MongoBD CRUD Operations

1. \*\*Create Operation:\*\*

- Create a new database named "library" and switch to it.

- Create a collection named "books" with fields: title, author, and published\_year.

- Insert a document into the "books" collection with the details of your favourite book.

Solution:

-use library // (Create a new database named library)

-db. createCollection(“books”) // (Create a collection named “books”)

-db.books.insertMany([

{

title: "The Great Gatsby",

author: "F. Scott Fitzgerald",

published\_year: 1925

},

{

title:” Harry Potter and the Chamber of Secrets”,

author:”JK Rowling”,

published\_year:1998

},

{

title:”A girl in room no 105”,

author:”Chethan Bhagat”,

published\_year:2018

}

])

2. \*\*Read Operation:\*\*

- Retrieve all documents from the "books" collection.

- Find and display only the documents where the author is "J.K. Rowling".

- Fetch and display the document with the earliest published year.

Solution:

-db.books.find() // (To Retrieve all documents from the “books” collection)

-db.books.find ({author:”JK Rowling”}) // (Retrieves the only document where the author is “JK Rowling”)

-db.books.find().sort({published\_year:1}).limit(1) // (Retrieves the document with the earliest published year)

3. \*\*Update Operation:\*\*

- Update the published year of the book with the title "The Great Gatsby" to the current year.

- Add a new field "genre" with the value "Mystery" to all documents in the "books" collection.

Solution:

-db.books.updateOne({title:”The Great Gatsby”},{$set:{published\_year:2025}})

// (Updates the published year of the book with title “The Great Gatsby “ to current year 2025)

-db.books.updateMany({},{$set:{genre:”Mystery”}})

// (Adds a new field “genre” with value “Mystery “ to all documents in “books” collection)

4. \*\*Delete Operation:\*\*

- Remove the document with the title " Harry Potter and the Chamber of Secrets " from the "books" collection.

- Delete all documents from the "books" collection where the published year is before 2000.

Solution:

-db.books.deleteOne({title:” Harry Potter and the Chamber of Secrets "})

// (Deletes the document with the title “Harry Potter and the Chamber of Secrets ")

-db.books.deleteMany({published\_year:{$lt:2000}})

// (Deletes all documents from “books” collection where the published\_year is before 2000)

5. \*\*Advanced Query:\*\*

- Find and display the top 3 recently published books from the "books" collection.

- Retrieve documents from the "books" collection where the title contains the word "MongoDB" or "NoSQL".

Solution:

-db.books.find().sort({published\_year:-1}).limit(3)

// (Finds and display the top 3 recently published books)

-db.books.find({ $or: [ { title: { $regex: "MongoDB" } }, { title: { $regex: "NoSQL" } } ] })

// (Retrieves documents from the "books" collection where the title contains the word "MongoDB" or "NoSQL".)