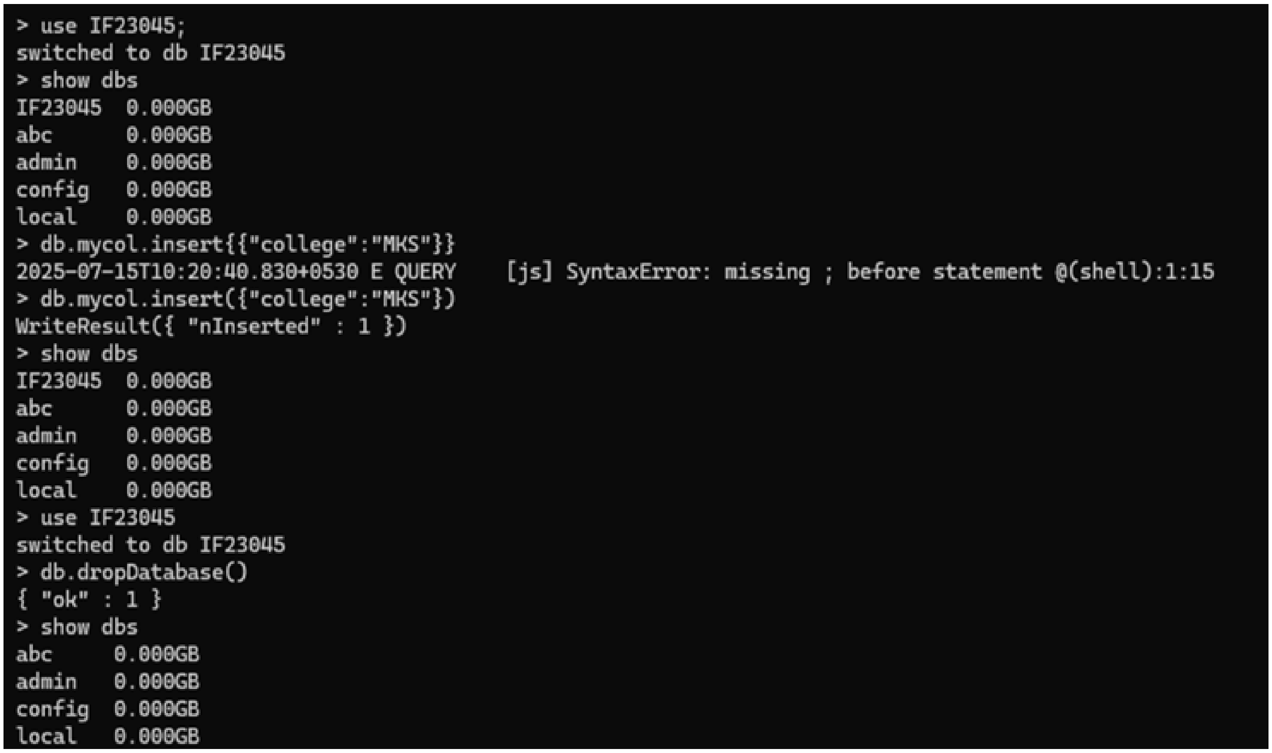
PRACTIACL 1

PRACTICAL1(A)

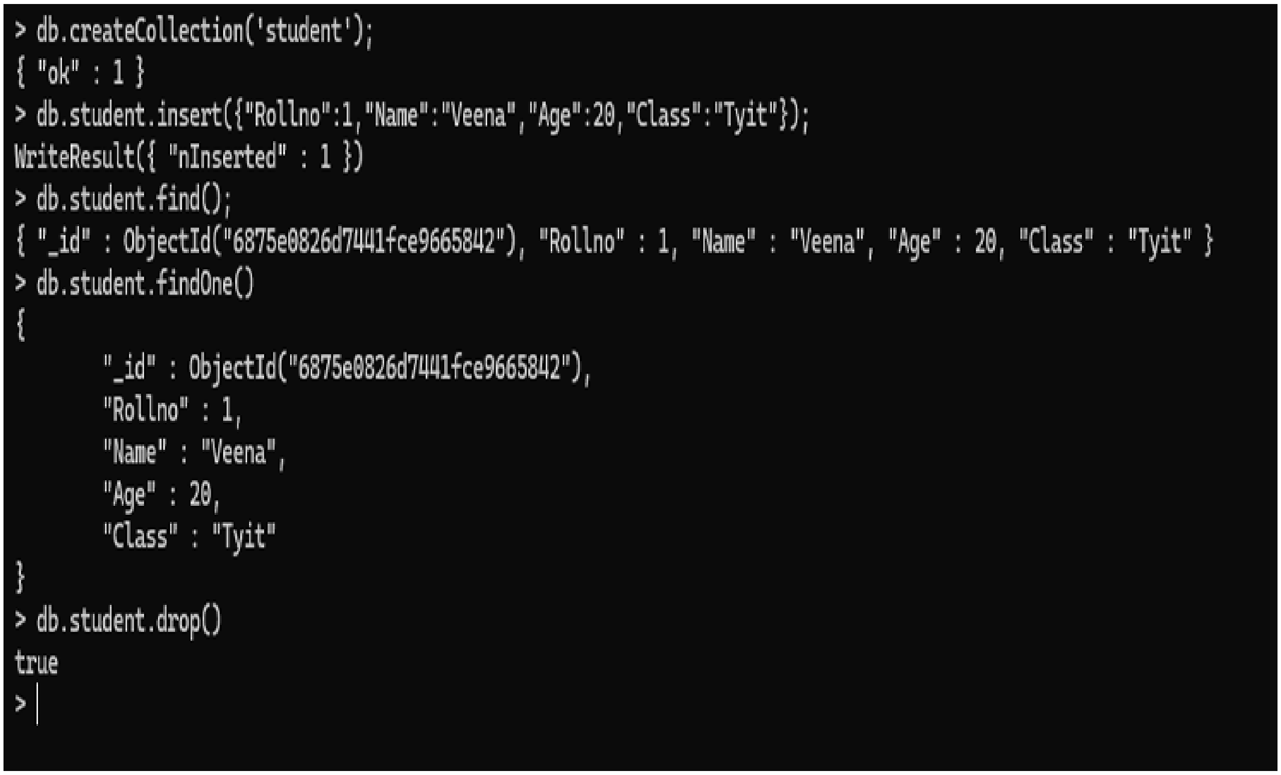
Aim:- Write a MongoDB query to create and drop database



```
> use IF23045;
switched to db IF23045
> show dbs
IF23045  0.000GB
abc      0.000GB
admin    0.000GB
config   0.000GB
local    0.000GB
> db.mycol.insert{{"college":"MKS"}}
2025-07-15T10:20:40.830+0530 E QUERY    [js] SyntaxError: missing ; before statement @(shell):1:15
> db.mycol.insert({"college":"MKS"})
WriteResult({ "nInserted" : 1 })
> show dbs
IF23045  0.000GB
abc      0.000GB
admin    0.000GB
config   0.000GB
local    0.000GB
> use IF23045
switched to db IF23045
> db.dropDatabase()
{ "ok" : 1 }
> show dbs
abc     0.000GB
admin   0.000GB
config  0.000GB
local   0.000GB
```

PRACTICAL1(B)

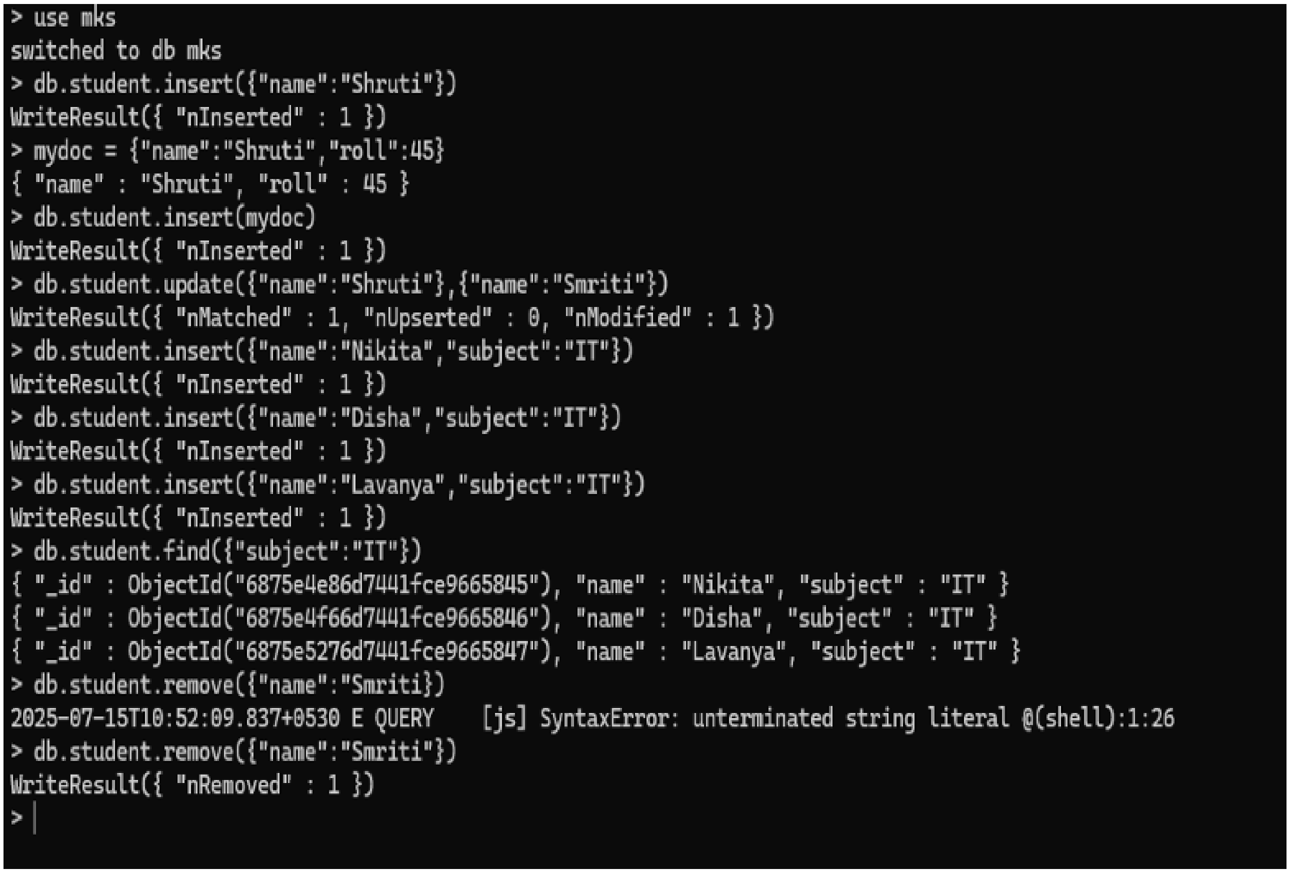
Aim: Write a MongoDB query to create, display and drop collection



```
> db.createCollection('student');
{ "ok" : 1 }
> db.student.insert({"Rollno":1,"Name":"Veena","Age":20,"Class":"Tyit"});
WriteResult({ "nInserted" : 1 })
> db.student.find();
{ "_id" : ObjectId("6875e0826d7441fce9665842"), "Rollno" : 1, "Name" : "Veena", "Age" : 20, "Class" : "Tyit" }
> db.student.findOne()
{
        "_id" : ObjectId("6875e0826d7441fce9665842"),
        "Rollno" : 1,
        "Name" : "Veena",
        "Age" : 20,
        "Class" : "Tyit"
}
> db.student.drop()
true
>
```

PRACTICAL 1(C)

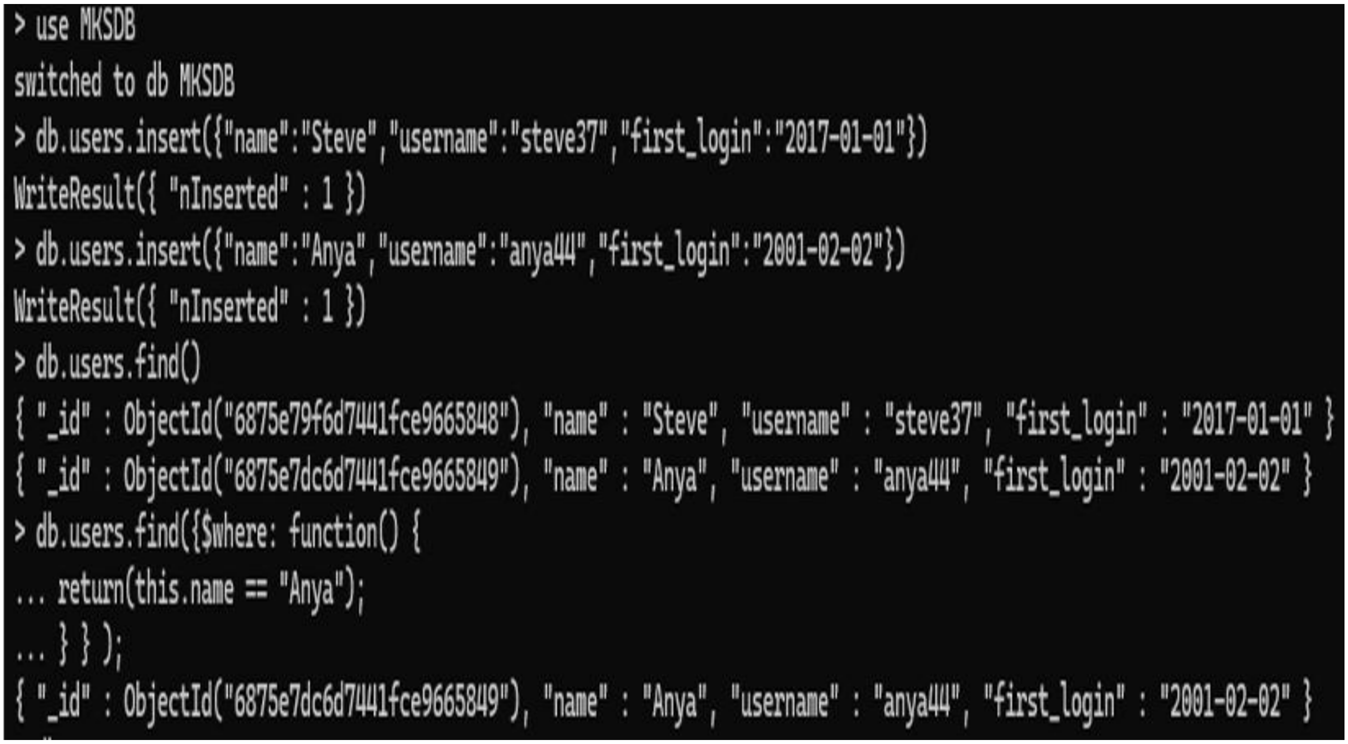
Aim: Write a MongoDB query to insert, query, update and delete a document.



```
> use mks
switched to db mks
> db.student.insert({"name":"Shruti"})
WriteResult({ "nInserted" : 1 })
> mydoc = {"name":"Shruti","roll":45}
{ "name" : "Shruti", "roll" : 45 }
> db.student.insert(mydoc)
WriteResult({ "nInserted" : 1 })
> db.student.update({"name":"Shruti"},{"name":"Smriti"})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.student.insert({"name":"Nikita","subject":"IT"})
WriteResult({ "nInserted" : 1 })
> db.student.insert({"name":"Disha","subject":"IT"})
WriteResult({ "nInserted" : 1 })
> db.student.insert({"name":"Lavanya","subject":"IT"})
WriteResult({ "nInserted" : 1 })
> db.student.find({"subject":"IT"})
{ "_id" : ObjectId("6875e4e86d7441fce9665845"), "name" : "Nikita", "subject" : "IT" }
{ "_id" : ObjectId("6875e4f66d7441fce9665846"), "name" : "Disha", "subject" : "IT" }
{ "_id" : ObjectId("6875e5276d7441fce9665847"), "name" : "Lavanya", "subject" : "IT" }
> db.student.remove({"name":"Smriti})
2025-07-15T10:52:09.837+0530 E QUERY    [js] SyntaxError: unterminated string literal @(shell):1:26
> db.student.remove({"name":"Smriti"})
WriteResult({ "nRemoved" : 1 })
> |
```

PRACTICAL 2

Aim: Simple Queries with MongoDB

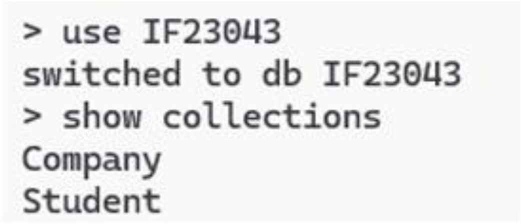


```
> use MKSDB
switched to db MKSDB
> db.users.insert({"name":"Steve","username":"steve37","first_login":"2017-01-01"})
WriteResult({ "nInserted" : 1 })
> db.users.insert({"name":"Anya","username":"anya44","first_login":"2001-02-02"})
WriteResult({ "nInserted" : 1 })
> db.users.find()
{ "_id" : ObjectId("6875e79f6d7441fce9665848"), "name" : "Steve", "username" : "steve37", "first_login" : "2017-01-01" }
{ "_id" : ObjectId("6875e7dc6d7441fce9665849"), "name" : "Anya", "username" : "anya44", "first_login" : "2001-02-02" }
> db.users.find({$where: function() {
... return(this.name == "Anya");
... } } );
{ "_id" : ObjectId("6875e7dc6d7441fce9665849"), "name" : "Anya", "username" : "anya44", "first_login" : "2001-02-02" }
```

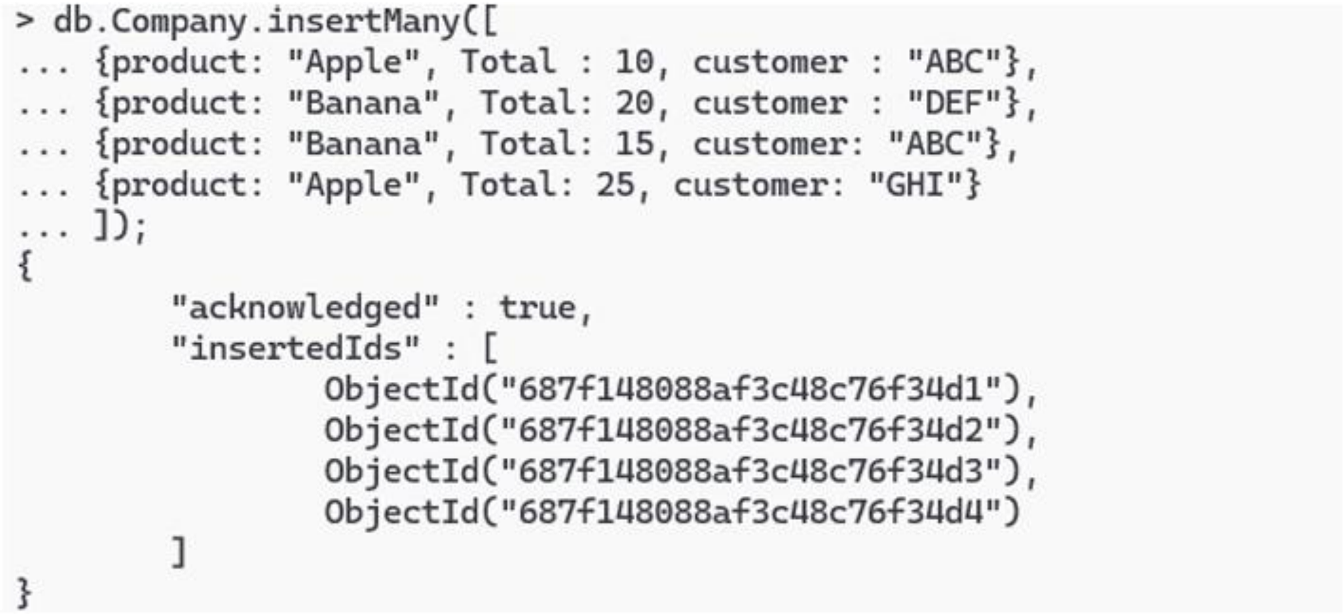
PRACTICAL 3

PRACTICAL3(A)

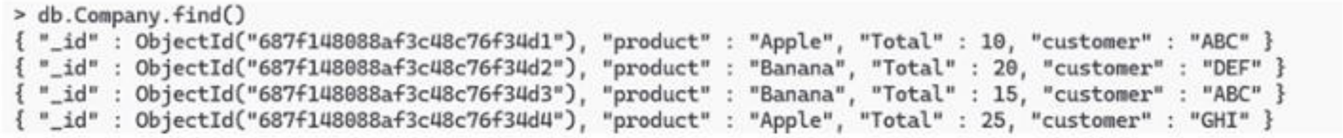
Aim: Write a MongoDB query to use sum, avg, min and max expression.



```
> use IF23043
switched to db IF23043
> show collections
Company
Student
```

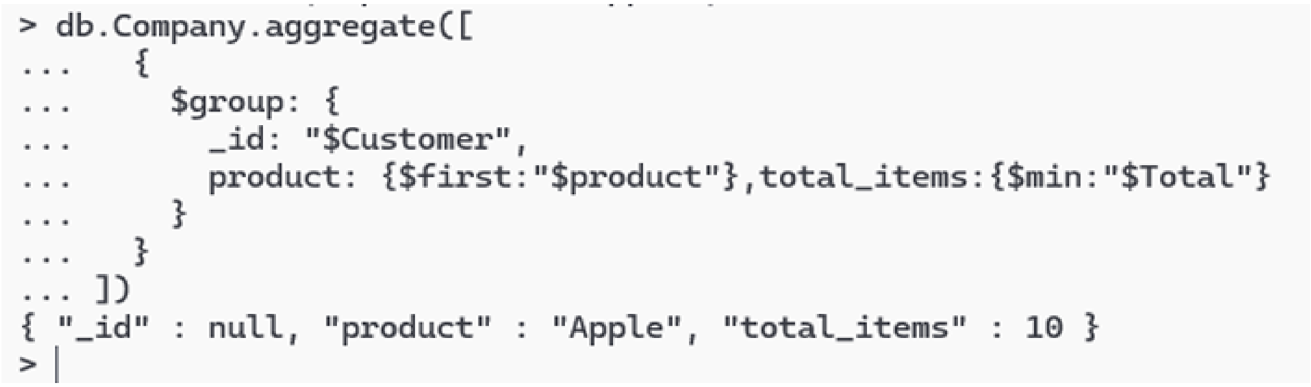


```
> db.Company.insertMany([
... {product: "Apple", Total : 10, customer : "ABC"},
... {product: "Banana", Total: 20, customer : "DEF"},
... {product: "Banana", Total: 15, customer: "ABC"},
... {product: "Apple", Total: 25, customer: "GHI"}
... ]);
{
        "acknowledged" : true,
        "insertedIds" : [
                ObjectId("687f148088af3c48c76f34d1"),
                ObjectId("687f148088af3c48c76f34d2"),
                ObjectId("687f148088af3c48c76f34d3"),
                ObjectId("687f148088af3c48c76f34d4")
        ]
}
```



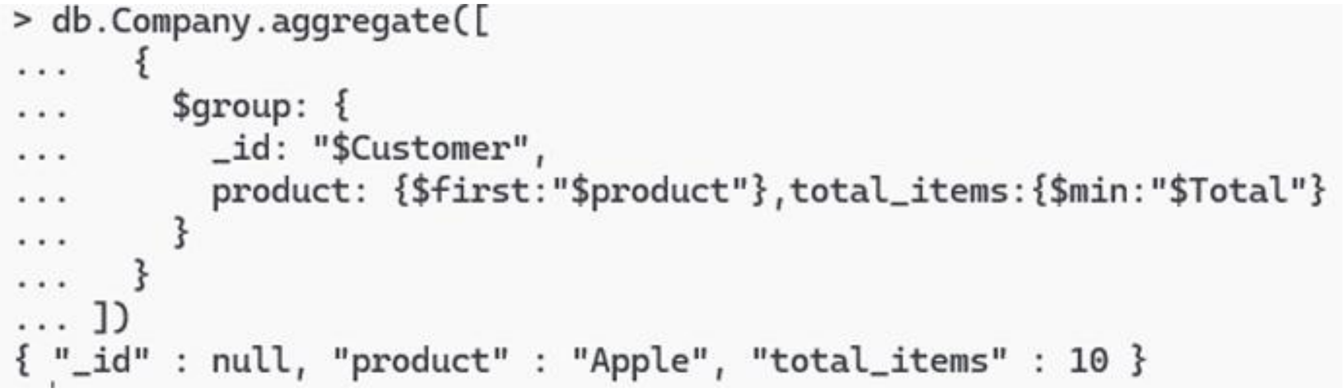
```
> db.Company.find()
{ "_id" : ObjectId("687f148088af3c48c76f34d1"), "product" : "Apple", "Total" : 10, "customer" : "ABC" }
{ "_id" : ObjectId("687f148088af3c48c76f34d2"), "product" : "Banana", "Total" : 20, "customer" : "DEF" }
{ "_id" : ObjectId("687f148088af3c48c76f34d3"), "product" : "Banana", "Total" : 15, "customer" : "ABC" }
{ "_id" : ObjectId("687f148088af3c48c76f34d4"), "product" : "Apple", "Total" : 25, "customer" : "GHI" }
```

SUM:-



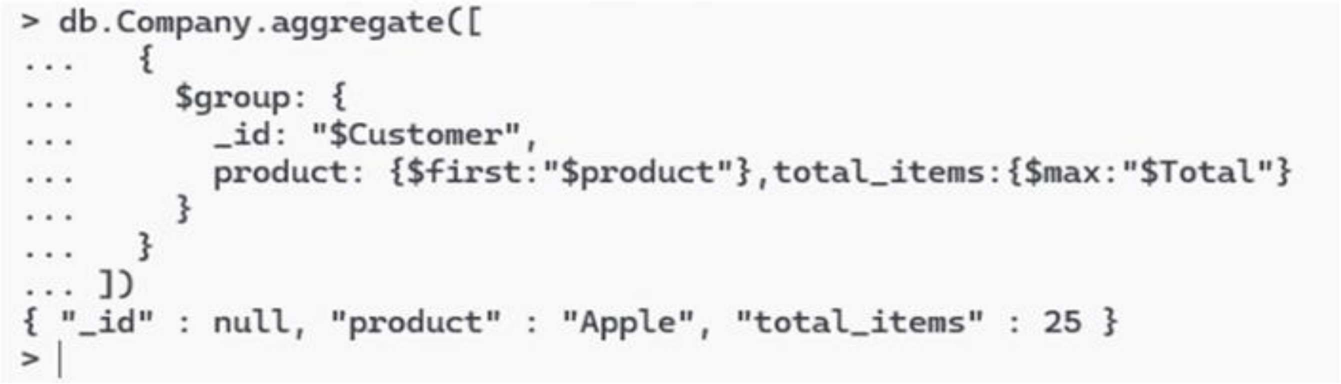
```
> db.Company.aggregate([
...   {
...     $group: {
...       _id: "$Customer",
...       product: {$first:"$product"},total_items:{$min:"$Total"}
...     }
...   }
... ])
{ "_id" : null, "product" : "Apple", "total_items" : 10 }
> |
```

MIN:-



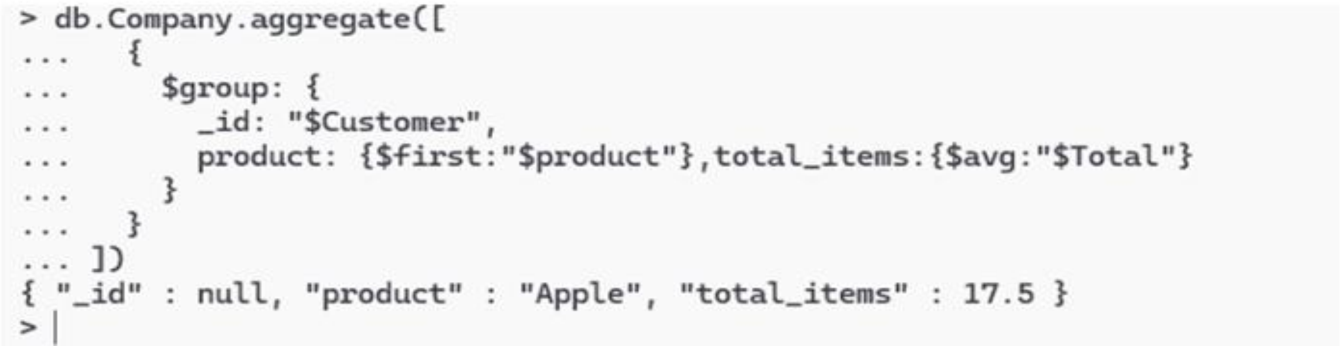
```
> db.Company.aggregate([
...    {
...      $group: {
...        _id: "$Customer",
...        product: {$first:"$product"},total_items:{$min:"$Total"}
...      }
...    }
... ])
{ "_id" : null, "product" : "Apple", "total_items" : 10 }
```

MAX:-



```
> db.Company.aggregate([
...    {
...      $group: {
...        _id: "$Customer",
...        product: {$first:"$product"},total_items:{$max:"$Total"}
...      }
...    }
... ])
{ "_id" : null, "product" : "Apple", "total_items" : 25 }
> |
```

AVERAGE:-

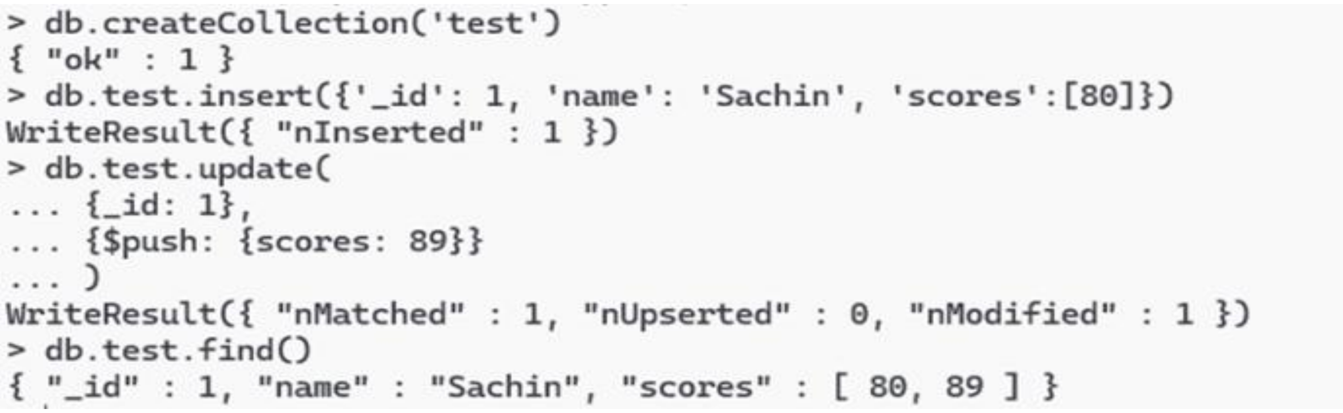


```
> db.Company.aggregate([
...    {
...      $group: {
...        _id: "$Customer",
...        product: {$first:"$product"},total_items:{$avg:"$Total"}
...      }
...    }
... ])
{ "_id" : null, "product" : "Apple", "total_items" : 17.5 }
> |
```

PRACTICAL3(B)

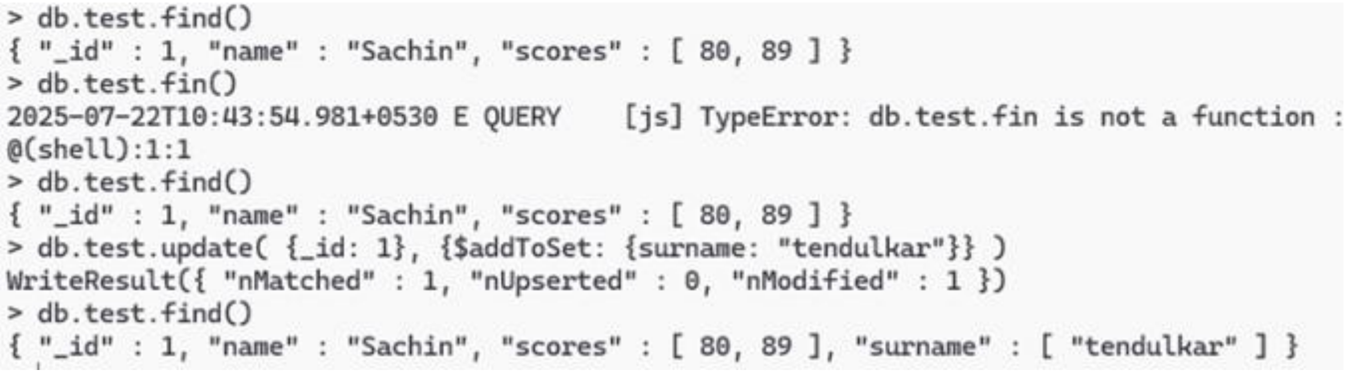
Aim:- Write a MongoDB query to use push and addToSet expression.

PUSH:-



```
> db.createCollection('test')
{ "ok" : 1 }
> db.test.insert({'_id': 1, 'name': 'Sachin', 'scores':[80]})
WriteResult({ "nInserted" : 1 })
> db.test.update(
... {_id: 1},
... {$push: {scores: 89}}
... )
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.test.find()
{ "_id" : 1, "name" : "Sachin", "scores" : [ 80, 89 ] }
```

AddToSet:-

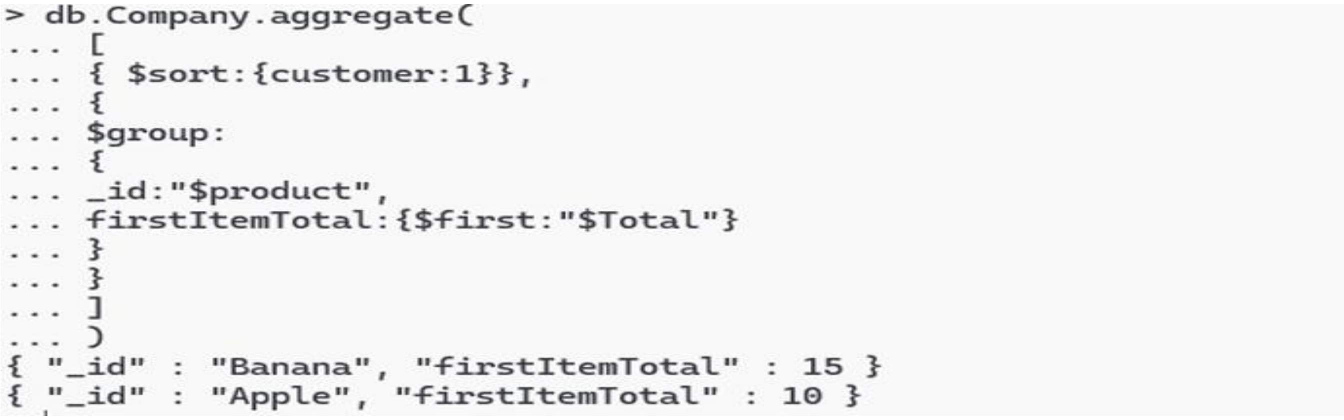


```
> db.test.find()
{ "_id" : 1, "name" : "Sachin", "scores" : [ 80, 89 ] }
> db.test.fin()
2025-07-22T10:43:54.981+0530 E QUERY    [js] TypeError: db.test.fin is not a function :
@(shell):1:1
> db.test.find()
{ "_id" : 1, "name" : "Sachin", "scores" : [ 80, 89 ] }
> db.test.update( {_id: 1}, {$addToSet: {surname: "tendulkar"}} )
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.test.find()
{ "_id" : 1, "name" : "Sachin", "scores" : [ 80, 89 ], "surname" : [ "tendulkar" ] }
```

PRACTICAL 3(C)

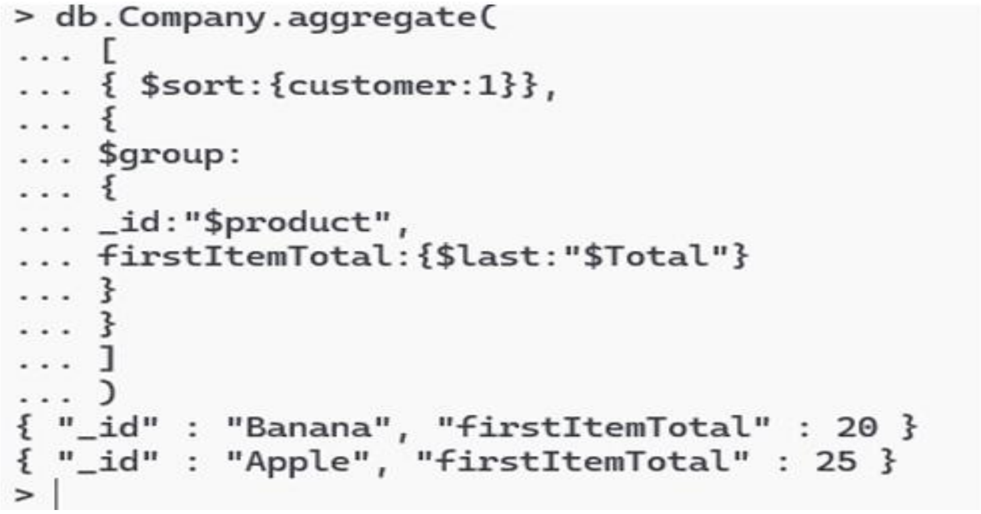
Aim:- Write a MongoDB query to use first and last expression.

$first:-



```
> db.Company.aggregate(
... [
... { $sort:{customer:1}},
... {
... $group:
... {
... _id:"$product",
... firstItemTotal:{$first:"$Total"}
... }
... }
... ]
... )
{ "_id" : "Banana", "firstItemTotal" : 15 }
{ "_id" : "Apple", "firstItemTotal" : 10 }
```

$last:-



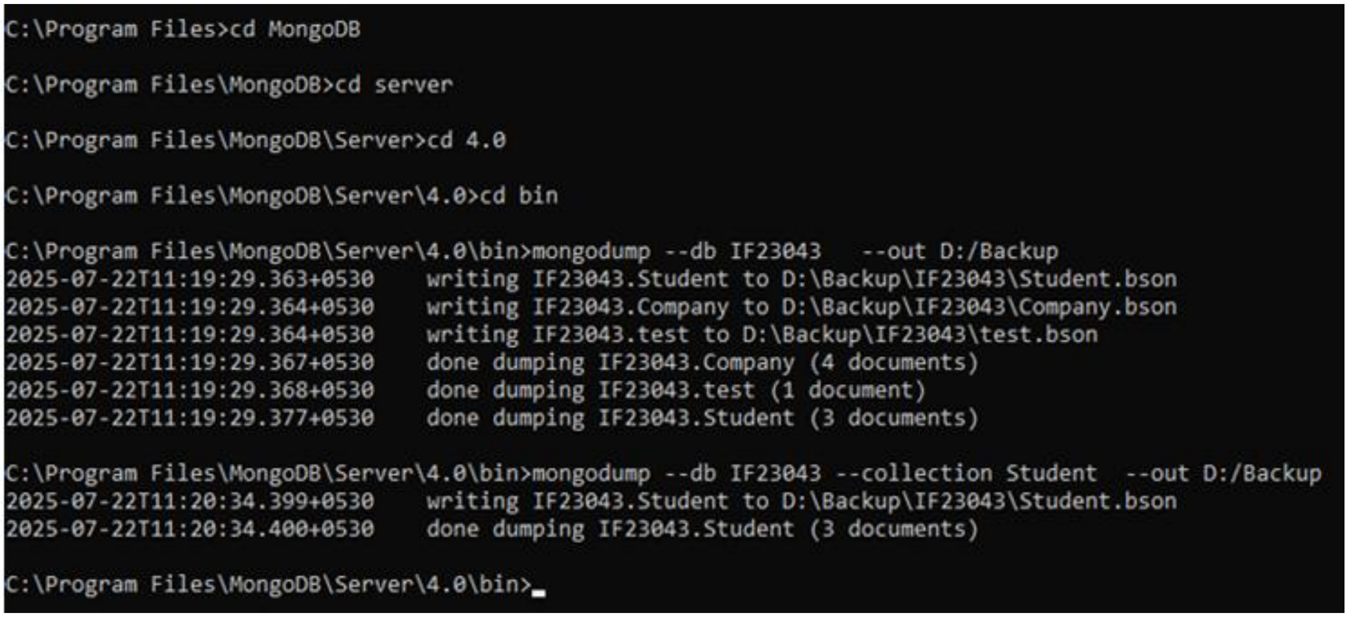
```
> db.Company.aggregate(
... [
... { $sort:{customer:1}},
... {
... $group:
... {
... _id:"$product",
... firstItemTotal:{$last:"$Total"}
... }
... }
... ]
... )
{ "_id" : "Banana", "firstItemTotal" : 20 }
{ "_id" : "Apple", "firstItemTotal" : 25 }
> |
```

PRACTICAL 4

PRACTIACL 4(A)

Aim:- Write a MongoDB query to create a backup of existing database.

Backup:-

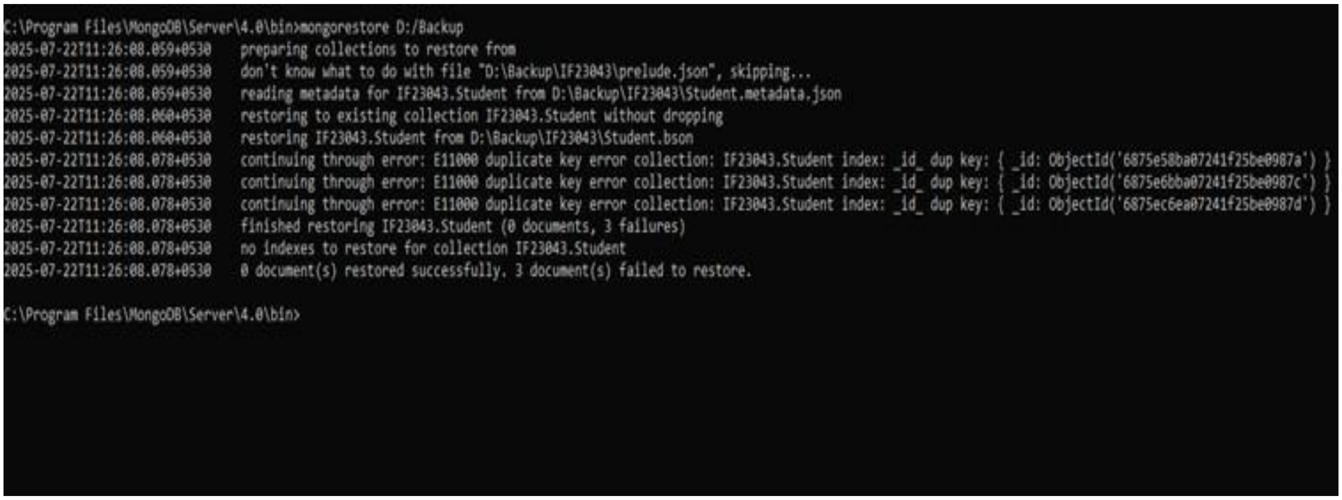


```
C:\Program Files>cd MongoDB

C:\Program Files\MongoDB>cd server

C:\Program Files\MongoDB\Server>cd 4.0

C:\Program Files\MongoDB\Server\4.0>cd bin

C:\Program Files\MongoDB\Server\4.0\bin>mongodump --db IF23043   --out D:/Backup
2025-07-22T11:19:29.363+0530    writing IF23043.Student to D:\Backup\IF23043\Student.bson
2025-07-22T11:19:29.364+0530    writing IF23043.Company to D:\Backup\IF23043\Company.bson
2025-07-22T11:19:29.364+0530    writing IF23043.test to D:\Backup\IF23043\test.bson
2025-07-22T11:19:29.367+0530    done dumping IF23043.Company (4 documents)
2025-07-22T11:19:29.368+0530    done dumping IF23043.test (1 document)
2025-07-22T11:19:29.377+0530    done dumping IF23043.Student (3 documents)

C:\Program Files\MongoDB\Server\4.0\bin>mongodump --db IF23043 --collection Student  --out D:/Backup
2025-07-22T11:20:34.399+0530    writing IF23043.Student to D:\Backup\IF23043\Student.bson
2025-07-22T11:20:34.400+0530    done dumping IF23043.Student (3 documents)

C:\Program Files\MongoDB\Server\4.0\bin>_
```

PRACTICAL 4(B)

Aim:- Write a MongoDB query to restore database from the backup.

Restore:-

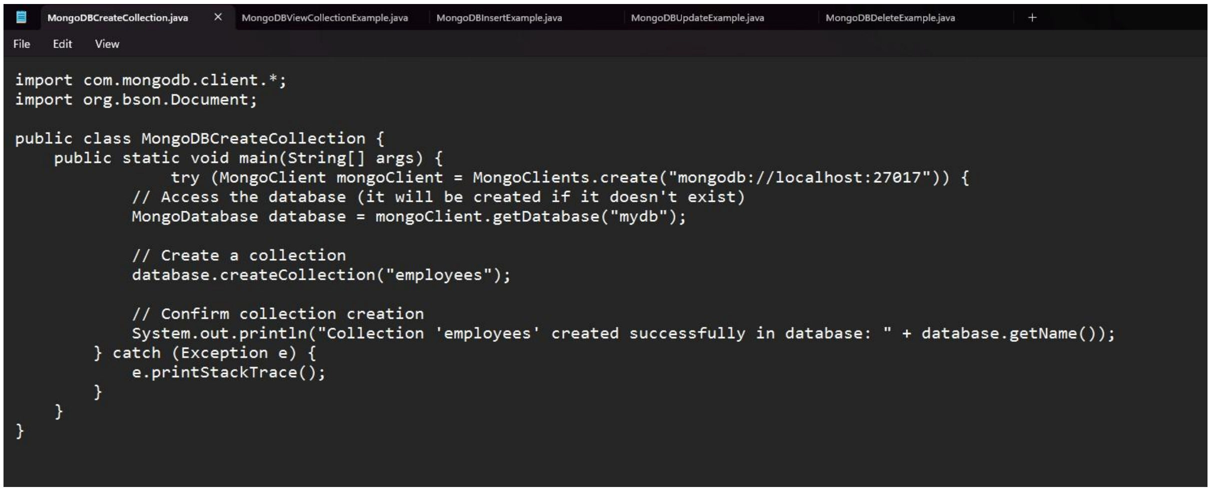


```
C:\Program Files\MongoDB\Server\4.0\bin>mongorestore D:/Backup
2025-07-22T11:26:08.059+0530    preparing collections to restore from
2025-07-22T11:26:08.059+0530    don't know what to do with file "D:\Backup\IF23043\prelude.json", skipping...
2025-07-22T11:26:08.059+0530    reading metadata for IF23043.Student from D:\Backup\IF23043\Student.metadata.json
2025-07-22T11:26:08.060+0530    restoring to existing collection IF23043.Student without dropping
2025-07-22T11:26:08.060+0530    restoring IF23043.Student from D:\Backup\IF23043\Student.bson
2025-07-22T11:26:08.078+0530    continuing through error: E11000 duplicate key error collection: IF23043.Student index: _id_ dup key: { _id: ObjectId('6875e58ba07241f25be0987a') }
2025-07-22T11:26:08.078+0530    continuing through error: E11000 duplicate key error collection: IF23043.Student index: _id_ dup key: { _id: ObjectId('6875e6bba07241f25be0987c') }
2025-07-22T11:26:08.078+0530    continuing through error: E11000 duplicate key error collection: IF23043.Student index: _id_ dup key: { _id: ObjectId('6875ec6ea07241f25be0987d') }
2025-07-22T11:26:08.078+0530    finished restoring IF23043.Student (0 documents, 3 failures)
2025-07-22T11:26:08.078+0530    no indexes to restore for collection IF23043.Student
2025-07-22T11:26:08.078+0530    0 document(s) restored successfully. 3 document(s) failed to restore.

C:\Program Files\MongoDB\Server\4.0\bin>
```

PRACTICAL 5

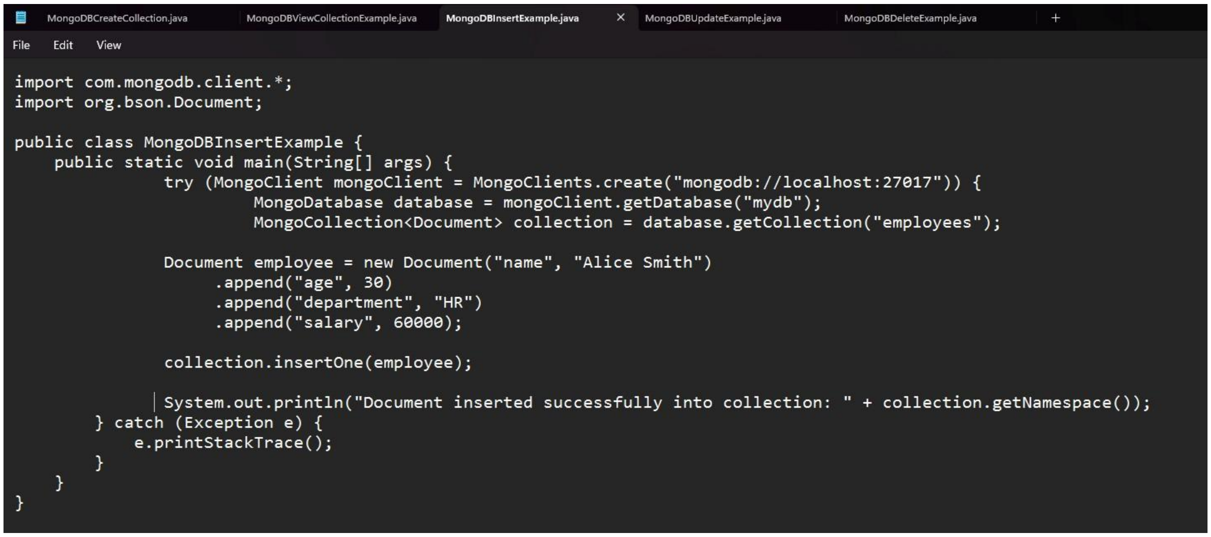
Aim:- Connecting Java with MongoDB and inserting, retrieving, updating and deleting.

CreateCollection –


MongoDBCreateCollection.java
MongoDBViewCollectionExample.java
MongoDBInsertExample.java
MongoDBUpdateExample.java
MongoDBDeleteExample.java
File
Edit
View

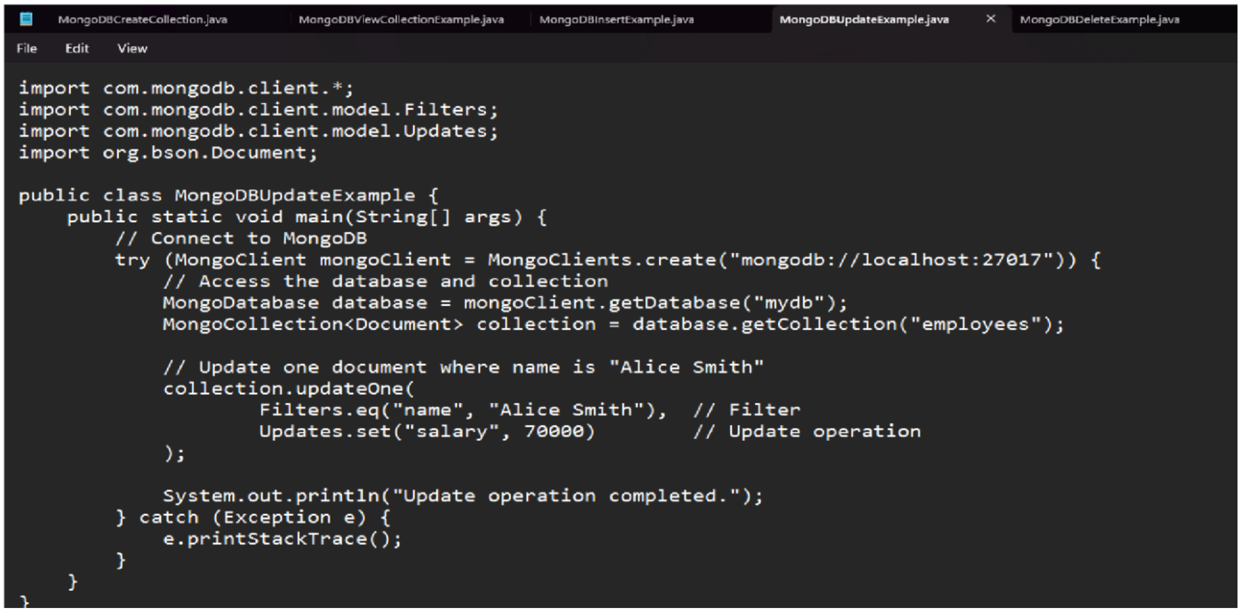
```
import com.mongodb.client.*;
import org.bson.Document;

public class MongoDBCreateCollection {
    public static void main(String[] args) {
                try (MongoClient mongoClient = MongoClients.create("mongodb://localhost:27017")) {
            // Access the database (it will be created if it doesn't exist)
            MongoDatabase database = mongoClient.getDatabase("mydb");

            // Create a collection
            database.createCollection("employees");

            // Confirm collection creation
            System.out.println("Collection 'employees' created successfully in database: " + database.getName());
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

InsertCollection-


MongoDBCreateCollection.java
MongoDBViewCollectionExample.java
MongoDBInsertExample.java
MongoDBUpdateExample.java
MongoDBDeleteExample.java
File
Edit
View

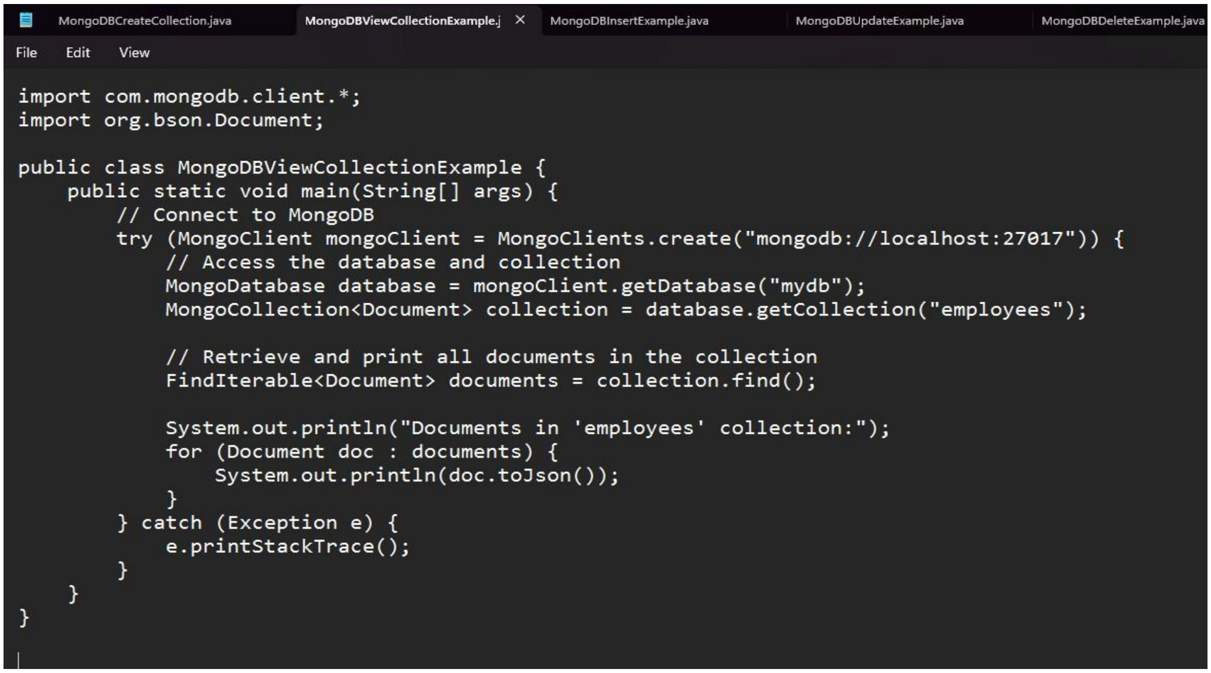
```
import com.mongodb.client.*;
import org.bson.Document;

public class MongoDBInsertExample {
    public static void main(String[] args) {
               try (MongoClient mongoClient = MongoClients.create("mongodb://localhost:27017")) {
                        MongoDatabase database = mongoClient.getDatabase("mydb");
                        MongoCollection<Document> collection = database.getCollection("employees");

               Document employee = new Document("name", "Alice Smith")
                    .append("age", 30)
                    .append("department", "HR")
                    .append("salary", 60000);

               collection.insertOne(employee);

               System.out.println("Document inserted successfully into collection: " + collection.getNamespace());
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

UpdateCollection-


MongoDBCreateCollection.java
MongoDBViewCollectionExample.java
MongoDBInsertExample.java
MongoDBUpdateExample.java
MongoDBDeleteExample.java
File
Edit
View

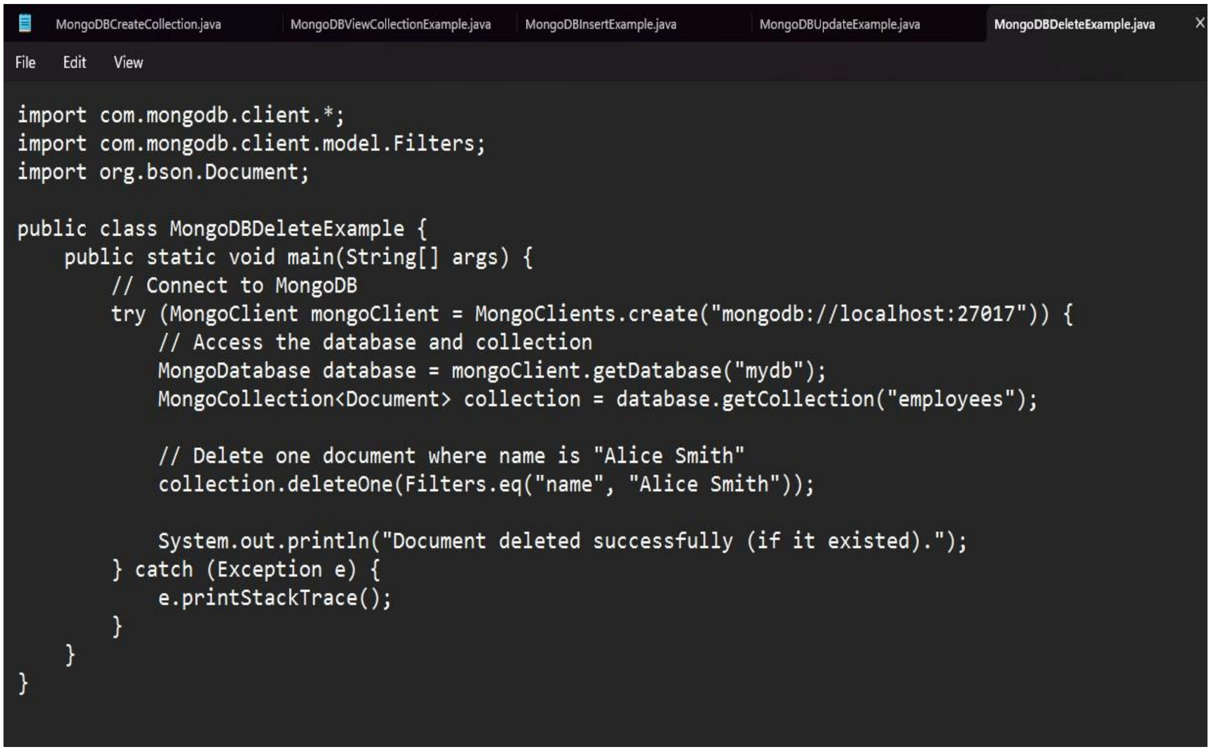
```
import com.mongodb.client.*;
import com.mongodb.client.model.Filters;
import com.mongodb.client.model.Updates;
import org.bson.Document;

public class MongoDBUpdateExample {
    public static void main(String[] args) {
        // Connect to MongoDB
        try (MongoClient mongoClient = MongoClients.create("mongodb://localhost:27017")) {
            // Access the database and collection
            MongoDatabase database = mongoClient.getDatabase("mydb");
            MongoCollection<Document> collection = database.getCollection("employees");

            // Update one document where name is "Alice Smith"
            collection.updateOne(
                    Filters.eq("name", "Alice Smith"),  // Filter
                    Updates.set("salary", 70000)        // Update operation
            );

            System.out.println("Update operation completed.");
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

ViewCollection-


MongoDBCreateCollection.java
MongoDBViewCollectionExample.j
MongoDBInsertExample.java
MongoDBUpdateExample.java
MongoDBDeleteExample.java
File
Edit
View

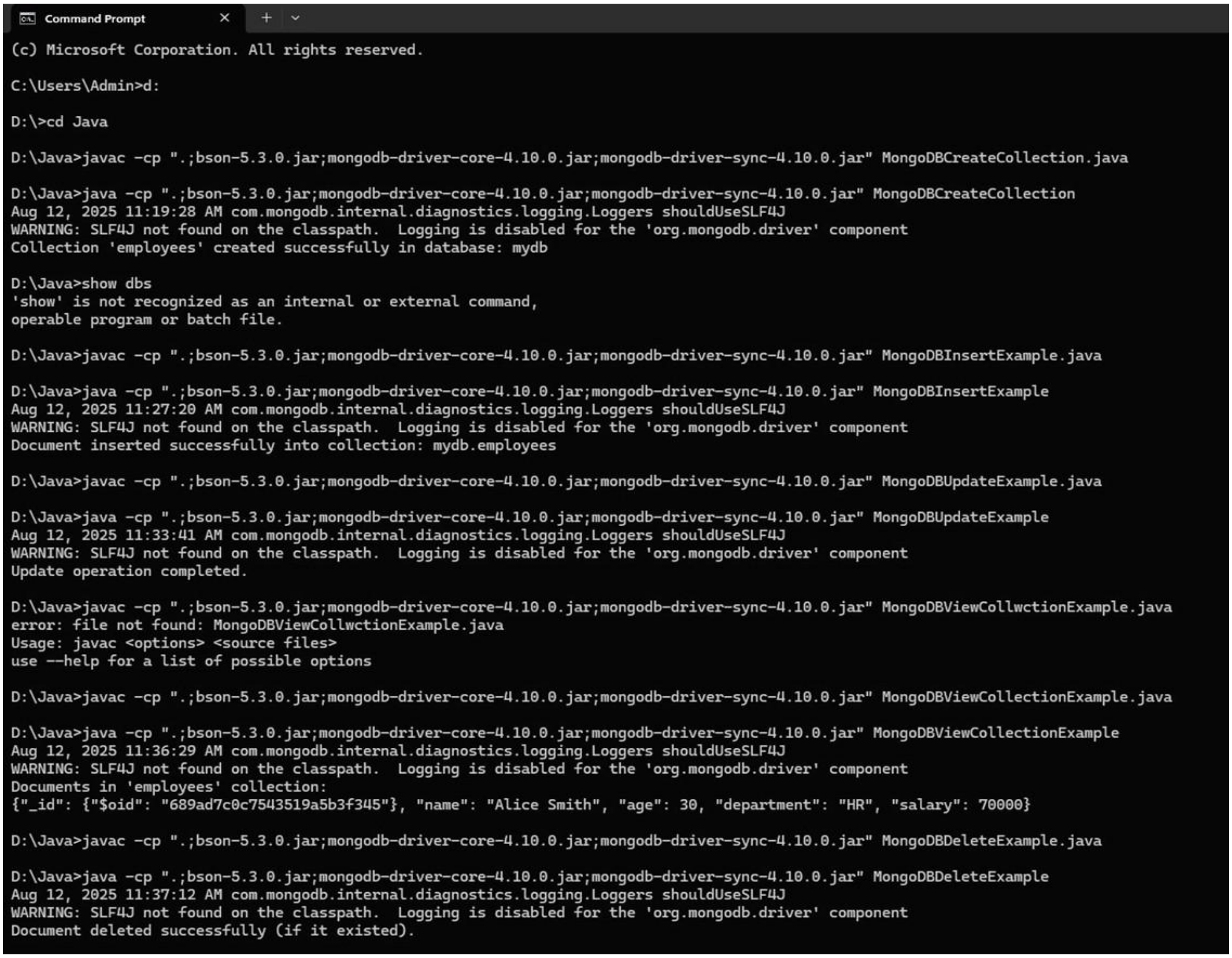
```
import com.mongodb.client.*;
import org.bson.Document;

public class MongoDBViewCollectionExample {
    public static void main(String[] args) {
        // Connect to MongoDB
        try (MongoClient mongoClient = MongoClients.create("mongodb://localhost:27017")) {
            // Access the database and collection
            MongoDatabase database = mongoClient.getDatabase("mydb");
            MongoCollection<Document> collection = database.getCollection("employees");

            // Retrieve and print all documents in the collection
            FindIterable<Document> documents = collection.find();

            System.out.println("Documents in 'employees' collection:");
            for (Document doc : documents) {
                System.out.println(doc.toJson());
            }
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

DeleteCollection-


MongoDBCreateCollection.java
MongoDBViewCollectionExample.java
MongoDBInsertExample.java
MongoDBUpdateExample.java
MongoDBDeleteExample.java
File
Edit
View

```
import com.mongodb.client.*;
import com.mongodb.client.model.Filters;
import org.bson.Document;

public class MongoDBDeleteExample {
    public static void main(String[] args) {
        // Connect to MongoDB
        try (MongoClient mongoClient = MongoClients.create("mongodb://localhost:27017")) {
            // Access the database and collection
            MongoDatabase database = mongoClient.getDatabase("mydb");
            MongoCollection<Document> collection = database.getCollection("employees");

            // Delete one document where name is "Alice Smith"
            collection.deleteOne(Filters.eq("name", "Alice Smith"));

            System.out.println("Document deleted successfully (if it existed).");
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

OUTPUT-



```
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C:\Users\Admin>d:

D:\>cd Java

D:\Java>javac -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBCreateCollection.java

D:\Java>java -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBCreateCollection
Aug 12, 2025 11:19:28 AM com.mongodb.internal.diagnostics.logging.Loggers shouldUseSLF4J
WARNING: SLF4J not found on the classpath.  Logging is disabled for the 'org.mongodb.driver' component
Collection 'employees' created successfully in database: mydb

D:\Java>show dbs
'show' is not recognized as an internal or external command,
operable program or batch file.

D:\Java>javac -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBInsertExample.java

D:\Java>java -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBInsertExample
Aug 12, 2025 11:27:20 AM com.mongodb.internal.diagnostics.logging.Loggers shouldUseSLF4J
WARNING: SLF4J not found on the classpath.  Logging is disabled for the 'org.mongodb.driver' component
Document inserted successfully into collection: mydb.employees

D:\Java>javac -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBUpdateExample.java

D:\Java>java -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBUpdateExample
Aug 12, 2025 11:33:41 AM com.mongodb.internal.diagnostics.logging.Loggers shouldUseSLF4J
WARNING: SLF4J not found on the classpath.  Logging is disabled for the 'org.mongodb.driver' component
Update operation completed.

D:\Java>javac -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBViewCollwctionExample.java
error: file not found: MongoDBViewCollwctionExample.java
Usage: javac <options> <source files>
use --help for a list of possible options

D:\Java>javac -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBViewCollectionExample.java

D:\Java>java -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBViewCollectionExample
Aug 12, 2025 11:36:29 AM com.mongodb.internal.diagnostics.logging.Loggers shouldUseSLF4J
WARNING: SLF4J not found on the classpath.  Logging is disabled for the 'org.mongodb.driver' component
Documents in 'employees' collection:
{"_id": {"$oid": "689ad7c0c7543519a5b3f345"}, "name": "Alice Smith", "age": 30, "department": "HR", "salary": 70000}

D:\Java>javac -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBDeleteExample.java

D:\Java>java -cp ".;bson-5.3.0.jar;mongodb-driver-core-4.10.0.jar;mongodb-driver-sync-4.10.0.jar" MongoDBDeleteExample
Aug 12, 2025 11:37:12 AM com.mongodb.internal.diagnostics.logging.Loggers shouldUseSLF4J
WARNING: SLF4J not found on the classpath.  Logging is disabled for the 'org.mongodb.driver' component
Document deleted successfully (if it existed).
```
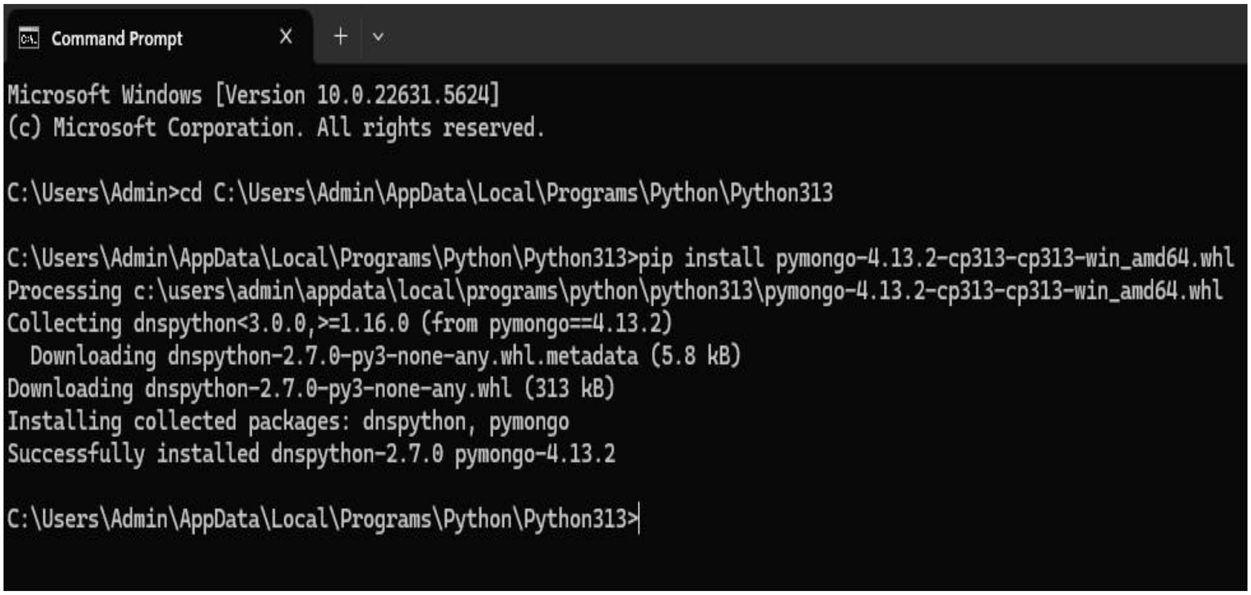
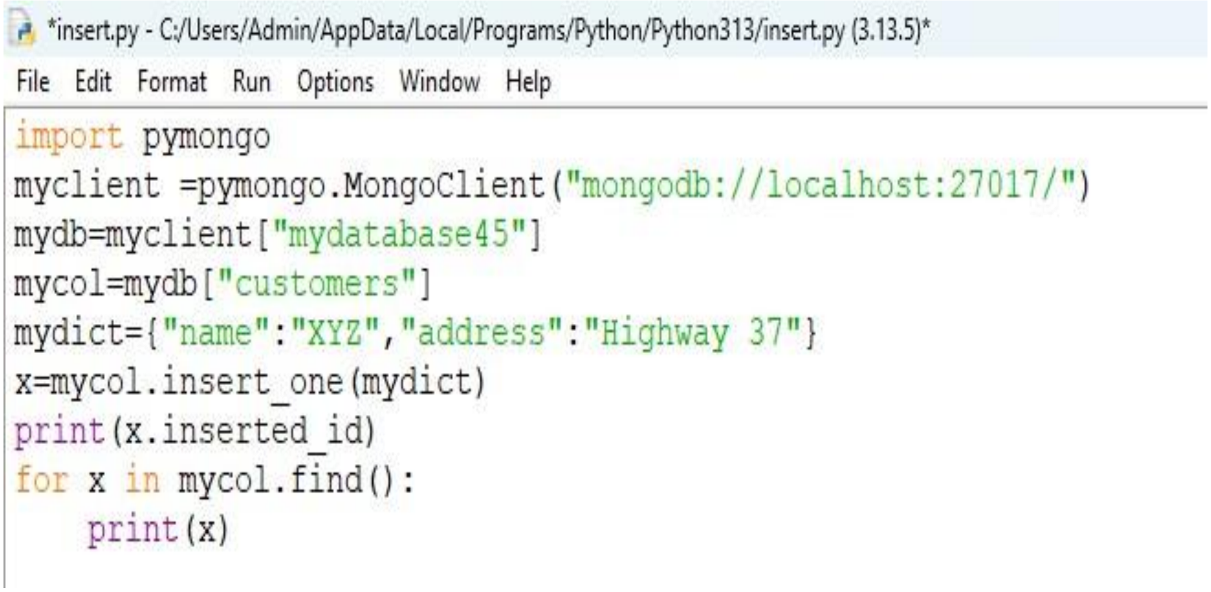

PRACTICAL 6 / PRACTICAL 7

Aim: Connecting Python with MongoDB and inserting, retrieving, updating and deleting.



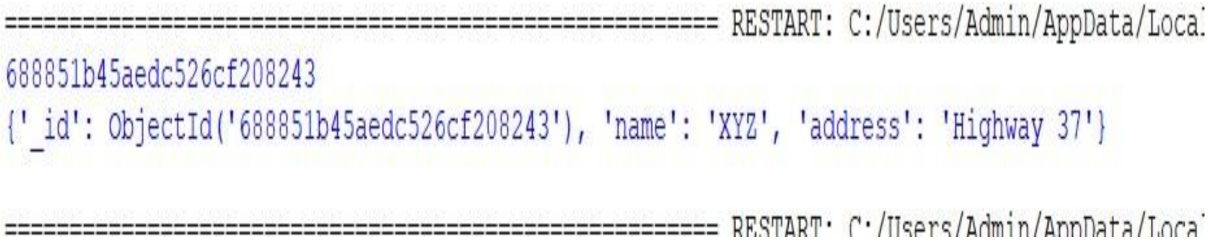
```
Microsoft Windows [Version 10.0.22631.5624]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Admin>cd C:\Users\Admin\AppData\Local\Programs\Python\Python313

C:\Users\Admin\AppData\Local\Programs\Python\Python313>pip install pymongo-4.13.2-cp313-cp313-win_amd64.whl
Processing c:\users\admin\appdata\local\programs\python\python313\pymongo-4.13.2-cp313-cp313-win_amd64.whl
Collecting dnspython<3.0.0,>=1.16.0 (from pymongo==4.13.2)
  Downloading dnspython-2.7.0-py3-none-any.whl.metadata (5.8 kB)
Downloading dnspython-2.7.0-py3-none-any.whl (313 kB)
Installing collected packages: dnspython, pymongo
Successfully installed dnspython-2.7.0 pymongo-4.13.2

C:\Users\Admin\AppData\Local\Programs\Python\Python313>
```

INSERT.PY :

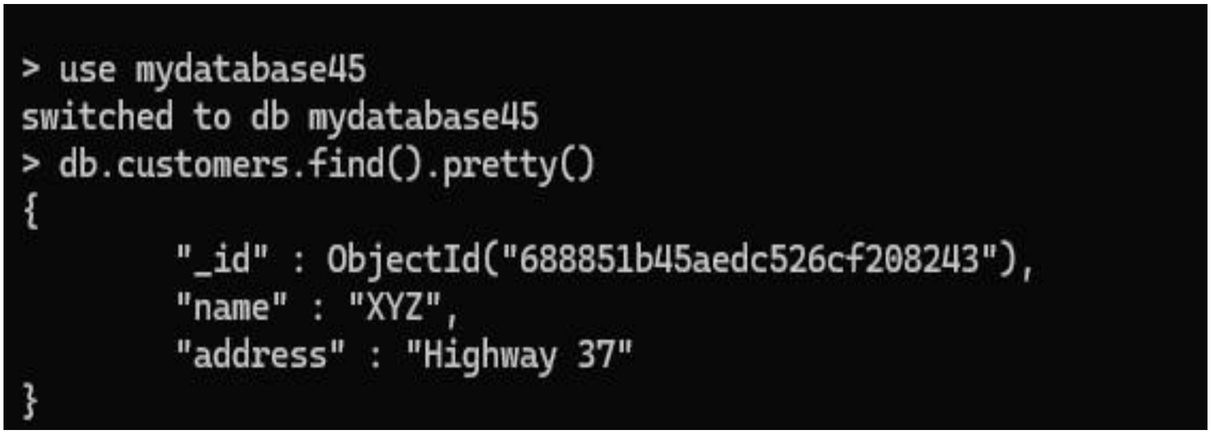

insert.py - C:/Users/Admin/AppData/Local/Programs/Python/Python313/insert.py (3.13.5)
File Edit Format Run Options Window Help

```python
import pymongo
myclient =pymongo.MongoClient("mongodb://localhost:27017/")
mydb=myclient["mydatabase45"]
mycol=mydb["customers"]
mydict={"name":"XYZ","address":"Highway 37"}
x=mycol.insert_one(mydict)
print(x.inserted_id)
for x in mycol.find():
    print(x)
```

OUTPUT :

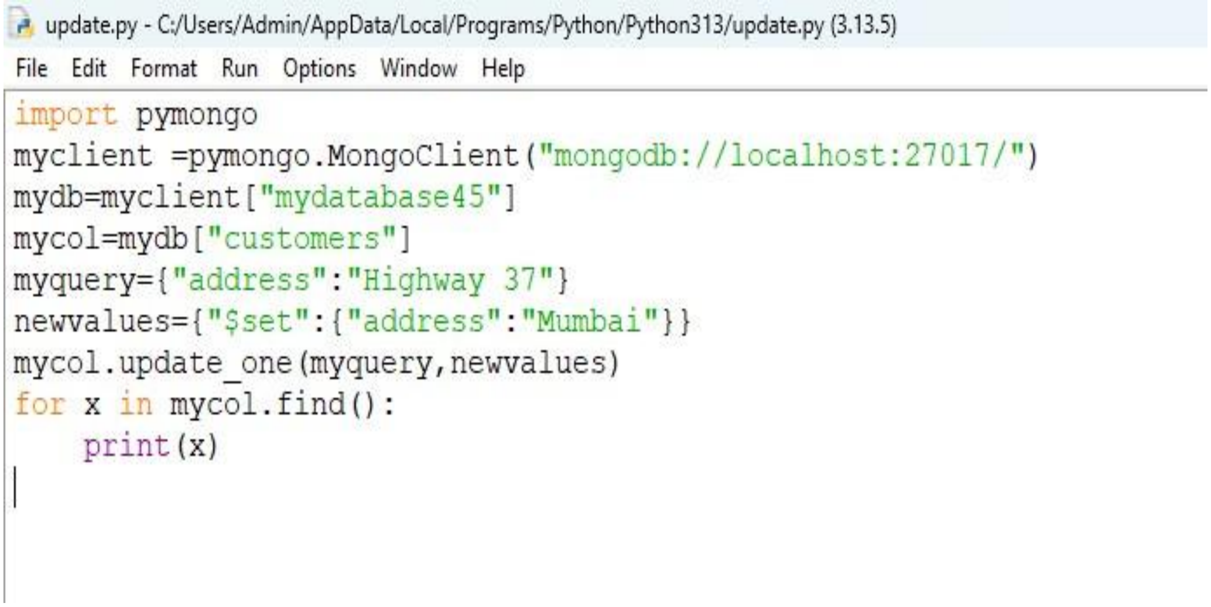


```
========================================================= RESTART: C:/Users/Admin/AppData/Loca
688851b45aedc526cf208243
{'_id': ObjectId('688851b45aedc526cf208243'), 'name': 'XYZ', 'address': 'Highway 37'}

========================================================= RESTART: C:/Users/Admin/AppData/Loca
```



```
> use mydatabase45
switched to db mydatabase45
> db.customers.find().pretty()
{
        "_id" : ObjectId("688851b45aedc526cf208243"),
        "name" : "XYZ",
        "address" : "Highway 37"
}
```

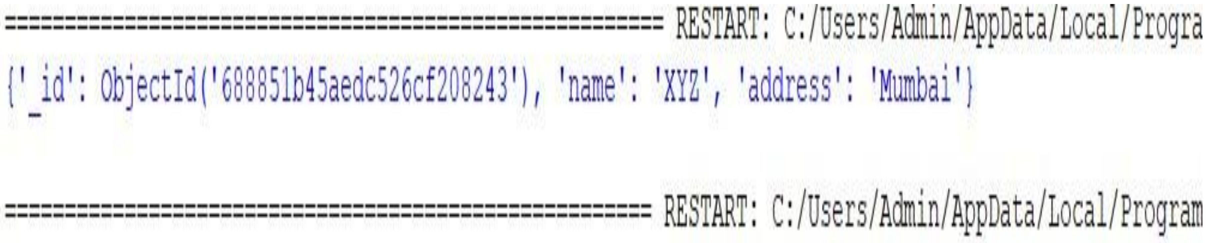
UPDATE.PY :-



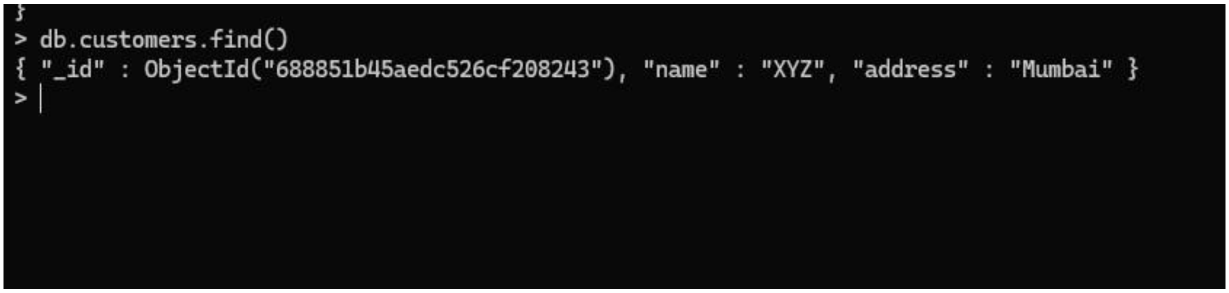
update.py - C:/Users/Admin/AppData/Local/Programs/Python/Python313/update.py (3.13.5)

```
import pymongo
myclient =pymongo.MongoClient("mongodb://localhost:27017/")
mydb=myclient["mydatabase45"]
mycol=mydb["customers"]
myquery={"address":"Highway 37"}
newvalues={"$set":{"address":"Mumbai"}}
mycol.update_one(myquery,newvalues)
for x in mycol.find():
    print(x)
```

OUTPUT:-

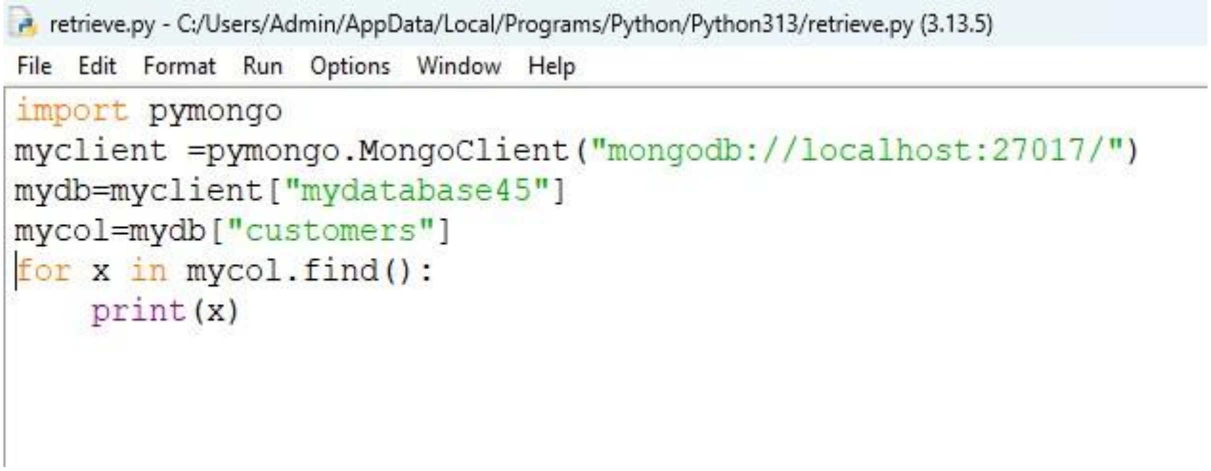


```
==================================================== RESTART: C:/Users/Admin/AppData/Local/Progra
{'_id': ObjectId('688851b45aedc526cf208243'), 'name': 'XYZ', 'address': 'Mumbai'}

==================================================== RESTART: C:/Users/Admin/AppData/Local/Program
```



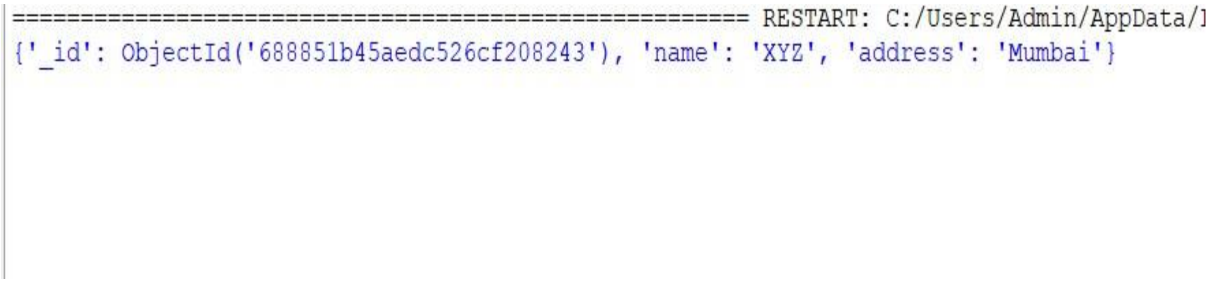
```
}
> db.customers.find()
{ "_id" : ObjectId("688851b45aedc526cf208243"), "name" : "XYZ", "address" : "Mumbai" }
> |
```

RETRIEVE.PY :-


retrieve.py - C:/Users/Admin/AppData/Local/Programs/Python/Python313/retrieve.py (3.13.5)
File Edit Format Run Options Window Help

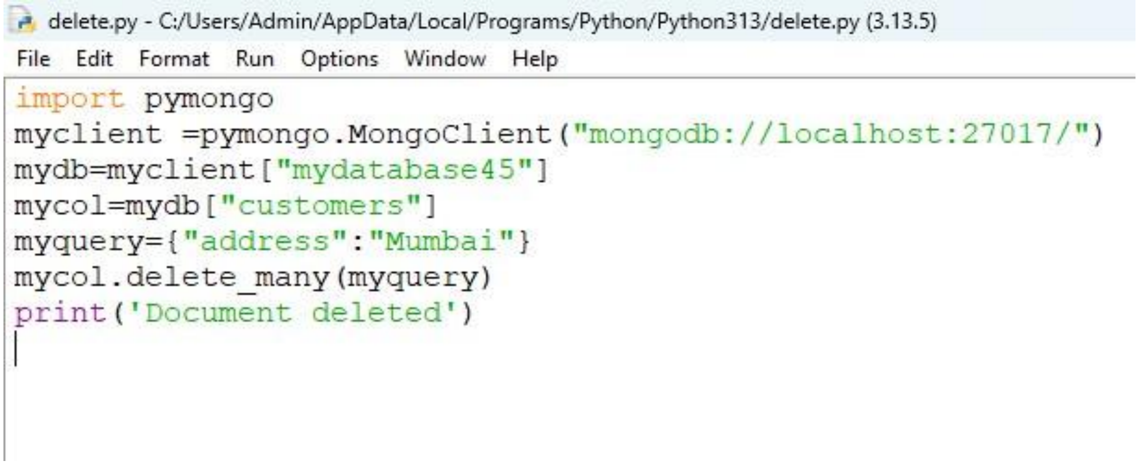
```
import pymongo
myclient =pymongo.MongoClient("mongodb://localhost:27017/")
mydb=myclient["mydatabase45"]
mycol=mydb["customers"]
for x in mycol.find():
    print(x)
```

OUTPUT:-

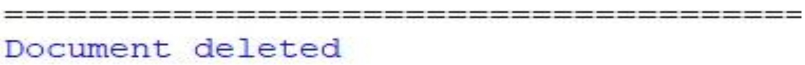


```
======================================================= RESTART: C:/Users/Admin/AppData/
{'_id': ObjectId('688851b45aedc526cf208243'), 'name': 'XYZ', 'address': 'Mumbai'}
```

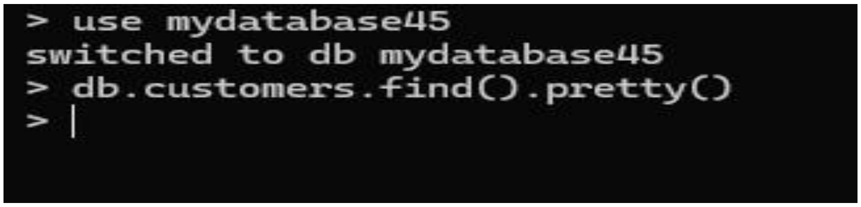
DELETE.PY-


delete.py - C:/Users/Admin/AppData/Local/Programs/Python/Python313/delete.py (3.13.5)
File Edit Format Run Options Window Help

```
import pymongo
myclient =pymongo.MongoClient("mongodb://localhost:27017/")
mydb=myclient["mydatabase45"]
mycol=mydb["customers"]
myquery={"address":"Mumbai"}
mycol.delete_many(myquery)
print('Document deleted')
```



```
========================================
Document deleted
```



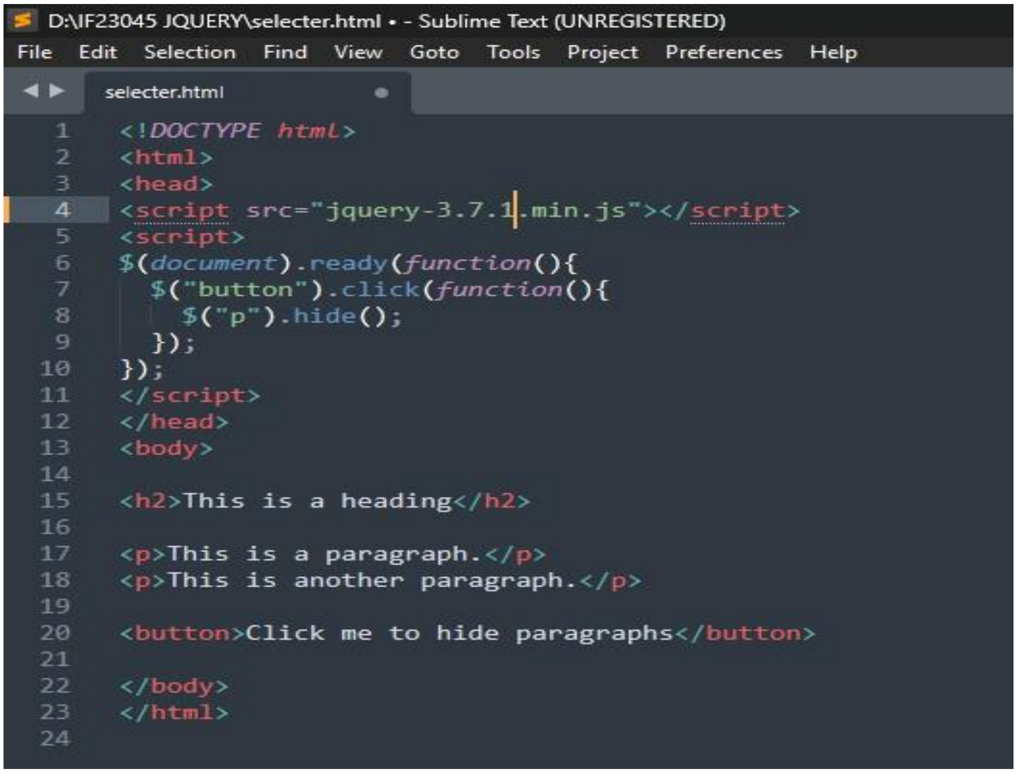
```
> use mydatabase45
switched to db mydatabase45
> db.customers.find().pretty()
> 
```

PRACTICAL 8

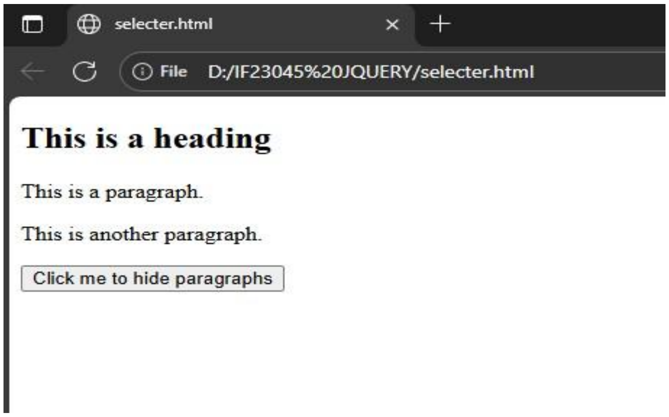
PRACTICAL 8 (A)

Aim: jQuery Basic, jQuery Events

JQUERY SELECTER :-


D:\IF23045 JQUERY\selecter.html • - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html

```
<!DOCTYPE html>
<html>
<head>
<script src="jquery-3.7.1.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("p").hide();
  });
});
</script>
</head>
<body>

<h2>This is a heading</h2>

<p>This is a paragraph.</p>
<p>This is another paragraph.</p>

<button>Click me to hide paragraphs</button>

</body>
</html>

```

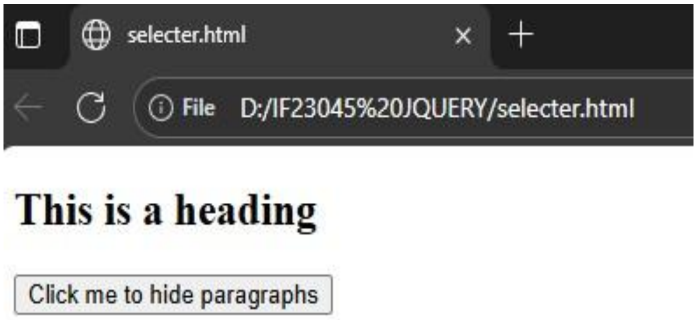

selecter.html
File D:/IF23045%20JQUERY/selecter.html

This is a heading

This is a paragraph.

This is another paragraph.

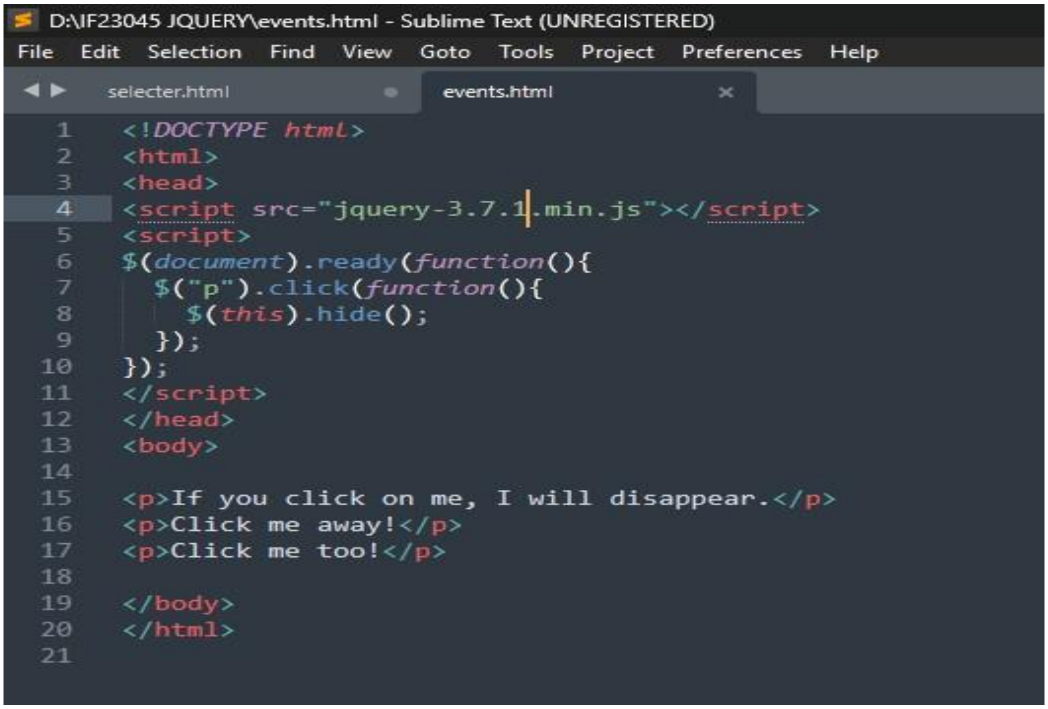
Click me to hide paragraphs


selecter.html
File D:/IF23045%20JQUERY/selecter.html

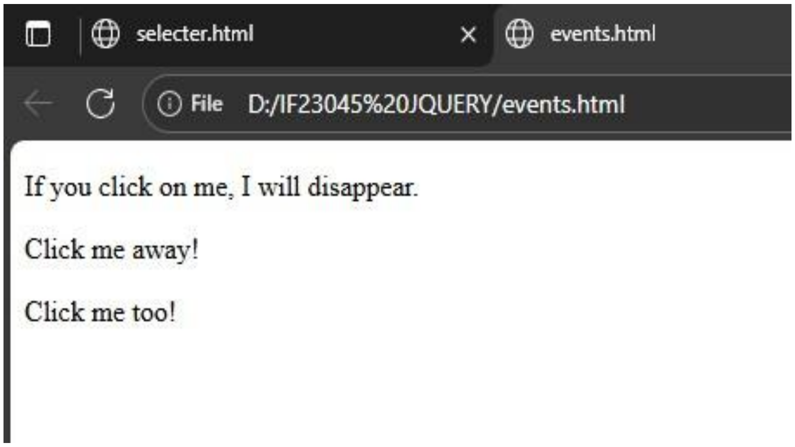
This is a heading

Click me to hide paragraphs

JQUERY EVENTS :-


D:\IF23045 JQUERY\events.html - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html

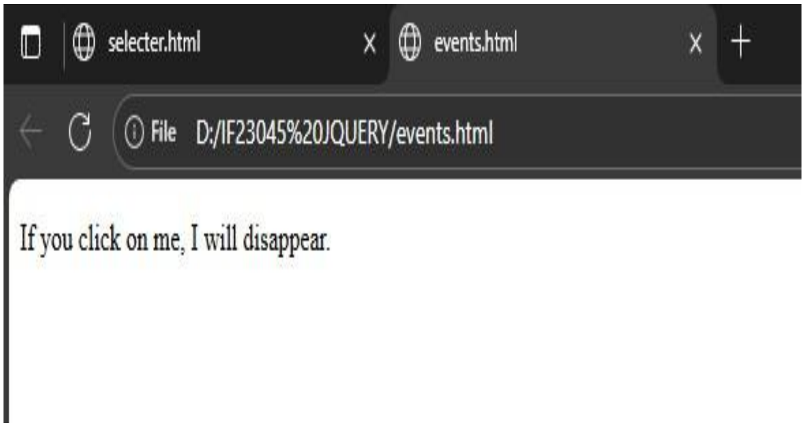
```
<!DOCTYPE html>
<html>
<head>
<script src="jquery-3.7.1.min.js"></script>
<script>
$(document).ready(function(){
  $("p").click(function(){
    $(this).hide();
  });
});
</script>
</head>
<body>

<p>If you click on me, I will disappear.</p>
<p>Click me away!</p>
<p>Click me too!</p>

</body>
</html>

```



If you click on me, I will disappear.

Click me away!

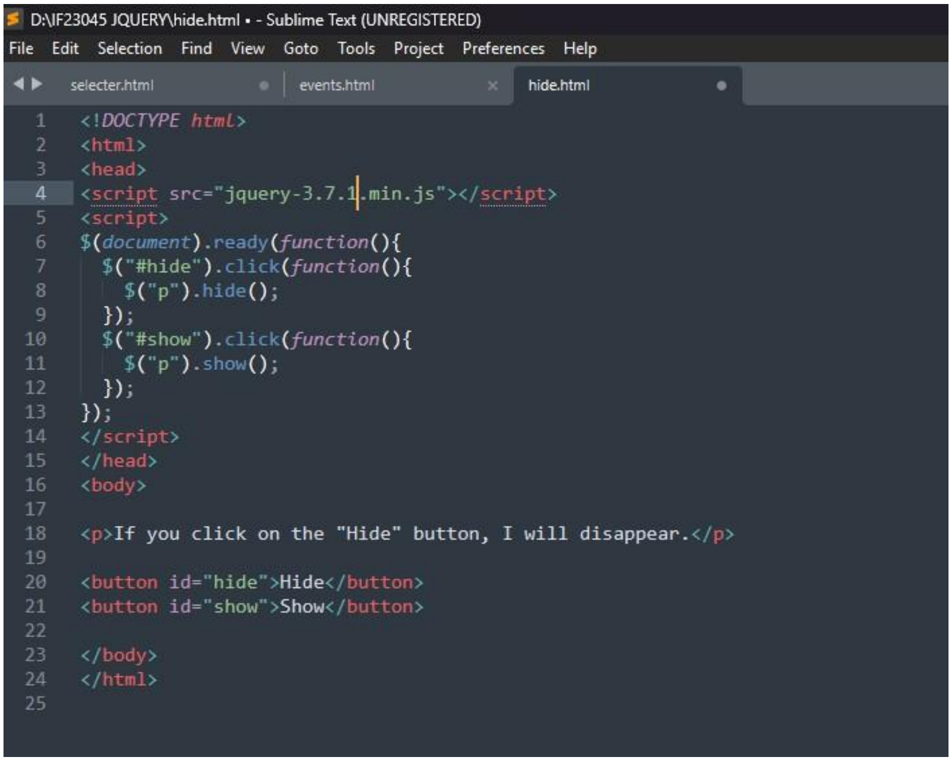
Click me too!



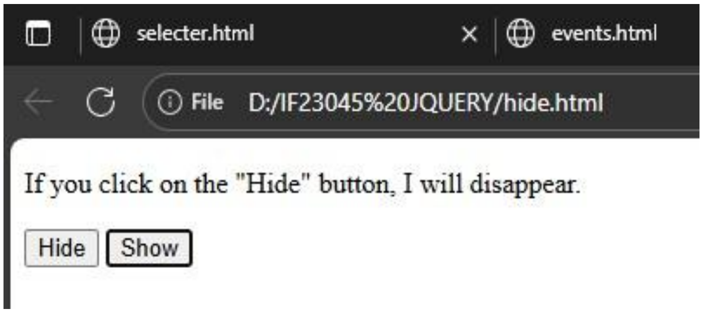
If you click on me, I will disappear.

PRACTICAL 8(B)

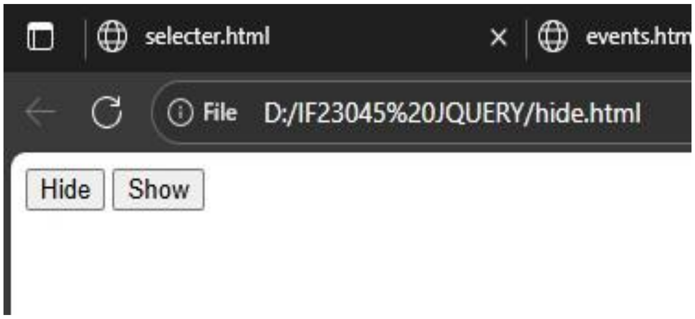
Aim:- jQuery Selectors, jQuery Hide and Show effects


D:\IF23045 JQUERY\hide.html • - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html

```html
<!DOCTYPE html>
<html>
<head>
<script src="jquery-3.7.1.min.js"></script>
<script>
$(document).ready(function(){
  $("#hide").click(function(){
    $("p").hide();
  });
  $("#show").click(function(){
    $("p").show();
  });
});
</script>
</head>
<body>

<p>If you click on the "Hide" button, I will disappear.</p>

<button id="hide">Hide</button>
<button id="show">Show</button>

</body>
</html>
```



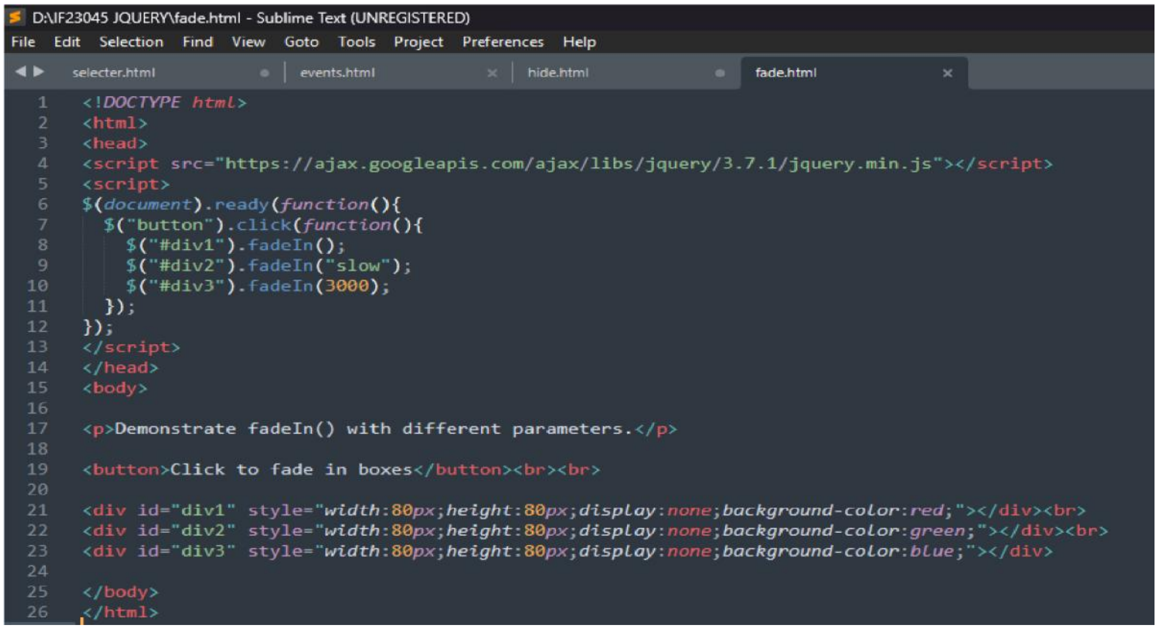
If you click on the "Hide" button, I will disappear.



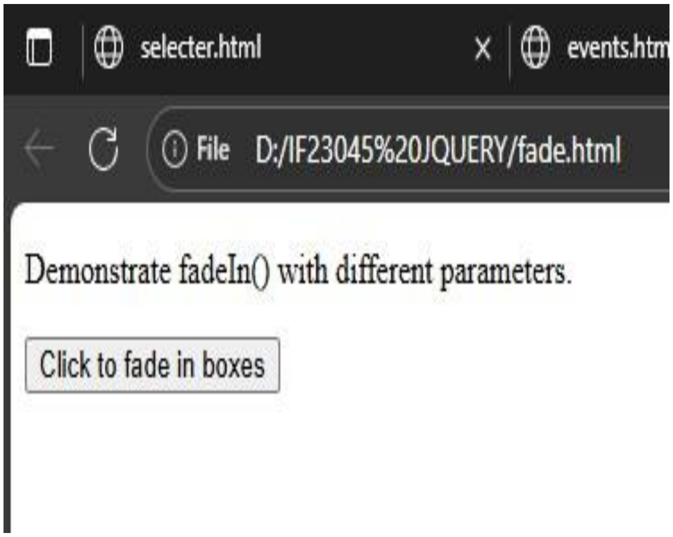
PRACTICAL 8(C)

Aim: jQuery fading effects, jQuery Sliding effects

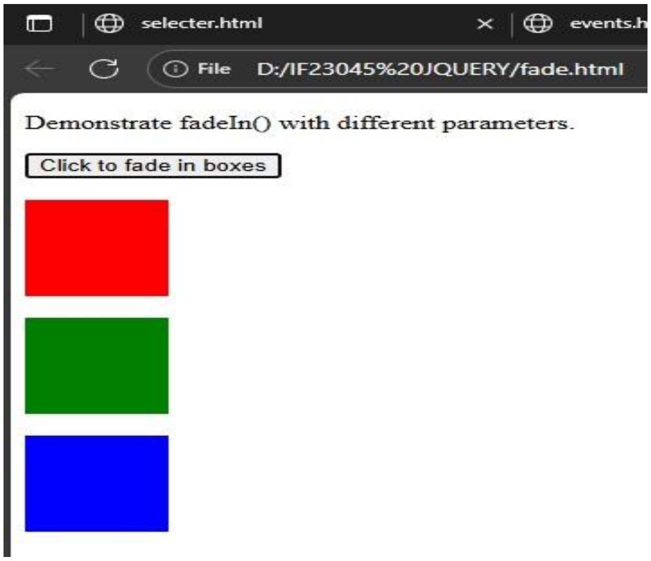
<u>JQUERY FADE-</u>


D:\IF23045 JQUERY\fade.html - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html

```html
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("#div1").fadeIn();
    $("#div2").fadeIn("slow");
    $("#div3").fadeIn(3000);
  });
});
</script>
</head>
<body>

<p>Demonstrate fadeIn() with different parameters.</p>

<button>Click to fade in boxes</button><br><br>

<div id="div1" style="width:80px;height:80px;display:none;background-color:red;"></div><br>
<div id="div2" style="width:80px;height:80px;display:none;background-color:green;"></div><br>
<div id="div3" style="width:80px;height:80px;display:none;background-color:blue;"></div>

</body>
</html>
```

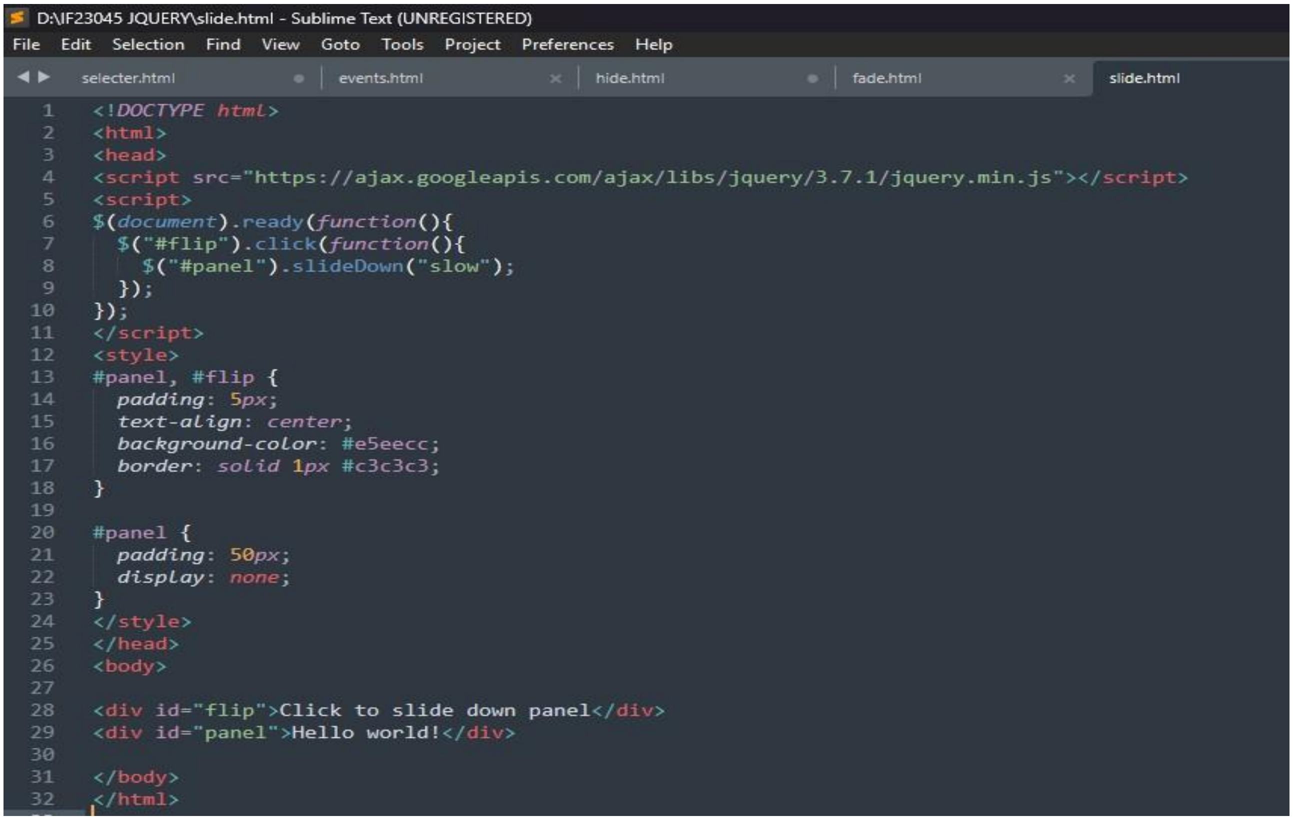


Demonstrate fadeIn() with different parameters.

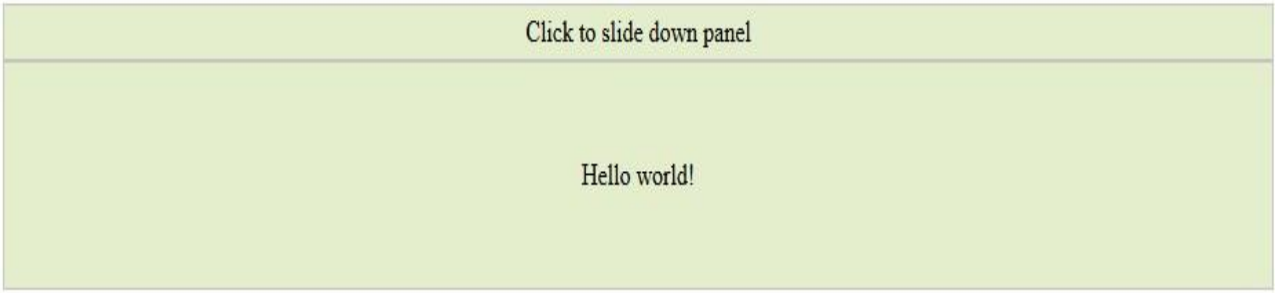


Demonstrate fadeIn() with different parameters.

JQUERY SLIDE :-



```
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("#flip").click(function(){
    $("#panel").slideDown("slow");
  });
});
</script>
<style>
#panel, #flip {
  padding: 5px;
  text-align: center;
  background-color: #e5eecc;
  border: solid 1px #c3c3c3;
}

#panel {
  padding: 50px;
  display: none;
}
</style>
</head>
<body>

<div id="flip">Click to slide down panel</div>
<div id="panel">Hello world!</div>

</body>
</html>
```



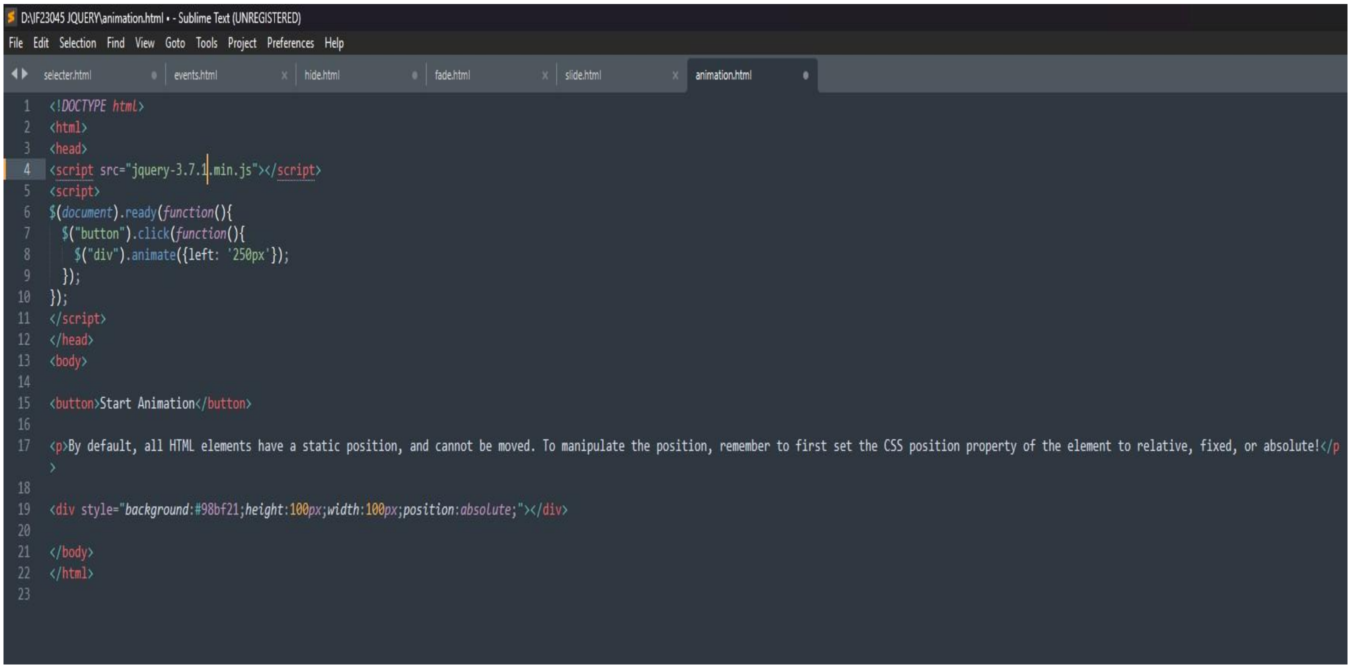
Click to slide down panel

Hello world!

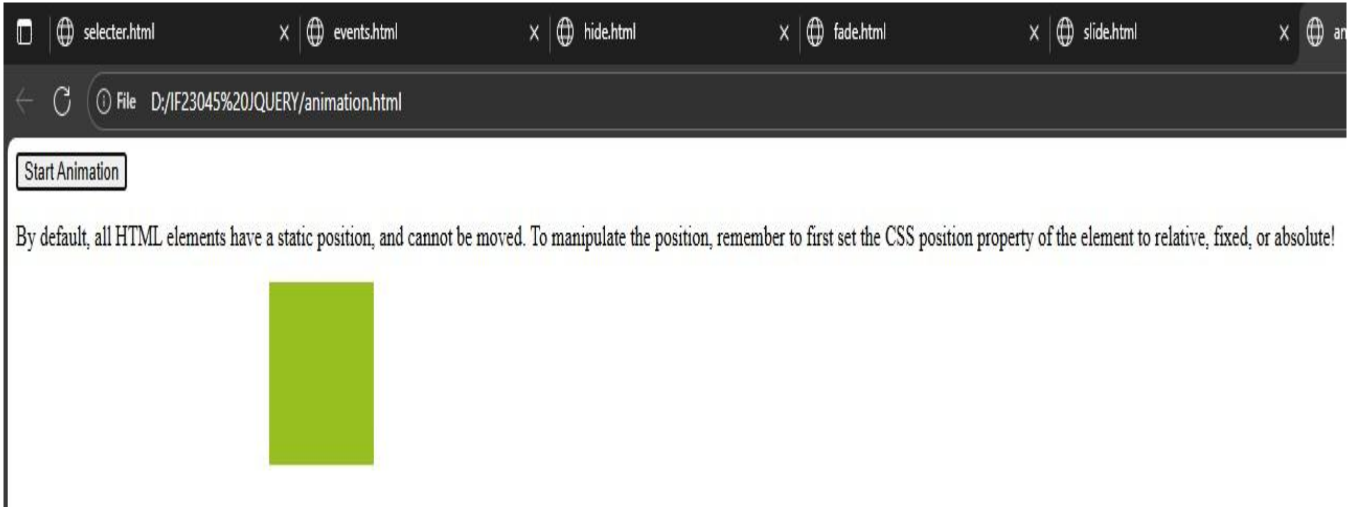
PRACTICAL 9

PRACTICAL 9(A)

Aim:- jQuery Animation effects, jQuery Chaining

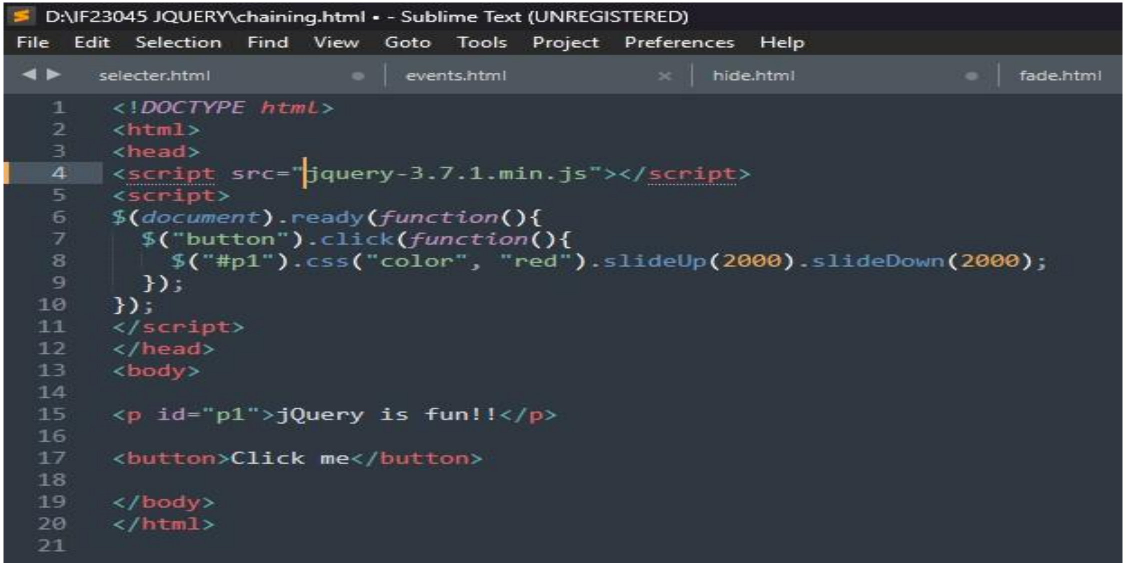

D:\IF23045 JQUERY\animation.html • - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html
slide.html
animation.html

```html
<!DOCTYPE html>
<html>
<head>
<script src="jquery-3.7.1.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("div").animate({left: '250px'});
  });
});
</script>
</head>
<body>

<button>Start Animation</button>

<p>By default, all HTML elements have a static position, and cannot be moved. To manipulate the position, remember to first set the CSS position property of the element to relative, fixed, or absolute!</p
>

<div style="background:#98bf21;height:100px;width:100px;position:absolute;"></div>

</body>
</html>

```

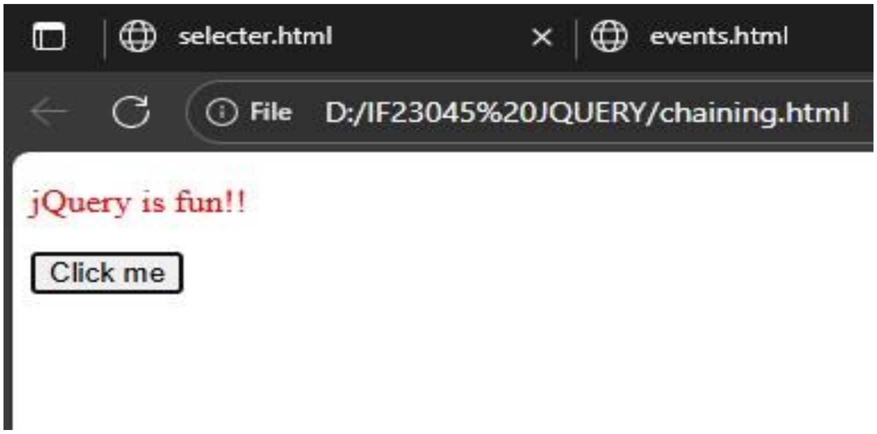


By default, all HTML elements have a static position, and cannot be moved. To manipulate the position, remember to first set the CSS position property of the element to relative, fixed, or absolute!

JQUERY CHAINING-


D:\IF23045 JQUERY\chaining.html • - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html

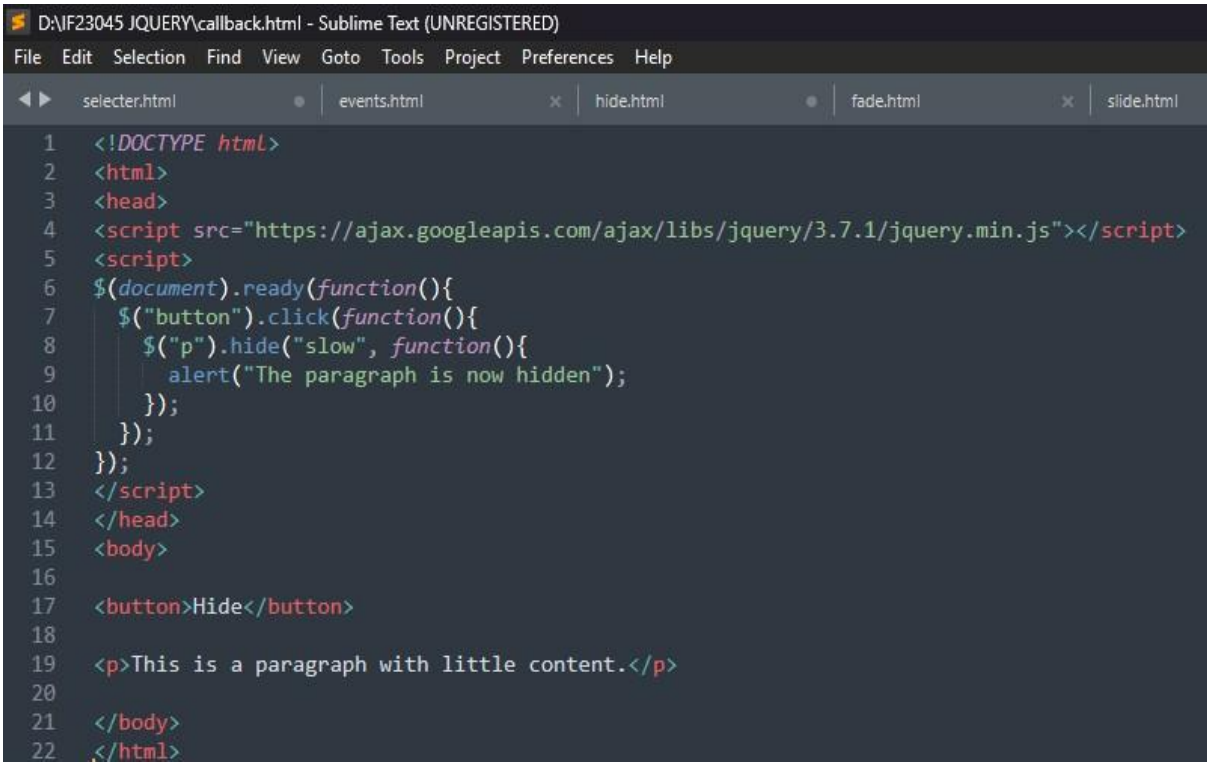
```html
<!DOCTYPE html>
<html>
<head>
<script src="jquery-3.7.1.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("#p1").css("color", "red").slideUp(2000).slideDown(2000);
  });
});
</script>
</head>
<body>

<p id="p1">jQuery is fun!!</p>

<button>Click me</button>

</body>
</html>

```



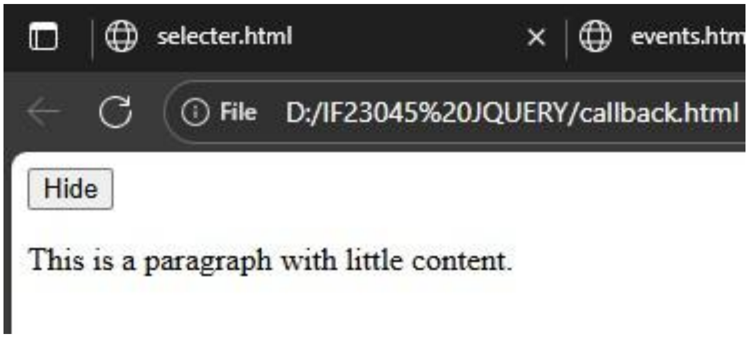
jQuery is fun!!

PRACTICAL 9(B)

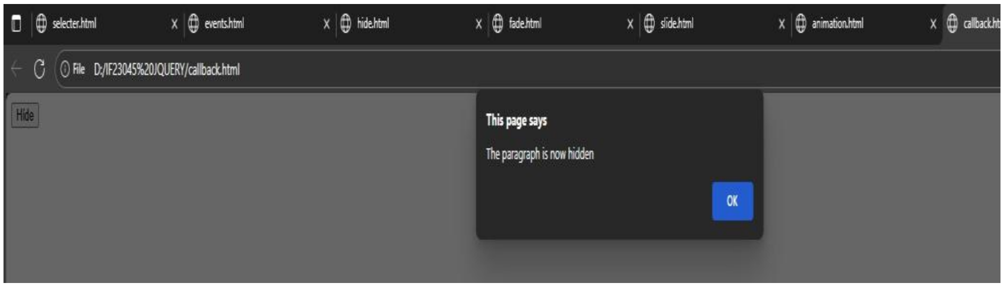
Aim:- jQuery Callback, jQuery Get and Set Contents


D:\IF23045 JQUERY\callback.html - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html
slide.html

```
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("p").hide("slow", function(){
      alert("The paragraph is now hidden");
    });
  });
});
</script>
</head>
<body>

<button>Hide</button>

<p>This is a paragraph with little content.</p>

</body>
</html>
```



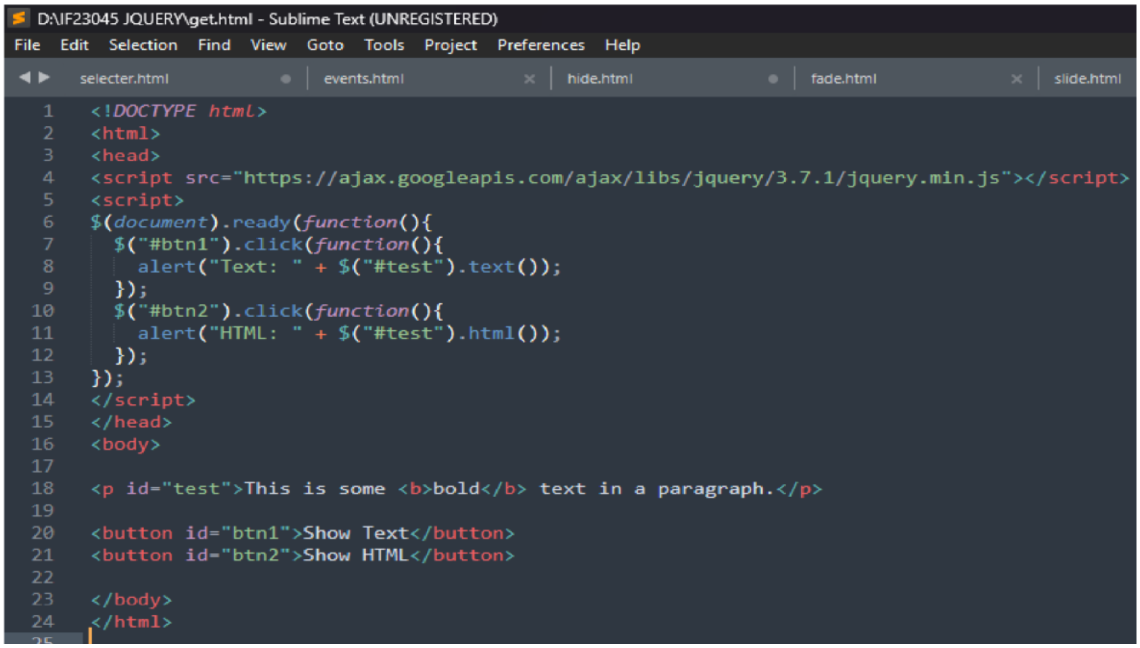
This is a paragraph with little content.



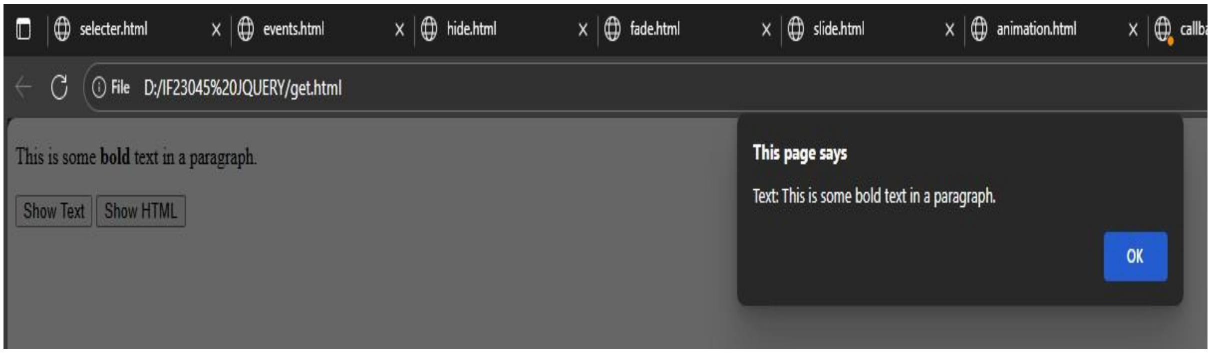
This page says

The paragraph is now hidden

JQUERY GET:-


D:\IF23045 JQUERY\get.html - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html
slide.html

```html
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("#btn1").click(function(){
    alert("Text: " + $("#test").text());
  });
  $("#btn2").click(function(){
    alert("HTML: " + $("#test").html());
  });
});
</script>
</head>
<body>

<p id="test">This is some <b>bold</b> text in a paragraph.</p>

<button id="btn1">Show Text</button>
<button id="btn2">Show HTML</button>

</body>
</html>
```

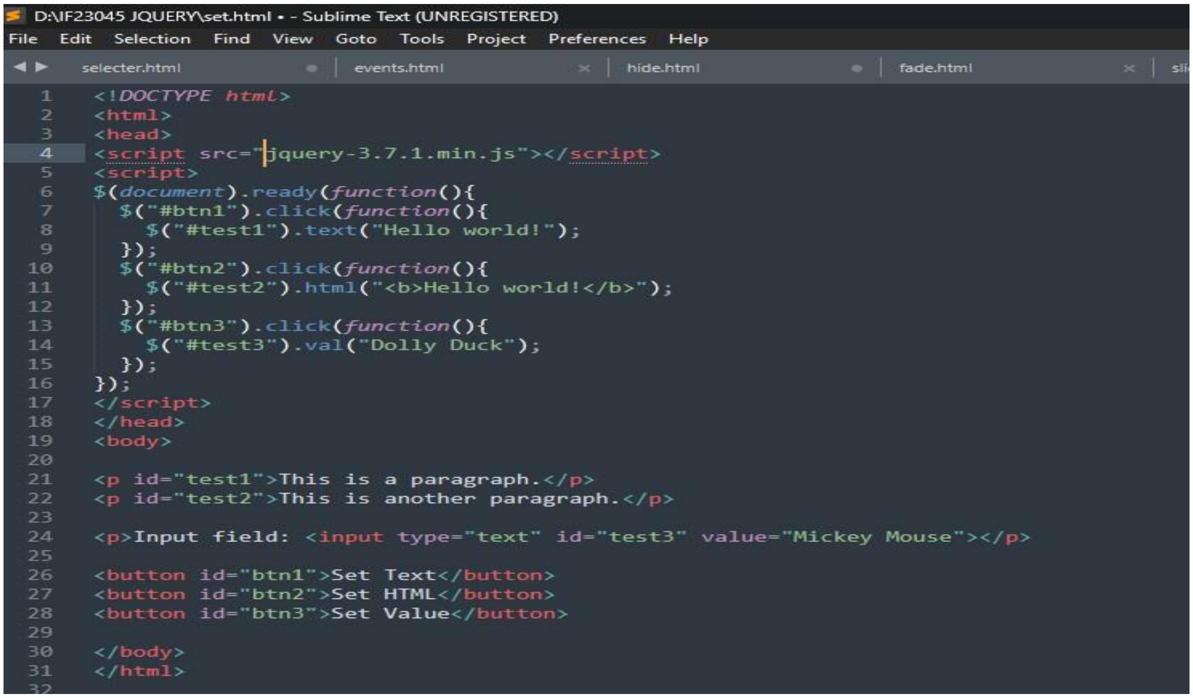


This is some **bold** text in a paragraph.

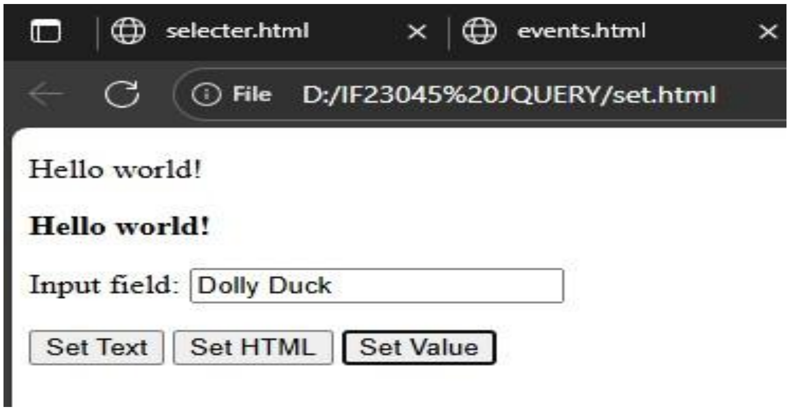
This page says

Text: This is some bold text in a paragraph.

JQUERY SET:-


D:\IF23045 JQUERY\set.html • - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html
sli

```html
<!DOCTYPE html>
<html>
<head>
<script src="jquery-3.7.1.min.js"></script>
<script>
$(document).ready(function(){
  $("#btn1").click(function(){
    $("#test1").text("Hello world!");
  });
  $("#btn2").click(function(){
    $("#test2").html("<b>Hello world!</b>");
  });
  $("#btn3").click(function(){
    $("#test3").val("Dolly Duck");
  });
});
</script>
</head>
<body>

<p id="test1">This is a paragraph.</p>
<p id="test2">This is another paragraph.</p>

<p>Input field: <input type="text" id="test3" value="Mickey Mouse"></p>

<button id="btn1">Set Text</button>
<button id="btn2">Set HTML</button>
<button id="btn3">Set Value</button>

</body>
</html>
```



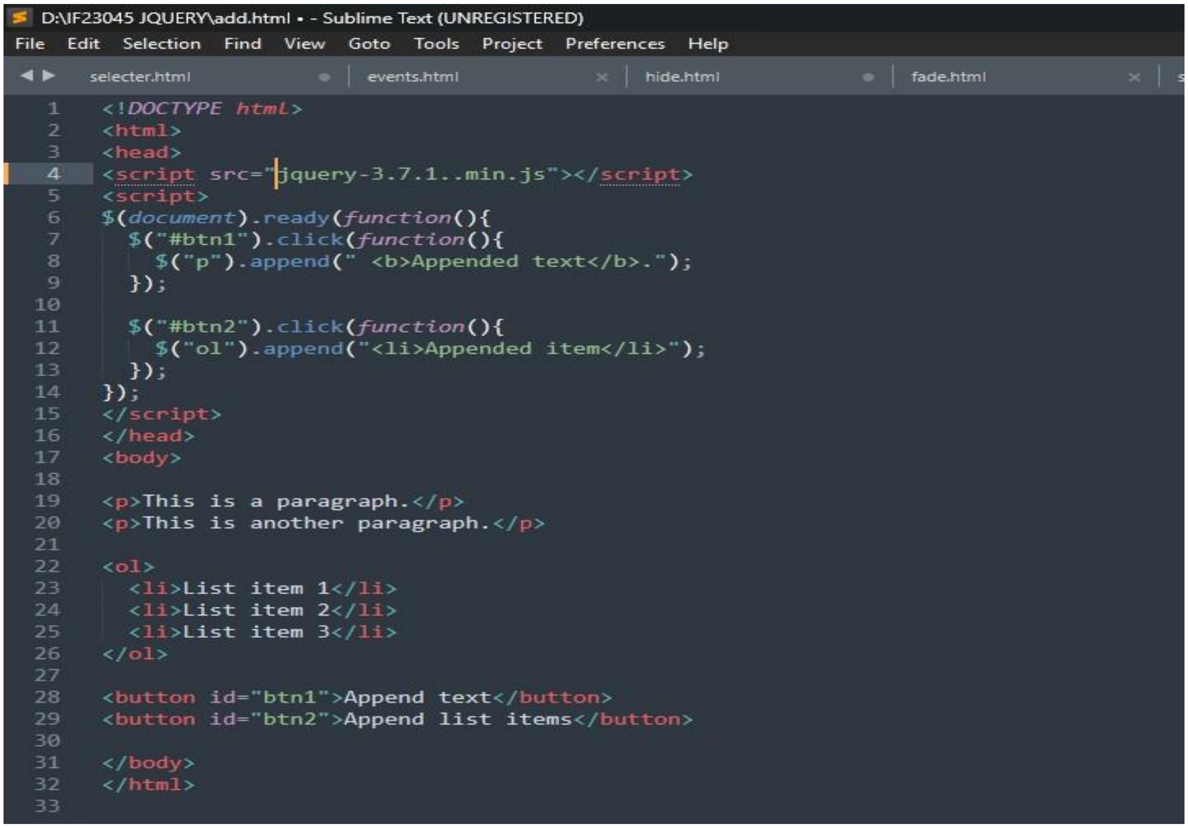
Hello world!

Hello world!

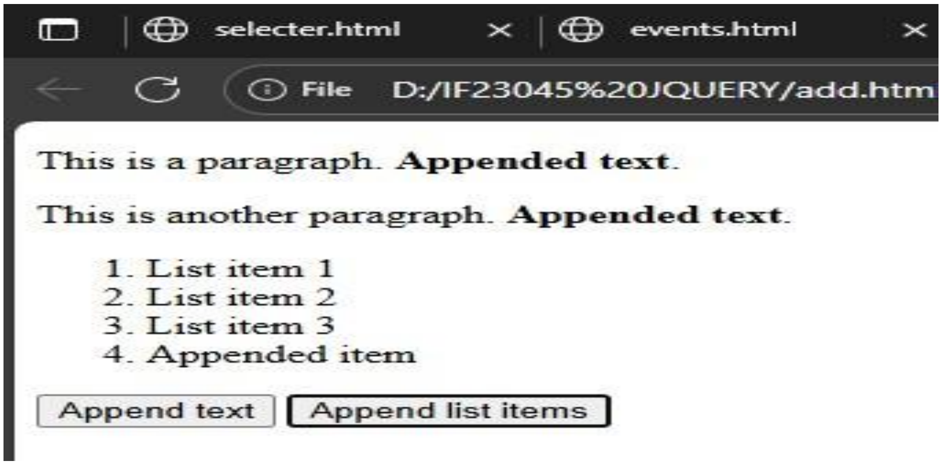
Input field: Dolly Duck

PRACTICAL 9(C)

Aim:- jQuery Insert Content, jQuery Remove Elements and Attribute


D:\IF23045 JQUERY\add.html • - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html

```
<!DOCTYPE html>
<html>
<head>
<script src="jquery-3.7.1..min.js"></script>
<script>
$(document).ready(function(){
  $("#btn1").click(function(){
    $("p").append(" <b>Appended text</b>.");
  });

  $("#btn2").click(function(){
    $("ol").append("<li>Appended item</li>");
  });
});
</script>
</head>
<body>

<p>This is a paragraph.</p>
<p>This is another paragraph.</p>

<ol>
  <li>List item 1</li>
  <li>List item 2</li>
  <li>List item 3</li>
</ol>

<button id="btn1">Append text</button>
<button id="btn2">Append list items</button>

</body>
</html>
```

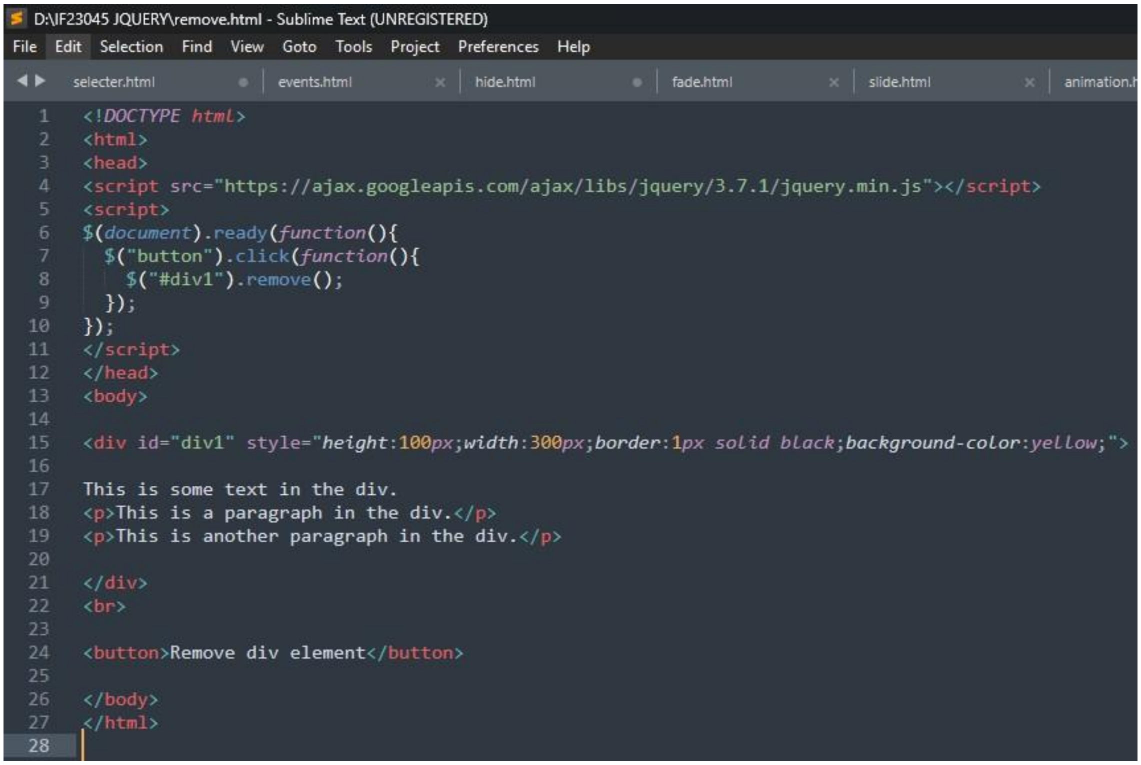


This is a paragraph. **Appended text**.

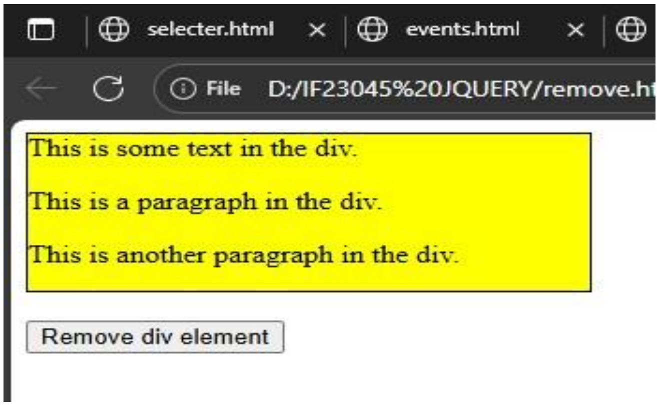
This is another paragraph. **Appended text**.

1. List item 1
2. List item 2
3. List item 3
4. Appended item

JQUERY REMOVE :-


D:\IF23045 JQUERY\remove.html - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html
slide.html
animation.h

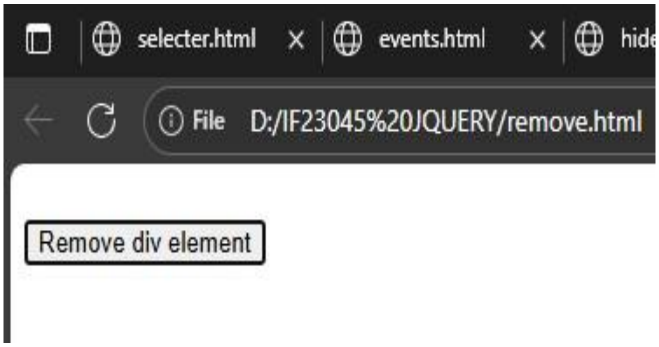
```
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("#div1").remove();
  });
});
</script>
</head>
<body>

<div id="div1" style="height:100px;width:300px;border:1px solid black;background-color:yellow;">

This is some text in the div.
<p>This is a paragraph in the div.</p>
<p>This is another paragraph in the div.</p>

</div>
<br>

<button>Remove div element</button>

</body>
</html>

```



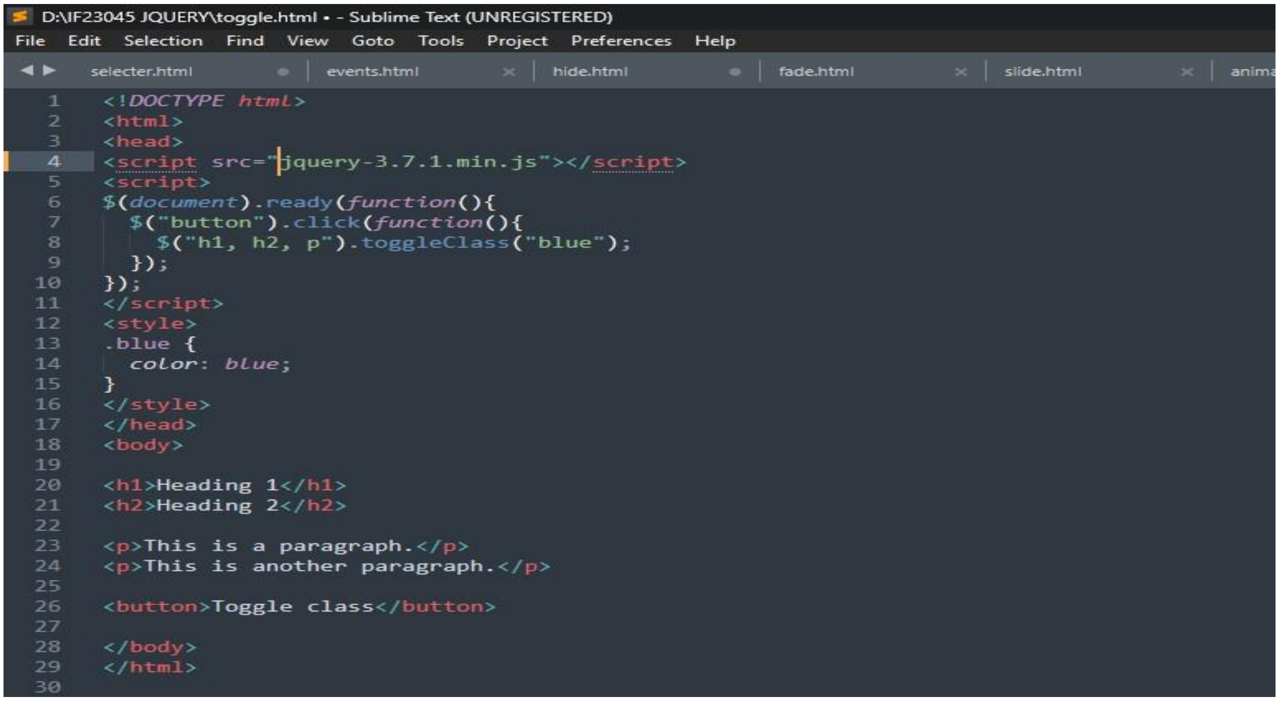
This is some text in the div.

This is a paragraph in the div.

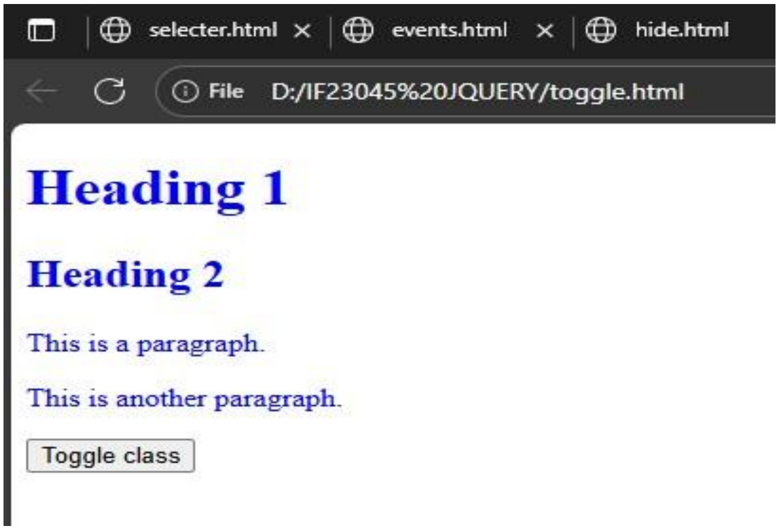
This is another paragraph in the div.



JQUERY TOGGLE :-


D:\IF23045 JQUERY\toggle.html • - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html
slide.html
anima

```
<!DOCTYPE html>
<html>
<head>
<script src="jquery-3.7.1.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("h1, h2, p").toggleClass("blue");
  });
});
</script>
<style>
.blue {
  color: blue;
}
</style>
</head>
<body>

<h1>Heading 1</h1>
<h2>Heading 2</h2>

<p>This is a paragraph.</p>
<p>This is another paragraph.</p>

<button>Toggle class</button>

</body>
</html>

```



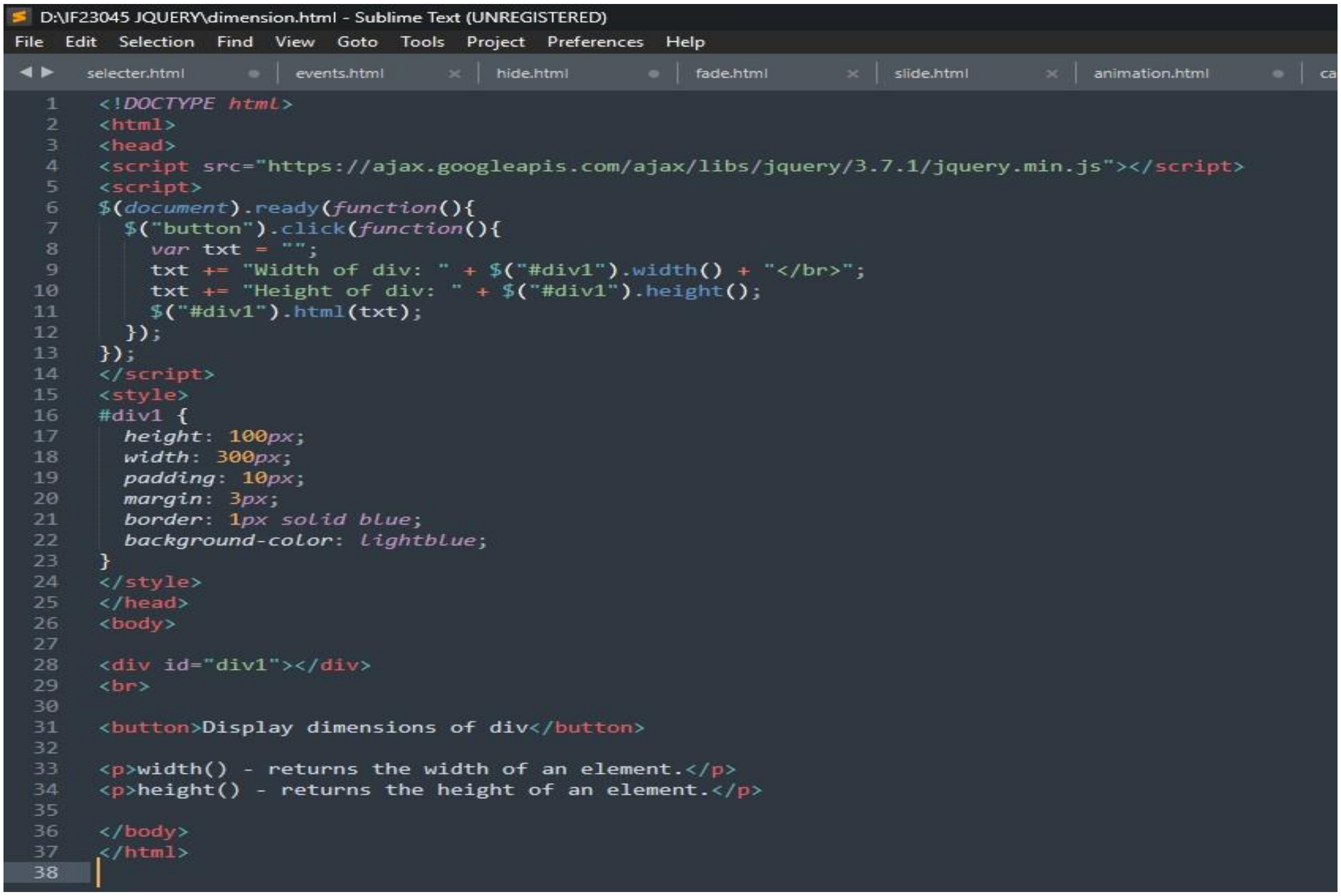
Heading 1

Heading 2

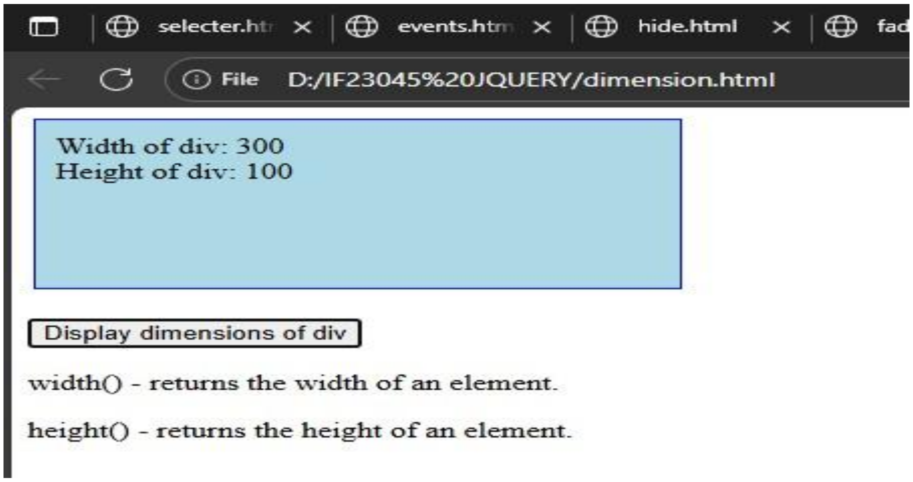
This is a paragraph.

This is another paragraph.

JQUERY DIMENSION :-


D:\IF23045 JQUERY\dimension.html - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html
slide.html
animation.html
ca

```html
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    var txt = "";
    txt += "Width of div: " + $("#div1").width() + "</br>";
    txt += "Height of div: " + $("#div1").height();
    $("#div1").html(txt);
  });
});
</script>
<style>
#div1 {
  height: 100px;
  width: 300px;
  padding: 10px;
  margin: 3px;
  border: 1px solid blue;
  background-color: lightblue;
}
</style>
</head>
<body>

<div id="div1"></div>
<br>

<button>Display dimensions of div</button>

<p>width() - returns the width of an element.</p>
<p>height() - returns the height of an element.</p>

</body>
</html>

```

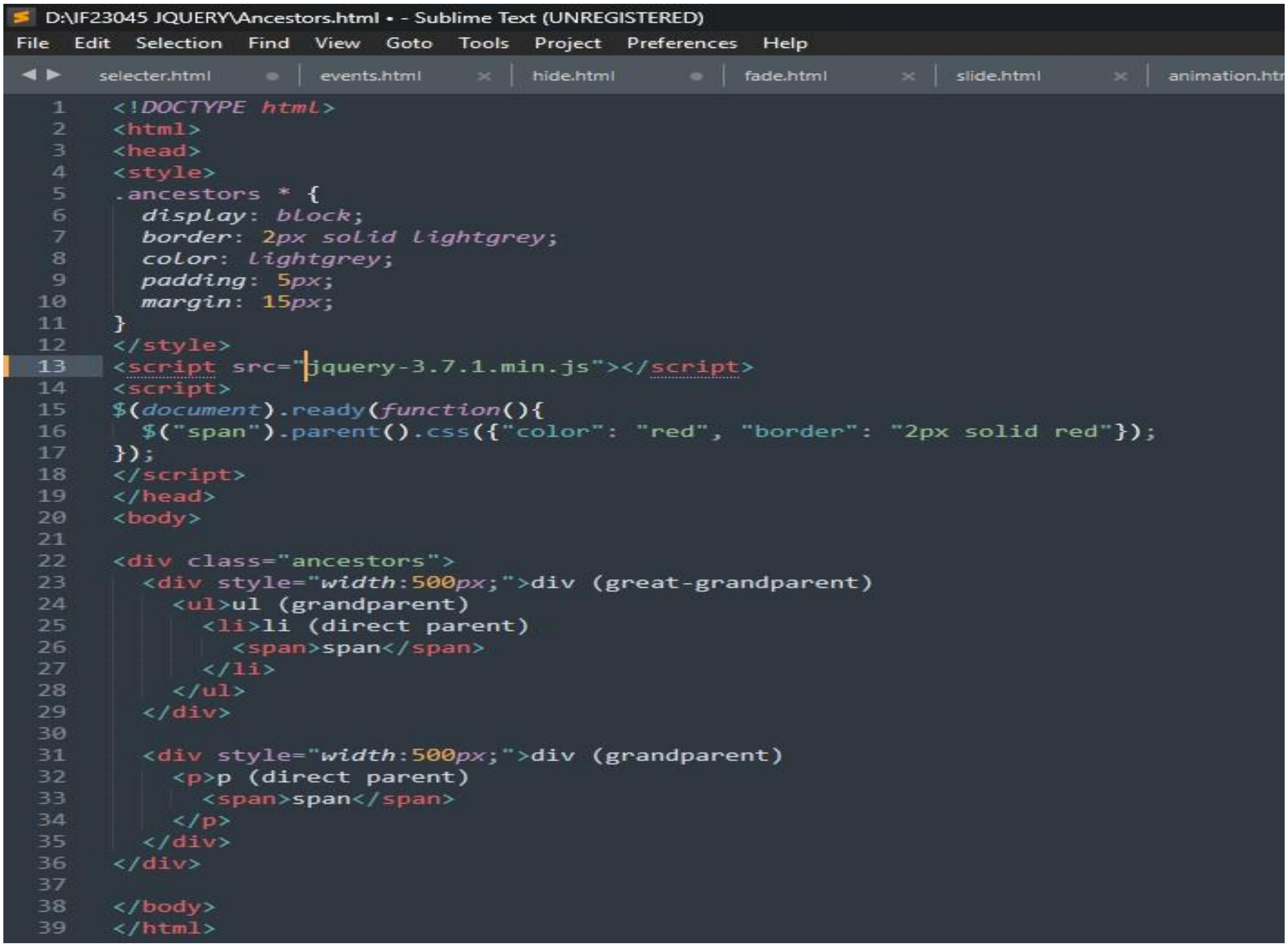

selecter.htr
events.htm
hide.html
fad
File D:/IF23045%20JQUERY/dimension.html
Display dimensions of div

Width of div: 300
Height of div: 100

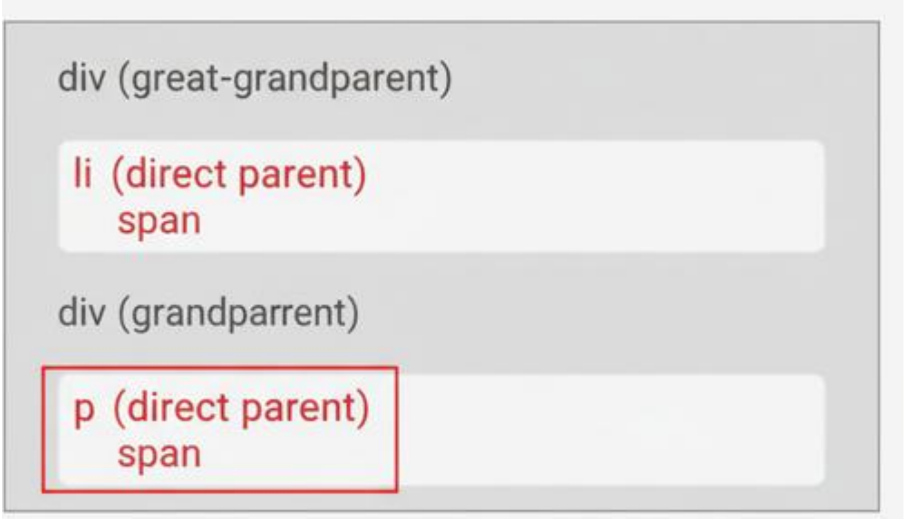
width() - returns the width of an element.

height() - returns the height of an element.

JQUERY ANCESTORS :-

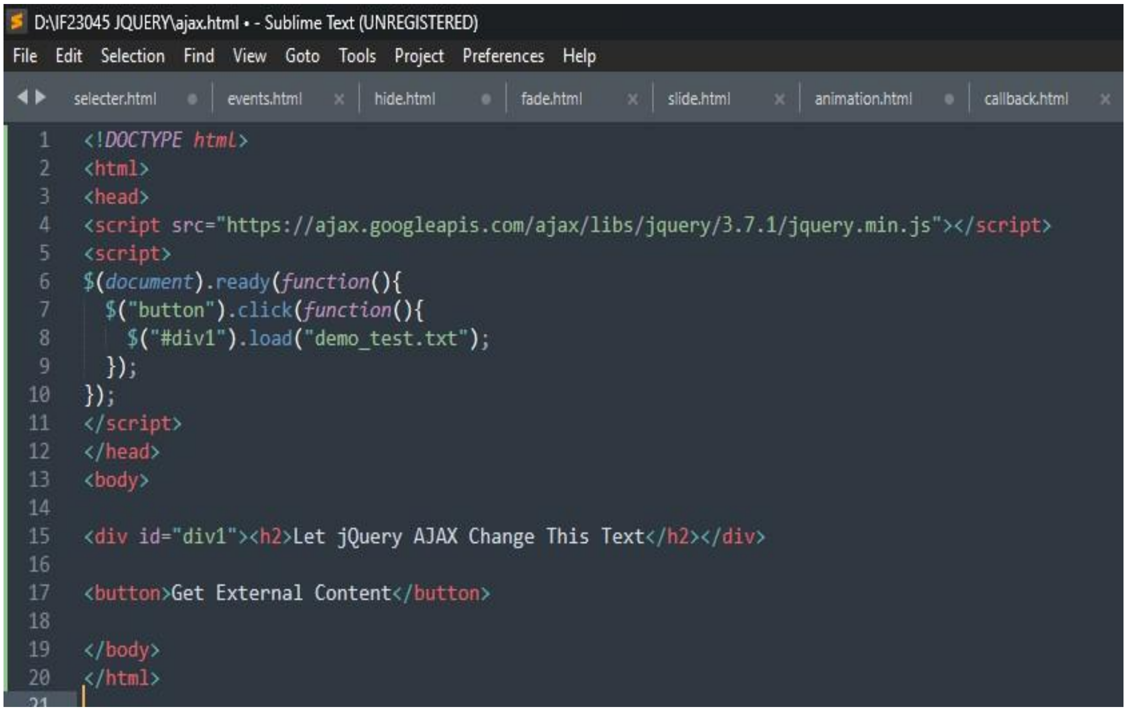


```
<!DOCTYPE html>
<html>
<head>
<style>
.ancestors * {
  display: block;
  border: 2px solid lightgrey;
  color: lightgrey;
  padding: 5px;
  margin: 15px;
}
</style>
<script src="jquery-3.7.1.min.js"></script>
<script>
$(document).ready(function(){
  $("span").parent().css({"color": "red", "border": "2px solid red"});
});
</script>
</head>
<body>

<div class="ancestors">
  <div style="width:500px;">div (great-grandparent)
    <ul>ul (grandparent)
      <li>li (direct parent)
        <span>span</span>
      </li>
    </ul>
  </div>

  <div style="width:500px;">div (grandparent)
    <p>p (direct parent)
      <span>span</span>
    </p>
  </div>
</div>

</body>
</html>
```

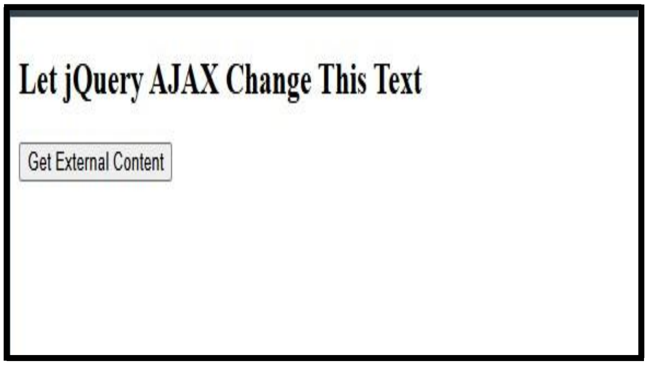


```
div (great-grandparent)
  li (direct parent)
    span
div (grandparrent)
  p (direct parent)
    span
```

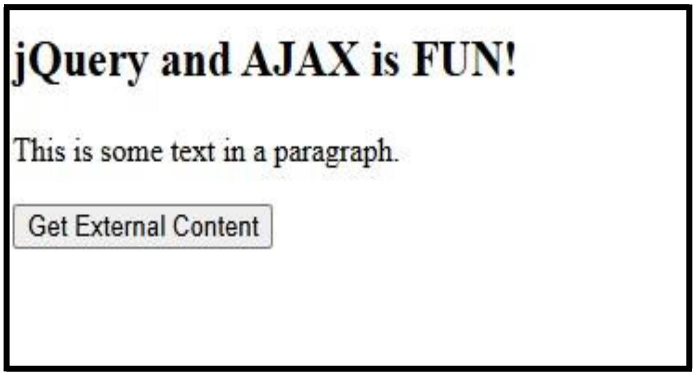
JQUERY AJAX :-


D:\IF23045 JQUERY\ajax.html • - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
selecter.html
events.html
hide.html
fade.html
slide.html
animation.html
callback.html

```
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.7.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("#div1").load("demo_test.txt");
  });
});
</script>
</head>
<body>

<div id="div1"><h2>Let jQuery AJAX Change This Text</h2></div>

<button>Get External Content</button>

</body>
</html>
```



Let jQuery AJAX Change This Text



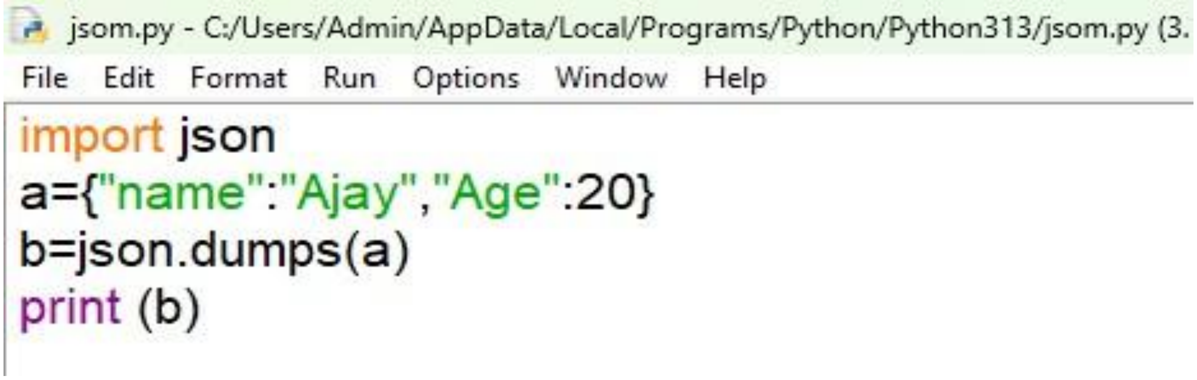
jQuery and AJAX is FUN!

This is some text in a paragraph.

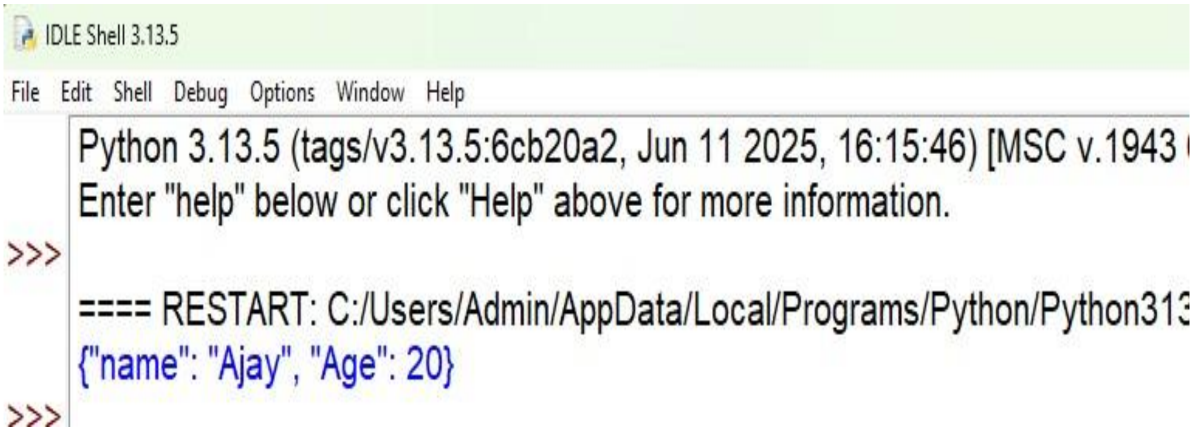
PRACTICAL 10

PRACTICAL 10(A)

Aim:- Creating JSON


jsom.py - C:/Users/Admin/AppData/Local/Programs/Python/Python313/jsom.py (3.
File Edit Format Run Options Window Help

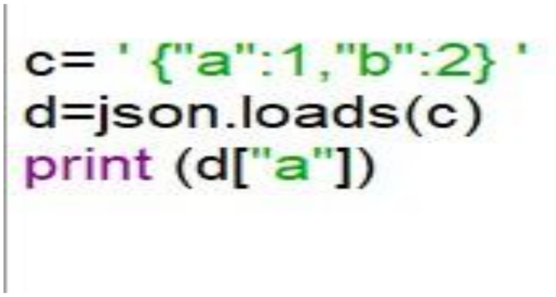
```
import json
a={"name":"Ajay","Age":20}
b=json.dumps(a)
print (b)
```



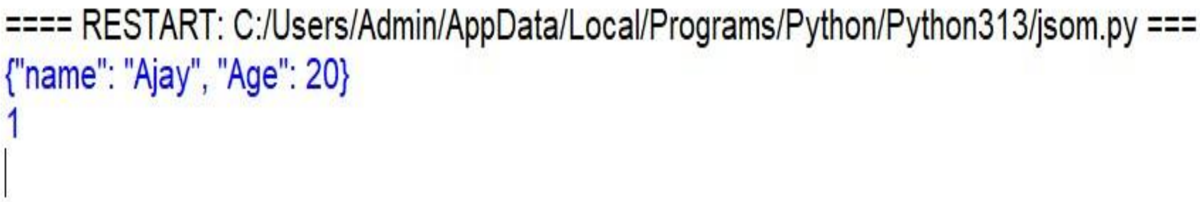
```
    Python 3.13.5 (tags/v3.13.5:6cb20a2, Jun 11 2025, 16:15:46) [MSC v.1943 
    Enter "help" below or click "Help" above for more information.
>>> 
    ==== RESTART: C:/Users/Admin/AppData/Local/Programs/Python/Python313
    {"name": "Ajay", "Age": 20}
>>>
```

PRACTICAL 10(B)

Aim:- Parsing JSON



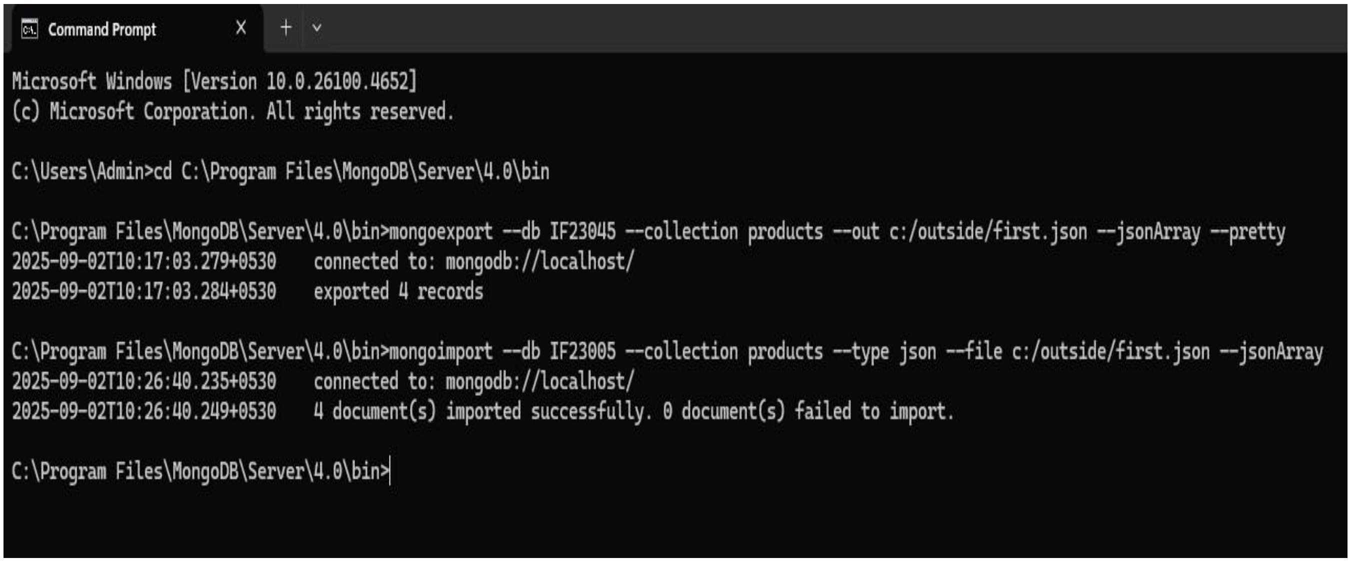
```
c= ' {"a":1,"b":2} '
d=json.loads(c)
print (d["a"])
```



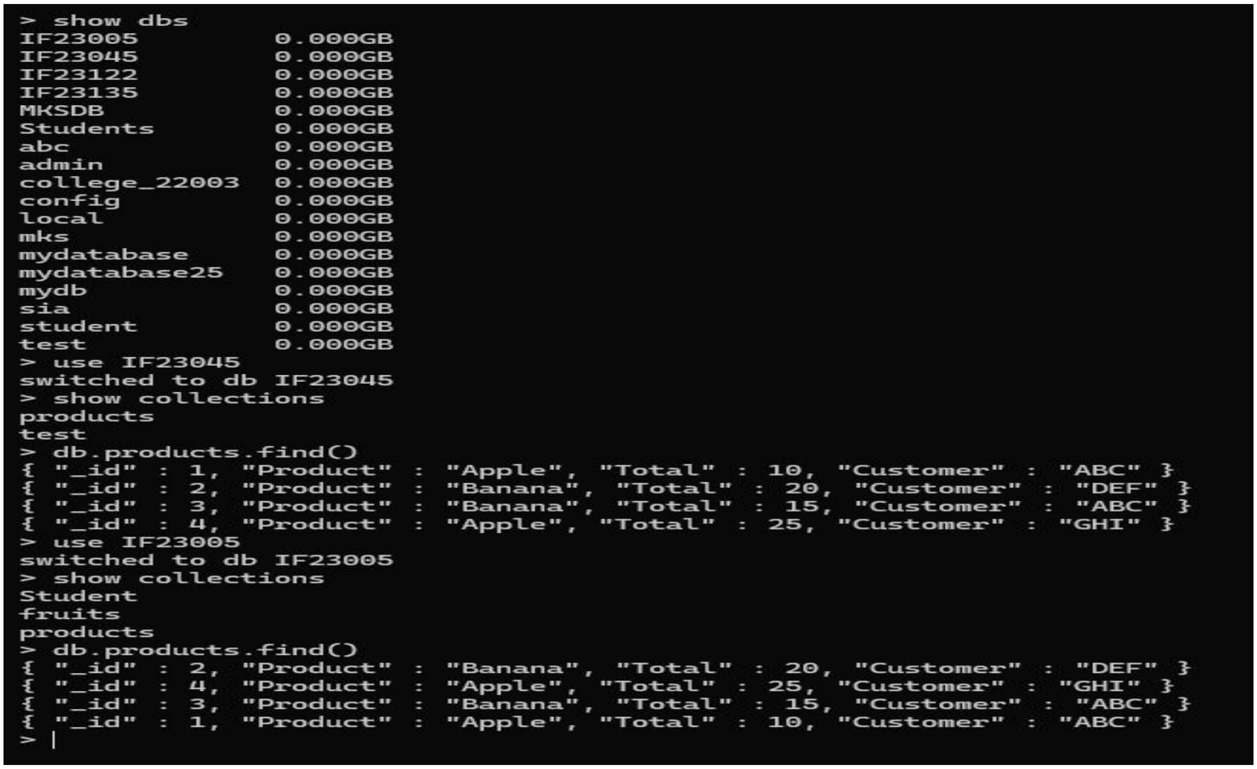
```
==== RESTART: C:/Users/Admin/AppData/Local/Programs/Python/Python313/jsom.py ===
{"name": "Ajay", "Age": 20}
1
```

PRACTICAL 10(C)

Aim:- Export MongoDB to JSON.



```
Microsoft Windows [Version 10.0.26100.4652]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Admin>cd C:\Program Files\MongoDB\Server\4.0\bin

C:\Program Files\MongoDB\Server\4.0\bin>mongoexport --db IF23045 --collection products --out c:/outside/first.json --jsonArray --pretty
2025-09-02T10:17:03.279+0530    connected to: mongodb://localhost/
2025-09-02T10:17:03.284+0530    exported 4 records

C:\Program Files\MongoDB\Server\4.0\bin>mongoimport --db IF23005 --collection products --type json --file c:/outside/first.json --jsonArray
2025-09-02T10:26:40.235+0530    connected to: mongodb://localhost/
2025-09-02T10:26:40.249+0530    4 document(s) imported successfully. 0 document(s) failed to import.

C:\Program Files\MongoDB\Server\4.0\bin>
```



```
> show dbs
IF23005         0.000GB
IF23045         0.000GB
IF23122         0.000GB
IF23135         0.000GB
MKSDB           0.000GB
Students        0.000GB
abc             0.000GB
admin           0.000GB
college_22003   0.000GB
config          0.000GB
local           0.000GB
mks             0.000GB
mydatabase      0.000GB
mydatabase25    0.000GB
mydb            0.000GB
sia             0.000GB
student         0.000GB
test            0.000GB
> use IF23045
switched to db IF23045
> show collections
products
test
> db.products.find()
{ "_id" : 1, "Product" : "Apple", "Total" : 10, "Customer" : "ABC" }
{ "_id" : 2, "Product" : "Banana", "Total" : 20, "Customer" : "DEF" }
{ "_id" : 3, "Product" : "Banana", "Total" : 15, "Customer" : "ABC" }
{ "_id" : 4, "Product" : "Apple", "Total" : 25, "Customer" : "GHI" }
> use IF23005
switched to db IF23005
> show collections
Student
fruits
products
> db.products.find()
{ "_id" : 2, "Product" : "Banana", "Total" : 20, "Customer" : "DEF" }
{ "_id" : 4, "Product" : "Apple", "Total" : 25, "Customer" : "GHI" }
{ "_id" : 3, "Product" : "Banana", "Total" : 15, "Customer" : "ABC" }
{ "_id" : 1, "Product" : "Apple", "Total" : 10, "Customer" : "ABC" }
> |
```