

NoSQL-2

Week-10

Question

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_id.
5. Export the created collection into local file system
6. Drop the table
7. Import a given csv dataset from local file system into mongodb collection.

Create database

```
mongosh "mongodb+srv://cluster0.dyo62sf.mongodb.net/week10" --apiVersion 1 --username chinmayi10
```

```
db.createCollection("Customers");
```

Creating & Inserting Values to the table

```
db.Customers.insert({cust_id:1,acc_bal:2000,acc_type:"Z"});  
db.Customers.insert({cust_id:2,acc_bal:1000,acc_type:"Z"});  
db.Customers.insert({cust_id:3,acc_bal:1500,acc_type:"A"});  
db.Customers.insert({cust_id:4,acc_bal:3500,acc_type:"A"});  
db.Customers.insert({cust_id:1,acc_bal:4000,acc_type:"Z"});  
db.Customers.insert({cust_id:2,acc_bal:2000,acc_type:"A"});  
db.Customers.insert({cust_id:3,acc_bal:4000,acc_type:"Z"});  
db.Customers.insert({cust_id:4,acc_bal:1000,acc_type:"Z"});
```

```

C:\> mongosh mongodb+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10
Microsoft Windows [Version 10.0.19045.2486]
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F:\> mongosh "mongodb+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10" --apiVersion 1 --username chinmayi10
Enter password: *****
Current Mongosh Log ID: 63cf59acdaebdc2063ab3d34
Connecting to:      mongodb+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10?appName=mongosh+1.6.2
Using MongoDB:      5.0.14 (API Version 1)
Using Mongosh:      1.6.2

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

Atlas atlas-125fdy-shard-0 [primary] week10> db.createCollection("Customers");
{ ok: 1 }
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.insert({cust_id:1,acc_bal:2000,acc_type:"Z"});
DeprecationWarning: Collection.insert() is deprecated. Use insertOne, insertMany, or bulkWrite.
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("63cf5b5111e198c7549e2b7d") }
}

```

```

C:\> mongosh mongodb+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10
DeprecationWarning: Collection.insert() is deprecated. Use insertOne, insertMany, or bulkWrite.
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("63cf5b5111e198c7549e2b7d") }
}
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.insert({cust_id:2,acc_bal:1000,acc_type:"Z"});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("63cf5b6111e198c7549e2b7e") }
}
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.insert({cust_id:3,acc_bal:1500,acc_type:"A"});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("63cf5b7b11e198c7549e2b7f") }
}
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.insert({cust_id:4,acc_bal:3500,acc_type:"A"});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("63cf5b9111e198c7549e2b80") }
}
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.insert({cust_id:1,acc_bal:4000,acc_type:"Z"});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("63cf5c7811e198c7549e2b81") }
}
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.insert({cust_id:2,acc_bal:2000,acc_type:"A"});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("63cf5c9711e198c7549e2b82") }
}
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.insert({cust_id:3,acc_bal:4000,acc_type:"Z"});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("63cf5cae11e198c7549e2b83") }
}
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.insert({cust_id:4,acc_bal:1000,acc_type:"Z"});
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("63cf5cce11e198c7549e2b84") }
}
Atlas atlas-125fdy-shard-0 [primary] week10>

```

db.Customers.find()

```
mongo> mongo mongo+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10
```

```
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.find()
```

```
[
  {
    _id: ObjectId("63cf5b5111e198c7549e2b7d"),
    cust_id: 1,
    acc_bal: 2000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5b6111e198c7549e2b7e"),
    cust_id: 2,
    acc_bal: 1000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5b7b11e198c7549e2b7f"),
    cust_id: 3,
    acc_bal: 1500,
    acc_type: 'A'
  },
  {
    _id: ObjectId("63cf5b9111e198c7549e2b80"),
    cust_id: 4,
    acc_bal: 3500,
    acc_type: 'A'
  },
  {
    _id: ObjectId("63cf5c7811e198c7549e2b81"),
    cust_id: 1,
    acc_bal: 4000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5c9711e198c7549e2b82"),
    cust_id: 2,
    acc_bal: 2000,
    acc_type: 'A'
  },
  {
    _id: ObjectId("63cf5cae11e198c7549e2b83"),
    cust_id: 3,
    acc_bal: 4000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5cce11e198c7549e2b84"),
    cust_id: 4,
    acc_bal: 1000,
    acc_type: 'Z'
  }
]
```

```
mongo> mongo mongo+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10
```

```
acc_bal: 4000,
acc_type: 'Z'
},
{
  _id: ObjectId("63cf5c9711e198c7549e2b82"),
  cust_id: 2,
  acc_bal: 2000,
  acc_type: 'A'
},
{
  _id: ObjectId("63cf5cae11e198c7549e2b83"),
  cust_id: 3,
  acc_bal: 4000,
  acc_type: 'Z'
},
{
  _id: ObjectId("63cf5cce11e198c7549e2b84"),
  cust_id: 4,
  acc_bal: 1000,
  acc_type: 'Z'
}
]
Atlas atlas-125fdy-shard-0 [primary] week10>
```

Queries

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

```
db.Customers.find({acc_type:"Z",acc_bal:{$gt:1200}})
```

mongosh mongodb+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10

```
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.find({acc_type:"Z",acc_bal:{$gt:1200}})
[
  {
    _id: ObjectId("63cf5b511e198c7549e2b7d"),
    cust_id: 1,
    acc_bal: 2000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5c7811e198c7549e2b81"),
    cust_id: 1,
    acc_bal: 4000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5cae11e198c7549e2b83"),
    cust_id: 3,
    acc_bal: 4000,
    acc_type: 'Z'
  }
]
Atlas atlas-125fdy-shard-0 [primary] week10>
```

4. Determine Minimum and Maximum account balance for each customer_id.

```
db.Customers.aggregate([{$group:{_id:"cust_id","acc_bal":{$min:"$acc_bal"}}}])
```

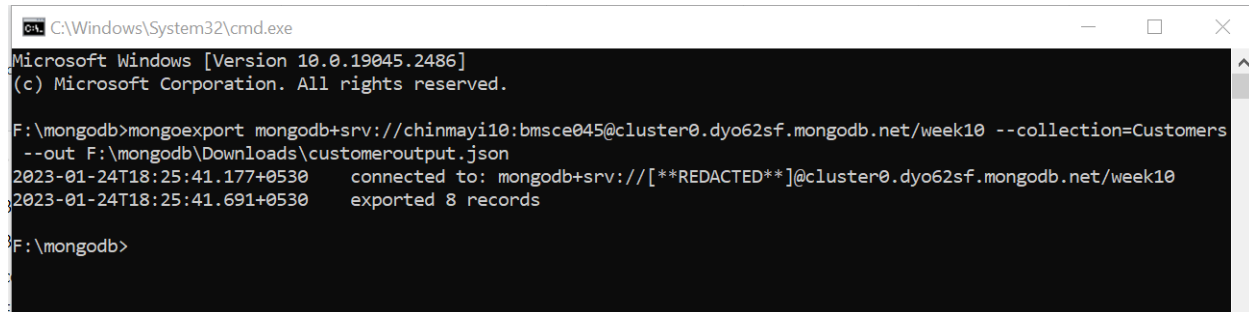
```
db.Customers.aggregate([{$group:{_id:"cust_id","acc_bal":{$max:"$acc_bal"}}}])
```

mongosh mongodb+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10

```
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.aggregate([{$group:{_id:"$cust_id","acc_bal":{$min:"$acc_bal"}}}])
[
  { _id: 3, acc_bal: 1500 },
  { _id: 2, acc_bal: 1000 },
  { _id: 4, acc_bal: 1000 },
  { _id: 1, acc_bal: 2000 }
]
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.aggregate([{$group:{_id:"$cust_id","acc_bal":{$max:"$acc_bal"}}}])
[
  { _id: 4, acc_bal: 3500 },
  { _id: 1, acc_bal: 4000 },
  { _id: 3, acc_bal: 4000 },
  { _id: 2, acc_bal: 2000 }
]
Atlas atlas-125fdy-shard-0 [primary] week10>
```

5. Export the created collection into local file system

```
mongoexport mongodb+srv://chinmayi10:bmsce045@cluster0.dyo62sf.mongodb.net/week10
--collection=Customers --out F:\mongodb\Downloads\customeroutput.json
```



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.2486]
(c) Microsoft Corporation. All rights reserved.

F:\mongodb>mongoexport mongodb+srv://chinmayi10:bmsce045@cluster0.dyo62sf.mongodb.net/week10 --collection=Customers
--out F:\mongodb\Downloads\customeroutput.json
2023-01-24T18:25:41.177+0530    connected to: mongodb+srv://[**REDACTED**]@cluster0.dyo62sf.mongodb.net/week10
2023-01-24T18:25:41.691+0530    exported 8 records

F:\mongodb>
```

6.Drop the table

```
db.Customers.drop();
```

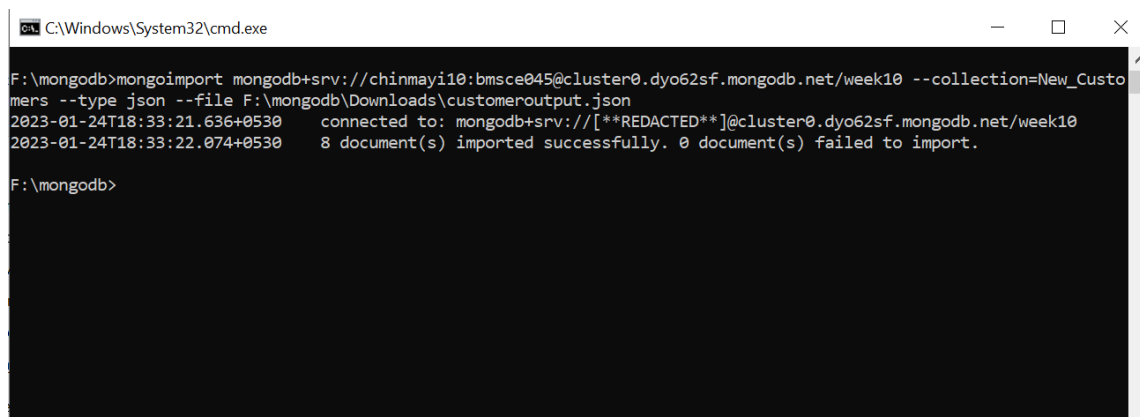


```
C:\> mongosh mongodb+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10

{ _id: 2, acc_bal: 2000 }
]
Atlas atlas-125fdy-shard-0 [primary] week10> db.Customers.drop();
true
Atlas atlas-125fdy-shard-0 [primary] week10>
```

7.Import a given csv dataset from local file system into mongodb collection.

```
mongoimport mongodb+srv://chinmayi10:bmsce045@cluster0.dyo62sf.mongodb.net/week10
--collection=New_Customers --type json --file F:\mongodb\Downloads\customeroutput.json
```



```
C:\Windows\System32\cmd.exe
F:\mongodb>mongoimport mongodb+srv://chinmayi10:bmsce045@cluster0.dyo62sf.mongodb.net/week10 --collection=New_Customers --type json --file F:\mongodb\Downloads\customeroutput.json
2023-01-24T18:33:21.636+0530    connected to: mongodb+srv://[**REDACTED**]@cluster0.dyo62sf.mongodb.net/week10
2023-01-24T18:33:22.074+0530    8 document(s) imported successfully. 0 document(s) failed to import.

F:\mongodb>
```

db.New_Customer.find()

```
❏ mongosh mongodb+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10
```

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

```
Atlas atlas-125fdy-shard-0 [primary] week10> db.New_Customers.find()
```

```
[
  {
    _id: ObjectId("63cf5c9711e198c7549e2b82"),
    cust_id: 2,
    acc_bal: 2000,
    acc_type: 'A'
  },
  {
    _id: ObjectId("63cf5c7811e198c7549e2b81"),
    cust_id: 1,
    acc_bal: 4000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5cce11e198c7549e2b84"),
    cust_id: 4,
    acc_bal: 1000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5b5111e198c7549e2b7d"),
    cust_id: 1,
    acc_bal: 2000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5cae11e198c7549e2b83"),
    cust_id: 3,
    acc_bal: 4000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5b6111e198c7549e2b7e"),
    cust_id: 2,
    acc_bal: 1000,
    acc_type: 'Z'
  },
  {

```

```
❏ mongosh mongodb+srv://<credentials>@cluster0.dyo62sf.mongodb.net/week10
```

```
    cust_id: 2,
    acc_bal: 1000,
    acc_type: 'Z'
  },
  {
    _id: ObjectId("63cf5b7b11e198c7549e2b7f"),
    cust_id: 3,
    acc_bal: 1500,
    acc_type: 'A'
  },
  {
    _id: ObjectId("63cf5b9111e198c7549e2b80"),
    cust_id: 4,
    acc_bal: 3500,
    acc_type: 'A'
  }
]
Atlas atlas-125fdy-shard-0 [primary] week10>
```