

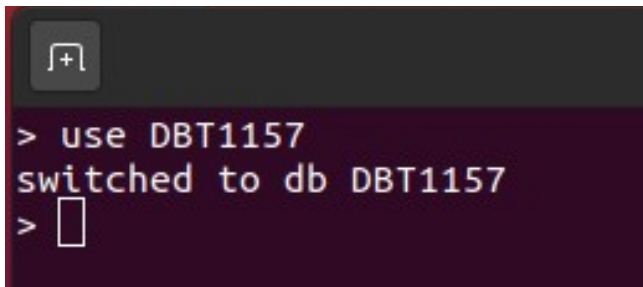
DBT ASSIGNMENT 4

Sneha Hegde

PES1201801157

1. MongoDB-

- Creating a database-



```
> use DBT1157
switched to db DBT1157
> 
```

- Inserting records into musician collection-
(can insert many records at once, too)

```
db.musician.insert({
  name: "Amy",
  stage_name: "Trixie",
  age: 20,
  songs: ["a","b","c"]
})
```

```
db.musician.insert({
  name: "Bob",
  stage_name: "Zazu",
  age: 20,
  songs: ["p","q"]
})
```

```
db.musician.insert({
```

```

        name: "Pearl",
        stage_name: "Gem",
        age: 30,
        songs: ["x","y","z"]
    })

```

```

db.musician.insertMany([
    {name: "Jen",
      stage_name: "Peri",
      age: 25,
      songs: ["t","u"]},
    {name: "Joe",
      stage_name: "J",
      age: 30,
      songs: ["g","h","i"]}
])

```

```

> db.musician.insert({
... name: "Amy",
... stage_name: "Trixie",
... age: 20,
... songs: ["a","b","c"]
... })
WriteResult({ "nInserted" : 1 })
> 

```

```

> show collections
musician
> db.musician.find()
{ "_id" : ObjectId("5fa396370d2d7e8b04297664"), "name" : "Amy", "stage_name" : "Trixie", "age" : 20, "songs" : [ "a", "b", "c" ] }
> 

```

```

> db.musician.insertMany([
... {name: "Jen",
... stage_name: "Peri",
... age: 25,
... songs: ["t","u"]},
... {name: "Joe",
... stage_name: "J",
... age: 30,
... songs: ["g","h","i"]}
... ])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("5fa3a2be2fb5141a62cfe19f"),
    ObjectId("5fa3a2be2fb5141a62cfe1a0")
  ]
}
> 

```

- If we want to update a record, so that Amy has another song, "d"-

```
db.musician.update(
{name:"Amy"},
{$set:{songs: ["a","b","c","d"]}})
```

```
> db.musician.update(
... {name:"Amy"},
... {$set:{songs: ["a","b","c","d"]}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.musician.find()
{ "_id" : ObjectId("5fa396370d2d7e8b04297664"), "name" : "Amy", "stage_name" : "
Trixie", "age" : 20, "songs" : [ "a", "b", "c", "d" ] }
{ "_id" : ObjectId("5fa399230d2d7e8b04297665"), "name" : "Bob", "stage_name" : "
Zazu", "age" : 20, "songs" : [ "p", "q" ] }
{ "_id" : ObjectId("5fa3992f0d2d7e8b04297666"), "name" : "Pearl", "stage_name" :
"Gem", "age" : 30, "songs" : [ "x", "y", "z" ] }
> □
```

It has been updated.

- To find all stage names where name begins with "B"-

```
db.musician.find(
{name:/^B/},{name:1,stage_name:1})
```

```
> db.musician.find(
... {name:/^B/},{name:1,stage_name:1})
{ "_id" : ObjectId("5fa399230d2d7e8b04297665"), "name" : "Bob", "stage_name" : "Zazu" }
> □
```

```
> db.musician.aggregate(
... [
... {
... $group:
... {
... _id: {age: "$age"},
... count: {$sum: 1}
... }
... }
... ]
... )
{ "_id" : { "age" : 25 }, "count" : 1 }
{ "_id" : { "age" : 30 }, "count" : 2 }
{ "_id" : { "age" : 20 }, "count" : 2 }
> □
```

- To find the count of each age-

```
db.musician.aggregate(
[
{
$group:
{
```

```

        _id: {age: "$age"},
        count: {$sum: 1}
    }
}
]
)

```

- To find the average age of the musicians-

```

db.musician.aggregate(
    [
        {
            $group:
            {
                _id: null,
                average_age: {$avg: "$age"}
            }
        }
    ]
)

```

```

> db.musician.aggregate(
... [
... {
... $group:
... {
... _id: null,
... average_age: {$avg: "$age"}
... }
... }
... ]
... )
{ "_id" : null, "average_age" : 25 }
> 

```

- Removing a record from the collection-

```
db.musician.remove({name:"Amy"})
```

```

> db.musician.remove({name:"Amy"})
WriteResult({ "nRemoved" : 1 })
> db.musician.find()
{ "_id" : ObjectId("5fa399230d2d7e8b04297665"), "name" : "Bob", "stage_name" : "Zazu", "age" : 20, "songs" : [ "p", "q" ] }
{ "_id" : ObjectId("5fa3992f0d2d7e8b04297666"), "name" : "Pearl", "stage_name" : "Gen", "age" : 30, "songs" : [ "x", "y", "z" ] }
{ "_id" : ObjectId("5fa3a2be2fb5141a62cfe19f"), "name" : "Jen", "stage_name" : "Peri", "age" : 25, "songs" : [ "t", "u" ] }
{ "_id" : ObjectId("5fa3a2be2fb5141a62cfe1a0"), "name" : "Joe", "stage_name" : "J", "age" : 30, "songs" : [ "g", "h", "i" ] }
> 

```

- Removing the collection-
db.musician.drop()

```
> db.musician.drop()
true
> show collections
> 
```