Experiment No:	Group_C_01	**Date:**	10/07/2024
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Aim: Create a database with suitable example using MongoDB and implement

1. Inserting and saving document (batch insert, insert validation)

2. Removing document

3. Updating document (document replacement, using modifiers, upserts, updating multiple documents, returning updated documents)

Objectives: 1. To learn the concept of MongoDB.

2. Learn to access the data from MongoDB.

Commands & Output:

1. mongosh: Launch MongoDB and Access MongoDB Shell

```
it@IT-LL-13:~$ mongosh
Current Mongosh Log ID:        668e4e07d4a681b534149f47
Connecting to:            mongodb://127.0.0.1:27017/?
directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.2.10
Using MongoDB:                7.0.12
Using Mongosh:         2.2.10

For mongosh info see: https://docs.mongodb.com/mongodb-shell/

------
   The server generated these startup warnings when booting
   2024-07-10T13:08:34.305+05:30: Using the XFS filesystem is strongly recommended with the
WiredTiger storage engine. See http://dochub.mongodb.org/core/prodnotes-filesystem
   2024-07-10T13:08:40.740+05:30: Access control is not enabled for the database. Read and write access
to data and configuration is unrestricted
   2024-07-10T13:08:40.741+05:30: vm.max_map_count is too low
------
```

2. show dbs: Displays a list of all databases on the MongoDB server.

```
test> show dbs
Devloper   40.00 KiB
Kushal_db  72.00 KiB
admin      40.00 KiB
config     84.00 KiB
khiladi    40.00 KiB
local      72.00 KiB
rkb        72.00 KiB
shubham    240.00 KiB
```

3. use: Switches the current database context to `Kushal_db`.

```
test> use Kushal_db
```

switched to db Kushal_db

4. db.dropDatabase():

```
Kushal_db> db.dropDatabase()
{ ok: 1, dropped: 'Kushal_db' }

Kushal_db> show dbs
Devloper   40.00 KiB
admin      40.00 KiB
config     84.00 KiB
khiladi    40.00 KiB
local      72.00 KiB
rkb        72.00 KiB
shubham    240.00 KiB


Kushal_db> use Kushal_Game_Store_db
switched to db Kushal_Game_Store_db
```

5. db.createCollection("games"): Creates a new collection named games in the

Kushal_Game_Store_db database.

```
Kushal_Game_Store_db> db.createCollection("games")
{ ok: 1 }
```

6. insertMany(): Inserts multiple documents into the games collection with specified fields.

```
Kushal_Game_Store_db> db.games.insertMany([
... {
...   _id: ObjectId('668e3eed22b60c85b6149f48'),
...   Name: 'Counter Strike 2',
...   Type: 'Multiplayer FPS Tactical Shooter',
...   Platform: 'Steam',
...   Rating: '8'
... },
... {
...   _id: ObjectId('668e416022b60c85b6149f49'),
...   Name: 'BeamNG.Drive',
...   Type: 'Very realistic soft body vehicle simulator',
...   Platform: 'Steam',
...   Rating: '8'
... }
... ])
{
 acknowledged: true,
 insertedIds: {
   '0': ObjectId('668e3eed22b60c85b6149f48'),
   '1': ObjectId('668e416022b60c85b6149f49')
 }
}
```

7. find(): Retrieves all documents from the games collection.

```
Kushal_Game_Store_db> db.games.find()
[
```

```
  {
    _id: ObjectId('668e3eed22b60c85b6149f48'),
    Name: 'Counter Strike 2',
    Type: 'Multiplayer FPS Tactical Shooter',
    Platform: 'Steam',
    Rating: '8'
  },
  {
    _id: ObjectId('668e416022b60c85b6149f49'),
    Name: 'BeamNG.Drive',
    Type: 'Very realistic soft body vehicle simulator',
    Platform: 'Steam',
    Rating: '8'
  }
]
```

8. find().pretty(): Displays all documents from the `games` collection in a formatted, easy-to-read

manner.

```
Kushal_Game_Store_db> db.games.find().pretty()
[
  {
    _id: ObjectId('668e3eed22b60c85b6149f48'),
    Name: 'Counter Strike 2',
    Type: 'Multiplayer FPS Tactical Shooter',
    Platform: 'Steam',
    Rating: '8'
  },
  {
    _id: ObjectId('668e416022b60c85b6149f49'),
    Name: 'BeamNG.Drive',
    Type: 'Very realistic soft body vehicle simulator',
    Platform: 'Steam',
    Rating: '8'
  }
]
```

9. remove: Removes documents from the `games` collection where `Name` is 'BeamNG.Drive'.

Shows deprecation warning for `remove()`.

```
Kushal_Game_Store_db> db.games.remove({ Name: 'BeamNG.Drive' })
DeprecationWarning: Collection.remove() is deprecated. Use deleteOne, deleteMany, findOneAndDelete,
or bulkWrite.
{ acknowledged: true, deletedCount: 1 }

Kushal_Game_Store_db> db.games.find()
[
  {
    _id: ObjectId('668e3eed22b60c85b6149f48'),
    Name: 'Counter Strike 2',
    Type: 'Multiplayer FPS Tactical Shooter',
    Platform: 'Steam',
    Rating: '8'
  }
]
```

10. update: Updates documents in the `games` collection where `Name` is 'Counter Strike 2' to set `Rating` to '9'. Shows deprecation warning for `update()`.

```
Kushal_Game_Store_db> db.games.update(
...   { Name: 'Counter Strike 2' },
...   { $set: { Rating: '9' } }
... )
DeprecationWarning: Collection.update() is deprecated. Use updateOne, updateMany, or bulkWrite.
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}

Kushal_Game_Store_db> db.games.find()
[
  {
    _id: ObjectId('668e3eed22b60c85b6149f48'),
    Name: 'Counter Strike 2',
    Type: 'Multiplayer FPS Tactical Shooter',
    Platform: 'Steam',
    Rating: '9'
  }
]
```

11. db.temporary.drop(): Drops (deletes) the `temporary` collection from the database.

```
Kushal_Game_Store_db> db.createCollection("temporary")
{ ok: 1 }
Kushal_Game_Store_db> db.temporary.drop()
true
```

12. quit(): Exits the MongoDB shell.

```
Kushal_Game_Store_db> quit()
```