

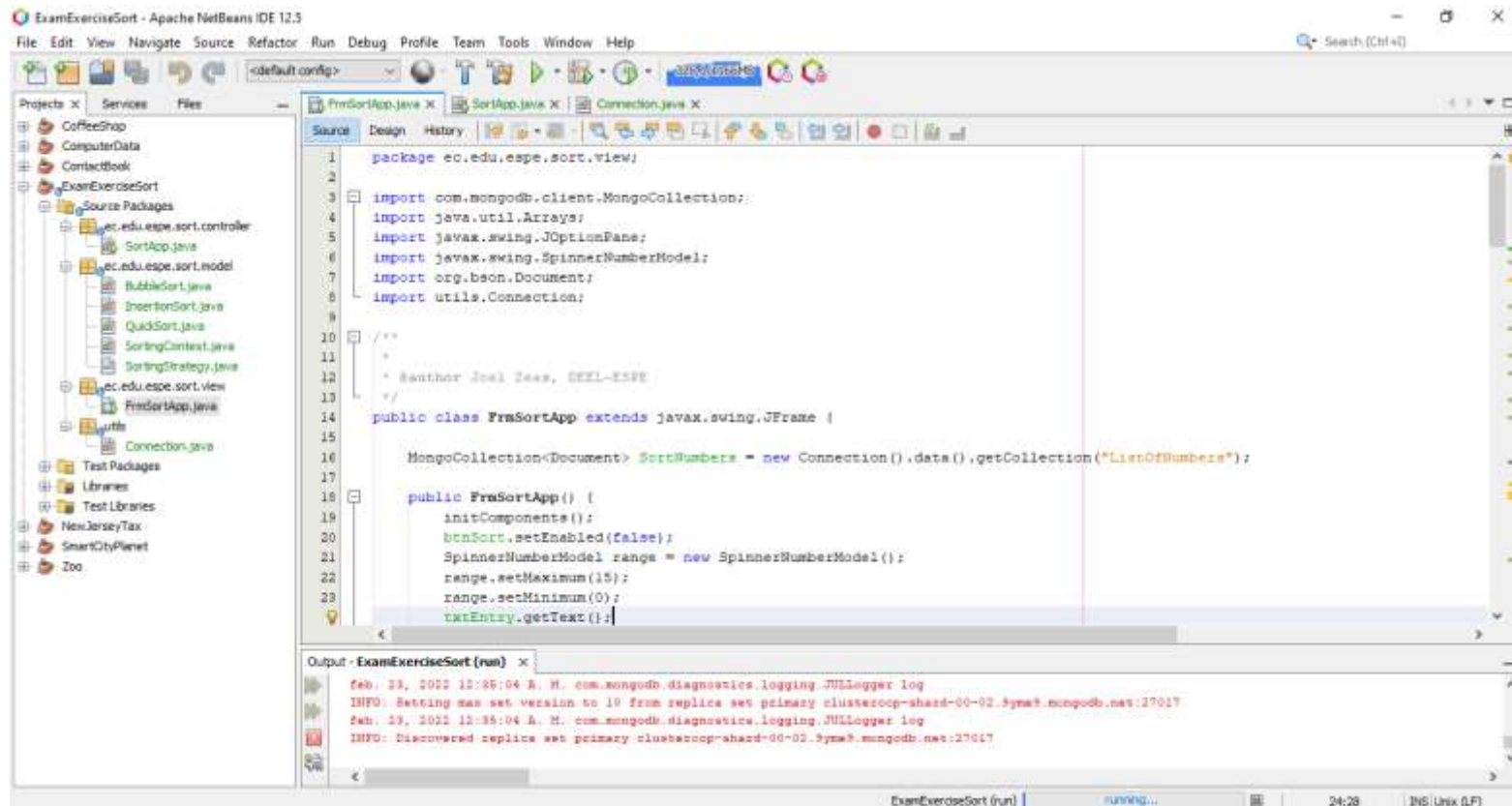
UNIVERSITY OF THE ARMED FORCES – ESPE
FINAL EXAM EXERCISE

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Date: 22th February 2022

NRC: 7490

Career: Telecommunications



```
package ec.edu.espe.sort.view;

import com.mongodb.client.MongoCollection;
import java.util.Arrays;
import javax.swing.JOptionPane;
import javax.swing.SpinnerNumberModel;
import org.bson.Document;
import utils.Connection;

/**
 *
 * @author Joel Zeas, QCYL-ESPE
 */
public class FrmSortApp extends javax.swing.JFrame {

    MongoCollection<Document> SortNumbers = new Connection().data().getCollection("ListOfNumbers");

    public FrmSortApp() {
        initComponents();
        btnSort.setEnabled(false);
        SpinnerNumberModel range = new SpinnerNumberModel();
        range.setMaximum(15);
        range.setMinimum(0);
        txtEntry.getText();
    }
}
```

Output - ExamExerciseSort (run) x

```
Feb 23, 2022 12:35:04 A. M. com.mongodb.diagnostics.logging.JULLogger log
INFO: Setting max set version to 10 from replica set primary clusterop-shard-00-02.sym@.mongodb.net:27017
Feb 23, 2022 12:35:04 A. M. com.mongodb.diagnostics.logging.JULLogger log
INFO: Discovered replica set primary clusterop-shard-00-02.sym@.mongodb.net:27017
```

ExamExerciseSort - Apache NetBeans IDE 12.5

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Search (Ctrl+F)

Projects Services Files

- CoffeeShop
- ComputerData
- ContactBook
- ExamExerciseSort
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 - SortApp.java
 - ec.edu.espe.sort.model
 - BubbleSort.java
 - InsertionSort.java
 - QuickSort.java
 - SortingContext.java
 - SortingStrategy.java
 - ec.edu.espe.sort.view
 - FormSortApp.java
 - utils
 - Connection.java
 - Test Packages
 - Libraries
 - Test Libraries
 - New JerseyTax
 - SmartCityPlanet
 - Zoo

Source History

```
1 package ec.edu.espe.sort.controller;
2
3 import ec.edu.espe.sort.model.SortingContext;
4 import java.util.Arrays;
5
6 /**
7  *
8  * @author Joel Zeas, DEEL-ESPE
9  */
10 public class SortApp {
11     public static void main(String[] args) {
12         int data[] = {12,12,111,9,6,2,2,8,6,3,5,2,35,6,3,2,2};
13         System.out.println("Data --> " + Arrays.toString(data));
14
15         SortingContext sc = new SortingContext();
16         int sortedList[] = sc.sort(data);
17
18         System.out.println("Sort Data --> " + Arrays.toString(sortedList));
19     }
20 }
21
```

Output - ExamExerciseSort (run) x

```
INFO: Discovered replica set primary cluster=shard-00-01.9yme9.mongodb.net:27017
Feb. 23, 2022 12:37:47 A.M. com.mongodb.diagnostics.logging.JULLogger log
INFO: Opened connection [connectionId{localValue:4, serverValue:116416}] to cluster=shard-00-01.9yme9.mongodb.net:27017
BUILD SUCCESSFUL (total time: 21 seconds)
```

1:1 | INVS | Windows (CRLF)

ExamExerciseSort - Apache NetBeans IDE 12.5

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Source

```
1 package ec.edu.espe.sort;
2
3 import com.mongodb.client;
4 import java.util.Arrays;
5 import javax.swing.JOptionPane;
6 import javax.swing.SpinnerNumberModel;
7 import org.bson.Document;
8 import utils.Connection;
9
10 /**
11  *
12  * @author Joel Tass, D
13  */
14 public class FrmSortApp
15 {
16     MongoClient<Doc
17
18     public FrmSortApp()
19     {
20         initComponents();
21         btnSort.setEnabled(true);
22         spinnerNumberModel.setMaximum(20);
23         spinnerNumberModel.setMinimum(1);
24         spinnerNumberModel.setValue(1);
25     }
26
27     private void initComponents()
28     {
29         // TODO add your initialization code here
30     }
31
32     private void btnSortActionPerformed(java.awt.event.ActionEvent evt)
33     {
34         // TODO add your handling code here
35     }
36 }
```

Output - ExamExerciseSort (run)

```
Feb. 23, 2022 12:33:21 A. M. ...
INFO: Monitor thread successful
Feb. 23, 2022 12:34:19 A. M. ...
INFO: Opened connection [connectionId[localValue:4, serverValue:116326]] to cluster00-shard-00-02.9yme9.mongodb.net:27017
```

Sort Numbers

How many numbers do you want to enter?: 2 OK

Add Numbers:

4
20

Sort Numbers:

Message

→ Apply Bubble Sort

OK

Sort Close

ExamExerciseSort (run) running... 24:28 145

ExamExerciseSort - Apache NetBeans IDE 12.5

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<default config> 856.6/1166MB

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Source Design History

```
1 package ec.edu.espe.sort.view;
2
3 import com.mongodb.client.MongoCollection;
4 import java.util.Arrays;
5 import javax.swing.JOptionPane;
6 import javax.swing.SpinnerNumberModel;
7 import org.bson.Document;
8 import utils.Connection;
9
10 /**
11  * @author Joel Teas, DEEL-
12  */
13
14 public class FrmSortApp extends javax.swing.JFrame {
15
16     private MongoCollection<Document> collection;
17
18     public FrmSortApp() {
19         initComponents();
20         btnSort.setEnabled(false);
21         SpinnerNumberModel model = new SpinnerNumberModel(1, 1, 10);
22         range.setMaximum(15);
23         range.setMinimum(0);
24         txtEntry.getText();
25     }
26 }
```

Output - ExamExerciseSort (run)

```
Feb. 23, 2022 12:33:31 A. M. com.mongodb.MongoClientPool: Discovered replica set primary
Feb. 23, 2022 12:33:31 A. M. com.mongodb.MongoClientPool: Monitor thread successfully
```

Sort Numbers

How many numbers do you want to enter?:

Add Numbers:

1

5

9

7

6

0

8

Sort Numbers:

Message

→ Apply Insertion Sort

OK

ExamExerciseSort (run) running... 24:28 245

ExamExerciseSort - Apache NetBeans IDE 12.5

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Source Design History

```
1 package ec.edu.espe.sort.view;
2
3 import com.mongodb.client.MongoCollection;
4 import java.util.Arrays;
5 import javax.swing.JOptionPane;
6 import javax.swing.SpinnerNumberModel;
7 import org.bson.Document;
8 import utils.Connection;
9
10 /**
11  * @author Joel Icaza, DEEEL-ESPE
12  */
13
14 public class FrmSortApp extends javax.swing.JFrame {
15
16     MongoClient<Document> mongoClient;
17
18     public FrmSortApp() {
19         initComponents();
20         btnSort.setEnabled(false);
21         SpinnerNumberModel range =
22             new SpinnerNumberModel(1, 1, 15);
23         txtEntry.setText("");
24     }
25 }
```

Output - ExamExerciseSort (run) x

```
Feb. 23, 2022 12:37:19 A. M. com.mongodb.MongoClient:
INFO: Setting max web version to 10 from c
Feb. 23, 2022 12:37:19 A. M. com.mongodb.MongoClient:
INFO: Discovered replica set primary cluster=rs0-shard-00-01.mongom.net:27017
```

Sort Numbers

How many numbers do you want to enter?: 10 OK

Add Numbers:

Sort Numbers:

Message

Apply Quick Sort OK

Sort Close

ExamExerciseSort (run) running... 24:28 DMS

Cloud: MongoDB Cloud

cloud.mongodb.com/v2/61c32d5d71bf9459608fdb86#metrics/replicaSet/6215ade356d5215b84ed615c/explorer/ExamSort/ListOfNumbers/find

JOEL ALEXANDER's... Access Manager Billing All Clusters Get Help JOEL ALEXANDER

Project 0 Atlas Realm Charts

DEPLOYMENT

Database

Data Lake

DATA SERVICES

Triggers

Data API PREVIEW

SECURITY

Database Access

Network Access

Advanced

+ Create Database

Q NAMESPACES

- AnimalsZoo
- CateringPlanner
- ComputerData
- ComputersList
- ContactsBook
- ExamSort
 - ListOfNumbers
- Project
- SmartCityPlanet
- SmartCityPlanet1
- SmartHome

ExamSort.ListOfNumbers

STORAGE SIZE: 36KB TOTAL DOCUMENTS: 6 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

INSERT DOCUMENT

ENTER { fields: "value" } OPTIONS Apply Reset

QUERY RESULTS 1-4 OF 4

```
{
  "_id": ObjectId("6215c75e6de7191ae7a36eaa"),
  "1": 1,
  "5": 5,
  "0": 0,
  "unsorted": 7,
  "6": 6,
  "8": 8,
  "2": 2,
  "size": "7",
  "sort algorithm": "Insertion sort",
  "Sorted": "9"
}
```

Data | Cloud: MongoDB Cloud

cloud.mongodb.com/v2/61c32d5d71bf9459608fdb86#metrics/replicaSet/6215ade356d5215b84ed615c/explorer/ExamSort/ListOfNumbers/find

JOEL ALEXANDER's... Access Manager Billing All Clusters Get Help JOEL ALEXANDER

Project 0 Atlas Realm Charts

DEPLOYMENT

Database

Data Lake

DATA SERVICES

Triggers

Data API PREVIEW

SECURITY

Database Access

Network Access

Advanced

```
{ "_id": ObjectId("6225c77568a7011a6fa0eaa0")  
  "Unsorted": 4  
  "Size": "2"  
  "Sort algorithm": "Bubble Sort"  
  "Sorted": "4"  
}
```

```
{ "_id": ObjectId("6225c77568a7011a6fa0eaa0")  
  "Unsorted": 4  
  "Size": "5"  
  "Sort algorithm": "Insertion sort"  
  "Sorted": "9"  
}
```

```
{ "_id": ObjectId("6225c80627e9f113a60b0b0e")  
  "Unsorted": 5  
  "Size": "10"  
  "Sort algorithm": "Quick Sort"  
  "Sorted": "9"  
}
```