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FINAL YEAR BTech.

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BDA

LAB ASSIGNMENT - 3

AIM:- Perform database connectivity with mongodb as backend and any frontend from PHP/Python/Java.

OBJECTIVE:-

- To learn connectivity of mongodb as backend and Python/Java as frontend.
- To execute CRUD operations.

THEORY:-

① Introduction to PyMongo:-

PyMongo is a python distribution which provides tools to work with mongodb, it is most preferred way to connect with mongodb database from python.

② Establishing connection:-

We use MongoClient instance and specific database name. If database doesn't exist it will create it and connect it. → from pymongo import MongoClient.

client = MongoClient("localhost", 27017)

The above code will connect to default host & port.

③ Accessing database:-

db = client['datamap']

In pymongo dictionaries are used to represent documents.  
Retrieving

④ ~~Retrieving~~ documents:-

findOne returns a single document matching query as one if it doesn't exist, it returns first match for finding all documents in collection using the find method.



- (5) uploading document:-  
documents can be updated using `update-one()`. first parameter taken by this function is a query object defining document to be updated. If there are more than one then only the first one is updated.

Inserting

- (6) Inserting document:-  
We use `insert-one()` method when document is inserted a special key-id is generated and is unique to this document.

- (7) Deleting document:-  
`delete-one()` is used to delete one document in mongoDB. The first parameter for this method is query object.

- (8) Dropping a collection:-  
`db.collection-name.drop()`

\* INPUT:- Pythons program to do CRUD operations for suitable application.

\* OUTPUT:- Successful execution of CRUD operation using python as frontend and pymongo as backend.

FAQ'S:-

Q.1 What is pymongo?

⇒ Pymongo is a python distribution containing tools for working with MongoDB and is recommended way to work with mongo DB.



Q2 What is mongo engine?

→ Mongo Engine is a python library that acts as a object document mapped with mongoDB, a NoSQL database. It uses simple declarative API similar to django ORM.

Q3 What is the purpose of following statement?

→ from pymongo import MongoClient

To establish a connection to mongoDB with pymongo we use the MongoClient class. PyMongo is the inbuilt python package through which we can import MongoClient.