Topic 6 MongoDB

Interview Questions and Answers

Q1. What is the use of mongoose?

- Mongoose is an Object Data Modeling (ODM) library for MongoDB database and Node.js.
- It allows writing schemas for your collections in the database.
- It allows for rapid and simple development of MongoDB database interaction.
- It is used to manage the relationship between data and provides schema validations
- The important features of Mongoose are Schemas and models.

Q2. What is the mongoose Model and mongoose Schema?

- **Mongoose Schema:** A Mongoose Schema defines the structure of the document, default values and data validations, etc.
- **Mongoose Model:** A Mongoose model provides an interface to the database for crud operations such as create, read, update and delete operations.

Q3. What are the data types that can be stored in the document?

MongoDB supports a wide variety range of data types as values in documents. Each object in MongoDB is similar to an object in JavaScript.

MongoDB supports following data types to store the values in a document.

- **Null –** {"a": null}
- **Boolean –** {"a": true}
- **Number –** {"a":8}
- **String –** { "a": "name"}
- **Data –** {"a": new Date()}
- **Regular expression –** {"a": /apple/ig}
- **Array –** {"a": ["a",”b","c"]
- **Embedded document –** {"a":{"foo": "bar"}}
- **Object ID –** {"a": obectID()}
- **Code –** {"a": function(){/* */}}

Q4. What is a mongo shell?

The mongo shell is an interactive JavaScript interface to MongoDB. You can use the mongo shell to query and update data as well as perform administrative operations.

Q5. Which method is used to remove a value from the MongoDB document?

remove() method is used to remove a document from the collection in the MongoDB database. It accepts the following two parameters:

- **Deletion criteria:** used to specify which document needs to be removed with the condition.
- **JustOne –** if this parameter is set to one, then removes only one

document.

Q6. How do you limit the number of documents while fetching documents from MongoDB?

We can use the limit method while fetching the documents using find the document as shown below:

db.collection.find().remove()

Q7. Explain the index in MongoDB.

Indexes support the efficient execution of queries in MongoDB. Without indexes, MongoDB must perform a collection scan, i.e., scan every document in a collection, to select those documents that match the query statement. If an appropriate index exists for a query, MongoDB can use the index to limit the number of documents it must inspect.

Indexes are special data structures [1] that store a small portion of the collection's data set in an easy-to-traverse form. The index stores the value of a specific field or set of fields, ordered by the value of the field. The ordering of the index entries supports efficient equality matches and range-based query operations. In addition, MongoDB can return sorted results by using the ordering in the index.

Q8. What is the projection in MongoDB?

In MongoDB, projection is used to select specified values from the document rather than selecting all the values. For Example, if we have 10 fields in the document and want to select only 2 fields, then the projection.

Q9. Explain the structure of ObjectID in MongoDB.

ObjectID is a 12-byte BSON type with:

- 4 bytes value representing seconds
- 3-byte machine identifier
- 2-byte process id

- 3-byte counter

Q10. What are embedded relationships?

When we attempt to embed a BSON document then it is known as an embedded relationship. There are two types of embedded relationships:

One-to-one relationship: it is the simplest relationship where will be having only parent documents and one child documents.

```
{"Name": "Tony", "Age":25,}
```

One-to-may relationship: it consists of one parent document with multiple child documents.

```
{
    "Name": "Ajay",
    "Age": 25,
    "Add":
    [
        {"City": "Pune"},
        {"State": "MH"}
    ]
}
```

Q11. How can you sort documents based on the given field?

The sort () method is used along with the find command to sort the document as shown below:

db.collection_name.find().sort(KEY:1/-1)

Q12. Which operators are used in finding greater or lesser values from a document?

$gt is used to find all the document which has a value of file that is greater than the given value.

db.collection_name.find({<key>:{$gt:values}})

$lt is used to find all the document which has a value of a field that is greater than a given value.

db.collection_name.find({<key>:{$lt:values}})

Q13. How can you update a document on MongoDB?

The update () command is used to update a document in MongoDB. Following is the syntax for update command:

db.collecion_name.update(selection_crieteria, updated_data);