MongoDB Connectivity with Python

Name: Vanzara Ronil Mukeshbhai

Subject: MongoDB

1. Introduction

This assignment demonstrates how to connect MongoDB with Python using the PyMongo library. MongoDB is a NoSQL database that stores data in flexible, JSON-like documents. Python, being a versatile language, can easily interact with MongoDB using PyMongo, a popular library for database operations.

2. Installation

To get started, ensure MongoDB is installed and running on your system. Then, install the required Python library using the following command:

pip install pymongo

3. Python Code for MongoDB Connection

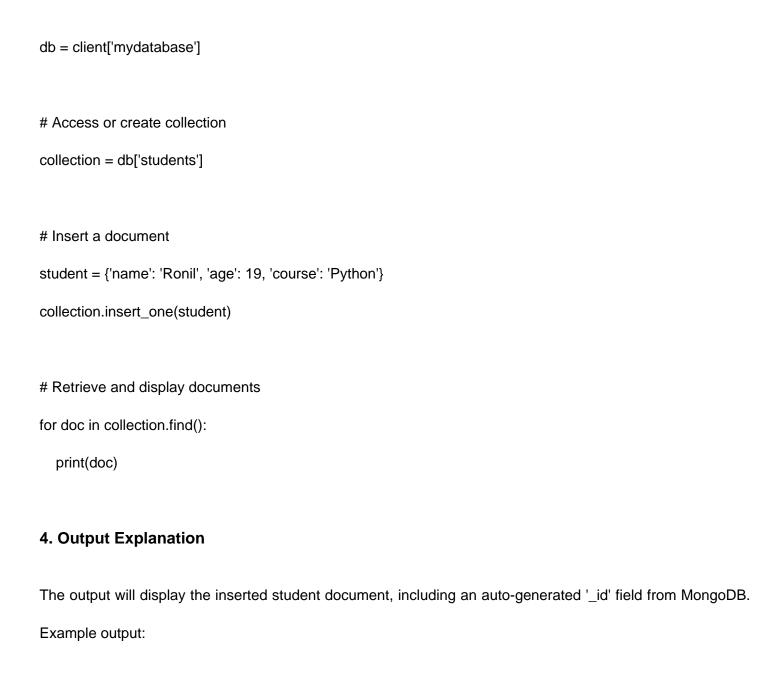Below is a sample Python script that demonstrates MongoDB connectivity:

from pymongo import MongoClient

Connect to MongoDB server

client = MongoClient('mongodb://localhost:27017/')

Access or create database

```
db = client['mydatabase']


# Access or create collection

collection = db['students']


# Insert a document

student = {'name': 'Ronil', 'age': 19, 'course': 'Python'}

collection.insert_one(student)


# Retrieve and display documents

for doc in collection.find():

    print(doc)
```

4. Output Explanation

The output will display the inserted student document, including an auto-generated '_id' field from MongoDB.

Example output:

```
{'_id': ObjectId('...'), 'name': 'Ronil', 'age': 19, 'course': 'Python'}
```

5. Conclusion

Using PyMongo in Python makes it simple to connect and interact with MongoDB. This method allows developers to perform CRUD operations efficiently in NoSQL-based applications.