

In [1]: #Q1

In [2]: *# MongoDB is a schema-less database, which means the database can manage data witho  
# Data in MongoDB is stored in documents with key-value pairs instead of rows and c  
  
# A non relational database is a database that does not use the tabular schema of r  
# found in most traditional database system. Instead non relational database use a  
#specific requirements of the type of data being stored.  
  
#MongoDB is a more dynamic and complicated choice that is appropriate for hierarchi  
# Hence this is the reason MongoDB outshines the SQL database.*

In [3]: #Q2

In [1]: *# features of mongoDB:-  
# 1.Document Model. MongoDB has been designed with developer productivity and flexi  
# 2.Sharding.  
#3.Replication.  
# 4.Authentication.  
# 5.Database Triggers.  
# 6.Time Series Data.  
# 7.Ad-Hoc Queries.  
# 8.Indexing.  
# 9.Load Balancing*

In [2]: #Q3

In [22]: pip install pymongo

Requirement already satisfied: pymongo in /opt/conda/lib/python3.10/site-packages (4.5.0)  
Requirement already satisfied: dnspython<3.0.0,>=1.16.0 in /opt/conda/lib/python3.10/site-packages (from pymongo) (2.4.2)  
Note: you may need to restart the kernel to use updated packages.

In [23]: **import** pymongo  
client=pymongo.MongoClient("mongodb+srv://snshrivas:Snshrivas@cluster0.ln0bt5m.mong  
db=client['pwskills']*#Create Database*  
data={"name":"Prak",  
      "class":"data science masters",  
      "time":"flexi"}  
Coll\_pwskills=db["myrecord"]*#Collection name*

In [24]: #Q4

In [9]: *#In MongoDB, find() method is used to select documents in a collection and return a  
#Cursor means a pointer that points to a document, when we use find() method it ret  
# Syntax  
#db.Collection\_name.find(selection\_criteria, projection,options)  
  
#Database: pwskills*

```

#Collections: my_record

#Document:documents contains the details of the company

import pymongo
client=pymongo.MongoClient("mongodb+srv://snshrivas:Snshrivas@cluster0.ln0bt5m.mong
db=client['pwskills']#Create Database
Coll_pwskills=db["myrecord"]#collection name
list_of_records=[{'compname':'ineuron',
                  'product':'affordabel ai',
                  'courseoffered':'ml deployment'},
                  {'compname':'ineuron',
                  'product':'addai',
                  'courseofferes':'deep learning'}]

#Coll_pwskills.find_one()
#for i in Coll_pwskills.find():
#    print(i)
#for i in Coll_pwskills.find({'product':'affordabel ai'}):
#    print(i)

```

In [10]: #Q5

In [21]: #There are 2 methods to find and select data from a MongoDB collection, find() and

#To select data from a collection in MongoDB, we can use the find() method.

#This method accepts a query object. If left empty, all documents will be returned.

#Ex:

```

#db.posts.find()
#db.posts.find( {category: "News"} )

```

```

import pymongo
client=pymongo.MongoClient("mongodb+srv://snshrivas:Snshrivas@cluster0.ln0bt5m.mong
db=client['pwskills']#Create Database
Coll_pwskills=db["myrecord"]#collection name
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                  'product':'affordabel ai',
                  'courseoffered':'ml deployment'},
                  {'compname':'ineuron',
                  'product':'addai',
                  'courseofferes':'deep learning'}]

#for i in Coll_pwskills.find():
#    print(i)
#for i in Coll_pwskills.find({'product':'addai'}):
#    print(i)

```

In [22]: #Q6

In [23]: *#The sort() method specifies the order in which the query returns the matching documents*  
*#You must apply this method to the cursor before retrieving any documents from the database*  
*#It takes a document as a parameter that contains a field: value pair that defines the sort order*  
*#The value is 1 or -1 specifying an ascending or descending sort respectively*

*#Ex:-*  
*#db.Collection\_Name.sort({field\_name:1 or -1})*

In [24]: *#Q7*

In [ ]: *#To delete documents from a collection of MongoDB, you can delete documents from a collection*  
*#These methods accept a query object specifying the condition for deleting documents*  
*#The delete\_one() method deletes a single document, in case of a match.*

*#In MongoDB, db.collection.drop() method is used to drop a collection from a database*  
*#The db.collection.drop() method does not take any argument and produce an error when the collection does not exist*