MongoDB Exercise – Week12 Assignment

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Question No:1

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 favorite book.

```
library> db.books.insertMany([{title:"Crime And Punishment",Author:"Fyodor Dostoevsky",Published_year:1866},{title:"War and Peace",Author:"Leo Tolstoy",Published_yea
869},{title:"The Hobbit",Author:"JRR Tolkien",Published_year:1937},{title:"Brave New World",Author:"Aldous Huxley",Published_year:1932}])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('676126e31cad62fd630deb30'),
    '1': ObjectId('676126e31cad62fd630deb31'),
    '2': ObjectId('676126e31cad62fd630deb32'),
    '3': ObjectId('676126e31cad62fd630deb33')
  }
}
library> db.books.find()
[
  {
    _id: ObjectId('676126e31cad62fd630deb30'),
    title: 'Crime And Punishment',
    Author: 'Fyodor Dostoevsky',
    Published_year: 1866
  },
  {
    _id: ObjectId('676126e31cad62fd630deb31'),
    title: 'War and Peace',
    Author: 'Leo Tolstoy',
    Published_year: 1869
  },
  {
    _id: ObjectId('676126e31cad62fd630deb32'),
    title: 'The Hobbit',
    Author: 'JRR Tolkien',
    Published_year: 1937
  },
  {
    _id: ObjectId('676126e31cad62fd630deb33'),
    title: 'Brave New World',
    Author: 'Aldous Huxley',
    Published_year: 1932
  }
]
library>
```

Question No:2

2. **Read Operation:**

  - Retrieve all documents from the "books" collection.

  - Find and display only the documents where the author is "Leo Tolstoy".

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

```
}
}
library> db.books.find()
[
  {
    _id: ObjectId('676126e31cad62fd630deb30'),
    title: 'Crime And Punishment',
    Author: 'Fyodor Dostoevsky',
    Published_year: 1866
  },
  {
    _id: ObjectId('676126e31cad62fd630deb31'),
    title: 'War and Peace',
    Author: 'Leo Tolstoy',
    Published_year: 1869
  },
  {
    _id: ObjectId('676126e31cad62fd630deb32'),
    title: 'The Hobbit',
    Author: 'JRR Tolkien',
    Published_year: 1937
  },
  {
    _id: ObjectId('676126e31cad62fd630deb33'),
    title: 'Brave New World',
    Author: 'Aldous Huxley',
    Published_year: 1932
  }
]
library> db.books.find({Author:"Leo Tolstoy"})
[
  {
    _id: ObjectId('676126e31cad62fd630deb31'),
    title: 'War and Peace',
    Author: 'Leo Tolstoy',
    Published_year: 1869
  }
]
library> db.books.find().sort({Published_year:1}).limit(1)
[
  {
    _id: ObjectId('676126e31cad62fd630deb30'),
    title: 'Crime And Punishment',
    Author: 'Fyodor Dostoevsky',
    Published_year: 1866
  }
]
library>
```

Question No:3

3. **Update Operation:**

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

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

```
]
library> db.books.update({title:"The Hobbit"},{$set:{Published_year:2024}})
DeprecationWarning: Collection.update() is deprecated. Use updateOne, updateMany, or bulkWrite.
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
library> db.books.update({},{$set:{genre:"Science Fiction"}},{multi:true})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 4,
  modifiedCount: 4,
  upsertedCount: 0
}
library> db.books.find()
[
  {
    _id: ObjectId('676126e31cad62fd630deb30'),
    title: 'Crime And Punishment',
    Author: 'Fyodor Dostoevsky',
    Published_year: 1866,
    genre: 'Science Fiction'
  },
  {
    _id: ObjectId('676126e31cad62fd630deb31'),
    title: 'War and Peace',
    Author: 'Leo Tolstoy',
    Published_year: 1869,
    genre: 'Science Fiction'
  },
  {
    _id: ObjectId('676126e31cad62fd630deb32'),
    title: 'The Hobbit',
    Author: 'JRR Tolkien',
    Published_year: 2024,
    genre: 'Science Fiction'
  },
  {
    _id: ObjectId('676126e31cad62fd630deb33'),
    title: 'Brave New World',
```

Question No:4

4. **Delete Operation:**

   - Remove the document with the title "Crime And Punishment" from the "books" collection.

   - Delete all documents from the "books" collection where the published year is before 1960.

```
    Published_year: 1932,
    genre: 'Science Fiction'
  }
]
library> db.books.remove({title:"Crime})
Uncaught:
SyntaxError: Unterminated string constant. (1:23)

> 1 | db.books.remove({title:"Crime})
  |                         ^
  2 |

library> db.books.remove({title:"Crime And Punishment"})
DeprecationWarning: Collection.remove() is deprecated. Use deleteOne, deleteMany, findOneAndDelete, or bulkWrite.
{ acknowledged: true, deletedCount: 1 }
library> db.books.remove({Published_year:{$lt:1960}})
{ acknowledged: true, deletedCount: 2 }
library>
```