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Batch: B/B1

ADBMS
Exp8

Aim: Data handling using JSON. (Display user information from JSON file downloaded from Mobile)

Theory:

Implementing Queries-
Selecting a DB

```
test> use reddit;
switched to db reddit
reddit>
```

Showing all Databases

```
reddit> show dbs;
admin     100.00 KiB
config     60.00 KiB
local      72.00 KiB
reddit      8.00 KiB
reddit>
```

Dropping a Database

```
reddit> use twitter;
switched to db twitter
twitter> db.dropDatabase();
{ ok: 1, dropped: 'twitter' }
twitter>
```

Creating a collection

```
reddit> db.createCollection("posts");
{ ok: 1 }
reddit>
```

Dropping a collection

```
reddit> db.comments.drop();
true
reddit>
```

Inserting multiple documents

```
reddit> db.posts.insertMany([{ title: "Funny Meme", image: "https://wikipedia.com/troll_face", votes: 123, posted_by: "l
ca_tejas" }, { title: "Damn: reddit", text: "Your reddit is damn: reddit", votes: 12, posted_by: "meetp90" }]);
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("6389fde4880a8e67b5db4a3b"),
    '1': ObjectId("6389fde4880a8e67b5db4a3c")
  }
}
reddit>
```

Updating documents

```
reddit> db.posts.update({ posted_by: "meetp90" }, { $set: { title: "How to get stuff back!" } });
DeprecationWarning: Collection.update() is deprecated. Use updateOne, updateMany, or bulkWrite.
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
reddit> db.posts.find();
[
  {
    _id: ObjectId("6389fde4880a8e67b5db4a3b"),
    title: 'Funny Meme',
    image: 'https://wikipedia.com/troll_face',
    votes: 123,
    posted_by: 'lca_tejas'
  },
  {
    _id: ObjectId("6389fde4880a8e67b5db4a3c"),
    title: 'How to get stuff back!',
    text: 'Your reddit is damn: reddit',
    votes: 12,
    posted_by: 'meetp90'
  }
]
```

Querying the documents

```
reddit> db.posts.find({ votes: { $gt: 1000 }, image: { $exists: true } });
[
  {
    _id: ObjectId("638a0009880a8e67b5db4a3f"),
    title: 'Soggy cat',
    image: 'https://preview.redd.it/cxjsjx27g7j81.jpg?auto=webp&s=d09b1a5e785562455e3661a186087e398c0546d0',
    votes: 33213,
    posted_by: 'lca_tejas'
  }
]
reddit> db.posts.find({ votes: { $gt: 1000 }, text: { $exists: true }, posted_by: 'meetp90' });
[
  {
    _id: ObjectId("6389ff86880a8e67b5db4a3e"),
    title: 'Emojis bad',
    text: 'Emojis bad, please laugh',
    votes: 1212,
    posted_by: 'meetp90'
  },
  {
    _id: ObjectId("638a0009880a8e67b5db4a40"),
    title: 'We did it',
    text: 'We did it reddit! We broke the stock markets around the world and dilluted all the world currency!',
    votes: 12134,
    posted_by: 'meetp90'
  }
]
```

Deleting documents

```
reddit> db.posts.remove({ votes: { $lt: 100 } });
DeprecationWarning: Collection.remove() is deprecated. Use deleteOne, deleteMany, findOneAndDelete, or bulkWrite.
{ acknowledged: true, deletedCount: 1 }
```

Importing json

```
# mongoimport --db reddit --collection posts --jsonArray --authenticationDatabase admin -u root -p pass@123 --file ./posts.json
2022-12-02T14:42:23.925+0000    connected to: mongodb://localhost/
2022-12-02T14:42:23.932+0000    3 document(s) imported successfully. 0 document(s) failed to import.
#
```

```
  },
  {
    _id: ObjectId("638a0ecfecbf380e4d3fafc3"),
    title: 'Hass lo guys, very funny',
    image: 'https://www.google.com/url?sa=i&url=https%3A%2F%2Fknowyourmeme.com%2Fmemes%2Fwalter-white-breaks-down&psig=AOvVaw3-rrXAvEUTQclpJMPUNmWy&ust=1670075371754000&source=images&cd=vfe&ved=0CA0QjRxqFwoTCNDptOaJ2_sCFQAAAAAdAAAAABAD',
    votes: 2234,
    posted_by: 'kunaljx86'
  },
  {
    _id: ObjectId("638a0ecfecbf380e4d3fafc4"),
    title: 'No idea',
    text: 'What is this post even',
    votes: 3234,
    posted_by: 'lca_tejas'
  },
  {
    _id: ObjectId("638a0ecfecbf380e4d3fafc5"),
    title: 'bruh!',
    image: 'bruh sound effect (x100)',
    votes: 22342,
    posted_by: 'meetp90'
  }
```

Exporting as json

```
# mongoexport --db reddit --collection posts --out ./posts_db.json --authenticationDatabase admin -u root -p pass@123
2022-12-02T14:46:53.394+0000    connected to: mongodb://localhost/
2022-12-02T14:46:53.402+0000    exported 8 records
```

```
# cat posts_db.json
{"_id":{"$oid":"6389fde4880a8e67b5db4a3b"},"title":"Funny Meme","image":"https://wikipedia.com/troll_face","votes":123,"posted_by":"lca_tejas"}
{"_id":{"$oid":"6389ff86880a8e67b5db4a3d"},"title":"Jharkhand is not real","text":"Jharkhand is not real guys. It is a propoganda tool","votes":3321,"posted_by":"lca_tejas"}
{"_id":{"$oid":"6389ff86880a8e67b5db4a3e"},"title":"Emojis bad","text":"Emojis bad, please laugh","votes":1212,"posted_by":"meetp90"}
{"_id":{"$oid":"638a0009880a8e67b5db4a3f"},"title":"Soggy cat","image":"https://preview.redd.it/cxjsjx27g7j81.jpg?auto=webp&s=d09b1a5e785562455e3661a186087e398c0546d0","votes":33213,"posted_by":"lca_tejas"}
{"_id":{"$oid":"638a0009880a8e67b5db4a40"},"title":"We did it","text":"We did it reddit! We broke the stock markets around the world and dilluted all the world currency!","votes":12134,"posted_by":"meetp90"}
{"_id":{"$oid":"638a0ecfecbf380e4d3fafc3"},"title":"Hass lo guys, very funny","image":"https://www.google.com/url?sa=i&url=https%3A%2F%2Fknowyourmeme.com%2Fmemes%2Fwalter-white-breaks-down&psig=AOvVaw3-rrXAvEUTQclpJMPUNmWy&ust=1670075371754000&source=images&cd=vfe&ved=0CA0QjRxqFwoTCNDptOaJ2_sCFQAAAAAdAAAAABAD","votes":2234,"posted_by":"kunaljx86"}
{"_id":{"$oid":"638a0ecfecbf380e4d3fafc4"},"title":"No idea","text":"What is this post even","votes":3234,"posted_by":"lca_tejas"}
{"_id":{"$oid":"638a0ecfecbf380e4d3fafc5"},"title":"bruh!","image":"bruh sound effect (x100)","votes":22342,"posted_by":"meetp90"}
```

Conclusion:

Thus, we successfully implemented data handling using JSON.