

Program 5 MongoDB with Python

```
from pymongo import MongoClient
```

```
class MongoDBManager:
```

```
    def __init__(self, db_name, collection_name):
        self.client = MongoClient('localhost', 27017)
        self.db = self.client[db_name]
        self.collection = self.db[collection_name]
        print("Connected to MongoDB!")
```

```
    def create_document(self):
        name = input("Enter name: ")
        age = int(input("Enter age: "))
        document = {"name": name, "age": age}
        result = self.collection.insert_one(document)
        print(f"Document inserted with id: {result.inserted_id}")
```

```
    def read_documents(self):
        documents = self.collection.find()
        for doc in documents:
            print(doc)
```

```
    def update_document(self):
        name = input("Enter the name of the document to update: ")
        new_name = input("Enter the new name (leave blank to keep the same): ")
        new_age = input("Enter the new age (leave blank to keep the same): ")

        update_fields = {}
        if new_name:
            update_fields["name"] = new_name
        if new_age:
            update_fields["age"] = int(new_age)

        if update_fields:
            result = self.collection.update_one({"name": name}, {"$set": update_fields})
            if result.matched_count:
                print("Document updated successfully.")
            else:
                print("No document found with the given name.")
        else:
            print("No updates provided.")
```

```
def delete_document(self):
    name = input("Enter the name of the document to delete: ")
    result = self.collection.delete_one({"name": name})
    if result.deleted_count:
        print("Document deleted successfully.")
    else:
        print("No document found with the given name.")
```

```
def main():
    db_name = input("Enter the db name: ")
    collection_name = input("Enter the collection name: ")
    db_manager = MongoDBManager(db_name, collection_name)
```

```
while True:
    print("\nMenu:")
    print("1. Create Document")
    print("2. Read Documents")
    print("3. Update Document")
    print("4. Delete Document")
    print("5. Exit")
```

```
choice = int(input("Enter your choice: "))
```

```
if choice == 1:
    db_manager.create_document()
elif choice == 2:
    db_manager.read_documents()
elif choice == 3:
    db_manager.update_document()
elif choice == 4:
    db_manager.delete_document()
elif choice == 5:
    break
else:
    print("Invalid choice. Please try again.")
```

```
if __name__ == "__main__":
    main()
```