

MONGODB

Used for unstructured data

Here we will perform basic CRUD operations

```
In [1]: # Installing required package for python-mongodb connection  
!pip install pymongo
```

```
Collecting pymongo  
  Downloading pymongo-4.5.0-cp39-cp39-win_amd64.whl (468 kB)  
Collecting dnspython<3.0.0,>=1.16.0  
  Downloading dnspython-2.4.2-py3-none-any.whl (300 kB)  
Installing collected packages: dnspython, pymongo  
Successfully installed dnspython-2.4.2 pymongo-4.5.0
```

```
In [2]: from pymongo import MongoClient
```

```
In [3]: conn=MongoClient()
```

```
In [5]: # Creating the Journal/Database  
journal=conn["College"]
```

```
In [6]: # Creating the Collection/Table  
collection=journal["student"]
```

Inserting documents/row into collection

```
In [7]: collection.insert_one({'_id':1,'name':'Ankit','program':'Mca','age':23})
```

```
Out[7]: <pymongo.results.InsertOneResult at 0x18102d819a0>
```

```
In [8]: collection.insert_one({'_id':2,'name':'Piyush','program':'Mca','age':22})
```

```
Out[8]: <pymongo.results.InsertOneResult at 0x18102d81b80>
```

```
In [9]: collection.insert_one({'_id':3,'name':'Mohit','program':'Mba','age':20})
```

```
Out[9]: <pymongo.results.InsertOneResult at 0x18102d81940>
```

```
In [11]: collection.insert_one({'_id':4,'name':'Jayant','program':'Mca','age':22,'clas
```

```
Out[11]: <pymongo.results.InsertOneResult at 0x1810317e6d0>
```

```
In [12]: collection.insert_one({'_id':5,'name':'Anuj','program':'Mca','age':22,'class'
```

```
Out[12]: <pymongo.results.InsertOneResult at 0x18103110550>
```

Reading the data from collection

```
In [27]: print(*list(collection.find()),sep="\n")
```

```
{'_id': 1, 'name': 'Ankit', 'program': 'Mca', 'age': 23}
{'_id': 2, 'name': 'Piyush', 'program': 'Mca', 'age': 22}
{'_id': 3, 'name': 'Mohit', 'program': 'Mba', 'age': 20}
{'_id': 4, 'name': 'Jayant', 'program': 'Mca', 'age': 22, 'class': '1st year'}
{'_id': 5, 'name': 'Anuj', 'program': 'Mca', 'age': 22, 'class': '1st year',
'city': 'Greater noida'}
```

```
In [23]: list(collection.find({'class':{'$exists':True}}))
```

```
Out[23]: [{'_id': 4,
  'name': 'Jayant',
  'program': 'Mca',
  'age': 22,
  'class': '1st year'},
 {'_id': 5,
  'name': 'Anuj',
  'program': 'Mca',
  'age': 22,
  'class': '1st year',
  'city': 'Greater noida'}]
```

```
In [29]: list(collection.find({'class':{'$exists':False}}))
```

```
Out[29]: [{'_id': 1, 'name': 'Ankit', 'program': 'Mca', 'age': 23},
 {'_id': 2, 'name': 'Piyush', 'program': 'Mca', 'age': 22},
 {'_id': 3, 'name': 'Mohit', 'program': 'Mba', 'age': 20}]
```

```
In [30]: list(collection.find({'name':{'$eq':'Ankit'}}))
```

```
Out[30]: [{'_id': 1, 'name': 'Ankit', 'program': 'Mca', 'age': 23}]
```

```
In [31]: list(collection.find({'age':{'$eq':22}}))
```

```
Out[31]: [{'_id': 2, 'name': 'Piyush', 'program': 'Mca', 'age': 22},
{'_id': 4,
  'name': 'Jayant',
  'program': 'Mca',
  'age': 22,
  'class': '1st year'},
{'_id': 5,
  'name': 'Anuj',
  'program': 'Mca',
  'age': 22,
  'class': '1st year',
  'city': 'Greater noida'}]
```

```
In [32]: list(collection.find({'class':{'$exists':True}, 'age':22}))
```

```
Out[32]: [{'_id': 4,
  'name': 'Jayant',
  'program': 'Mca',
  'age': 22,
  'class': '1st year'},
{'_id': 5,
  'name': 'Anuj',
  'program': 'Mca',
  'age': 22,
  'class': '1st year',
  'city': 'Greater noida'}]
```

Updating the documents

```
In [34]: collection.update_many({},{"$set":{"college":"GNIOT"}})
```

```
Out[34]: <pymongo.results.UpdateResult at 0x18102af3340>
```

```
In [36]: print(*list(collection.find()),sep="\n\n")
```

```
{'_id': 1, 'name': 'Ankit', 'program': 'Mca', 'age': 23, 'college': 'GNIOT'}

{'_id': 2, 'name': 'Piyush', 'program': 'Mca', 'age': 22, 'college': 'GNIOT'}

{'_id': 3, 'name': 'Mohit', 'program': 'Mba', 'age': 20, 'college': 'GNIOT'}

{'_id': 4, 'name': 'Jayant', 'program': 'Mca', 'age': 22, 'class': '1st year', 'college': 'GNIOT'}

{'_id': 5, 'name': 'Anuj', 'program': 'Mca', 'age': 22, 'class': '1st year', 'city': 'Greater noida', 'college': 'GNIOT'}
```

```
In [39]: collection.update_many({'city':{'$eq':'Greater noida'}},{"$set":{"state":'UP'}}
```

```
Out[39]: <pymongo.results.UpdateResult at 0x18102b3d9a0>
```

```
In [40]: print(*list(collection.find()),sep="\n\n")
```

```
{'_id': 1, 'name': 'Ankit', 'program': 'Mca', 'age': 23, 'college': 'GNIOT'}  
  
{'_id': 2, 'name': 'Piyush', 'program': 'Mca', 'age': 22, 'college': 'GNIOT'}  
  
{'_id': 3, 'name': 'Mohit', 'program': 'Mba', 'age': 20, 'college': 'GNIOT'}  
  
{'_id': 4, 'name': 'Jayant', 'program': 'Mca', 'age': 22, 'class': '1st year', 'college': 'GNIOT'}  
  
{'_id': 5, 'name': 'Anuj', 'program': 'Mca', 'age': 22, 'class': '1st year', 'city': 'Greater noida', 'college': 'GNIOT', 'state': 'UP'}
```

```
In [41]: collection.update_many({'age':{'$gt':22}},{"$unset":{"college":False}})
```

```
Out[41]: <pymongo.results.UpdateResult at 0x18104d3d0d0>
```

```
In [42]: print(*list(collection.find()),sep="\n\n")
```

```
{'_id': 1, 'name': 'Ankit', 'program': 'Mca', 'age': 23}  
  
{'_id': 2, 'name': 'Piyush', 'program': 'Mca', 'age': 22, 'college': 'GNIOT'}  
  
{'_id': 3, 'name': 'Mohit', 'program': 'Mba', 'age': 20, 'college': 'GNIOT'}  
  
{'_id': 4, 'name': 'Jayant', 'program': 'Mca', 'age': 22, 'class': '1st year', 'college': 'GNIOT'}  
  
{'_id': 5, 'name': 'Anuj', 'program': 'Mca', 'age': 22, 'class': '1st year', 'city': 'Greater noida', 'college': 'GNIOT', 'state': 'UP'}
```

```
In [43]: collection.update_many({'_id':{'$eq':4}},{"$unset":{"college":True}})
```

```
Out[43]: <pymongo.results.UpdateResult at 0x181031106d0>
```

```
In [44]: print(*list(collection.find()),sep="\n\n")
```

```
{'_id': 1, 'name': 'Ankit', 'program': 'Mca', 'age': 23}

{'_id': 2, 'name': 'Piyush', 'program': 'Mca', 'age': 22, 'college': 'GNIO
T'}

{'_id': 3, 'name': 'Mohit', 'program': 'Mba', 'age': 20, 'college': 'GNIOT'}

{'_id': 4, 'name': 'Jayant', 'program': 'Mca', 'age': 22, 'class': '1st yea
r'}

{'_id': 5, 'name': 'Anuj', 'program': 'Mca', 'age': 22, 'class': '1st year',
'city': 'Greater noida', 'college': 'GNIOT', 'state': 'UP'}
```

Deletion operation

```
In [45]: collection.delete_one({'state':'UP'})
```

```
Out[45]: <pymongo.results.DeleteResult at 0x18104d3cac0>
```

```
In [46]: print(*list(collection.find()),sep="\n\n")
```

```
{'_id': 1, 'name': 'Ankit', 'program': 'Mca', 'age': 23}

{'_id': 2, 'name': 'Piyush', 'program': 'Mca', 'age': 22, 'college': 'GNIO
T'}

{'_id': 3, 'name': 'Mohit', 'program': 'Mba', 'age': 20, 'college': 'GNIOT'}

{'_id': 4, 'name': 'Jayant', 'program': 'Mca', 'age': 22, 'class': '1st yea
r'}
```

```
In [47]: #To delete all the documents
```

```
In [49]: collection.delete_many({})
```

```
Out[49]: <pymongo.results.DeleteResult at 0x18104d6d0d0>
```

```
In [51]: print(list(collection.find()),sep="\n\n")
```

```
[]
```

```
In [ ]:
```

