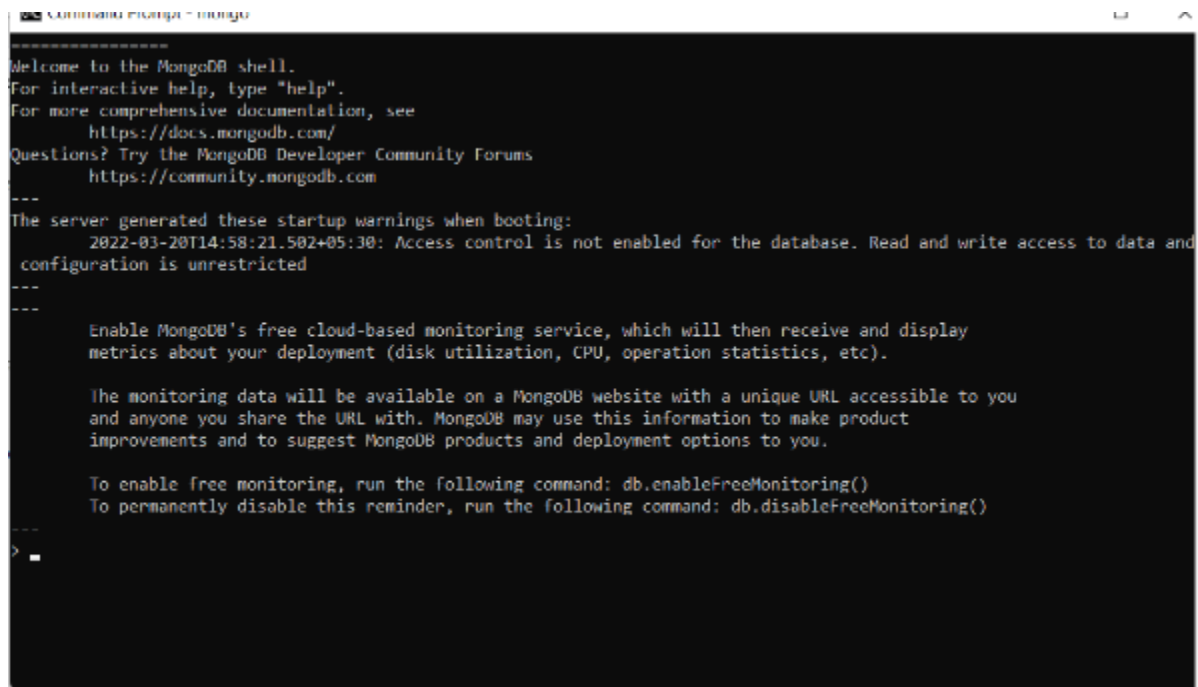


1) First start the mongo Db using command **mongo**

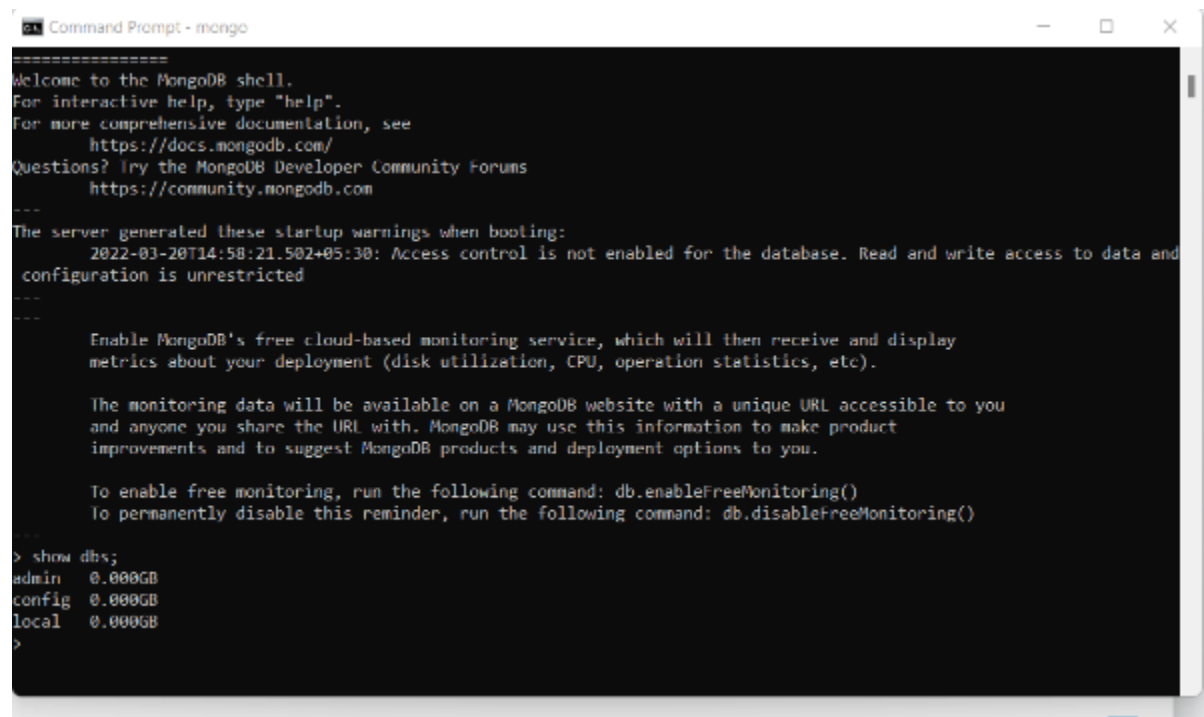


```
=====
Welcome to the MongoDB shell.
For interactive help, type "help".
For more comprehensive documentation, see
  https://docs.mongodb.com/
Questions? Try the MongoDB Developer Community Forums
  https://community.mongodb.com
---
The server generated these startup warnings when booting:
  2022-03-20T14:58:21.502+05:30: Access control is not enabled for the database. Read and write access to data and
  configuration is unrestricted
---
---
  Enable MongoDB's free cloud-based monitoring service, which will then receive and display
  metrics about your deployment (disk utilization, CPU, operation statistics, etc).

  The monitoring data will be available on a MongoDB website with a unique URL accessible to you
  and anyone you share the URL with. MongoDB may use this information to make product
  improvements and to suggest MongoDB products and deployment options to you.

  To enable free monitoring, run the following command: db.enableFreeMonitoring()
  To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
---
>
```

show dbs;

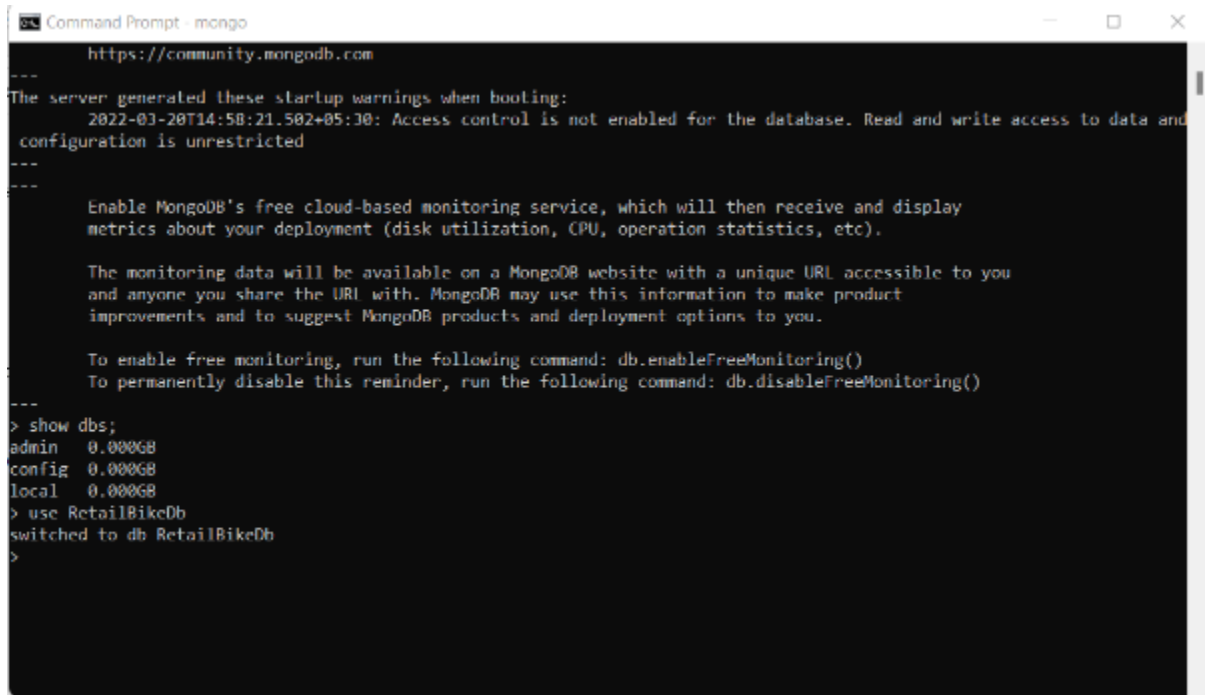


```
Command Prompt - mongo
=====
Welcome to the MongoDB shell.
For interactive help, type "help".
For more comprehensive documentation, see
  https://docs.mongodb.com/
Questions? Try the MongoDB Developer Community Forums
  https://community.mongodb.com
---
The server generated these startup warnings when booting:
  2022-03-20T14:58:21.502+05:30: Access control is not enabled for the database. Read and write access to data and
  configuration is unrestricted
---
---
  Enable MongoDB's free cloud-based monitoring service, which will then receive and display
  metrics about your deployment (disk utilization, CPU, operation statistics, etc).

  The monitoring data will be available on a MongoDB website with a unique URL accessible to you
  and anyone you share the URL with. MongoDB may use this information to make product
  improvements and to suggest MongoDB products and deployment options to you.

  To enable free monitoring, run the following command: db.enableFreeMonitoring()
  To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
---
> show dbs;
admin    0.000GB
config  0.000GB
local   0.000GB
>
```

2) use RetailBikeDb



```
Command Prompt - mongo
https://community.mongodb.com
---
The server generated these startup warnings when booting:
  2022-03-20T14:58:21.502+05:30: Access control is not enabled for the database. Read and write access to data and
  configuration is unrestricted
---
---
  Enable MongoDB's free cloud-based monitoring service, which will then receive and display
  metrics about your deployment (disk utilization, CPU, operation statistics, etc).

  The monitoring data will be available on a MongoDB website with a unique URL accessible to you
  and anyone you share the URL with. MongoDB may use this information to make product
  improvements and to suggest MongoDB products and deployment options to you.


  To enable free monitoring, run the following command: db.enableFreeMonitoring()
  To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
---
> show dbs;
admin    0.000GB
config  0.000GB
local    0.000GB
> use RetailBikeDb
switched to db RetailBikeDb
>
```

3) Creating and showing collections in MongoDB



```
Command Prompt - mongo
---
---
>
> db.createCollection("production.categories")
{ "ok" : 1 }
> db.createCollection("production.brands")
{ "ok" : 1 }
> db.createCollection("production.products")
{ "ok" : 1 }
> db.createCollection("production.stocks")
{ "ok" : 1 }
> db.createCollection("sales.stores")
{ "ok" : 1 }
> db.createCollection("sales.staffs")
{ "ok" : 1 }
> db.createCollection("sales.customers")
{ "ok" : 1 }
> db.createCollection("sales.orders")
{ "ok" : 1 }
> db.createCollection("sales.order_items")
{ "ok" : 1 }
>
```

4) We can show list of collection using “Show collections” commands in MongoDB

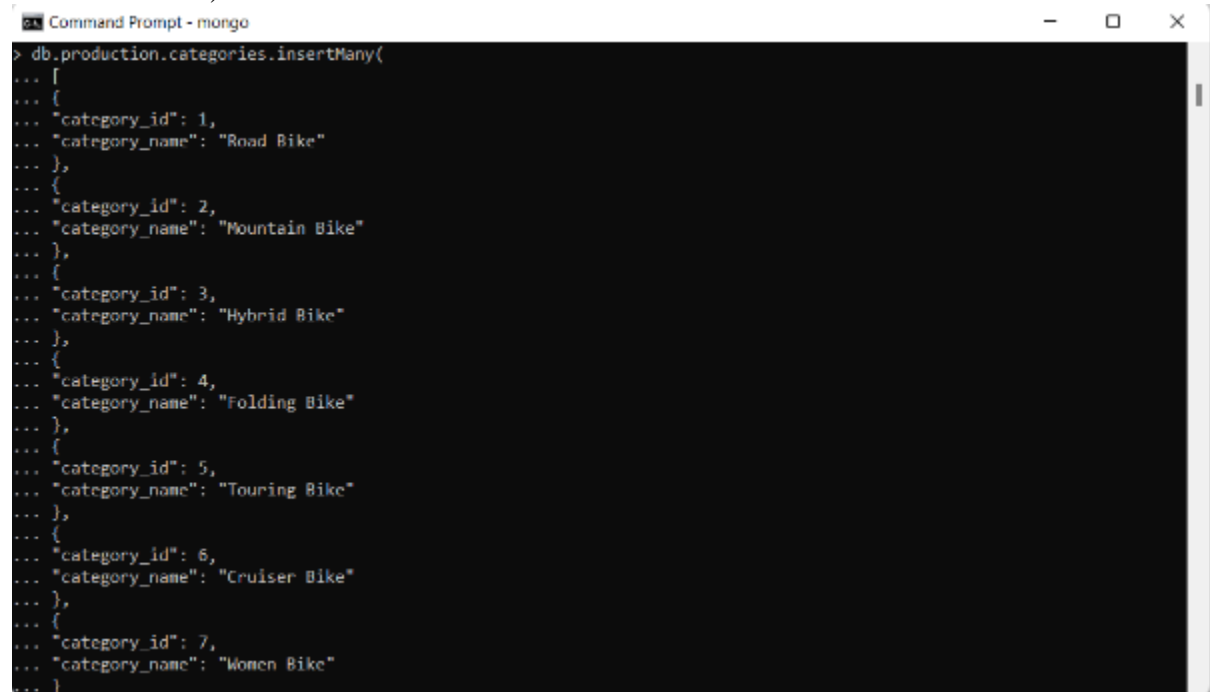


```
Command Prompt - mongo
> db.createCollection("production.stocks")
{"ok" : 1 }
> db.createCollection("sales.stores")
{"ok" : 1 }
> db.createCollection("sales.staffs")
{"ok" : 1 }
> db.createCollection("sales.customers")
{"ok" : 1 }
> db.createCollection("sales.orders")
{"ok" : 1 }
> db.createCollection("sales.order_items")
{"ok" : 1 }
> show collections
production.brands
production.categories
production.products
production.stocks
sales.customers
sales.order_items
sales.orders
sales.staffs
sales.stores
>
```

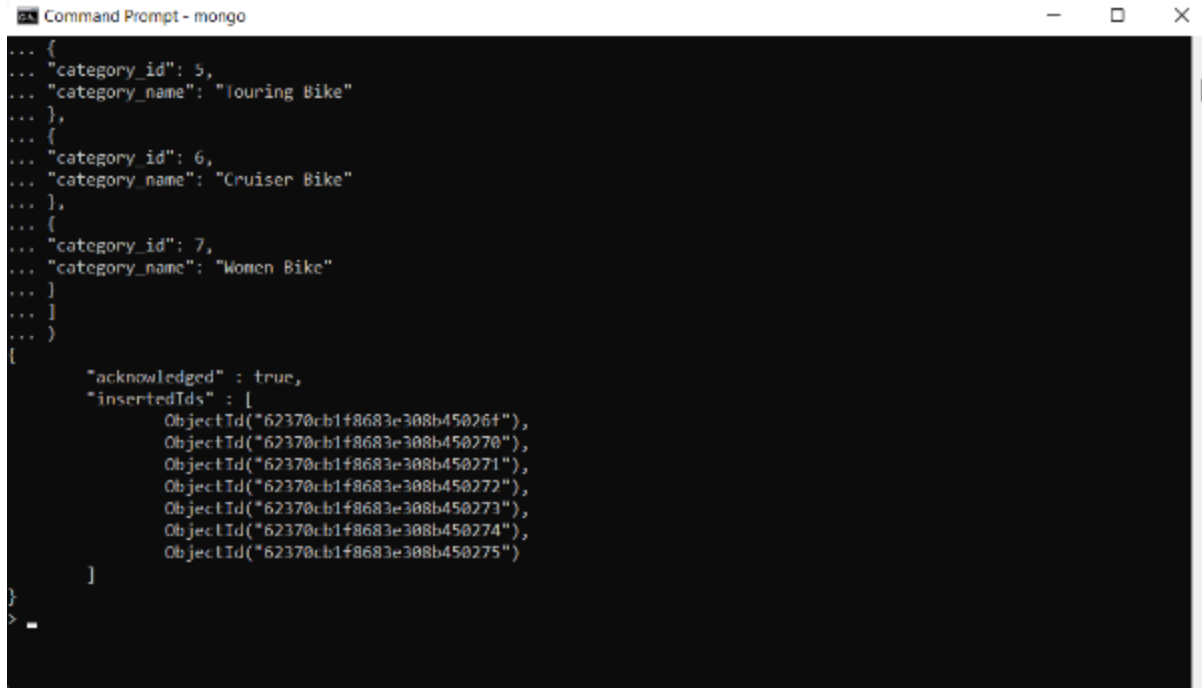
1. Create Operations

- db.collection.insertOne()
 - db.collection.insertMany()
1. production.categories
db.production.categories.insertMany(
[
{
"category_id": 1,
"category_name": "Road Bike"
},
{
"category_id": 2,
"category_name": "Mountain Bike"
},
{
"category_id": 3,
"category_name": "Hybrid Bike"
},
]

```
{
  "category_id": 4,
  "category_name": "Folding Bike"
},
{
  "category_id": 5,
  "category_name": "Touring Bike"
},
{
  "category_id": 6,
  "category_name": "Cruiser Bike"
},
{
  "category_id": 7,
  "category_name": "Women Bike"
}
]
)
```



```
Command Prompt - mongo
> db.production.categories.insertMany(
... [
... {
...   "category_id": 1,
...   "category_name": "Road Bike"
... },
... {
...   "category_id": 2,
...   "category_name": "Mountain Bike"
... },
... {
...   "category_id": 3,
...   "category_name": "Hybrid Bike"
... },
... {
...   "category_id": 4,
...   "category_name": "Folding Bike"
... },
... {
...   "category_id": 5,
...   "category_name": "Touring Bike"
... },
... {
...   "category_id": 6,
...   "category_name": "Cruiser Bike"
... },
... {
...   "category_id": 7,
...   "category_name": "Women Bike"
... }
... ]
)
```



```

Command Prompt - mongo
... {
...   "category_id": 5,
...   "category_name": "Touring Bike"
... },
... {
...   "category_id": 6,
...   "category_name": "Cruiser Bike"
... },
... {
...   "category_id": 7,
...   "category_name": "Women Bike"
... }
... ]
... )
[
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("62370cb1f8683e308b45026f"),
    ObjectId("62370cb1f8683e308b450270"),
    ObjectId("62370cb1f8683e308b450271"),
    ObjectId("62370cb1f8683e308b450272"),
    ObjectId("62370cb1f8683e308b450273"),
    ObjectId("62370cb1f8683e308b450274"),
    ObjectId("62370cb1f8683e308b450275")
  ]
]
>

```

2. production.products

```

db.production.products.insertMany(
[
{
  "product_id": 1,
  "product_name": "Honda Superfast",
  "brand_id": 1,
  "category_id": 1,
  "model_year": 1994,
  "list_price": 25000
},
{
  "product_id": 2,
  "product_name": "6KU Bikes",
  "brand_id": 2,
  "category_id": 4,
  "model_year": 2000,
  "list_price": 30000
},
{
  "product_id": 3,
  "product_name": "Bianchi",
  "brand_id": 3,
  "category_id": 2,
  "model_year": 2002,
  "list_price": 30000
},

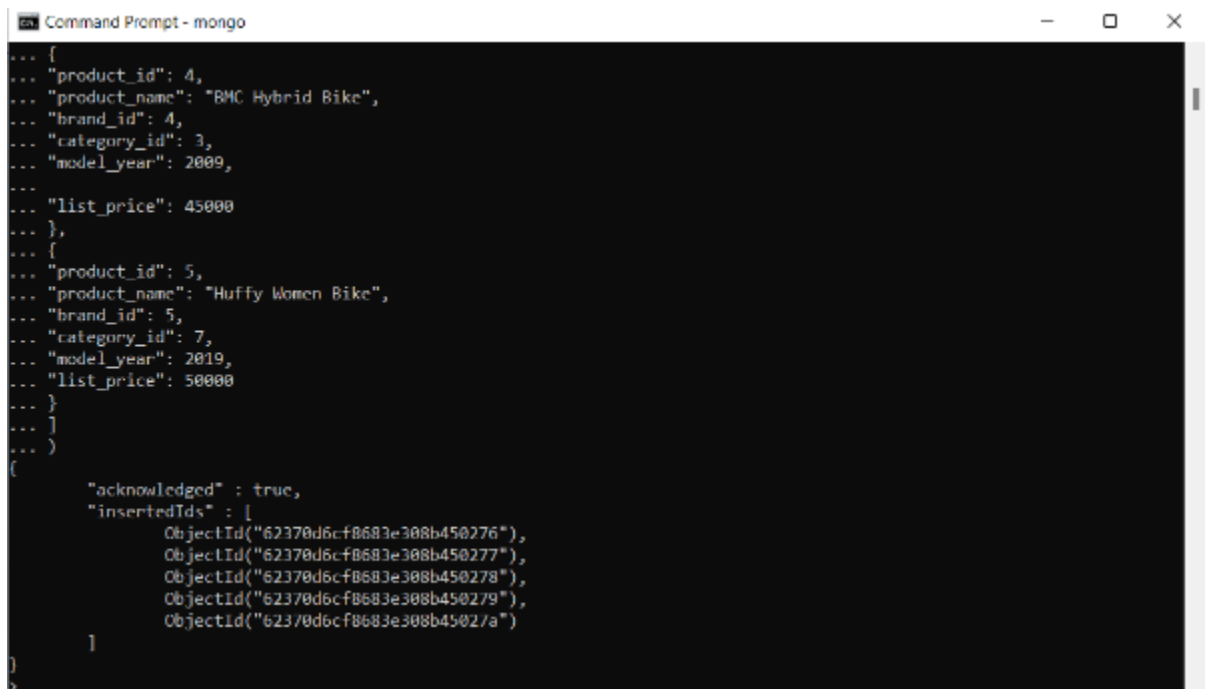
```

```

{
  "product_id": 4,
  "product_name": "BMC Hybrid Bike",
  "brand_id": 4,
  "category_id": 3,
  "model_year": 2009,

  "list_price": 45000
},
{
  "product_id": 5,
  "product_name": "Huffy Women Bike",
  "brand_id": 5,
  "category_id": 7,
  "model_year": 2019,
  "list_price": 50000
}
]
)

```



```

Command Prompt - mongo
... {
...   "product_id": 4,
...   "product_name": "BMC Hybrid Bike",
...   "brand_id": 4,
...   "category_id": 3,
...   "model_year": 2009,
...
...   "list_price": 45000
... },
... {
...   "product_id": 5,
...   "product_name": "Huffy Women Bike",
...   "brand_id": 5,
...   "category_id": 7,
...   "model_year": 2019,
...   "list_price": 50000
... }
... ]
... )
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("62370d6cf8683e308b450276"),
    ObjectId("62370d6cf8683e308b450277"),
    ObjectId("62370d6cf8683e308b450278"),
    ObjectId("62370d6cf8683e308b450279"),
    ObjectId("62370d6cf8683e308b45027a")
  ]
}

```

3. sales.customers

```

db.sales.customers.insertMany(
[
{

```

```
"customer_id": "Cus001",
"first_name": "Jay",
"last_name": "Mehta",
"phone": 1234567890,
"email": "jay@gmail.com",
"street": "T.P Road",
"city": "Mumbai",
"state": "Maharashtra",
"zip_code": 400072
},
{
"customer_id": "Cus002",
"first_name": "Ruhi",
"last_name": "Singh",
"phone": 7894561230,
"email": "ruhi@yahoo.com",
"street": "M.G Chauk",
"city": "Mumbai",
"state": "Maharashtra",
"zip_code": 400072
},
{
"customer_id": "Cus003",
"first_name": "Aria",
"last_name": "Josh",
"phone": 1245789630,
"email": "aria.josh@gmail.com",
"street": "JVM",
"city": "Gandhi Nagar",

"state": "Gujrat",
"zip_code": 401235
},
{
"customer_id": "Cus004",
"first_name": "Mahi",
"last_name": "Kaur",
"phone": 4567890123,
"email": "kaur.mahi@hotmail.com",
"street": "J.V.L.R",
"city": "Mumbai",
"state": "Maharashtra",
"zip_code": 400072
},
{
"customer_id": "Cus005",
```

```

    "first_name": "Aditya",
    "last_name": "Yadav",
    "phone": 9638527410,
    "email": "aditya@gmail.com",
    "street": "Koliwada",
    "city": "Pune",
    "state": "Maharashtra",
    "zip_code": 300075
  }
]
)

```

```

Command Prompt - mongo
... "email": "kaur.mahi@hotmail.com",
... "street": "I.V.I.R",
... "city": "Mumbai",
... "state": "Maharashtra",
... "zip_code": 400072
... },
... {
...   "customer_id": "Cus005",
...   "first_name": "Aditya",
...   "last_name": "Yadav",
...   "phone": 9638527410,
...   "email": "aditya@gmail.com",
...   "street": "Koliwada",
...   "city": "Pune",
...   "state": "Maharashtra",
...   "zip_code": 300075
... }
... ]
... )
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("62370daff8683e308b45027b"),
    ObjectId("62370daff8683e308b45027c"),
    ObjectId("62370daff8683e308b45027d"),
    ObjectId("62370daff8683e308b45027e"),
    ObjectId("62370daff8683e308b45027f")
  ]
}

```

4.production.stocks

```

db.production.stocks.insertMany(
[
{
"store_id": 1,
"product_id": 1,
"quantity": 15
},
{
"store_id": 2,
"product_id": 4,
"quantity": 20
},
{
"store_id": 3,

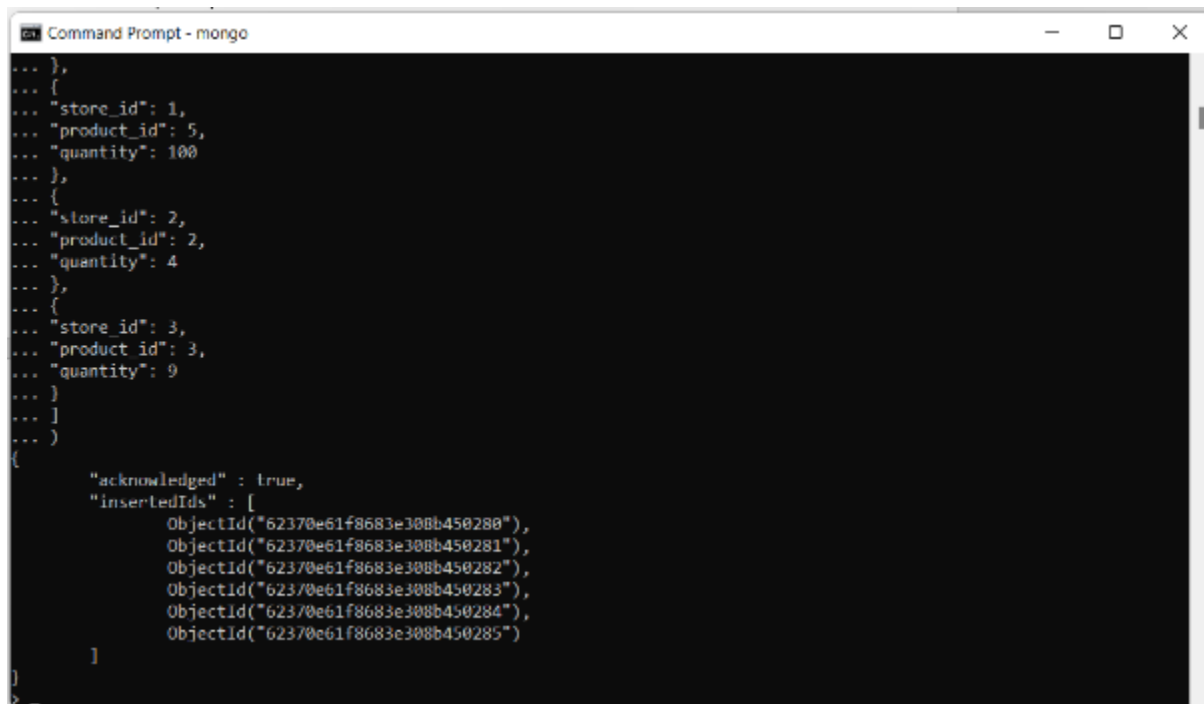
```



```

    "product_id": 5,
    "quantity": 30
  },
  {
    "store_id": 1,
    "product_id": 5,
    "quantity": 100
  },
  {
    "store_id": 2,
    "product_id": 2,
    "quantity": 4
  },
  {
    "store_id": 3,
    "product_id": 3,
    "quantity": 9
  }
]
)

```



```

Command Prompt - mongo
... },
... {
...   "store_id": 1,
...   "product_id": 5,
...   "quantity": 100
... },
... {
...   "store_id": 2,
...   "product_id": 2,
...   "quantity": 4
... },
... {
...   "store_id": 3,
...   "product_id": 3,
...   "quantity": 9
... }
... ]
... )
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("62370e61f8683e308b450280"),
    ObjectId("62370e61f8683e308b450281"),
    ObjectId("62370e61f8683e308b450282"),
    ObjectId("62370e61f8683e308b450283"),
    ObjectId("62370e61f8683e308b450284"),
    ObjectId("62370e61f8683e308b450285")
  ]
}

```

```

5.sales.order_items
db.sales.order_items.insertMany(

```

```
[
  {
    "order_id": "ORD001",
    "product_id": 1,
    "quantity": 2,
    "list_price": 50000
  },
  {
    "order_id": "ORD002",
    "product_id": 2,
    "quantity": 3,
    "list_price": 90000
  },
  {
    "order_id": "ORD003",
    "product_id": 3,
    "quantity": 1,
    "list_price": 30000
  },
  {
    "order_id": "ORD004",
    "product_id": 4,
    "quantity": 8,
    "list_price": 360000
  },
  {
    "order_id": "ORD005",
    "product_id": 5,
    "quantity": 2,
    "list_price": 100000
  }
]
```



```

Command Prompt - mongo
... "product_id": 3,
... "quantity": 1,
... "list_price": 30000
... },
... {
... "order_id": "ORD004",
... "product_id": 4,
... "quantity": 8,
... "list_price": 360000
... },
... {
... "order_id": "ORD005",
... "product_id": 5,
... "quantity": 2,
... "list_price": 100000
... }
... ]
... )
... )
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("62370eb6f8683e308b450286"),
    ObjectId("62370eb6f8683e308b450287"),
    ObjectId("62370eb6f8683e308b450288"),
    ObjectId("62370eb6f8683e308b450289"),
    ObjectId("62370eb6f8683e308b45028a")
  ]
}

```

6.sales.orders

```


db.sales.orders.insertMany(
[
{
"order_id": "ORD001",
"customer_id": "Cus001",
"order_status": "Completed",
"order_date": 43992,
"shipped_date": 43994,
"store_id": 1,
"staff_id": 1
},
{
"order_id": "ORD002",
"customer_id": "Cus002",
"order_status": "Completed",
"order_date": 44221,
"shipped_date": 44227,
"store_id": 2,
"staff_id": 2
},
{
"order_id": "ORD003",
"customer_id": "Cus003",

```

```

    "order_status": "Completed",
    "order_date": 44306,
    "shipped_date": 44314,
    "store_id": 2,
    "staff_id": 2
  },
  {
    "order_id": "ORD004",
    "customer_id": "Cus004",
    "order_status": "Pending",
    "order_date": 44367,
    "shipped_date": 44377,
    "store_id": 3,
    "staff_id": 3
  },
  {
    "order_id": "ORD005",
    "customer_id": "Cus005",
    "order_status": "Pending",
    "order_date": 44367,
    "shipped_date": 44377,
    "store_id": 1,
    "staff_id": 1
  }
]
)

```



```

Command Prompt - mongo
... "order_id": "ORD004",
... "customer_id": "Cus004",
... "order_status": "Pending",
... "order_date": 44367,
... "shipped_date": 44377,
... "store_id": 3,
... "staff_id": 3
... },
... [
...   "order_id": "ORD005",
...   "customer_id": "Cus005",
...   "order_status": "Pending",
...   "order_date": 44367,
...   "shipped_date": 44377,
...   "store_id": 1,
...   "staff_id": 1
... ]
... )
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("62370ef8f8683e308b45028b"),
    ObjectId("62370ef8f8683e308b45028c"),
    ObjectId("62370ef8f8683e308b45028d"),
    ObjectId("62370ef8f8683e308b45028e"),
    ObjectId("62370ef8f8683e308b45028f")
  ]
}

```

7.sales.staffs

```
db.sales.staffs.insertMany(  
  [  
    {  
      "staff_id": 1,  
      "first_name": "Pushpa",  
      "last_name": "Yadav",  
      "email": "pushpa@gmail.com",  
      "phone": 9999999999,  
      "active": "Yes",  
      "store_id": 1,  
      "manager_id": 1  
    },  
    {  
      "staff_id": 2,  
      "first_name": "Sadiksha",  
      "last_name": "Singh",  
      "email": "sadiksha@gmail.com",  
      "phone": 8888888888,  
      "active": "Yes",  
      "store_id": 2,  
      "manager_id": 1  
    },  
    {  
      "staff_id": 3,  
      "first_name": "Priya",  
      "last_name": "Nadar",  
      "email": "priya@gmail.com",  
      "phone": 7777777777,  
      "active": "Yes",  
      "store_id": 3,  
      "manager_id": 1  
    }  
  ]  
)
```



```

Command Prompt - mongo
... "first_name": "Sadiksha",
... "last_name": "Singh",
... "email": "sadiksha@gmail.com",
... "phone": 8888888888,
... "active": "Yes",
... "store_id": 2,
... "manager_id": 1
... },
... {
... "staff_id": 3,
... "first_name": "Priya",
... "last_name": "Nadar",
... "email": "priya@gmail.com",
... "phone": 7777777777,
... "active": "Yes",
... "store_id": 3,
... "manager_id": 1
... }
... ]
... )
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("62370fd0f8683e308b450290"),
    ObjectId("62370fd0f8683e308b450291"),
    ObjectId("62370fd0f8683e308b450292")
  ]
}
>

```

8. sales.stores

```

db.sales.stores.insertMany(
[
{
"store_id": 1,
"store_name": "Ambika Showroom",
"phone": 123456,
"email": "ambika@gmail.com",
"street": "GP",
"city": "Mumbai",
"state": "Maharashtra",
"zip_code": 400072
},
{
"store_id": 2,
"store_name": "Yash Bikes",
"phone": 789456,
"email": "yash.bikes@yahoo.com",
"street": "H.G",
"city": "Pune",
"state": "Maharashtra",
"zip_code": 300075
},
{
"store_id": 3,
"store_name": "Josh Automobiles",
"phone": 456983,

```

```

"email": "josh@gmail.com",

"street": "M.G",
"city": "Gandhi Nagar",
"state": "Gujrat",
"zip_code": 401235
}
]
)

```



```

Command Prompt - mongo
... "store_name": "Yash Bikes",
... "phone": 789456,
... "email": "yash.bikes@yahoo.com",
... "street": "H.G",
... "city": "Pune",
... "state": "Maharashtra",
... "zip_code": 300075
... ],
... {
...   "store_id": 3,
...   "store_name": "Josh Automobiles",
...   "phone": 456983,
...   "email": "josh@gmail.com",
...   "street": "M.G",
...   "city": "Gandhi Nagar",
...   "state": "Gujrat",
...   "zip_code": 401235
... }
... ]
... )
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("6237103af8683e308b450293"),
    ObjectId("6237103af8683e308b450294"),
    ObjectId("6237103af8683e308b450295")
  ]
}

```

9. production.brands

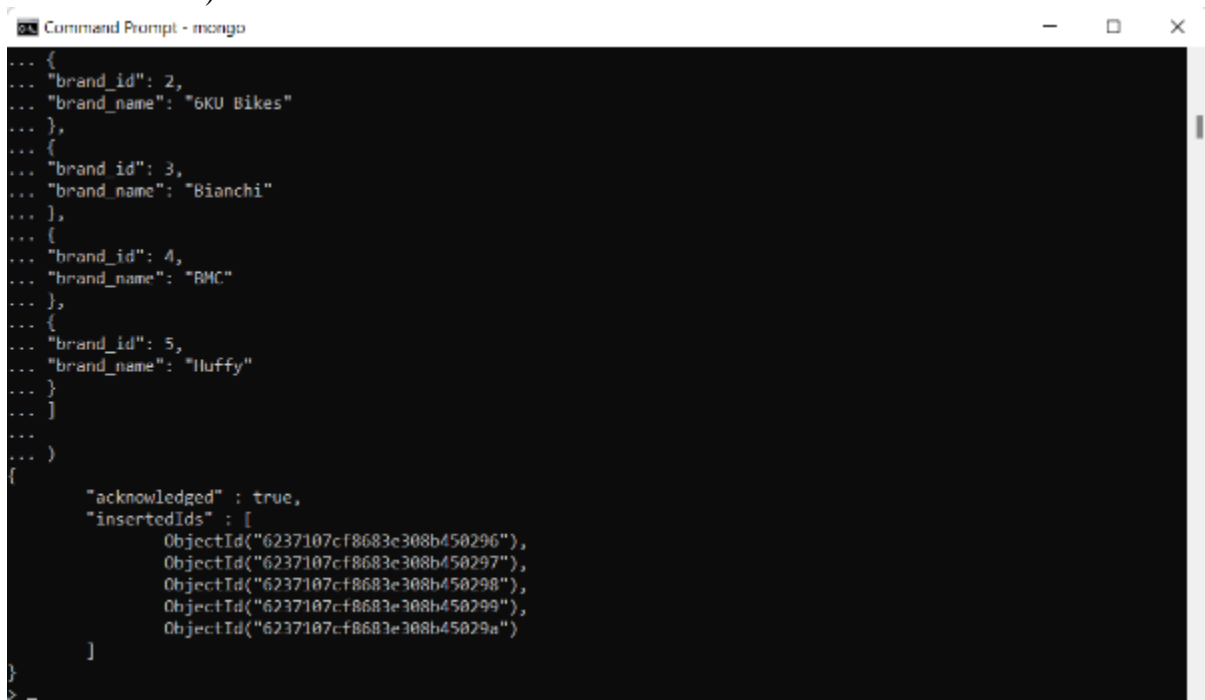
```

db.production.brands.insertMany(
[
{
"brand_id": 1,
"brand_name": "Honda"
},
{
"brand_id": 2,
"brand_name": "6KU Bikes"
},
{
"brand_id": 3,
"brand_name": "Bianchi"
},
{
"brand_id": 4,

```

```
"brand_name": "BMC"
},
{
  "brand_id": 5,
  "brand_name": "Huffy"
}
]

)
```



The screenshot shows a MongoDB Command Prompt window with a black background and white text. It displays the output of an insert operation, showing a list of documents and a confirmation message. The documents are:

```
{
  "brand_id": 2,
  "brand_name": "6KU Bikes"
},
{
  "brand_id": 3,
  "brand_name": "Bianchi"
},
{
  "brand_id": 4,
  "brand_name": "BMC"
},
{
  "brand_id": 5,
  "brand_name": "Huffy"
}
```

The confirmation message is:

```
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("6237107cf8683e308b450296"),
    ObjectId("6237107cf8683e308b450297"),
    ObjectId("6237107cf8683e308b450298"),
    ObjectId("6237107cf8683e308b450299"),
    ObjectId("6237107cf8683e308b45029a")
  ]
}
```

1. Read Operations

MongoDB has two methods of reading documents from a collection:

- `db.collection.find()`
- `db.collection.findOne()`
- `find()`

Example

```

Command Prompt - mongo
.. },
.. {
..   "brand_id": 4,
..   "brand_name": "BMC"
.. },
.. {
..   "brand_id": 5,
..   "brand_name": "Huffy"
.. }
.. ]
.. )

  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("6237107cf8683e308b450296"),
    ObjectId("6237107cf8683e308b450297"),
    ObjectId("6237107cf8683e308b450298"),
    ObjectId("6237107cf8683e308b450299"),
    ObjectId("6237107cf8683e308b45029a")
  ]
}

db.production.brands.find()
{"_id" : ObjectId("6237107cf8683e308b450296"), "brand_id" : 1, "brand_name" : "Honda" }
{"_id" : ObjectId("6237107cf8683e308b450297"), "brand_id" : 2, "brand_name" : "6KU Bikes" }
{"_id" : ObjectId("6237107cf8683e308b450298"), "brand_id" : 3, "brand_name" : "Bianchi" }
{"_id" : ObjectId("6237107cf8683e308b450299"), "brand_id" : 4, "brand_name" : "BMC" }
{"_id" : ObjectId("6237107cf8683e308b45029a"), "brand_id" : 5, "brand_name" : "Huffy" }

```

Example: `db.production.brands.find({"brand_name" : "Honda"})`

```

Command Prompt - mongo
.. )

  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("6237107cf8683e308b450296"),
    ObjectId("6237107cf8683e308b450297"),
    ObjectId("6237107cf8683e308b450298"),
    ObjectId("6237107cf8683e308b450299"),
    ObjectId("6237107cf8683e308b45029a")
  ]
}

db.production.brands.find()
{"_id" : ObjectId("6237107cf8683e308b450296"), "brand_id" : 1, "brand_name" : "Honda" }
{"_id" : ObjectId("6237107cf8683e308b450297"), "brand_id" : 2, "brand_name" : "6KU Bikes" }
{"_id" : ObjectId("6237107cf8683e308b450298"), "brand_id" : 3, "brand_name" : "Bianchi" }
{"_id" : ObjectId("6237107cf8683e308b450299"), "brand_id" : 4, "brand_name" : "BMC" }
{"_id" : ObjectId("6237107cf8683e308b45029a"), "brand_id" : 5, "brand_name" : "Huffy" }

db.production.brands.find({"brand name" : "Honda"})
{"_id" : ObjectId("6237107cf8683e308b450296"), "brand_id" : 1, "brand_name" : "Honda" }

```

- `findOne()`

Syntax- `db.{collection}.findOne({query}, {projection})`

Example : `db.sales.order_items.findOne({"quantity": 2})`



```

Command Prompt - mongo

ObjectId("6237107cf8683e308b450298"),
ObjectId("6237107cf8683e308b450299"),
ObjectId("6237107cf8683e308b45029a")
]
}
}
> db.production.brands.find()
{ "_id" : ObjectId("6237107cf8683e308b450296"), "brand_id" : 1, "brand_name" : "Honda" }
{ "_id" : ObjectId("6237107cf8683e308b450297"), "brand_id" : 2, "brand_name" : "GKU Bikes" }
{ "_id" : ObjectId("6237107cf8683e308b450298"), "brand_id" : 3, "brand_name" : "Bianchi" }
{ "_id" : ObjectId("6237107cf8683e308b450299"), "brand_id" : 4, "brand_name" : "BMC" }
{ "_id" : ObjectId("6237107cf8683e308b45029a"), "brand_id" : 5, "brand_name" : "Huffy" }
> db.production.brands.find({"brand_name" : "Honda"})
{ "_id" : ObjectId("6237107cf8683e308b450296"), "brand_id" : 1, "brand_name" : "Honda" }
> db.sales.order_items.findOne({"quantity" : 2})
{
  "_id" : ObjectId("62370eb6f8683e308b450286"),
  "order_id" : "ORD001",
  "product_id" : 1,
  "quantity" : 2,
  "list_price" : 50000
}

```

Query Documents

- a. **Specify Equality Condition**
 - db.production.products.find()** - to show all the documents
 - db.production.products.find({"list_price": 30000})** - to show only documents which have "list_price" as 30000

```

Command Prompt - mongo
{ "_id" : ObjectId("623710cf8683e308b450299"), "brand_id" : 4, "brand_name" : "BMC" }
{ "_id" : ObjectId("623710cf8683e308b45029a"), "brand_id" : 5, "brand_name" : "Huffy" }
>
> db.production.brands.find({"brand_name" : "Honda"})
{ "_id" : ObjectId("6237107cf8683e308b450296"), "brand_id" : 1, "brand_name" : "Honda" }
> db.sales.order_items.findOne({"quantity": 2})
{
  "_id" : ObjectId("62370eb6f8683e308b450286"),
  "order_id" : "ORD001",
  "product_id" : 1,
  "quantity" : 2,
  "list_price" : 50000
}
> db.sales.customers.find()
{ "_id" : ObjectId("62370daff8683e308b45027b"), "customer_id" : "Cus001", "first_name" : "Jay", "last_name" : "Mehta", "phone" : 1234567890, "email" : "jay@gmail.com", "street" : "T.P Road", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027c"), "customer_id" : "Cus002", "first_name" : "Ruhi", "last_name" : "Singh", "phone" : 7894561230, "email" : "ruhi@yahoo.com", "street" : "M.G Chauk", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027d"), "customer_id" : "Cus003", "first_name" : "Aria", "last_name" : "Josh", "phone" : 1245789630, "email" : "aria.josh@gmail.com", "street" : "JVM", "city" : "Gandhi Nagar", "state" : "Gujrat", "zip_code" : 401235 }
{ "_id" : ObjectId("62370daff8683e308b45027e"), "customer_id" : "Cus004", "first_name" : "Mahi", "last_name" : "Kaur", "phone" : 4567890123, "email" : "kaur.mahi@hotmail.com", "street" : "J.V.L.R", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027f"), "customer_id" : "Cus005", "first_name" : "Aditya", "last_name" : "Yadav", "phone" : 9638527410, "email" : "aditya@gmail.com", "street" : "Koliwada", "city" : "Pune", "state" : "Maharashtra", "zip_code" : 300075 }
>

```

```

Command Prompt - mongo
  "product_id" : 1,
  "quantity" : 2,
  "list_price" : 50000
}
> db.sales.customers.find()
{ "_id" : ObjectId("62370daff8683e308b45027b"), "customer_id" : "Cus001", "first_name" : "Jay", "last_name" : "Mehta", "phone" : 1234567890, "email" : "jay@gmail.com", "street" : "T.P Road", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027c"), "customer_id" : "Cus002", "first_name" : "Ruhi", "last_name" : "Singh", "phone" : 7894561230, "email" : "ruhi@yahoo.com", "street" : "M.G Chauk", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027d"), "customer_id" : "Cus003", "first_name" : "Aria", "last_name" : "Josh", "phone" : 1245789630, "email" : "aria.josh@gmail.com", "street" : "JVM", "city" : "Gandhi Nagar", "state" : "Gujrat", "zip_code" : 401235 }
{ "_id" : ObjectId("62370daff8683e308b45027e"), "customer_id" : "Cus004", "first_name" : "Mahi", "last_name" : "Kaur", "phone" : 4567890123, "email" : "kaur.mahi@hotmail.com", "street" : "J.V.L.R", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027f"), "customer_id" : "Cus005", "first_name" : "Aditya", "last_name" : "Yadav", "phone" : 9638527410, "email" : "aditya@gmail.com", "street" : "Koliwada", "city" : "Pune", "state" : "Maharashtra", "zip_code" : 300075 }
> db.production.products.find({"list_price": 30000})
{ "_id" : ObjectId("62370d6cf8683e308b450277"), "product_id" : 2, "product_name" : "6KU Bikes", "brand_id" : 2, "category_id" : 4, "model_year" : 2000, "list_price" : 30000 }
{ "_id" : ObjectId("62370d6cf8683e308b450278"), "product_id" : 3, "product_name" : "Bianchi", "brand_id" : 3, "category_id" : 2, "model_year" : 2002, "list_price" : 30000 }
>


```

b. Specify Conditions Using Query Operators

db.sales.customers.find() - to show all the documents

db.sales.customers.find({city: { \$in: ["Mumbai", "Pune"] } }) - to show all the documents where

"city" is either "Mumbai" or "Pune"



```

Select Command Prompt - mongo
> db.sales.customers.find()
{ "_id" : ObjectId("62370daff8683e308b45027b"), "customer_id" : "Cus001", "first_name" : "Jay", "last_name" : "Mehta", "phone" : 1234567890, "email" : "jay@gmail.com", "street" : "T.P Road", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027c"), "customer_id" : "Cus002", "first_name" : "Ruhi", "last_name" : "Singh", "phone" : 7894561230, "email" : "ruhi@yahoo.com", "street" : "M.G Chauk", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027d"), "customer_id" : "Cus003", "first_name" : "Aria", "last_name" : "Josh", "phone" : 1245789630, "email" : "aria.josh@gmail.com", "street" : "JVM", "city" : "Gandhi Nagar", "state" : "Gujrat", "zip_code" : 401235 }
{ "_id" : ObjectId("62370daff8683e308b45027e"), "customer_id" : "Cus004", "first_name" : "Mahi", "last_name" : "Kaur", "phone" : 4567890123, "email" : "kaur.mahi@hotmail.com", "street" : "J.V.L.R", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027f"), "customer_id" : "Cus005", "first_name" : "Aditya", "last_name" : "Yadav", "phone" : 9638527410, "email" : "aditya@gmail.com", "street" : "Koliwada", "city" : "Pune", "state" : "Maharashtra", "zip_code" : 300075 }
> db.sales.customers.find({city: { $in: [ "Mumbai", "Pune" ] } })
{ "_id" : ObjectId("62370daff8683e308b45027b"), "customer_id" : "Cus001", "first_name" : "Jay", "last_name" : "Mehta", "phone" : 1234567890, "email" : "jay@gmail.com", "street" : "T.P Road", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027c"), "customer_id" : "Cus002", "first_name" : "Ruhi", "last_name" : "Singh", "phone" : 7894561230, "email" : "ruhi@yahoo.com", "street" : "M.G Chauk", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027e"), "customer_id" : "Cus004", "first_name" : "Mahi", "last_name" : "Kaur", "phone" : 4567890123, "email" : "kaur.mahi@hotmail.com", "street" : "J.V.L.R", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{ "_id" : ObjectId("62370daff8683e308b45027f"), "customer_id" : "Cus005", "first_name" : "Aditya", "last_name" : "Yadav", "phone" : 9638527410, "email" : "aditya@gmail.com", "street" : "Koliwada", "city" : "Pune", "state" : "Maharashtra", "zip_code" : 300075 }

```

C . Specify AND Conditions

db.sales.order_items.find() - to show all the documents

db.sales.order_items.find({quantity: 2, list_price : { \$gt: 70000}}) - Here we are trying to find how

sales order item documents for which quantity is 2 and list price is greater than 70000

```

Command Prompt - mongo
{"_id" : ObjectId("62370daff8683e308b45027b"), "customer_id" : "Cus001", "first_name" : "Jay", "last_name" : "Mehta", "phone" : 1234567890, "email" : "jay@gmail.com", "street" : "T.P Road", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{"_id" : ObjectId("62370daff8683e308b45027c"), "customer_id" : "Cus002", "first_name" : "Ruhi", "last_name" : "Singh", "phone" : 7894561230, "email" : "ruhi@yahoo.com", "street" : "M.G Chauk", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{"_id" : ObjectId("62370daff8683e308b45027e"), "customer_id" : "Cus004", "first_name" : "Mahi", "last_name" : "Kaur", "phone" : 4567890123, "email" : "kaur.mahi@hotmail.com", "street" : "J.V.L.R", "city" : "Mumbai", "state" : "Maharashtra", "zip_code" : 400072 }
{"_id" : ObjectId("62370daff8683e308b45027f"), "customer_id" : "Cus005", "first_name" : "Aditya", "last_name" : "Yadav", "phone" : 9638527410, "email" : "aditya@gmail.com", "street" : "Koliwada", "city" : "Pune", "state" : "Maharashtra", "zip_code" : 300075 }
db.sales.order_items.find()
{"_id" : ObjectId("62370eb6f8683e308b4502B6"), "order_id" : "ORD001", "product_id" : 1, "quantity" : 2, "list_price" : 0000 }
{"_id" : ObjectId("62370eb6f8683e308b4502B7"), "order_id" : "ORD002", "product_id" : 2, "quantity" : 3, "list_price" : 0000 }
{"_id" : ObjectId("62370eb6f8683e308b4502B8"), "order_id" : "ORD003", "product_id" : 3, "quantity" : 1, "list_price" : 0000 }
{"_id" : ObjectId("62370eb6f8683e308b4502B9"), "order_id" : "ORD004", "product_id" : 4, "quantity" : 8, "list_price" : 60000 }
{"_id" : ObjectId("62370eb6f8683e308b4502Ba"), "order_id" : "ORD005", "product_id" : 5, "quantity" : 2, "list_price" : 00000 }
db.sales.order_items.find({quantity: 2, list_price: { $gt: 70000}})
{"_id" : ObjectId("62370eb6f8683e308b4502Ba"), "order_id" : "ORD005", "product_id" : 5, "quantity" : 2, "list_price" : 00000 }
-

```

d. Specify OR Conditions

db.production.products.find() - to show all the documents

db.production.products.find({ \$or: [{ product_name: "Honda Superfast" }, { model_year : { \$lt:

2003 } }] }) - to show all the document which is either "product name" as "Honda Superfast" or

"model year" is less than year 2003

```

Command Prompt - MONGO
> db.production.products.find()
{ "_id" : ObjectId("6222df37b5e511acae1d7898"), "product_id" : 1, "product_name" :
"Honda Superfast", "brand_id" : 1, "category_id" : 1, "model_year" : 1994, "list_pr
ice" : 25000 }
{ "_id" : ObjectId("6222df37b5e511acae1d7899"), "product_id" : 2, "product_name" :
"6KU Bikes", "brand_id" : 2, "category_id" : 4, "model_year" : 2000, "list_price" :
30000 }
{ "_id" : ObjectId("6222df37b5e511acae1d789a"), "product_id" : 3, "product_name" :
"Bianchi", "brand_id" : 3, "category_id" : 2, "model_year" : 2002, "list_price" : 3
0000 }
{ "_id" : ObjectId("6222df37b5e511acae1d789b"), "product_id" : 4, "product_name" :
"BMC Hybrid Bike", "brand_id" : 4, "category_id" : 3, "model_year" : 2009, "list_pr
ice" : 45000 }
{ "_id" : ObjectId("6222df37b5e511acae1d789c"), "product_id" : 5, "product_name" :
"Huffy Women Bike", "brand_id" : 5, "category_id" : 7, "model_year" : 2019, "list_p
rice" : 50000 }
> db.production.products.find({ $or: [ { product_name: "Honda Superfast" }, { model
_year : { $lt:
... 2003 } } ] })
{ "_id" : ObjectId("6222df37b5e511acae1d7898"), "product_id" : 1, "product_name" :
"Honda Superfast", "brand_id" : 1, "category_id" : 1, "model_year" : 1994, "list_pr
ice" : 25000 }
{ "_id" : ObjectId("6222df37b5e511acae1d7899"), "product_id" : 2, "product_name" :
"6KU Bikes", "brand_id" : 2, "category_id" : 4, "model_year" : 2000, "list_price" :
30000 }
{ "_id" : ObjectId("6222df37b5e511acae1d789a"), "product_id" : 3, "product_name" :
"Bianchi", "brand_id" : 3, "category_id" : 2, "model_year" : 2002, "list_price" : 3
0000 }
>

```

3. Update Operations

For MongoDB CRUD, there are three different methods of updating documents:

- `db.collection.updateOne()`
- `db.collection.updateMany()`
- `db.collection.replaceOne()`

1. `updateOne()`

`db.sales.staffs.find()` - to show current document in the system

`db.sales.staffs.updateOne({first_name: "Pushpa"}, {$set:{phone: 999999988}})` -

update mobile

number from 9999999999 to 999999988 for document name where name is " first_name
" in
collection


```

Command Prompt - MONGO
> db.production.products.find()
{ "_id" : ObjectId("6222df37b5e511acae1d7898"), "product_id" : 1, "product_name" :
"Honda Superfast", "brand_id" : 1, "category_id" : 1, "model_year" : 1994, "list_pr
ice" : 25000 }
{ "_id" : ObjectId("6222df37b5e511acae1d7899"), "product_id" : 2, "product_name" :
"6KU Bikes", "brand_id" : 2, "category_id" : 4, "model_year" : 2000, "list_price" :
30000 }
{ "_id" : ObjectId("6222df37b5e511acae1d789a"), "product_id" : 3, "product_name" :
"Bianchi", "brand_id" : 3, "category_id" : 2, "model_year" : 2002, "list_price" : 3
0000 }
{ "_id" : ObjectId("6222df37b5e511acae1d789b"), "product_id" : 4, "product_name" :
"BMC Hybrid Bike", "brand_id" : 4, "category_id" : 3, "model_year" : 2009, "list_pr
ice" : 45000 }
{ "_id" : ObjectId("6222df37b5e511acae1d789c"), "product_id" : 5, "product_name" :
"Huffy Women Bike", "brand_id" : 5, "category_id" : 7, "model_year" : 2019, "list_p
rice" : 50000 }
> db.production.products.find({ $or: [ { product_name: "Honda Superfast" }, { model
_year : { $lt:
... 2003 } } ] })
{ "_id" : ObjectId("6222df37b5e511acae1d7898"), "product_id" : 1, "product_name" :
"Honda Superfast", "brand_id" : 1, "category_id" : 1, "model_year" : 1994, "list_pr
ice" : 25000 }
{ "_id" : ObjectId("6222df37b5e511acae1d7899"), "product_id" : 2, "product_name" :
"6KU Bikes", "brand_id" : 2, "category_id" : 4, "model_year" : 2000, "list_price" :
30000 }
{ "_id" : ObjectId("6222df37b5e511acae1d789a"), "product_id" : 3, "product_name" :
"Bianchi", "brand_id" : 3, "category_id" : 2, "model_year" : 2002, "list_price" : 3
0000 }
> db.sales.staffs.find()
{ "_id" : ObjectId("6222e161b5e511acae1d78b2"), "staff_id" : 1, "first_name" : "Pus
hpa", "last_name" : "Yadav", "email" : "pushpa@gmail.com", "phone" : 9999999999, "a
ctive" : "Yes", "store_id" : 1, "manager_id" : 1 }
{ "_id" : ObjectId("6222e161b5e511acae1d78b3"), "staff_id" : 2, "first_name" : "Sad
iksha", "last_name" : "Singh", "email" : "sadiiksha@gmail.com", "phone" : 8888888888
, "active" : "Yes", "store_id" : 2, "manager_id" : 1 }
{ "_id" : ObjectId("6222e161b5e511acae1d78b4"), "staff_id" : 3, "first_name" : "Pri
ya", "last_name" : "Nadar", "email" : "priya@gmail.com", "phone" : 7777777777, "act
ive" : "Yes", "store_id" : 3, "manager_id" : 1 }
> db.sales.staffs.updateOne({first_name: "Pushpa"}, {$set:{phone: 999999988}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
>

```

1. updateMany()

db.sales.orders.find() - to show current document in the system

db.sales.orders.updateMany({shipped_date:44377}, {\$set: {shipped_date: "1-July-2021"}}) – with

the help of this command we are updating “shipped_date” to "1-July-2021" where shipped_date is

44377

```

Command Prompt - MONGO
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.sales.orders.find()
{ "_id" : ObjectId("6222e0f7b5e511acae1d78ad"), "order_id" : "ORD001", "customer_id" : "Cus001", "order_status" : "Completed", "order_date" : 43992, "shipped_date" : 43994, "store_id" : 1, "staff_id" : 1 }
{ "_id" : ObjectId("6222e0f7b5e511acae1d78ae"), "order_id" : "ORD002", "customer_id" : "Cus002", "order_status" : "Completed", "order_date" : 44221, "shipped_date" : 44227, "store_id" : 2, "staff_id" : 2 }
{ "_id" : ObjectId("6222e0f7b5e511acae1d78af"), "order_id" : "ORD003", "customer_id" : "Cus003", "order_status" : "Completed", "order_date" : 44306, "shipped_date" : 44314, "store_id" : 2, "staff_id" : 2 }
{ "_id" : ObjectId("6222e0f7b5e511acae1d78b0"), "order_id" : "ORD004", "customer_id" : "Cus004", "order_status" : "Pending", "order_date" : 44367, "shipped_date" : 44377, "store_id" : 3, "staff_id" : 3 }
{ "_id" : ObjectId("6222e0f7b5e511acae1d78b1"), "order_id" : "ORD005", "customer_id" : "Cus005", "order_status" : "Pending", "order_date" : 44367, "shipped_date" : 44377, "store_id" : 1, "staff_id" : 1 }
> db.sales.orders.updateMany({shipped_date:44377}, {$set: {shipped_date: "1-July-2021"}})
{ "acknowledged" : true, "matchedCount" : 2, "modifiedCount" : 2 }
>

```

3.replaceOne()

4. Delete Operations

MongoDB has two different methods of deleting records from a collection:

- db.collection.deleteOne()
- db.collection.deleteMany()

1. deleteOne()

Example –

db.production.brands.find() - to show current documents in collection

db.production.brands.deleteOne({brand_id:6}) - delete the document where "brand_id" is 6


```

Command Prompt - MONGO
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.sales.orders.find()
{ "_id" : ObjectId("6222e0f7b5e511acae1d78ad"), "order_id" : "ORD001", "customer_id" : "Cus001", "order_status" : "Completed", "order_date" : 43992, "shipped_date" : 43994, "store_id" : 1, "staff_id" : 1 }
{ "_id" : ObjectId("6222e0f7b5e511acae1d78ae"), "order_id" : "ORD002", "customer_id" : "Cus002", "order_status" : "Completed", "order_date" : 44221, "shipped_date" : 44227, "store_id" : 2, "staff_id" : 2 }
{ "_id" : ObjectId("6222e0f7b5e511acae1d78af"), "order_id" : "ORD003", "customer_id" : "Cus003", "order_status" : "Completed", "order_date" : 44306, "shipped_date" : 44314, "store_id" : 2, "staff_id" : 2 }
{ "_id" : ObjectId("6222e0f7b5e511acae1d78b0"), "order_id" : "ORD004", "customer_id" : "Cus004", "order_status" : "Pending", "order_date" : 44367, "shipped_date" : 44377, "store_id" : 3, "staff_id" : 3 }
{ "_id" : ObjectId("6222e0f7b5e511acae1d78b1"), "order_id" : "ORD005", "customer_id" : "Cus005", "order_status" : "Pending", "order_date" : 44367, "shipped_date" : 44377, "store_id" : 1, "staff_id" : 1 }
> db.sales.orders.updateMany({shipped_date:44377}, {$set: {shipped_date: "1-July-2021"}})
{ "acknowledged" : true, "matchedCount" : 2, "modifiedCount" : 2 }
> db.production.brands.find()
{ "_id" : ObjectId("6222e1dcb5e511acae1d78b8"), "brand_id" : 1, "brand_name" : "Honda" }
{ "_id" : ObjectId("6222e1dcb5e511acae1d78b9"), "brand_id" : 2, "brand_name" : "6KUBikes" }
{ "_id" : ObjectId("6222e1dcb5e511acae1d78ba"), "brand_id" : 3, "brand_name" : "Bianchi" }
{ "_id" : ObjectId("6222e1dcb5e511acae1d78bb"), "brand_id" : 4, "brand_name" : "BMC" }
{ "_id" : ObjectId("6222e1dcb5e511acae1d78bc"), "brand_id" : 5, "brand_name" : "Huffy" }
> db.production.brands.deleteOne({brand_id:6})
{ "acknowledged" : true, "deletedCount" : 0 }
>

```

2.deleteMany()

Example –

db.production.brands.find() - to show current documents in collection

db.production.brands.deleteMany({brand_id: {\$gt: 5}}) - delete documents for which brand id is greater than 5

```
Command Prompt - MONGO
> db.production.brands.deleteOne({brand_id:6})
{ "acknowledged" : true, "deletedCount" : 0 }
> db.production.brands.find()
{ "_id" : ObjectId("6222e1dcb5e511acae1d78b8"), "brand_id" : 1, "brand_name" : "Honda" }
{ "_id" : ObjectId("6222e1dcb5e511acae1d78b9"), "brand_id" : 2, "brand_name" : "6KUBikes" }
{ "_id" : ObjectId("6222e1dcb5e511acae1d78ba"), "brand_id" : 3, "brand_name" : "Bianchi" }
{ "_id" : ObjectId("6222e1dcb5e511acae1d78bb"), "brand_id" : 4, "brand_name" : "BMC" }
{ "_id" : ObjectId("6222e1dcb5e511acae1d78bc"), "brand_id" : 5, "brand_name" : "Huffy" }
> db.production.brands.deleteMany({brand_id: {$gt: 5}})
{ "acknowledged" : true, "deletedCount" : 0 }
>
```

