

1) Create a Database called student.

```
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/Data base/ex2$ node
(node:12863) DeprecationWarning: current Server Discovery and
is deprecated, and will be removed in a future version. To use
discover and Monitoring engine, pass option { useUnifiedTopology
MongoClient constructor.
Database created!
```

```
Que01.js
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/student";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  console.log("Database created!");
  db.close();
});
```

2) Create a collection called student marks

```
Que01.js  Que02.js
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  dbo.createCollection("studentmarks", function(err, res) {
    if (err) throw err;
    console.log("Collection created!");
    db.close();
  });
});
```

```
nithar@nithar-Inspiron-5570:~/Desk
(node:12983) DeprecationWarning: c
is deprecated, and will be removed
scover and Monitoring engine, pass
ngoClient constructor.
Collection created!
```

3) Create the documents listed in above table.

```
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/Data base/ex2$ node Que01.js
(node:12863) DeprecationWarning: current Server Discovery and Monitoring engine
is deprecated, and will be removed in a future version. To use the new Server Di
scover and Monitoring engine, pass option { useUnifiedTopology: true } to the Mo
ngoClient constructor.
Database created!
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/Data base/ex2$ node Que02.js
(node:12983) DeprecationWarning: current Server Discovery and Monitoring engine
is deprecated, and will be removed in a future version. To use the new Server Di
scover and Monitoring engine, pass option { useUnifiedTopology: true } to the Mo
ngoClient constructor.
Collection created!
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/Data base/ex2$ node Que03.js
(node:15267) DeprecationWarning: current Server Discovery and Monitoring engine
is deprecated, and will be removed in a future version. To use the new Server Di
scover and Monitoring engine, pass option { useUnifiedTopology: true } to the Mo
ngoClient constructor.
Number of documents inserted: 9
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/Data base/ex2$
```

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  var myobj = [
    { name: "Mala", maths_marks: 45, english_marks: 53, science_marks: 72 },
    { name: "Vanu", maths_marks: 80, english_marks: 75, science_marks: 85 },
    { name: "Kala", maths_marks: 32, english_marks: 46, science_marks: 53 },
    { name: "Aruli", maths_marks: 78, english_marks: 85, science_marks: 80 },
    { name: "Shayu", maths_marks: 80, english_marks: 76, science_marks: 65 },
    { name: "Kumaran", maths_marks: 32, english_marks: 73, science_marks: 84 },
    { name: "Lucky", maths_marks: 66, english_marks: 90, science_marks: 45 },
    { name: "Gva", maths_marks: 71, english_marks: 85, science_marks: 56 },
    { name: "Raam", maths_marks: 41, english_marks: 65, science_marks: 88 }
  ];
  dbo.collection("studentmarks").insertMany(myobj, function(err, res) {
    if (err) throw err;
    console.log("Number of documents inserted: " + res.insertedCount);
    db.close();
  });
});
```

4) Increase the maths marks of Mala by 6 marks

```
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("student");
  var myquery = {name:"Mala" };
  var newvalues = { $inc: {maths_marks:6} };
  dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log("1 document updated");
    db.close();
  });
});
```

```
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/Data base/ex2$ node ex2.js
(node:15358) DeprecationWarning: current Server Discovery and
is deprecated, and will be removed in a future version. To use
scover and Monitoring engine, pass option { useUnifiedTopology
MongoClient constructor.
1 document updated
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/Data base/ex2$
```

5) List the names of students who got more than 50 marks in Maths Subject.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  dbo.collection("studentmarks").find({"maths_marks":{"$gt":50}},
  {projection:{_id:0,name:1}}).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```



```
nithar@nithar-Inspiron-5570:~/Desktop
(node:15459) DeprecationWarning: cursor
is deprecated, and will be removed in
discover and Monitoring engine, pass c
MongoClient constructor.
```

```
[ { name: 'Mala' },
  { name: 'Vanu' },
  { name: 'Aruli' },
  { name: 'Shayu' },
  { name: 'Lucky' },
  { name: 'Gva' } ]
```

```
nithar@nithar-Inspiron-5570:~/Desktop
```

6)Add a new column(field) for Average for all students.

```
Que01.js  Que05.js  Que06.js
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  dbo.collection("studentmarks").aggregate([{"$addField":{"average":""}}]).
  toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```

```
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS
(node:15577) DeprecationWarning: current Ser
future version. To use the new Server Disco
MongoClient constructor.
```

```
[ { _id: 5e33f75245dc823ba37d00e4,
  name: 'Mala',
  maths_marks: 51,
  english_marks: 53,
  science_marks: 72,
  average: '' },
  { _id: 5e33f75245dc823ba37d00e5,
  name: 'Vanu',
  maths_marks: 80,
  english_marks: 75,
  science_marks: 85,
  average: '' },
  { _id: 5e33f75245dc823ba37d00e6,
  name: 'Kala',
  maths_marks: 32,
  english_marks: 46,
  science_marks: 53,
  average: '' },
  { _id: 5e33f75245dc823ba37d00e7,
  name: 'Aruli',
  maths_marks: 78,
  english_marks: 85,
  science_marks: 80,
  average: '' },
  { _id: 5e33f75245dc823ba37d00e8,
```

7) Update Marks_Science=75 to Lucky .

```
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("student");
  var myquery = { name:"Lucky" };
  var newvalues = { $set: {science_marks:75 } };
  dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log("1 document updated");
    db.close();
  });
});
```

nithar@nithar-Inspiron-5570:~/Deskt
(node:15685) DeprecationWarning: cu
e is deprecated, and will be remove
r Discover and Monitoring engine, p
the MongoClient constructor.
1 document updated

8) List the names who got more than 50 marks in all subjects.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  dbo.collection("studentmarks").find({$and:[{"maths_marks":{$gt:50}},
{"english_marks":{$gt:50}},{"science_marks":{$gt:50}}]},
{projection:{_id:0,name:1}}).toArray(function(err, result){
  if (err) throw err;
  console.log(result);
  db.close();
});
});
```


9) List the names who got less than 50 marks in Maths subject and more than 50 marks in English.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  dbo.collection("studentmarks").find({$and:[{"maths_marks":{$lt:50}}, {"english_marks":{$gt:50}}]}, {projection:{_id:0,name:1}})
  .toArray(function(err, result){
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```

```
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/Data bas
(node:15838) DeprecationWarning: current Server Disco
e is deprecated, and will be removed in a future vers
r Discover and Monitoring engine, pass option { useUn
the MongoClient constructor.
[ { name: 'Kumaran' }, { name: 'Raam' } ]
```

10) List the names who got less than 40 in both Maths and Science.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  dbo.collection("studentmarks").find({$and:[{"maths_marks":{$lt:40}}, {"science_marks":{$lt:40}}]}, {projection:{_id:0,name:1}}).toArray(function(err, result){
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```

```
[ { name: 'Raman' }, { name: 'Raam' } ]
nithar@nithar-Inspiron-5570:~/Desktop
(node:15906) DeprecationWarning: current Server Discovery and Monitoring engine, MongoClient constructor.
```

- 11) Remove Science column/field for Raam
- 12) Update John's Math mark as 87 and English mark as 23, if john not available upsert.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  var myobj = {name:"Jhon",maths_marks:87,english_marks:23,};
  dbo.collection("studentmarks").insertOne(myobj, function(err, res) {
    if (err) throw err;
    console.log("1 document inserted");
    db.close();
  });
});
```

```
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/Data base/ex2$
(node:15973) DeprecationWarning: current Server Discovery and Monitoring engine, MongoClient constructor.
1 document inserted
```


13) Rename the english_marks column/field for John to science_marks

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";
MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  var myquery = {name:"John"};
  var newvalues = { $rename: {english_marks:"science_marks"} };
  dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log("1 document updated");
  });
  db.close();
});
```

nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/Data b
(node:16084) DeprecationWarning: current Server Discover and Monitoring engine, pass option { use
the MongoClient constructor.
1 document updated

14) Remove Kumaran's document from collection

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  var myquery = { name:"Kumaran" };
  dbo.collection("studentmarks").deleteOne(myquery, function(err, obj) {
    if (err) throw err;
    console.log("1 document deleted");
  });
  db.close();
});
```

```
nithar@nithar-Inspiron-5570:~/Desktop
(node:16141) DeprecationWarning: current
e is deprecated, and will be removed
r Discover and Monitoring engine, pas
the MongoClient constructor.
1 document deleted
```

15) Find Kala's or Aruli's math_marks and science_marks

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  dbo.collection("studentmarks").find({$or:[{name:"Kala"},
{name:"Aruli"} ]} ,{ projection:{_id:0}})
  .toArray(function(err, result){

    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```

```
nithar@nithar-Inspiron-5570:~/Desktop/NodeJS/1
(node:16221) DeprecationWarning: current Serve
e is deprecated, and will be removed in a futu
r Discover and Monitoring engine, pass option
the MongoClient constructor.
```

```
[ { name: 'Kala',
  maths_marks: 32,
  english_marks: 46,
  science_marks: 53 },
  { name: 'Aruli',
    maths_marks: 78,
    english_marks: 85,
    science_marks: 80 } ]
```