CREATE DATABASE IN MONGODB.

use myDB;

```
> use myDB;
switched to db myDB
> db;
myDB
```

CRUD (CREATE, READ, UPDATE, DELETE) OPERATIONS

1. To create a collection by the name “Student”. Let us take a look at the collection list prior to the creation of the new collection “Student”.

db.createCollection(“Student”);

```
> db.createCollection("Student");
{ "ok" : 1 }
```

2. To drop a collection by the name “Student”.

db.Student.drop();

```
> db.Student.drop();
true
```

3. Create a collection by the name “Students” and store the following data in it.

db.Student.insert({_id:1,StudName:"MichelleJacintha",Grade:"VII",Hobbies:"InternetSurfing"});

```
> db.Student.insert({_id:1,StudName:"pratibha",Grade:"vii",Hobbies:"Chess"});
WriteResult({ "nInserted" : 1 })
```

4. Insert the document for “Rahul” into the Students collection only if it does not already exist in the collection. However, if it is already present in the collection, then update the document with new values. (Update his Hobbies from “Skating” to “Chess”.) Use “Update else insert” (if there is an existing document, it will attempt to update it, if there is no existing document then it will insert it).

db.Student.update({_id:3,StudName:"AryanDavid",Grade:"VII"},{$set:{Hobbies:"Skating"}},{upsert:true});

```
> db.Student.update({_id:3,StudName:"rahul",Grade:"vii"},{$set:{Hobbies:"Skating"}},{upsert:true});
WriteResult({ "nMatched" : 0, "nUpserted" : 1, "nModified" : 0, "_id" : 3 })
```

5. FIND METHOD

A. To search for documents from the “Students” collection based on certain search criteria.

db.Student.find({StudName:"pratibha"});

```
> db.Student.find({StudName:"pratibha"});
{ "_id" : 1, "StudName" : "pratibha", "Grade" : "vii", "Hobbies" : "Chess" }
```

B. To display only the StudName and Grade from all the documents of the Students collection. The identifier_id should be suppressed and NOT displayed.

db.Student.find({},{StudName:1,Grade:1,_id:0});

```
> db.Student.find({},{StudName:1,Grade:1,_id:0});
{ "StudName" : "pratibha", "Grade" : "vii" }
{ "StudName" : "prathiksha", "Grade" : "viii" }
{ "Grade" : "vii", "StudName" : "rahul" }
```

C. To find those documents where the Grade is set to ‘VII’

db.Student.find({Grade:{$eq:'VII'}}).pretty();

```
> db.Student.find({Grade:{$eq:"vii"}}).pretty();
{
        "_id" : 1,
        "StudName" : "pratibha",
        "Grade" : "vii",
        "Hobbies" : "Chess"
}
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating" }
```

D. To find those documents from the Students collection where the Hobbies is set to either ‘Chess’ or is set to ‘Skating’.

db.Student.find({Hobbies :{ $in: ['Chess','Skating']}}).pretty ();

```
> db.Student.find({Hobbies:{$in:['Chess','Skating']}}).pretty();
{
        "_id" : 1,
        "StudName" : "pratibha",
        "Grade" : "vii",
        "Hobbies" : "Chess"
}
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating" }
```

E. To find documents from the Students collection where the StudName begins with “R”.

db.Student.find({StudName:/^R/}).pretty();

```
> db.Student.find({StudName:/^r/}).pretty();
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating" }
```

F. To find documents from the Students collection where the StudName has an “u” in any position.

db.Student.find({StudName:/u/}).pretty();

```
> db.Student.find({StudName:/u/}).pretty();
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating" }
```

G. To find the number of documents in the Students collection.

db.Student.count();

```
> db.Student.count();
3
```

H. To sort the documents from the Students collection in the descending order of StudName.

db.Student.find().sort({StudName:-1}).pretty();

```
> db.Student.find().sort({StudName:-1});
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating" }
{ "_id" : 1, "StudName" : "pratibha", "Grade" : "vii", "Hobbies" : "Chess" }
{ "_id" : 2, "StudName" : "prathiksha", "Grade" : "viii", "Hobbies" : "cycling" }
```

6. Save Method :

Save() method will insert a new document, if the document with the _id does not exist. If it exists it will replace the existing document.

db.Students.save({StudName:”Vamsi”, Grade:”VI”});

```
> db.Student.save({StudName:"Prasansa",Grade:"viii"});
WriteResult({ "nInserted" : 1 })
> db.Student.find();
{ "_id" : 1, "StudName" : "pratibha", "Grade" : "vii", "Hobbies" : "Chess" }
{ "_id" : 2, "StudName" : "prathiksha", "Grade" : "viii", "Hobbies" : "cycling" }
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating" }
{ "_id" : ObjectId("629e2c835e84878fe9a0aea0"), "StudName" : "Prasansa", "Grade" : "viii" }
```

7. Add a new field to existing Document:

db.Students.update({_id:3},{$set:{Location:”Network”}});

```
> db.Student.update({_id:3},{$set:{Location:"Network"}});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.Student.find();
{ "_id" : 1, "StudName" : "pratibha", "Grade" : "vii", "Hobbies" : "Chess" }
{ "_id" : 2, "StudName" : "prathiksha", "Grade" : "viii", "Hobbies" : "cycling" }
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating", "Location" : "Network" }
{ "_id" : ObjectId("629e2c835e84878fe9a0aea0"), "StudName" : "Prasansa", "Grade" : "viii" }
```

8. Remove the field in an existing Document

db.Students.update({_id:3},{$unset:{Location:”Network”}});

```
> db.Student.update({_id:3},{$unset:{Location:"Network"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.Student.find();
{ "_id" : 1, "StudName" : "pratibha", "Grade" : "vii", "Hobbies" : "Chess" }
{ "_id" : 2, "StudName" : "prathiksha", "Grade" : "viii", "Hobbies" : "cycling" }
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating" }
{ "_id" : ObjectId("629e2c835e84878fe9a0aea0"), "StudName" : "Prasansa", "Grade" : "viii" }
```

9.Finding Document based on search criteria suppressing few fields

db.Student.find({_id:1},{StudName:1,Grade:1,_id:0});

```
> db.Student.find({_id:1},{StudName:1,Grade:1,_id:0});
{ "StudName" : "pratibha", "Grade" : "vii" }
```

10. To find those documents where the Grade is not set to ‘VII’

db.Student.find({Grade:{$ne:'VII'}}).pretty();

```
> db.Student.find({Grade:{$ne:'vii'}});
{ "_id" : 2, "StudName" : "prathiksha", "Grade" : "viii", "Hobbies" : "cycling" }
{ "_id" : ObjectId("629e2c835e84878fe9a0aea0"), "StudName" : "Prasansa", "Grade" : "viii" }
```

11.To find documents from the Students collection where the StudName ends with s.

db.Student.find({StudName:/s$/}).pretty();

```
> db.Student.find({StudName:/a$/});
{ "_id" : 1, "StudName" : "pratibha", "Grade" : "vii", "Hobbies" : "Chess" }
{ "_id" : 2, "StudName" : "prathiksha", "Grade" : "viii", "Hobbies" : "cycling" }
{ "_id" : ObjectId("629e2c835e84878fe9a0aea0"), "StudName" : "Prasansa", "Grade" : "viii" }
```

12. to set a particular field value to NULL

db.Students.update({_id:3},{$set:{Location:null}})

```
> db.Student.update({_id:3},{$set:{Location:null}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.Student.find();
{ "_id" : 1, "StudName" : "pratibha", "Grade" : "vii", "Hobbies" : "Chess" }
{ "_id" : 2, "StudName" : "prathiksha", "Grade" : "viii", "Hobbies" : "cycling" }
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating", "Location" : null }
{ "_id" : ObjectId("629e2c835e84878fe9a0aea0"), "StudName" : "Prasansa", "Grade" : "viii" }
```

13.Retrieve first 3 documents

db.Students.find({Grade:"VII"}).limit(3).pretty();

```
> db.Student.find({Grade:'vii'}).limit(3)
{ "_id" : 1, "StudName" : "pratibha", "Grade" : "vii", "Hobbies" : "Chess" }
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating", "Location" : null }
> db.Student.find({Grade:'vii'}).limit(1)
{ "_id" : 1, "StudName" : "pratibha", "Grade" : "vii", "Hobbies" : "Chess" }
```

14.To Skip the 1 st two documents from the Students Collections

db.Students.find().skip(2).pretty()

```
> db.Student.find().skip(2)
{ "_id" : 3, "Grade" : "vii", "StudName" : "rahul", "Hobbies" : "Skating", "Location" : null }
{ "_id" : ObjectId("629e2c835e84878fe9a0aea0"), "StudName" : "Prasansa", "Grade" : "viii" }
```