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REGISTER NO. – 20BCE1798

COURSE NAME – INTERNET AND WEB PROGRAMMING

COURSE CODE – CSE3002

LAB – 11

NODE.JS

NAME: ANSH GOEL

REG NO.: 20BCE1798

Create a student grade history using node.js and mongoDB. Perform the following functions. Read, Insert, UPDATE, Delete and drop the collection.

Q. Create the database for the student grade history using mongoDB and node.js and perform the following operations:

In MongoDB database name test\_database and collection name Grades is created

The screenshot shows the MongoDB Compass interface. The left sidebar displays connection details: Host localhost:27017, Cluster Standalone, and Edition MongoDB 6.0.2 Community. Under 'My Queries', there are links for 'Databases' and 'Filter your data'. The main area shows the 'Collections' tab with a 'Create collection' button and a 'View' dropdown set to 'List'. Two collections are listed: 'Grades' and 'test\_collection'. The 'Grades' collection details are: Storage size: 4.10 kB, Documents: 5, Avg. document size: 93.00 B. The 'test\_collection' collection details are: Storage size: 4.10 kB, Documents: 0, Avg. document size: 0 B.

--> Insert 5 documents

The screenshot shows a MongoDB interface with a toolbar at the top containing icons for ADD DATA, VIEW, and various filters. Below the toolbar, five documents are listed in a scrollable table.

<pre>_id: ObjectId('636be1115abc02422eb850b2') Name: "Saksham" Reg No: "20BCE1598" PDC: "S" IWP: "D" ALA: "B"</pre>
<pre>_id: ObjectId('636be1115abc02422eb850b3') Name: "Ayan" Reg No: "20BCE1851" PDC: "A" IWP: "C" ALA: "E"</pre>
<pre>_id: ObjectId('636be1115abc02422eb850b4') Name: "Akshit" Reg No: "20BCE1818" PDC: "B" IWP: "B" ALA: "S"</pre>
<pre>_id: ObjectId('636be1115abc02422eb850b5') Name: "Ansh" Reg No: "20BCE1801" PDC: "C" IWP: "A" ALA: "D"</pre>
<pre>_id: ObjectId('636be1115abc02422eb850b6') Name: "Kashish" Reg No: "20BCE1790" PDC: "D" IWP: "S" ALA: "E"</pre>

--> Update 2 documents to the existing collection

### Updating first document

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://127.0.0.1:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("StudentGradeHistory");
  var myquery = { address: "Valley 345" };
  var newvalues = { $set: {name: "Mickey", address: "Canyon 123" } };
  dbo.collection("customers").updateOne(myquery, newvalues, function(er
r, res) {
    if (err) throw err;
    console.log("1 document updated");
    db.close();
  });
});
```

The screenshot shows a MongoDB interface with a toolbar at the top featuring 'ADD DATA', 'VIEW', and other icons. Below the toolbar, a list of document fields is displayed:

- 1 \_id: ObjectId('636be1115abc02422eb850b2')
- 2 Name: "Saksham"
- 3 Reg No: "20BCE1598"
- 4 PDC: "S"
- 5 IWP: "C" (This field has a blue rectangular highlight around it.)
- 6 ALA: "B"

A yellow banner at the bottom states "Document modified."

The screenshot shows a MongoDB interface with a toolbar at the top featuring 'ADD DATA', 'VIEW', and other icons. Below the toolbar, a list of document fields is displayed:

- 1 \_id: ObjectId('636be1115abc02422eb850b2')
- 2 Name: "Saksham"
- 3 Reg No: "20BCE1598"
- 4 PDC: "S"
- 5 IWP: "C"
- 6 ALA: "B"

A green banner at the bottom states "Document updated."

## Updating 2<sup>nd</sup> document

```
1   _id: ObjectId('636be1115abc02422eb850b3')
2   Name: "Ayan"
3   Reg No: "20BCE1851"
4   PDC: "A"
5   IWP: "C"
6   ALA: "D"
```

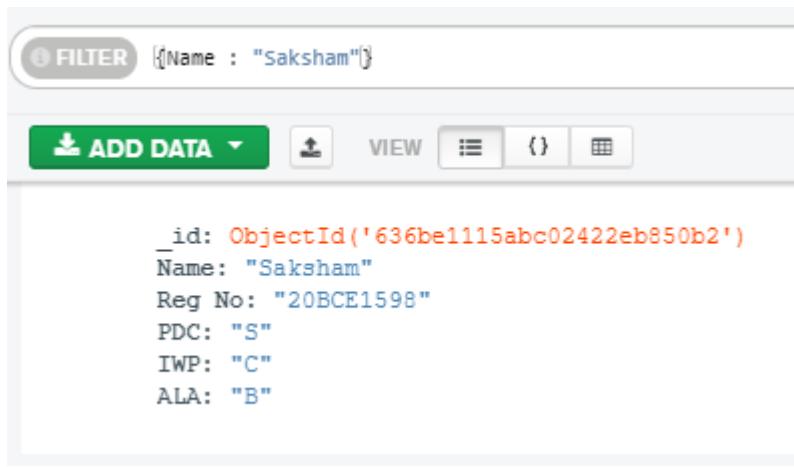
Document modified.

```
▶   _id: ObjectId('636be1115abc02422eb850b3')
    Name: "Ayan"
    Reg No: "20BCE1851"
    PDC: "A"
    IWP: "C"
    ALA: "D"
```

Document updated.

--> Find the existing information in the database

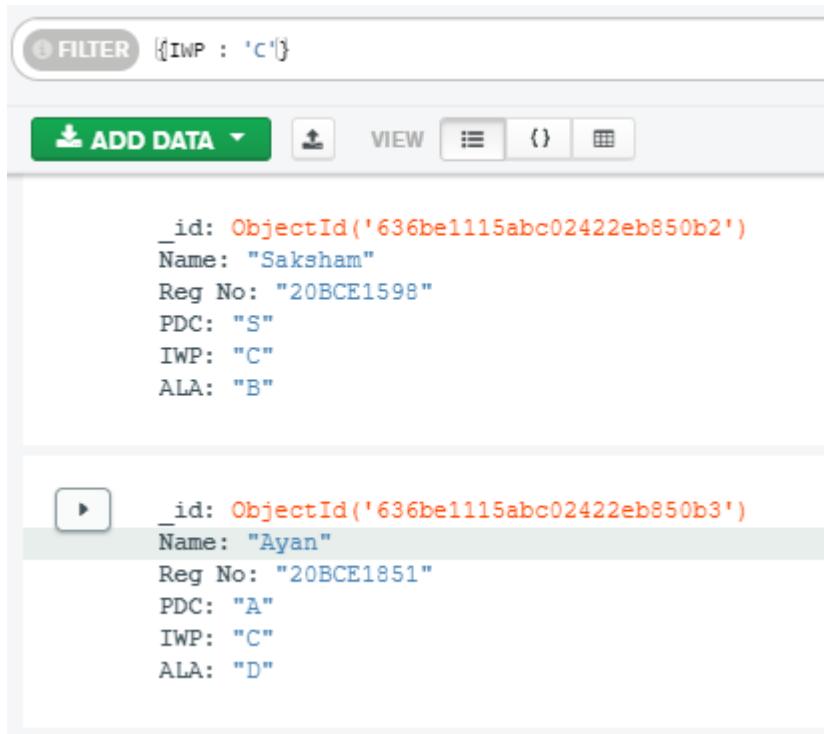
#### Finding {Name : 'Saksham'}



The screenshot shows a MongoDB query interface with a filter applied: `{Name : "Saksham"}`. The results pane displays the following document:

```
_id: ObjectId('636be1115abc02422eb850b2')
Name: "Saksham"
Reg No: "20BCE1598"
PDC: "S"
IWP: "C"
ALA: "B"
```

#### Finding {IWP : 'C'}



The screenshot shows a MongoDB query interface with a filter applied: `{IWP : 'C'}`. The results pane displays two documents. The first document is identical to the one above:

```
_id: ObjectId('636be1115abc02422eb850b2')
Name: "Saksham"
Reg No: "20BCE1598"
PDC: "S"
IWP: "C"
ALA: "B"
```

The second document is highlighted in green and shows:

```
_id: ObjectId('636be1115abc02422eb850b3')
Name: "Ayan"
Reg No: "20BCE1851"
PDC: "A"
IWP: "C"
ALA: "D"
```

--> Drop the collection and database

