

Name: Vaibhav Bharat Sontakke

PRN: 1942207

Batch: T2

AIM: To perform operations on collection.

- Retrieve all documents in a collection which matches certain property.
- Perform queries that uses MongoDB query operators.

OUTPUT:

Output using pretty() & find():

```
Administrator: Command Prompt - mongo
> show dbs
admin      0.000GB
config     0.000GB
local      0.000GB
student    0.000GB
students   0.000GB
> use students
switched to db students
> show collections
std_data
std_data1
> db.std_data1.find().pretty()
{
  "_id" : ObjectId("5fec273960081135839d8c97"),
  "name" : "vaibhav",
  "prn"  : "1942207",
  "Branch" : "computer"
}
{
  "_id" : ObjectId("5fec273960081135839d8c98"),
  "name" : "priya",
  "prn"  : "1942208",
  "Branch" : "Mechanical"
}
{
  "_id" : ObjectId("5fec273960081135839d8c99"),
  "name" : "Ahmad",
  "prn"  : "1942209",
  "Branch" : "ENTC"
}
{
  "_id" : ObjectId("5fec273960081135839d8c9a"),
  "name" : "Snehal",
  "prn"  : "1942210",
  "Branch" : "Electrical"
}
```

Output using the where clause not equal to & Greater than:

```
Administrator: Command Prompt - mongo
> db.std_data1.find({"prn":{"$gt":"1942207"}}).pretty()
{
  "_id" : ObjectId("5fec273960081135839d8c98"),
  "name" : "priya",
  "prn"  : "1942208",
  "Branch" : "Mechanical"
}
{
  "_id" : ObjectId("5fec273960081135839d8c99"),
  "name" : "Ahmad",
  "prn"  : "1942209",
  "Branch" : "ENTC"
}
{
  "_id" : ObjectId("5fec273960081135839d8c9a"),
  "name" : "Snehal",
  "prn"  : "1942210",
  "Branch" : "Electrical"
}
> db.std_data1.find({"prn":"1942207","name":"vaibhav"}).pretty()
{
  "_id" : ObjectId("5fec273960081135839d8c97"),
  "name" : "vaibhav",
  "prn"  : "1942207",
  "Branch" : "computer"
}
```

Output using the where clause Less than & AND operator

```
> db.std_data1.find({"prn":{"$lt":"1942210"}}).pretty()
{
  "_id" : ObjectId("5fec273960081135839d8c97"),
  "name" : "vaibhav",
  "prn" : "1942207",
  "Branch" : "computer"
}
{
  "_id" : ObjectId("5fec273960081135839d8c98"),
  "name" : "priya",
  "prn" : "1942208",
  "Branch" : "Mechanical"
}
{
  "_id" : ObjectId("5fec273960081135839d8c99"),
  "name" : "Ahmad",
  "prn" : "1942209",
  "Branch" : "ENTC"
}
}
```

Output using the where clause OR operator:

```
> db.std_data1.find("$or":[{"prn":"1942207","name":"vaibhav"}]).pretty()
{
  "_id" : ObjectId("5fec273960081135839d8c97"),
  "name" : "vaibhav",
  "prn" : "1942207",
  "Branch" : "computer"
}
{
  "_id" : ObjectId("5fec273960081135839d8c98"),
  "name" : "priya",
  "prn" : "1942208",
  "Branch" : "Mechanical"
}
{
  "_id" : ObjectId("5fec273960081135839d8c99"),
  "name" : "Ahmad",
  "prn" : "1942209",
  "Branch" : "ENTC"
}
{
  "_id" : ObjectId("5fec273960081135839d8c9a"),
  "name" : "Snehal",
  "prn" : "1942210",
  "Branch" : "computer"
}
}
```

Output using the Python library print and for loop:

```
Select Command Prompt - python
Microsoft Windows [Version 10.0.19041.685]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\justi>python
Python 3.8.6rc1 (tags/v3.8.6rc1:08bd63d, Sep  7 2020, 23:10:23) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> from pymongo import MongoClient
>>> con= "mongodb://127.0.0.1:27017/"
>>> client = MongoClient(con)
>>> print(client.list_database_names())
['admin', 'config', 'local', 'student', 'students']
>>> db.list_collection_names()
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'db' is not defined
>>> collection = db.get_collection("std_data1")
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'db' is not defined
>>> db= client.get_database("students")
>>> db.list_collection.find()
<pymongo.cursor.Cursor object at 0x000001FAF8899160>
>>> db.list_collection_names()
['std_data1', 'std_data']
>>> collection = db.get_collection("std_data1")
>>> cursor = collection.find()
>>> for each_doc in cursor:
...     each_doc
...
...     each_doc
...     File "<stdin>", line 4
...         each_doc
...         ^
IndentationError: unexpected indent
>>> each_doc
...     File "<stdin>", line 1
...         each_doc
...         ^
IndentationError: unexpected indent
>>> cursor = collection.find()
>>> for each_doc in cursor:
...     each_doc
...
{'_id': ObjectId('5fec273960081135839d8c97'), 'name': 'vaibhav', 'prn': '1942207', 'Branch': 'computer'}
{'_id': ObjectId('5fec273960081135839d8c98'), 'name': 'priya', 'prn': '1942208', 'Branch': 'Mechanical'}

Select Command Prompt - python
IndentationError: unexpected indent
>>> each_doc
...     File "<stdin>", line 1
...         each_doc
...         ^
IndentationError: unexpected indent
>>> cursor = collection.find()
>>> for each_doc in cursor:
...     each_doc
...
{'_id': ObjectId('5fec273960081135839d8c97'), 'name': 'vaibhav', 'prn': '1942207', 'Branch': 'computer'}
{'_id': ObjectId('5fec273960081135839d8c98'), 'name': 'priya', 'prn': '1942208', 'Branch': 'Mechanical'}
{'_id': ObjectId('5fec273960081135839d8c99'), 'name': 'Ahmad', 'prn': '1942209', 'Branch': 'ENTC'}
{'_id': ObjectId('5fec273960081135839d8c9a'), 'name': 'Snehal', 'prn': '1942210', 'Branch': 'Electrical'}
>>>
>>> each_doc
```

