

| M  | T  | W  | T  | F  | S  | S  |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

1. Q. What is MongoDB?

It is a database server. mongo → huge  
It has less relations.

2. Q. Main Reason to use?

→ 1.) Schemaless → flexibility ↑  
2.) highly Scalable

3. Q. Diff in MySQL and MongoDB

| Database  | Database   |
|-----------|------------|
| 1. Table  | Collection |
| Rows      | Documents  |
| 2. Column | Field      |

4. Q. What is BSON?

→ Documents save in format of JSON.  
BSON → Binary JSON. It convert it into Binary. It allow quick traversal as compare to JSON.

5. not stop MongoDB  
not start MongoDB

6. Q. 5 → Create DB

create document

→ use `use latest_db`

`db.students.insertOne({ name: "Ank", age: 12 })`

Create Collection

`db.students / db.createCollection('student')`

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SATURDAY  
2022 JUNE

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  |
| 8  | 9  | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 |    |    |    |    |

WEEK 24  
162-203

find() → show all the documents.

each document have unique id

Que 6 → Nested document

→ db.students.updateOne({ name: 'Ank' }, { \$set: {  
idCards: { has Pan Card: False, has Aadhar: True } }

Every document have size limit of 16 MB

Que 7 → CRUD operation

|   |                            |   |         |
|---|----------------------------|---|---------|
| C | Insert One (data, option)  | R | find    |
|   | Insert Many (data, option) |   | findOne |

|   |                            |   |            |
|---|----------------------------|---|------------|
| U | Update One { filter, set } | D | deleteOne  |
|   | Update Many { set }        |   | deleteMany |

12 SUNDAY

Que 8 → find student age < 12?

→ db.students.find({ age: { \$lt: 12 } })

\$ ⇒ Reserved keyword

lte ⇒ less than or equate to

gt ⇒ greater than

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|----|----|----|----|----|----|----|
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Que 9 => Find student age > 5 and 10 < age?

=> db.students.find ( { age : { \$gt : 5 , \$lt : 10 } } )

db.students.find ( ) . toArray ( ) -> give all elements

find ( )

findOne ( )

• Cursor [ ]

- Only return One
- can't apply any method.

Que 10) Insert db.students.insert ( { name : "Ank", age : 12 } )  
(old version)

Insert One db.students.insertOne ( -- -- )  
give acknowledgement

Insert Many db.students.insertMany ( [ { -- -- } , { -- -- } ] )

Que 11) Update One

db.students.updateOne ( { name : "Ank" } , { \$set : { age : 15 } } )

Update Many

db.students.updateMany ( { age : 12 } , { \$set : { age : 13 } } )

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TUESDAY  
2022 JUNE

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  |
| 8  | 9  | 10 | 11 | 12 | 13 | 14 |
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WEEK 25  
165-170  
Que 12 → Delete One

Delete Many

db.students.deleteMany({age: 13})

db.students.deleteMany({})

JSON

Delete Database

db.dropDatabase() (call)

Delete Collection

db.coll.name.drop() (single)

\* Id is given by default.

We can also give id -id: ' ' ,

\* If we write {Ordered: false} in Option then it will not stop and error place it print full valid doc.

Que 13.) What is projection?

⇒ means only want specific column

db.student.find({}, {name: 1, -id: 0})

\* MongoDB is Schemaless

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Datatype

foundedOn : new Date() → date

OnTime : new Timestamp() → time

type of db.student.findOne().name → string

Que 14) Schema Validation

```

db.createCollection('student', {
  validator: {
    $jsonSchema: {
      required: ['name', 'price'],
      properties: {
        name: {
          bsontype: "string",
          description: "must be a string"
        },
        price: {
          bsontype: "number",
          description: "number must"
        }
      }
    }
  },
  validationAction: 'warn'
})
    
```

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THURSDAY  
2022 JUNE

| S  | M  | T  | W  | T  | F  | S  |
|----|----|----|----|----|----|----|
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2022 MAY

JULY 2022

WEEK 25  
167-191  
Que 15. > Schema Validation (Change)

```

db.runCommand ( {
  collMod : 'student' ,
  validator : {
    -"-
  }
}

```

Write Concern

{ w: <val> , j: <bool> , wtimeout: <number> }

w → acknowledge      j → Done or not done      n amount of time to wait

Atomicity is achieved in document level.

Que 16. > Comparison Operator

|        |        |                 |
|--------|--------|-----------------|
| \$ eq  | \$ ne  | equal           |
| \$ lt  | \$ gt  | less than       |
| \$ lte | \$ gte | less than equal |
| \$ in  | \$ nin | in              |

{ \$in: [ 5, 12 ] }

Que 17. > logical operator

- \$ and
- \$ or
- \$ nor
- \$ not

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\$ exist  
\$ type

find ( { copy : { \$ exist : true } } )

### Quiz -> Evaluation Operator

\$ regex

/^A/

→ find start with A

\$ text : { \$ search : " youtube " } → give all youtube search

\$ fall

→ give all sequence don't matter

\$ mod

→ perform modulus

\$

. sort ( { age : 1 , name : 1 } )

. skip ( 10 )

{ \$ inc : { age : 2 } } → increase age by 2

upsert : true → if not find then insert