# MongoDB Practice Assignment

test> db.users.insertOne({

|   name: "Sue",

|   age: 26,

|   status: "pending"

| });

{

  acknowledged: true,

  insertedId: ObjectId('687e0b5e843abda16c5639a8')

}

test> db.inventory.insertOne({

|   item: "canvas",

|   qty: 100,

|   tags: ["cotton"],

|   size: {

|     h: 28,

|     w: 35.5,

|     uom: "cm"

|   }

| });

{

  acknowledged: true,

  insertedId: ObjectId('687e0b67843abda16c5639a9')

}

test> db.inventory.insertMany([

|   {

|     item: "journal",

|     qty: 25,

|     tags: ["blank", "red"],

|     size: { h: 14, w: 21, uom: "cm" }

|   },

|   {

|     item: "mat",

|     qty: 85,

|     tags: ["gray"],

|     size: { h: 27.9, w: 35.5, uom: "cm" }

|   },

|   {

|     item: "mousepad",

|     qty: 25,

|     tags: ["gel", "blue"],

|     size: { h: 19, w: 22.85, uom: "cm" }

|   }

| ]);

{

  acknowledged: true,

  insertedIds: {

    '0': ObjectId('687e0b72843abda16c5639aa'),

    '1': ObjectId('687e0b72843abda16c5639ab'),

    '2': ObjectId('687e0b72843abda16c5639ac')

  }

}

test> db.users.find().pretty()

[

  {

    \_id: ObjectId('687e0b5e843abda16c5639a8'),

    name: 'Sue',

    age: 26,

    status: 'pending'

  }

]

test> db.inventory.find().pretty()

[

  {

    \_id: ObjectId('687e0b67843abda16c5639a9'),

    item: 'canvas',

    qty: 100,

    tags: [ 'cotton' ],

    size: { h: 28, w: 35.5, uom: 'cm' }

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639aa'),

    item: 'journal',

    qty: 25,

    tags: [ 'blank', 'red' ],

    size: { h: 14, w: 21, uom: 'cm' }

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639ab'),

    item: 'mat',

    qty: 85,

    tags: [ 'gray' ],

    size: { h: 27.9, w: 35.5, uom: 'cm' }

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639ac'),

    item: 'mousepad',

    qty: 25,

    tags: [ 'gel', 'blue' ],

    size: { h: 19, w: 22.85, uom: 'cm' }

  }

]

test> db.inventory.find({})

[

  {

    \_id: ObjectId('687e0b67843abda16c5639a9'),

    item: 'canvas',

    qty: 100,

    tags: [ 'cotton' ],

    size: { h: 28, w: 35.5, uom: 'cm' }

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639aa'),

    item: 'journal',

    qty: 25,

    tags: [ 'blank', 'red' ],

    size: { h: 14, w: 21, uom: 'cm' }

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639ab'),

    item: 'mat',

    qty: 85,

    tags: [ 'gray' ],

    size: { h: 27.9, w: 35.5, uom: 'cm' }

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639ac'),

    item: 'mousepad',

    qty: 25,

    tags: [ 'gel', 'blue' ],

    size: { h: 19, w: 22.85, uom: 'cm' }

  }

]

test> db.users.find({}, { name: 1, status: 1, \_id: 0 });

[ { name: 'Sue', status: 'pending' } ]

test> db.users.find({ status: "pending" })

[

  {

    \_id: ObjectId('687e0b5e843abda16c5639a8'),

    name: 'Sue',

    age: 26,

    status: 'pending'

  }

]

test> db.inventory.find({}, { item: 1, qty: 1, \_id: 0 })

[

  { item: 'canvas', qty: 100 },

  { item: 'journal', qty: 25 },

  { item: 'mat', qty: 85 },

  { item: 'mousepad', qty: 25 }

]

test> db.inventory.find({ qty: { $gt: 50 } })

[

  {

    \_id: ObjectId('687e0b67843abda16c5639a9'),

    item: 'canvas',

    qty: 100,

    tags: [ 'cotton' ],

    size: { h: 28, w: 35.5, uom: 'cm' }

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639ab'),

    item: 'mat',

    qty: 85,

    tags: [ 'gray' ],

    size: { h: 27.9, w: 35.5, uom: 'cm' }

  }

]

test> db.inventory.find({ "size.w": { $gt: 30 } })

[

  {

    \_id: ObjectId('687e0b67843abda16c5639a9'),

    item: 'canvas',

    qty: 100,

    tags: [ 'cotton' ],

    size: { h: 28, w: 35.5, uom: 'cm' }

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639ab'),

    item: 'mat',

    qty: 85,

    tags: [ 'gray' ],

    size: { h: 27.9, w: 35.5, uom: 'cm' }

  }

]

test> db.inventory.find({item: { $regex: /pad/i }});

[

  {

    \_id: ObjectId('687e0b72843abda16c5639ac'),

    item: 'mousepad',

    qty: 25,

    tags: [ 'gel', 'blue' ],

    size: { h: 19, w: 22.85, uom: 'cm' }

  }

]

test> db.inventory.countDocuments()

4

test> db.inventory.countDocuments({ tags: { $exists: true } })

4

test> db.users.countDocuments({ name: { $exists: true } })

1

test> db.users.countDocuments({ age: { $gt: 18 } })

1

test> db.inventory.countDocuments({ qty: { $gt: 50 } })

2

test> db.inventory.findOne()

{

  \_id: ObjectId('687e0b67843abda16c5639a9'),

  item: 'canvas',

  qty: 100,

  tags: [ 'cotton' ],

  size: { h: 28, w: 35.5, uom: 'cm' }

}

test> db.users.find({ age: { $type: "int" } })

[

  {

    \_id: ObjectId('687e0b5e843abda16c5639a8'),

    name: 'Sue',

    age: 26,

    status: 'pending'

  }

]

test> db.inventory.aggregate([

|   { $group: { \_id: null, totalQty: { $sum: "$qty" } } }

| ]);

[ { \_id: **null**, totalQty: 235 } ]

test> db.inventory.aggregate([

|   {

|     $project: {

|       item: 1,

|       qty: 1,

|       isHighStock: { $gt: ["$qty", 50] }

|     }

|   }

| ]);

[

  {

    \_id: ObjectId('687e0b67843abda16c5639a9'),

    item: 'canvas',

    qty: 100,

    isHighStock: true

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639aa'),

    item: 'journal',

    qty: 25,

    isHighStock: false

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639ab'),

    item: 'mat',

    qty: 85,

    isHighStock: true

  },

  {

    \_id: ObjectId('687e0b72843abda16c5639ac'),

    item: 'mousepad',

    qty: 25,

    isHighStock: false

  }

]

## MongoDB installing commands for mac

Step 1: Install Homebrew

Step 2: Tap MongoDB formula

**brew tap mongodb/brew**

Step 3: Install MongoDB Community Edition

**brew install mongodb-community**

Step 4: Start MongoDB as a service

**brew services start mongodb/brew/mongodb-community**

Step 5: Install MongoDB Shell

**brew install mongosh**

Step 6: Verify Installation and version

**mongosh --version**