodb.com/try/download/shell

For mongosh info see: https://docs.mongodb.com/mongodb-shell/

Atlas atlas-vohkna-shard-0 [primary] test> db.createCollection("Customers")
{ ok: 1 }
Atlas atlas-vohkna-shard-0 [primary] test> db.Customers.insertMany([
...    {Cust_id: 1, Acc_Bal: 1000, Acc_Type: 'Z'},
...    {Cust_id: 2, Acc_Bal: 1500, Acc_Type: 'Z'},
...    {Cust_id: 3, Acc_Bal: 2000, Acc_Type: 'Z'},
...    {Cust_id: 4, Acc_Bal: 800, Acc_Type: 'Y'},
...    {Cust_id: 5, Acc_Bal: 1800, Acc_Type: 'Z'},
... ])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('660a845b0b9ab1892fd14a0e'),
    '1': ObjectId('660a845b0b9ab1892fd14a0f'),
    '2': ObjectId('660a845b0b9ab1892fd14a10'),
    '3': ObjectId('660a845b0b9ab1892fd14a11'),
    '4': ObjectId('660a845b0b9ab1892fd14a12')
  }
}
Atlas atlas-vohkna-shard-0 [primary] test> db.Customers.find({ "Acc_Type": "Z", "Acc_Bal": { $gt: 1200 } })
[
  {
    _id: ObjectId('660a845b0b9ab1892fd14a0f'),
    Cust_id: 2,
    Acc_Bal: 1500,
    Acc_Type: 'Z'
  },
  {
    _id: ObjectId('660a845b0b9ab1892fd14a10'),
    Cust_id: 3,
    Acc_Bal: 2000,
    Acc_Type: 'Z'
  },
  {
    _id: ObjectId('660a845b0b9ab1892fd14a12'),
    Cust_id: 5,
    Acc_Bal: 1800,
    Acc_Type: 'Z'
  }
}
```

Tomorrow's high
To tie record   ENG   3:33:02 PM
                                                                           IN   4/1/2024

```
}
Atlas atlas-vohkna-shard-0 [primary] test> db.Customers.find({ "Acc_Type": "Z", "Acc_Bal": { $gt: 1200 } })
[
  {
    _id: ObjectId('660a845b0b9ab1892fd14a0f'),
    Cust_id: 2,
    Acc_Bal: 1500,
    Acc_Type: 'Z'
  },
  {
    _id: ObjectId('660a845b0b9ab1892fd14a10'),
    Cust_id: 3,
    Acc_Bal: 2000,
    Acc_Type: 'Z'
  },
  {
    _id: ObjectId('660a845b0b9ab1892fd14a12'),
    Cust_id: 5,
    Acc_Bal: 1800,
    Acc_Type: 'Z'
  }
]
Atlas atlas-vohkna-shard-0 [primary] test> db.Customers.aggregate([
...   { $group: { _id: "$Cust_id", minBalance: { $min: "$Acc_Bal" }, maxBalance: { $max: "$Acc_Bal" } } }
... ])
[
  { _id: 3, minBalance: 2000, maxBalance: 2000 },
  { _id: 1, minBalance: 1000, maxBalance: 1000 },
  { _id: 2, minBalance: 1500, maxBalance: 1500 },
  { _id: 4, minBalance: 800, maxBalance: 800 },
  { _id: 5, minBalance: 1800, maxBalance: 1800 }
]
Atlas atlas-vohkna-shard-0 [primary] test> |
```

Snipping Tool

Screenshot copied to clipboard and saved
Select here to mark up and share.