

Task 1.1 - Create 5 documents inside my “cars” collection

```
{
  _id: ObjectId("6537a6720bb87af7c53f263f"),
  Model: '2009',
  Make: 'Volkswagen Polo',
  Owner: 'John Smith',
  Registration: 'CY 7441',
  Address: '15 Houtkapper Street, Bellville'
},
{
  _id: ObjectId("6537a6720bb87af7c53f2640"),
  Model: '2018',
  Make: 'BMW 3 Series',
  Owner: 'Mary Poppins',
  Registration: 'CA61167'
},
{
  _id: ObjectId("6537ea9bd5300b78df0a3e40"),
  Model: '2023',
  Make: 'Jeep',
  Owner: 'Mike Lowry',
  Address: '16 Bounty Crescent, Glenwood, Cape Town'
},
{
  _id: ObjectId("6537ebd8d5300b78df0a3e41"),
  Model: '1898',
  Make: 'Model-T Ford',
  Owner: 'Richard Branson',
  Registration: 'GP 4532',
  Address: 'No 1, Rich Avenue, Houghton'
},
{
  _id: ObjectId("6537ebd8d5300b78df0a3e42"),
  Model: '1945',
  Make: 'MG Coupe',
  Owner: 'James Bond',
  Registration: '007',
  Address: 'No 11 Downing Street'
}
```

Task 1.2 - Create “Sue Bailey” document

```
Atlas atlas-vqfvu0-shard-0 [primary] test> db.test.insertOne({Model: "2005", Make: "Ford Fiesta", Owner: "Sue Bailey", Registration: "ABC 123 GP", Address: "13 Main Road, Johannesburg, South Africa"});
{
  acknowledged: true,
  insertedId: ObjectId("653786754dee26a2edf40cc5")
}
Atlas atlas-vqfvu0-shard-0 [primary] test> █
```

Task 1.3 - Display all documents added

```
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.find({})
{
  _id: ObjectId("6537a3c4014b940825f07677"),
  Model: '2005',
  Make: 'Ford Fiesta',
  Owner: 'Sue Bailey',
  Registration: 'ABC 123',
  Address: '13 Main Road, Johannesburg, South Africa.'
},
{
  _id: ObjectId("6537a6720bb87af7c53f263f"),
  Model: '2009',
  Make: 'Volkswagen Polo',
  Owner: 'John Smith',
  Registration: 'CY 7441',
  Address: '15 Houtkapper Street, Bellville'
},
{
  _id: ObjectId("6537a6720bb87af7c53f2640"),
  Model: '2018',
  Make: 'BMW 3 Series',
  Owner: 'Mary Poppins',
  Registration: 'CA61167'
},
{
  _id: ObjectId("6537ea9bd5300b78df0a3e40"),
  Model: '2023',
  Make: 'Jeep',
  Owner: 'Mike Lowry',
  Address: '16 Bounty Crescent, Glenwood, Cape Town'
},
{
  _id: ObjectId("6537ebd8d5300b78df0a3e41"),
  Model: '1898',
  Make: 'Model-T Ford',
  Owner: 'Richard Branson',
  Registration: 'GP 4532',
  Address: 'No 1, Rich Avenue, Houghton'
},
{
  _id: ObjectId("6537ebd8d5300b78df0a3e42"),
  Model: '1945',
  Make: 'MG Coupe',
  Owner: 'James Bond',
  Registration: '007',
  Address: 'No 11 Downing Street'
}
Atlas atlas-vqfvu0-shard-0 [primary] cars> █
```

Task 1.4.1 - Updating “Sue Bailey”;

```
}
]
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.update({Owner: "Sue Bailey"}, {$set: {Address: "21 Maureen Street, Bluewater Bay, Port Elizabeth, South Africa."}})
```

Task 1.4.2 - Display new db with updated Sue Bailey;

```
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.find({})
[
  {
    _id: ObjectId("6537a3c4014b940825f07677"),
    Model: '2005',
    Make: 'Ford Fiesta',
    Owner: 'Sue Bailey',
    Registration: 'ABC 123',
    Address: '21 Maureen Street, Bluewater Bay, Port Elizabeth, South Africa.'
  },
  {
    _id: ObjectId("6537a6720bb87af7c53f263f"),
    Model: '2009',
    Make: 'Volkswagen Polo',
    Owner: 'John Smith',
    Registration: 'CY 7441',
    Address: '15 Houtkapper Street, Bellville'
  },
  {
    _id: ObjectId("6537a6720bb87af7c53f2640"),
    Model: '2018',
    Make: 'BMW 3 Series',
    Owner: 'Mary Poppins',
    Registration: 'CA61167'
  },
  {
    _id: ObjectId("6537ea9bd5300b78df0a3e40"),
    Model: '2023',
    Make: 'Jeep',
    Owner: 'Mike Lowry',
    Address: '16 Bounty Crescent, Glenwood, Cape Town'
  },
  {
    _id: ObjectId("6537ebd8d5300b78df0a3e41"),
    Model: '1898',
    Make: 'Model-T Ford',
    Owner: 'Richard Branson',
    Registration: 'GP 4532',
    Address: 'No 1, Rich Avenue, Houghton'
  },
  {
    _id: ObjectId("6537ebd8d5300b78df0a3e42"),
    Model: '1945',
    Make: 'MG Coupe',
    Owner: 'James Bond',
    Registration: '607',
    Address: 'No 11 Downing Street'
  }
]
Atlas atlas-vqfvu0-shard-0 [primary] cars>
```

Task 1.5.1 - Updating “Sue Bailey” to married “Sue Smith”

```
}
]
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.updateOne({Owner: "Sue Bailey"}, {$set: {Owner: "Sue Smith"}})
{}
```

Task 1.5.2 - Display new database with updates.

```
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.find({})
[
  {
    _id: ObjectId("6537a3c4014b940825f07677"),
    Model: '2005',
    Make: 'Ford Fiesta',
    Owner: 'Sue Smith',
    Registration: 'ABC 123',
    Address: '21 Maureen Street, Bluewater Bay, Port Elizabeth, South Africa.'
  },
  {
    _id: ObjectId("6537a6720bb87af7c53f263f"),
    Model: '2009',
    Make: 'Volkswagen Polo',
    Owner: 'John Smith',
    Registration: 'CY 7441',
    Address: '15 Houtkapper Street, Bellville'
  },
  {
    _id: ObjectId("6537a6720bb87af7c53f2640"),
    Model: '2018',
    Make: 'BMW 3 Series',
    Owner: 'Mary Poppins',
    Registration: 'CA61167'
  },
  {
    _id: ObjectId("6537ea9bd5300b78df0a3e40"),
    Model: '2023',
    Make: 'Jeep',
    Owner: 'Mike Lowry',
    Address: '16 Bounty Crescent, Glenwood, Cape Town'
  },
  {
    _id: ObjectId("6537ebd8d5300b78df0a3e41"),
    Model: '1898',
    Make: 'Model-T Ford',
    Owner: 'Richard Branson',
    Registration: 'GP 4532',
    Address: 'No 1, Rich Avenue, Houghton'
  },
  {
    _id: ObjectId("6537ebd8d5300b78df0a3e42"),
    Model: '1945',
    Make: 'MG Coupe',
    Owner: 'James Bond',
  }
]
```

Task_1.6 - Solution Courtesy of OpenAi - Show all cars older than 5 years.

```
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.find({
...   $expr: {
...     $gt: [
...       { $subtract: [new Date().getFullYear(), { $toInt: "$Model" }] },
...       5
...     ]
...   }
... })
[
  {
    _id: ObjectId("6537a3c4014b940825f07677"),
    Model: '2005',
    Make: 'Ford Fiesta',
    Owner: 'Sue Smith',
    Registration: 'ABC 123',
    Address: '21 Maureen Street, Bluewater Bay, Port Elizabeth, South Africa.'
  },
  {
    _id: ObjectId("6537a6720bb87af7c53f263f"),
    Model: '2009',
    Make: 'Volkswagen Polo',
    Owner: 'John Smith',
    Registration: 'CY 7441',
    Address: '15 Houtkapper Street, Bellville'
  },
  {
    _id: ObjectId("6537ebd8d5300b78df0a3e41"),
    Model: '1898',
    Make: 'Model-T Ford',
    Owner: 'Richard Branson',
    Registration: 'GP 4532',
    Address: 'No 1, Rich Avenue, Houghton'
  },
  {
    _id: ObjectId("6537ebd8d5300b78df0a3e42"),
    Model: '1945',
    Make: 'MG Coupe',
    Owner: 'James Bond',
    Registration: '007',
    Address: 'No 11 Downing Street'
  }
]
Atlas atlas-vqfvu0-shard-0 [primary] cars> █
```

Task_1.7.1 - Duplicate Sue Smith

```
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.insertOne({Model: "2019", Make: "Ford Fiesta", Owner: "Sue Smith", Registration: "CX 8796", Address: "The Log Cabin, Kynsna Forest"})█
```

Task_1.7.2 - Update db with duplicate.

```
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.find({})
[
  {
    _id: ObjectId("6537a3c4014b940825f07677"),
    Model: '2005',
    Make: 'Ford Fiesta',
    Owner: 'Sue Smith',
    Registration: 'ABC 123',
    Address: '21 Maureen Street, Bluewater Bay, Port Elizabeth, South Africa.'
  },
  {
    _id: ObjectId("6537a6720bb87af7c53f263f"),
    Model: '2009',
    Make: 'Volkswagen Polo',
    Owner: 'John Smith',
    Registration: 'CY 7441',
    Address: '15 Houtkapper Street, Bellville'
  },
  {
    _id: ObjectId("6537a6720bb87af7c53f2640"),
    Model: '2018',
    Make: 'BMW 3 Series',
    Owner: 'Mary Poppins',
    Registration: 'CA61167'
  },
  {
    _id: ObjectId("6537ea9bd5300b78df0a3e40"),
    Model: '2023',
    Make: 'Jeep',
    Owner: 'Mike Lowry',
    Address: '16 Bounty Crescent, Glenwood, Cape Town'
  },
  {
    _id: ObjectId("6537ebd8d5300b78df0a3e41"),
    Model: '1898',
    Make: 'Model-T Ford',
    Owner: 'Richard Branson',
    Registration: 'GP 4532',
    Address: 'No 1, Rich Avenue, Houghton'
  },
  {
    _id: ObjectId("6537ebd8d5300b78df0a3e42"),
    Model: '1945',
    Make: 'MG Coupe',
    Owner: 'James Bond',
    Registration: '007',
    Address: 'No 11 Downing Street'
  },
  {
    _id: ObjectId("6537ffc1d5300b78df0a3e43"),
    Model: '2019',
    Make: 'Ford Fiesta',
    Owner: 'Sue Smith',
    Registration: 'CX 8796',
    Address: 'The Log Cabin, Kynsna Forest'
  }
]
Atlas atlas-vqfvu0-shard-0 [primary] cars> █
```

Task_1.8.1 - Identify “Sue Smith” to be removed.

```
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.find({Owner: "Sue Smith", Registration: "ABC 123"})
[
  {
    _id: ObjectId("6537a3c4014b940825f07677"),
    Model: '2005',
    Make: 'Ford Fiesta',
    Owner: 'Sue Smith',
    Registration: 'ABC 123',
    Address: '21 Maureen Street, Bluewater Bay, Port Elizabeth, South Africa.'
  }
]
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.remove({Owner: "Sue Smith", Registration: "ABC 123"})
DeprecationWarning: Collection.remove() is deprecated. Use deleteOne, deleteMany, findOneAndDelete, or bulkWrite.
{ acknowledged: true, deletedCount: 1 }
Atlas atlas-vqfvu0-shard-0 [primary] cars>
```

Task_1.8.2 - Updated Database with old “Sue Smith” removed.

```
[
  {
    _id: ObjectId("6537a6720bb87af7c53f263f"),
    Model: '2009',
    Make: 'Volkswagen Polo',
    Owner: 'John Smith',
    Registration: 'CY 7441',
    Address: '15 Houtkapper Street, Bellville'
  },
  {
    _id: ObjectId("6537a6720bb87af7c53f2640"),
    Model: '2018',
    Make: 'BMW 3 Series',
    Owner: 'Mary Poppins',
    Registration: 'CA61167'
  },
  {
    _id: ObjectId("6537ea9bd5300b78df0a3e40"),
    Model: '2023',
    Make: 'Jeep',
    Owner: 'Mike Lowry',
    Address: '16 Bounty Crescent, Glenwood, Cape Town'
  },
  {
    _id: ObjectId("6537ebd8d5300b78df0a3e41"),
    Model: '1898',
    Make: 'Model-T Ford',
    Owner: 'Richard Branson',
    Registration: 'GP 4532',
    Address: 'No 1, Rich Avenue, Houghton'
  },
  {
    _id: ObjectId("6537ebd8d5300b78df0a3e42"),
    Model: '1945',
    Make: 'MG Coupe',
    Owner: 'James Bond',
    Registration: '007',
    Address: 'No 11 Downing Street'
  },
  {
    _id: ObjectId("6537ffc1d5300b78df0a3e43"),
    Model: '2019',
    Make: 'Ford Fiesta',
    Owner: 'Sue Smith',
    Registration: 'CX 8796',
    Address: 'The Log Cabin, Kynsna Forest'
  }
]
```

Task_1.9.1 - Create car with 3 previous owners in array list.

```
}  
Atlas atlas-vqfvu0-shard-0 [primary] cars> db.cars.insertOne({Model: "1975", Make: "VW Beetle", Owners: ["Chris Griffith", "Charles Manson", "Chuck Norris"], Registration: "CA 733101"});
```

Task_1.9.2 - Display DB with new document.

```
[  
  {  
    _id: ObjectId("6537a6720bb87af7c53f263f"),  
    Model: '2009',  
    Make: 'Volkswagen Polo',  
    Owner: 'John Smith',  
    Registration: 'CY 7441',  
    Address: '15 Houtkapper Street, Bellville'  
  },  
  {  
    _id: ObjectId("6537a6720bb87af7c53f2640"),  
    Model: '2018',  
    Make: 'BMW 3 Series',  
    Owner: 'Mary Poppins',  
    Registration: 'CA61167'  
  },  
  {  
    _id: ObjectId("6537ea9bd5300b78df0a3e40"),  
    Model: '2023',  
    Make: 'Jeep',  
    Owner: 'Mike Lowry',  
    Address: '16 Bounty Crescent, Glenwood, Cape Town'  
  },  
  {  
    _id: ObjectId("6537ebd8d5300b78df0a3e41"),  
    Model: '1898',  
    Make: 'Model-T Ford',  
    Owner: 'Richard Branson',  
    Registration: 'GP 4532',  
    Address: 'No 1, Rich Avenue, Houghton'  
  },  
  {  
    _id: ObjectId("6537ebd8d5300b78df0a3e42"),  
    Model: '1945',  
    Make: 'MG Coupe',  
    Owner: 'James Bond',  
    Registration: '007',  
    Address: 'No 11 Downing Street'  
  },  
  {  
    _id: ObjectId("6537ffc1d5300b78df0a3e43"),  
    Model: '2019',  
    Make: 'Ford Fiesta',  
    Owner: 'Sue Smith',  
    Registration: 'CX 8796',  
    Address: 'The Log Cabin, Kynsna Forest'  
  },  
  {  
    _id: ObjectId("65380450d5300b78df0a3e44"),  
    Model: '1975',  
    Make: 'VW Beetle',  
    Owners: [ 'Chris Griffith', 'Charles Manson', 'Chuck Norris' ],  
    Registration: 'CA 733101'  
  }  
]
```