Name: Samruddhi Sangarm Yadav.
Roll NO.: s560

Assignment No.: 1

it29@it29-OptiPlex-380:~$ mongo
MongoDB shell version v4.4.29
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("61eaaf14-ae0a-472c-b778-c08867446456") }
MongoDB server version: 4.4.29

The server generated these startup warnings when booting:
     2025-07-29T15:45:41.472+05:30: Using the XFS filesystem is strongly recommended with the WiredTiger storage engine. See http://dochub.mongodb.org/core/prodnotes-filesystem
     2025-07-29T15:45:45.673+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
---

> use teit
switched to db teit

> show tables
myCollection
student

> db.student.insertMany([
... {name:"Saya",age:20},
... {name:"Samu",age:21}])
{
        "acknowledged" : true,
        "insertedIds" : [
                ObjectId("6888a56e2e918646673c2a6b"),
                ObjectId("6888a56e2e918646673c2a6c")
        ]
}

> db.student.find().pretty()
{
        "_id" : ObjectId("6888a44d017d760a57754a16"),
        "name" : "Saya",
        "age" : 20
}
{
        "_id" : ObjectId("6888a4d0017d760a57754a17"),
        "name" : "Saya",
        "age" : 20
}
{
        "_id" : ObjectId("6888a56e2e918646673c2a6b"),
        "name" : "Saya",
        "age" : 20
}
{
        "_id" : ObjectId("6888a56e2e918646673c2a6c"),

```
        "name" : "Samu",
        "age" : 21
}
> db.student.drop()
True

>  db.createCollection("student")
{ "ok" : 1 }

>db.student.insertMany([{stud_id:101,Name:"Saya",Age:20,Year:"TYIT"},{stud_id:102,Name:"S
amu",Age:21,Year:"SYIT"},{stud_id:103,Name:"Ujawala",Age:20,Year:"TYIT"},{stud_id:104,Na
me:"Samiksha",Age:21,Year:"TYCO"}]);
{
        "acknowledged" : true,
        "insertedIds" : [
                ObjectId("6888a9b82e918646673c2a6d"),
                ObjectId("6888a9b82e918646673c2a6e"),
                ObjectId("6888a9b82e918646673c2a6f"),
                ObjectId("6888a9b82e918646673c2a70")
        ]
}

> db.student.find().pretty()
{
        "_id" : ObjectId("6888a9b82e918646673c2a6d"),
        "stud_id" : 101,
        "Name" : "Saya",
        "Age" : 20,
        "Year" : "TYIT"
}
{
        "_id" : ObjectId("6888a9b82e918646673c2a6e"),
        "stud_id" : 102,
        "Name" : "Samu",
        "Age" : 21,
        "Year" : "SYIT"
}
{
        "_id" : ObjectId("6888a9b82e918646673c2a6f"),
        "stud_id" : 103,
        "Name" : "Ujawala",
        "Age" : 20,
        "Year" : "TYIT"
}
{
        "_id" : ObjectId("6888a9b82e918646673c2a70"),
        "stud_id" : 104,
        "Name" : "Samiksha",
        "Age" : 21,
        "Year" : "TYCO"
}
```

> db.student.find({Age:{$gt:18}});
{ "_id" : ObjectId("6888a9b82e918646673c2a6d"), "stud_id" : 101, "Name" : "Saya", "Age" : 20, "Year" : "TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6e"), "stud_id" : 102, "Name" : "Samu", "Age" : 21, "Year" : "SYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6f"), "stud_id" : 103, "Name" : "Ujawala", "Age" : 20, "Year" : "TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a70"), "stud_id" : 104, "Name" : "Samiksha", "Age" : 21, "Year" : "TYCO" }
> db.student.find({Age:{$gt:20}});
{ "_id" : ObjectId("6888a9b82e918646673c2a6e"), "stud_id" : 102, "Name" : "Samu", "Age" : 21, "Year" : "SYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a70"), "stud_id" : 104, "Name" : "Samiksha", "Age" : 21, "Year" : "TYCO" }

> db.student.insertOne({stud_id:105,Name:"Sakshi",Age:23,Year:"BEEL"})
{
        "acknowledged" : true,
        "insertedId" : ObjectId("6888ab682e918646673c2a71")
}

> db.student.find()
{ "_id" : ObjectId("6888a9b82e918646673c2a6d"), "stud_id" : 101, "Name" : "Saya", "Age" : 20, "Year" : "TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6e"), "stud_id" : 102, "Name" : "Samu", "Age" : 21, "Year" : "SYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6f"), "stud_id" : 103, "Name" : "Ujawala", "Age" : 20, "Year" : "TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a70"), "stud_id" : 104, "Name" : "Samiksha", "Age" : 21, "Year" : "TYCO" }
{ "_id" : ObjectId("6888ab682e918646673c2a71"), "stud_id" : 105, "Name" : "Sakshi", "Age" : 23, "Year" : "BEEL" }

> db.student.updateOne({stud_id:101},{$inc:{Age:1}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }

> db.student.find()
{ "_id" : ObjectId("6888a9b82e918646673c2a6d"), "stud_id" : 101, "Name" : "Saya", "Age" : 21, "Year" : "TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6e"), "stud_id" : 102, "Name" : "Samu", "Age" : 21, "Year" : "SYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6f"), "stud_id" : 103, "Name" : "Ujawala", "Age" : 20, "Year" : "TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a70"), "stud_id" : 104, "Name" : "Samiksha", "Age" : 21, "Year" : "TYCO" }
{ "_id" : ObjectId("6888ab682e918646673c2a71"), "stud_id" : 105, "Name" : "Sakshi", "Age" : 23, "Year" : "BEEL" }

> db.student.updateOne({stud_id:101},{$set:{Name:"Gita"}},{$inc:{Age:1}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }

```
> db.student.find()
{ "_id" : ObjectId("6888a9b82e918646673c2a6d"), "stud_id" : 101, "Name" : "Gita", "Age" : 21, "Year" :
"TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6e"), "stud_id" : 102, "Name" : "Samu", "Age" : 21,
"Year" : "SYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6f"), "stud_id" : 103, "Name" : "Ujawala", "Age" : 20,
"Year" : "TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a70"), "stud_id" : 104, "Name" : "Samiksha", "Age" : 21,
"Year" : "TYCO" }
{ "_id" : ObjectId("6888ab682e918646673c2a71"), "stud_id" : 105, "Name" : "Sakshi", "Age" : 23,
"Year" : "BEEL" }

> db.student.updateOne( {stud_id:106}, { $set:{ Name:"Amit",Age:25 }},{upsert:true});
{
        "acknowledged" : true,
        "matchedCount" : 0,
        "modifiedCount" : 0,
        "upsertedId" : ObjectId("6888b2b233d53961bfd5405d")
}

> db.student.find()
{ "_id" : ObjectId("6888a9b82e918646673c2a6d"), "stud_id" : 101, "Name" : "Gita", "Age" : 21, "Year" :
"TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6e"), "stud_id" : 102, "Name" : "Samu", "Age" : 21,
"Year" : "SYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6f"), "stud_id" : 103, "Name" : "Ujawala", "Age" : 20,
"Year" : "TYIT" }
{ "_id" : ObjectId("6888ab682e918646673c2a71"), "stud_id" : 105, "Name" : "Sakshi", "Age" : 23,
"Year" : "BEEL" }
{ "_id" : ObjectId("6888b2b233d53961bfd5405d"), "stud_id" : 106, "Age" : 25, "Name" : "Amit" }
>



> db.student.replaceOne( {stud_id:106}, {  stud_id:104,  Name:"Ananya",  Age:21,  Year:
"BEIT" } )
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }

> db.student.find()
{ "_id" : ObjectId("6888a9b82e918646673c2a6d"), "stud_id" : 101, "Name" : "Gita", "Age" : 21, "Year" :
"TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6e"), "stud_id" : 102, "Name" : "Samu", "Age" : 21,
"Year" : "SYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6f"), "stud_id" : 103, "Name" : "Ujawala", "Age" : 20,
"Year" : "TYIT" }
{ "_id" : ObjectId("6888ab682e918646673c2a71"), "stud_id" : 105, "Name" : "Sakshi", "Age" : 23,
"Year" : "BEEL" }
{ "_id" : ObjectId("6888b2b233d53961bfd5405d"), "stud_id" : 104, "Name" : "Ananya", "Age" : 21,
"Year" : "BEIT" }
```

```
> db.student.findOne({stud_id:103})
{
        "_id" : ObjectId("6888a9b82e918646673c2a6f"),
        "stud_id" : 103,
        "Name" : "Ujawala",
        "Age" : 20,
        "Year" : "TYIT"
}

> db.student.find({Age:{$lt:22}})
{ "_id" : ObjectId("6888a9b82e918646673c2a6d"), "stud_id" : 101, "Name" : "Gita", "Age" : 21, "Year" : "TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6e"), "stud_id" : 102, "Name" : "Samu", "Age" : 21, "Year" : "SYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6f"), "stud_id" : 103, "Name" : "Ujawala", "Age" : 20, "Year" : "TYIT" }
{ "_id" : ObjectId("6888b2b233d53961bfd5405d"), "stud_id" : 104, "Name" : "Ananya", "Age" : 21, "Year" : "BEIT" }

> db.student.find({$or :[{Age:{$lt:21}},{Year:"TYIT"}]})
{ "_id" : ObjectId("6888a9b82e918646673c2a6d"), "stud_id" : 101, "Name" : "Gita", "Age" : 21, "Year" : "TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6f"), "stud_id" : 103, "Name" : "Ujawala", "Age" : 20, "Year" : "TYIT" }

> db.student.find({Age:{$not:{$eq:20}}})
{ "_id" : ObjectId("6888a9b82e918646673c2a6d"), "stud_id" : 101, "Name" : "Gita", "Age" : 21, "Year" : "TYIT" }
{ "_id" : ObjectId("6888a9b82e918646673c2a6e"), "stud_id" : 102, "Name" : "Samu", "Age" : 21, "Year" : "SYIT" }
{ "_id" : ObjectId("6888ab682e918646673c2a71"), "stud_id" : 105, "Name" : "Sakshi", "Age" : 23, "Year" : "BEEL" }
{ "_id" : ObjectId("6888b2b233d53961bfd5405d"), "stud_id" : 104, "Name" : "Ananya", "Age" : 21, "Year" : "BEIT" }

> db.student.find({Age:{$not:{$eq:21}}})
{ "_id" : ObjectId("6888a9b82e918646673c2a6f"), "stud_id" : 103, "Name" : "Ujawala", "Age" : 20, "Year" : "TYIT" }
{ "_id" : ObjectId("6888ab682e918646673c2a71"), "stud_id" : 105, "Name" : "Sakshi", "Age" : 23, "Year" : "BEEL" }
> db.student.find({Name:/^S/})
{ "_id" : ObjectId("6888a9b82e918646673c2a6e"), "stud_id" : 102, "Name" : "Samu", "Age" : 21, "Year" : "SYIT" }
{ "_id" : ObjectId("6888ab682e918646673c2a71"), "stud_id" : 105, "Name" : "Sakshi", "Age" : 23, "Year" : "BEEL" }


> db.student.find({$where:"this.Age >21"})
{ "_id" : ObjectId("6888ab682e918646673c2a71"), "stud_id" : 105, "Name" : "Sakshi", "Age" : 23, "Year" : "BEEL" }
```