Connected to Python 3.11.4

```python
import pymongo
client=pymongo.MongoClient(
"mongodb://localhost:27017"
)
```

```python
db=client['student']
```

```python
stu=db['stude']
```

```python
data={
"rollnum":1,
"firstname":"sayantan",
"lastname":"bose",
"age":23,
"department":"cs",
"mark":90

}
```

```python
stu.insert_one(data)
```

Out[ ]: <pymongo.results.InsertOneResult at 0x1aa7d3cfac0>

```python
data1=[{"RollNum":43 ,"FirstName":"John", "LastName":"Doe", "Age":20, "Department":
```

```python
stu.insert_many(data1)
```

Out[ ]: <pymongo.results.InsertManyResult at 0x1aa7d5d4b20>

```python
for i in stu.find():
#selecting all data
    print(i)
```

```
{'_id': ObjectId('654b27e74242c2520f0f878e'), 'rollnum': 1, 'firstname': 'sayantan',
'lastname': 'bose', 'age': 23, 'department': 'cs', 'mark': 90}
{'_id': ObjectId('654b27ee4242c2520f0f878f'), 'RollNum': 43, 'FirstName': 'John', 'L
astName': 'Doe', 'Age': 20, 'Department': 'Computer Science', 'Mark': 78}
{'_id': ObjectId('654b27ee4242c2520f0f8790'), 'RollNum': 67, 'FirstName': 'Alice',
'LastName': 'Smith', 'Age': 22, 'Department': 'Physics', 'Mark': 59}
{'_id': ObjectId('654b27ee4242c2520f0f8791'), 'RollNum': 23, 'FirstName': 'Bob', 'La
stName': 'Johnson', 'Age': 21, 'Department': 'Computer Science', 'Mark': 81}
{'_id': ObjectId('654b27ee4242c2520f0f8792'), 'RollNum': 18, 'FirstName': 'Eve', 'La
stName': 'Adams', 'Age': 19, 'Department': 'Mathematics', 'Mark': 56}
{'_id': ObjectId('654b27ee4242c2520f0f8793'), 'RollNum': 84, 'FirstName': 'Mike', 'L
astName': 'Brown', 'Age': 23, 'Department': 'Physics', 'Mark': 92}
```

```python
for i in stu.find({"Department":"Computer Science"}):
#selecting all data
    print(i)
```

```
{'_id': ObjectId('654b27ee4242c2520f0f878f'), 'RollNum': 43, 'FirstName': 'John', 'L
astName': 'Doe', 'Age': 20, 'Department': 'Computer Science', 'Mark': 78}
{'_id': ObjectId('654b27ee4242c2520f0f8791'), 'RollNum': 23, 'FirstName': 'Bob', 'La
stName': 'Johnson', 'Age': 21, 'Department': 'Computer Science', 'Mark': 81}
```

In [ ]:
```python
for i in stu.find({"Age":{'$gte':20}}):
    #selecting all data
    print(i)
```

```
{'_id': ObjectId('654b27ee4242c2520f0f878f'), 'RollNum': 43, 'FirstName': 'John', 'L
astName': 'Doe', 'Age': 20, 'Department': 'Computer Science', 'Mark': 78}
{'_id': ObjectId('654b27ee4242c2520f0f8790'), 'RollNum': 67, 'FirstName': 'Alice',
'LastName': 'Smith', 'Age': 22, 'Department': 'Physics', 'Mark': 59}
{'_id': ObjectId('654b27ee4242c2520f0f8791'), 'RollNum': 23, 'FirstName': 'Bob', 'La
stName': 'Johnson', 'Age': 21, 'Department': 'Computer Science', 'Mark': 81}
{'_id': ObjectId('654b27ee4242c2520f0f8793'), 'RollNum': 84, 'FirstName': 'Mike', 'L
astName': 'Brown', 'Age': 23, 'Department': 'Physics', 'Mark': 92}
```

In [ ]:
```python
for i in stu.find({"Department":"Physics"},{"FirstName":1 ,"Mark":1}):
    #selecting all data
    print(i)
```

```
{'_id': ObjectId('654b27ee4242c2520f0f8790'), 'FirstName': 'Alice', 'Mark': 59}
{'_id': ObjectId('654b27ee4242c2520f0f8793'), 'FirstName': 'Mike', 'Mark': 92}
```

In [ ]:
```python
for i in stu.find().sort("Mark",-1):
    #selecting all data
    print(i)
```

```
{'_id': ObjectId('654b27ee4242c2520f0f8793'), 'RollNum': 84, 'FirstName': 'Mike', 'L
astName': 'Brown', 'Age': 23, 'Department': 'Physics', 'Mark': 92}
{'_id': ObjectId('654b27ee4242c2520f0f8791'), 'RollNum': 23, 'FirstName': 'Bob', 'La
stName': 'Johnson', 'Age': 21, 'Department': 'Computer Science', 'Mark': 81}
{'_id': ObjectId('654b27ee4242c2520f0f878f'), 'RollNum': 43, 'FirstName': 'John', 'L
astName': 'Doe', 'Age': 20, 'Department': 'Computer Science', 'Mark': 78}
{'_id': ObjectId('654b27ee4242c2520f0f8790'), 'RollNum': 67, 'FirstName': 'Alice',
'LastName': 'Smith', 'Age': 22, 'Department': 'Physics', 'Mark': 59}
{'_id': ObjectId('654b27ee4242c2520f0f8792'), 'RollNum': 18, 'FirstName': 'Eve', 'La
stName': 'Adams', 'Age': 19, 'Department': 'Mathematics', 'Mark': 56}
{'_id': ObjectId('654b27e74242c2520f0f878e'), 'rollnum': 1, 'firstname': 'sayantan',
'lastname': 'bose', 'age': 23, 'department': 'cs', 'mark': 90}
```

In [ ]:
```python
for i in stu.find().sort("Age",1).limit(1):
    #selecting all data
    print(i)
```

```
{'_id': ObjectId('654b27e74242c2520f0f878e'), 'rollnum': 1, 'firstname': 'sayantan',
'lastname': 'bose', 'age': 23, 'department': 'cs', 'mark': 90}
```

In [ ]:
```python
for i in stu.find({"Department":"Physics","RollNum":{'$gte':70}}):
    #selecting all data
    print(i)
```

```
{'_id': ObjectId('654b27ee4242c2520f0f8793'), 'RollNum': 84, 'FirstName': 'Mike', 'L
astName': 'Brown', 'Age': 23, 'Department': 'Physics', 'Mark': 92}
```