Implementation Assignment

Assignment 3

Class

Client-Server Web Development

Tutor

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1. Setup

A. MongoDB Database

a. User Credentials

i. Username

Admin

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Toiohomai1234

iii. Authentication Database

admin

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root

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i. Database Name

phoenix

ii. Collections

headings

locations

vehicles

c. Application Details

i. Database URI

mongodb://admin:Toiohomai1234@127.0.0.1:27017:27017/phoenix?authMechanism=DEFAULT&authSource=admin

ii. Location

Project > Server > .env > DB_URI

B. Global Modules and Visual Studio Extensions

a. Global Modules

@vue/cli

b. Visual Studio Extensions

Vue 3 Snippets

Vetur

c. Extension to Recover Missing Local Packages

npm install missing

C. Commands to Start Project

a. Client

npm run serve

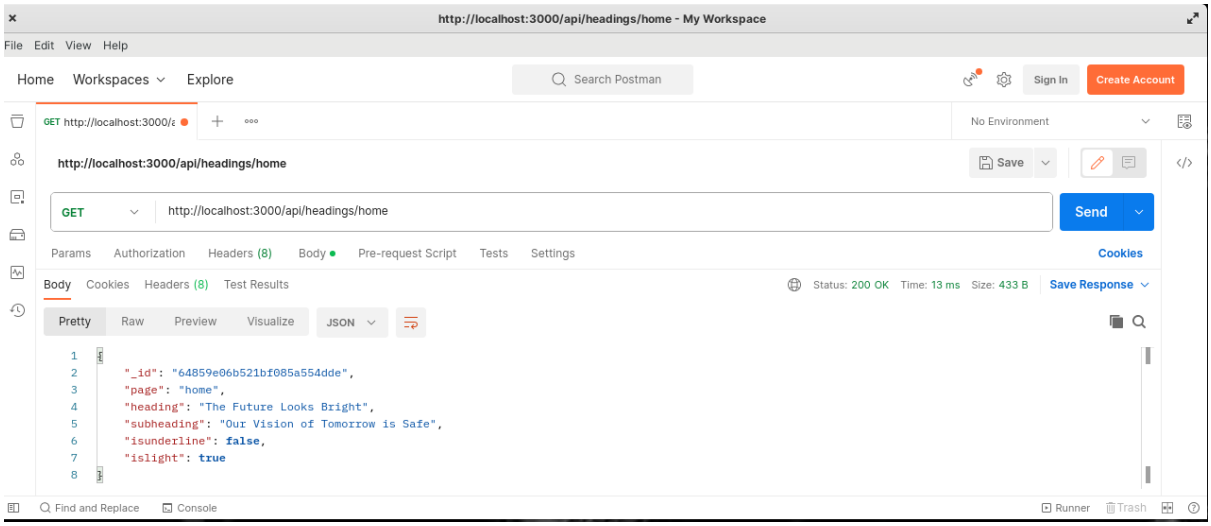
b. Server

npm start

2. API Testing

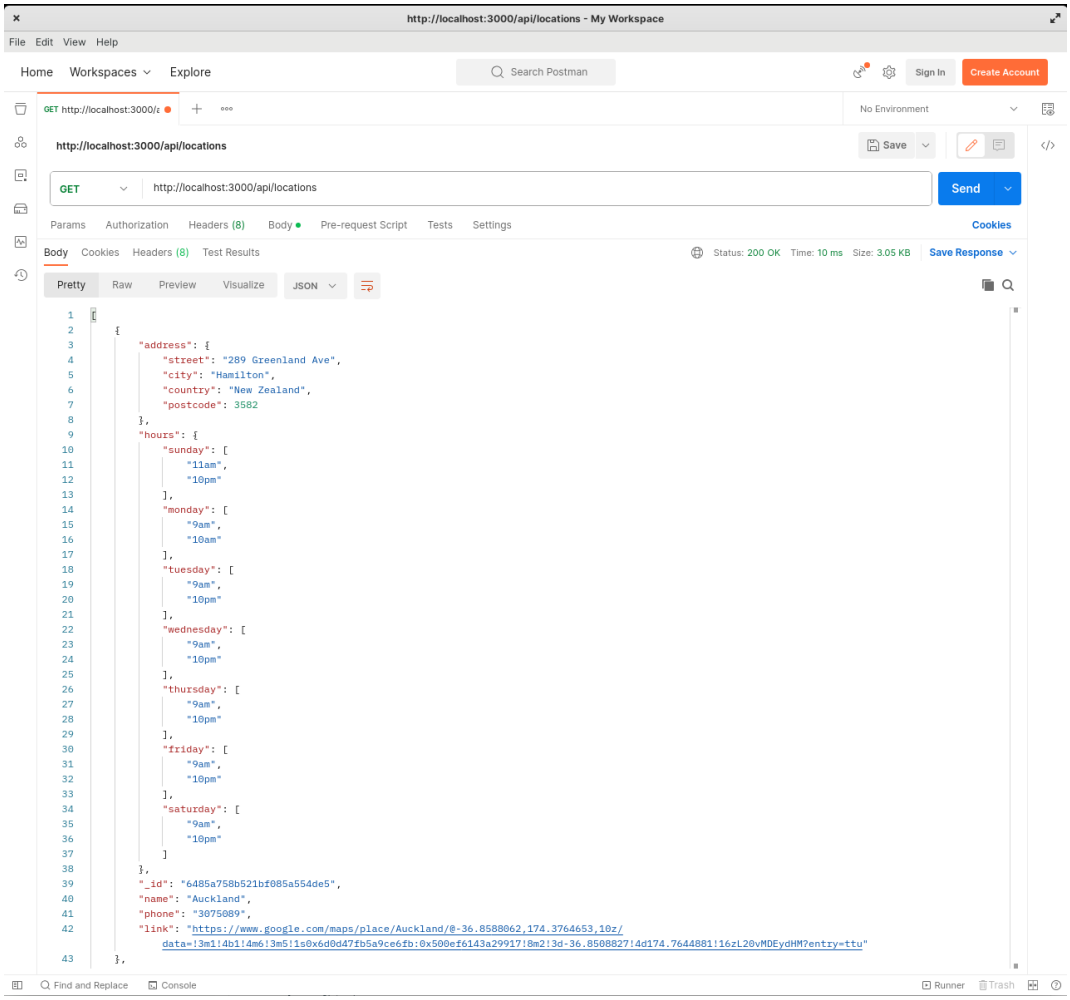
A. Headings

a. Fetch by Page

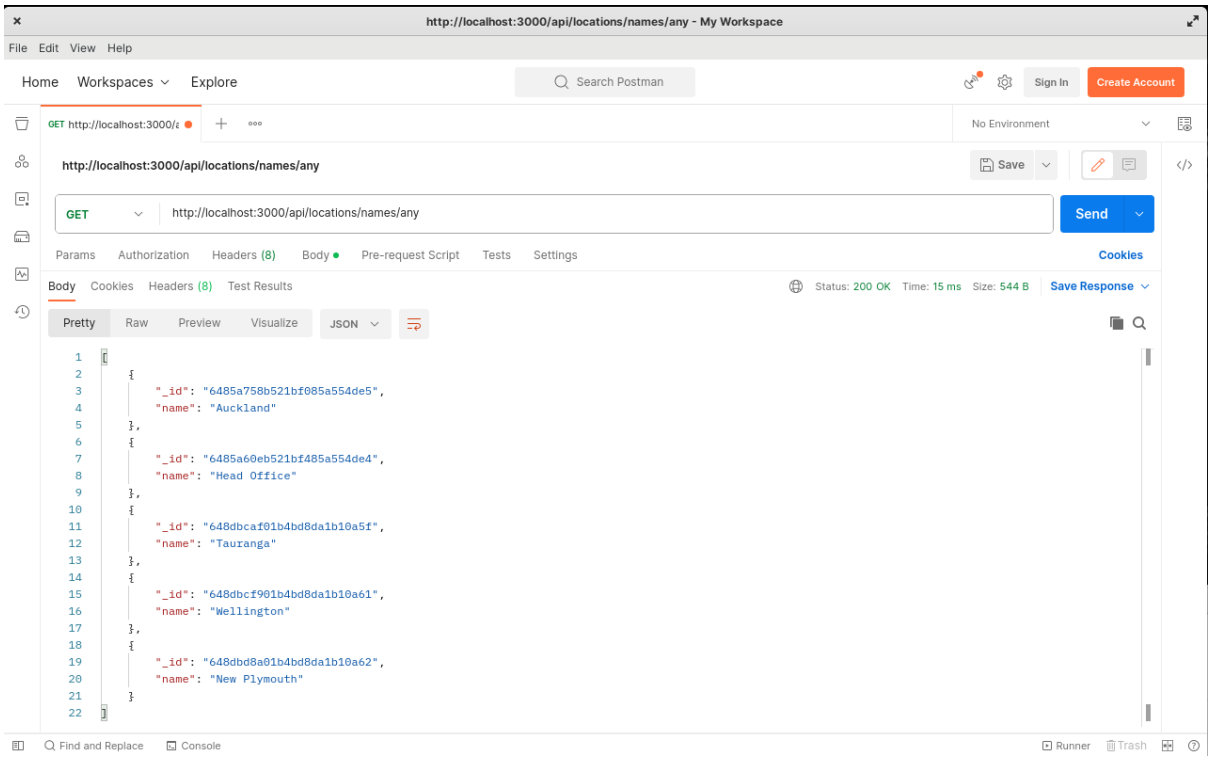


B. Locations

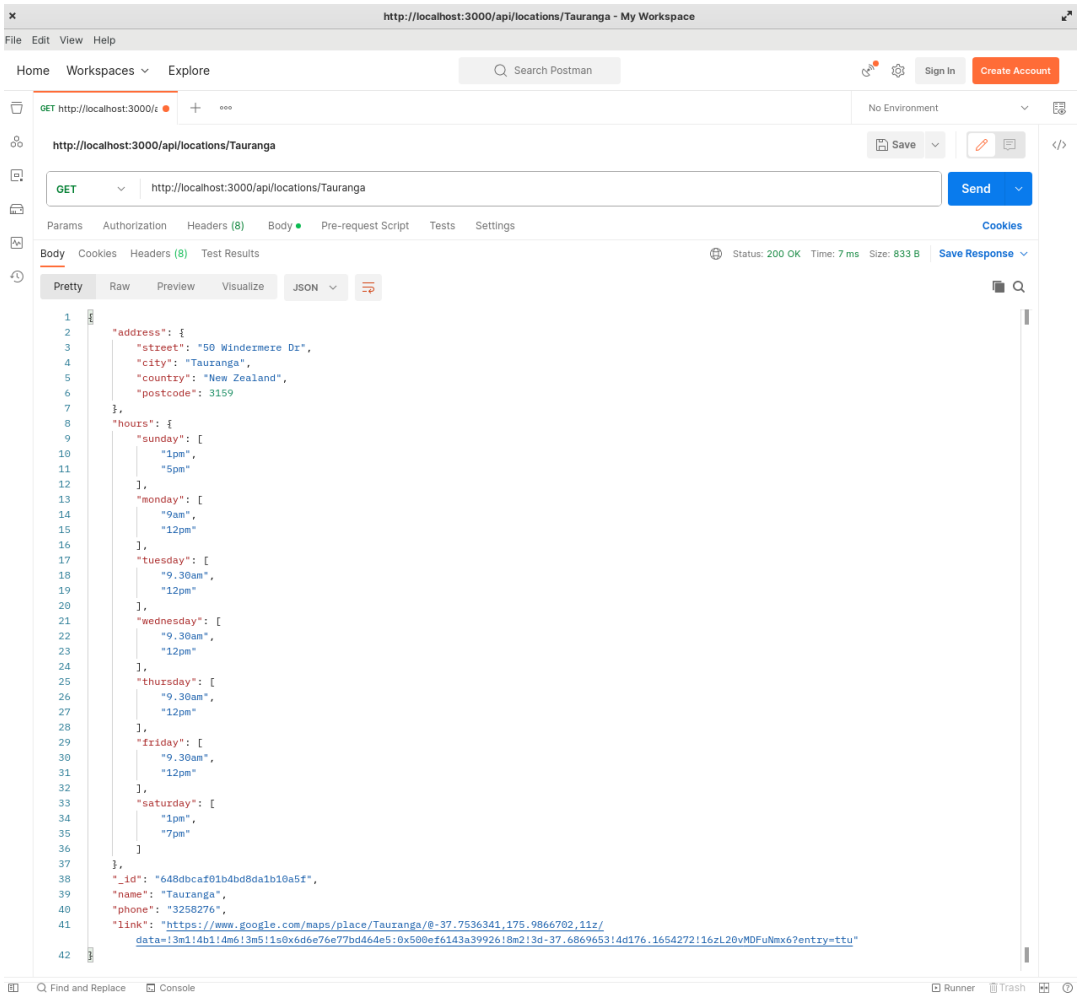
a. Fetch All



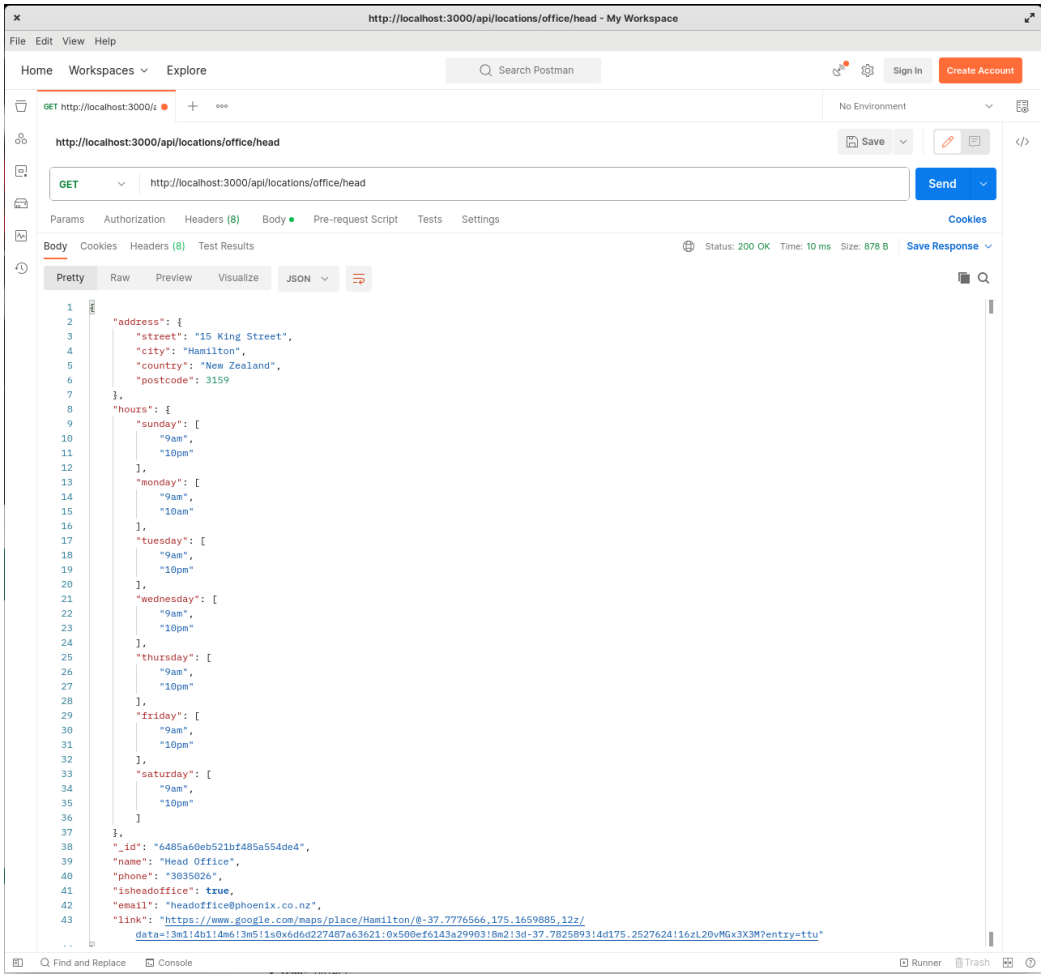
b. Fetch All Store Names



c. Fetch By Store Name

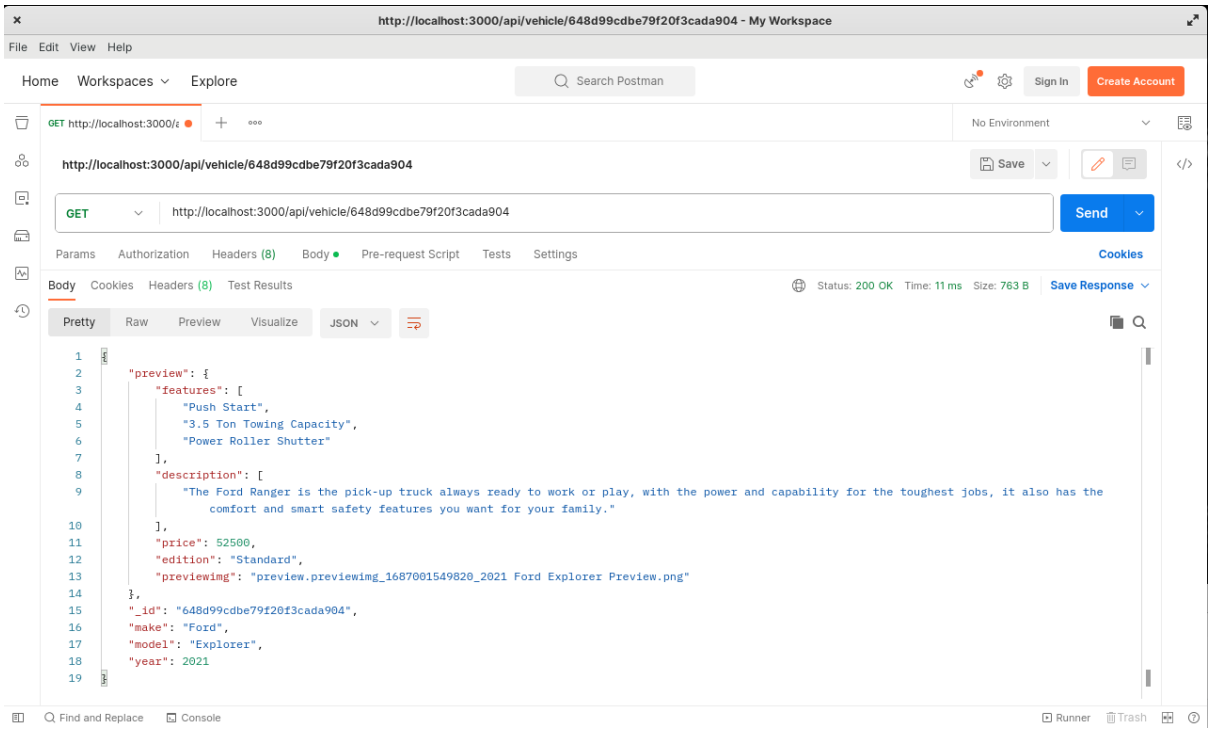


d. Fetch Head Office

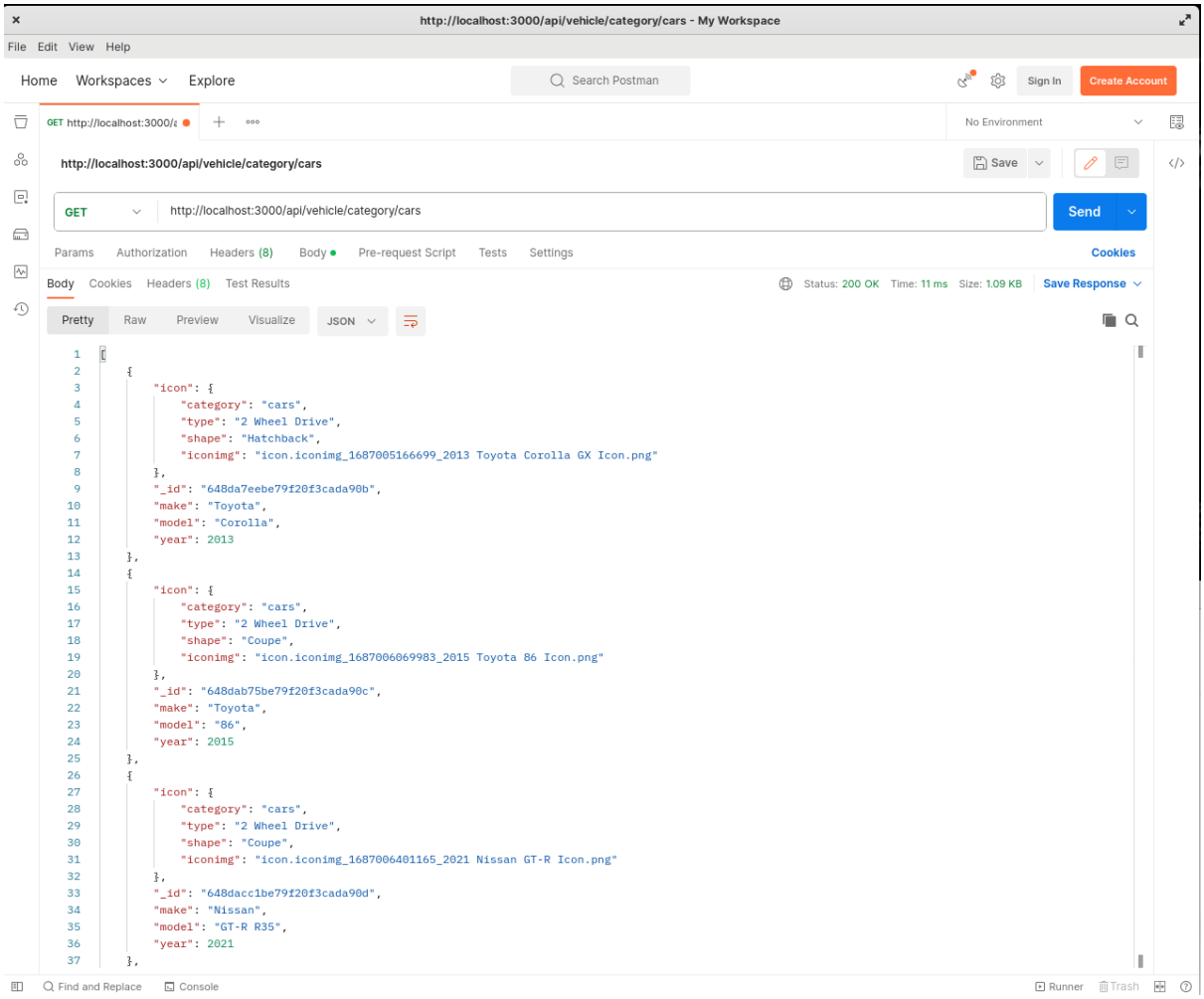


C. Vehicle

a. Fetch By ID

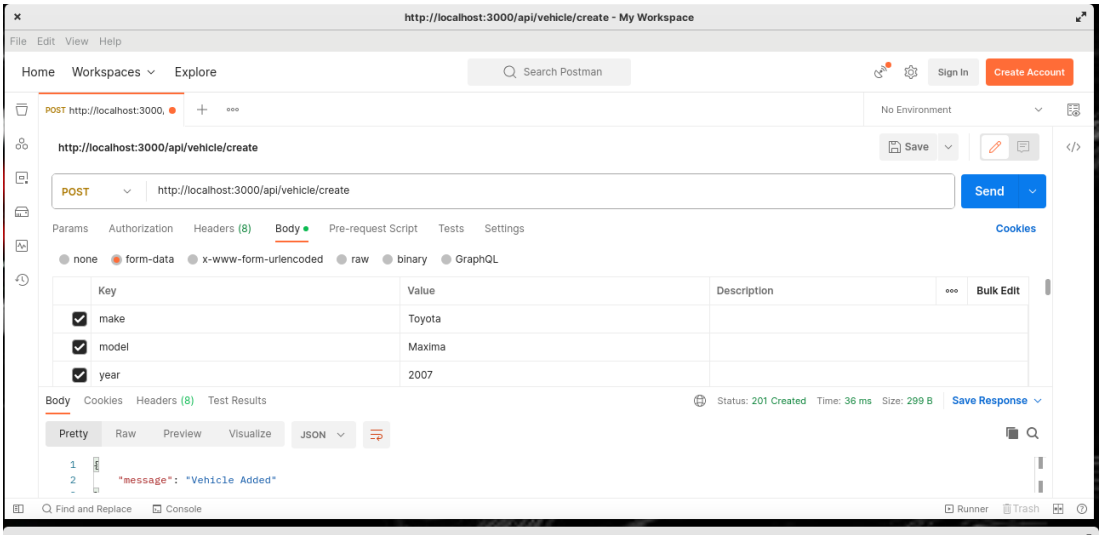


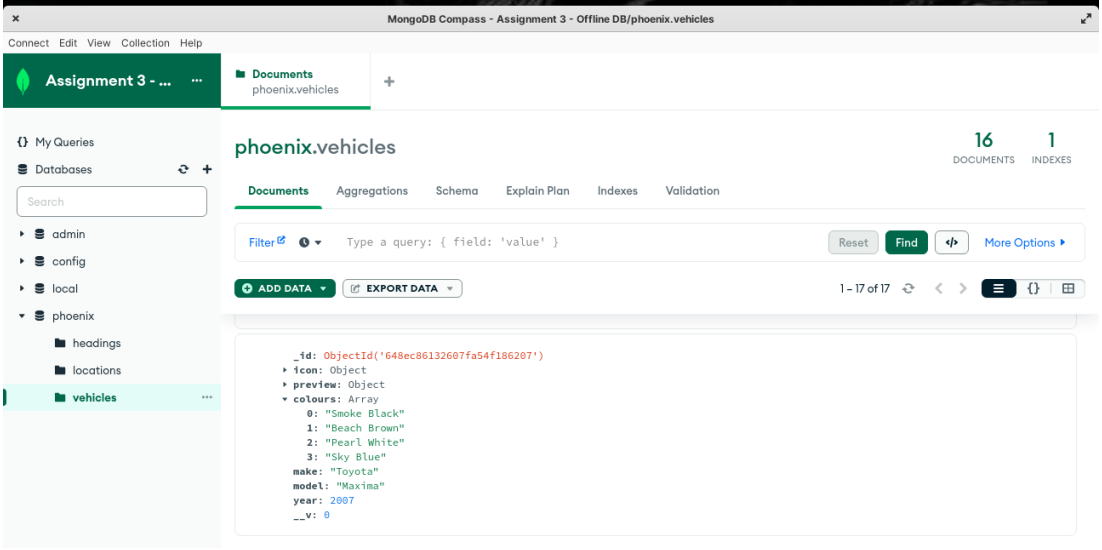
b. Fetch By Category

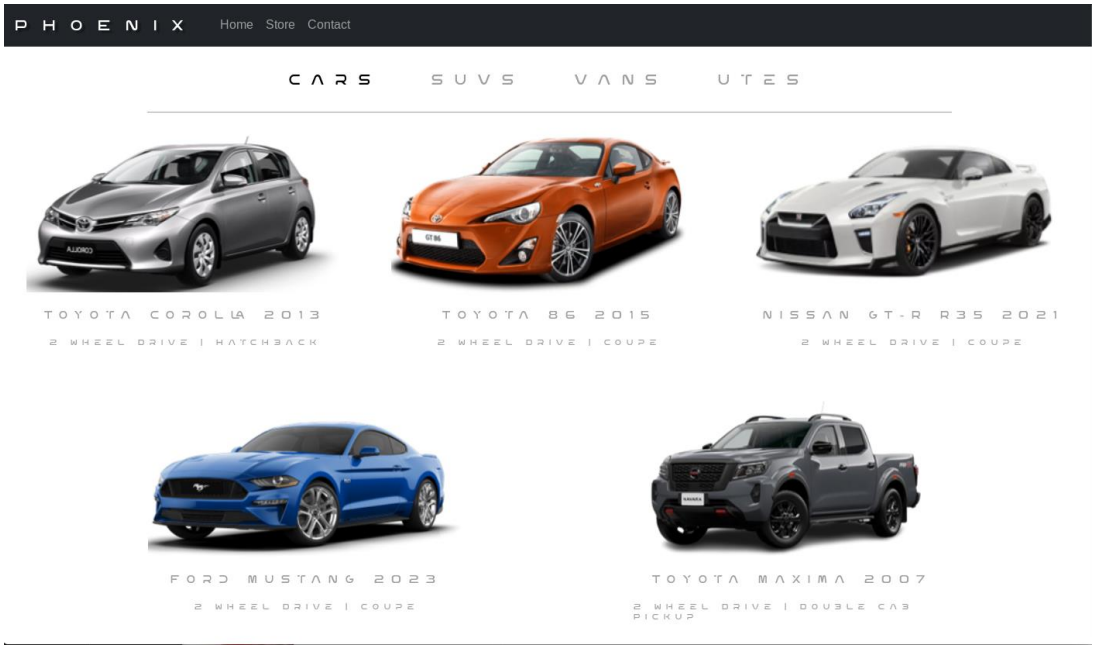


c. Not Implemented in Website Due to Client Promise and Time Constraint

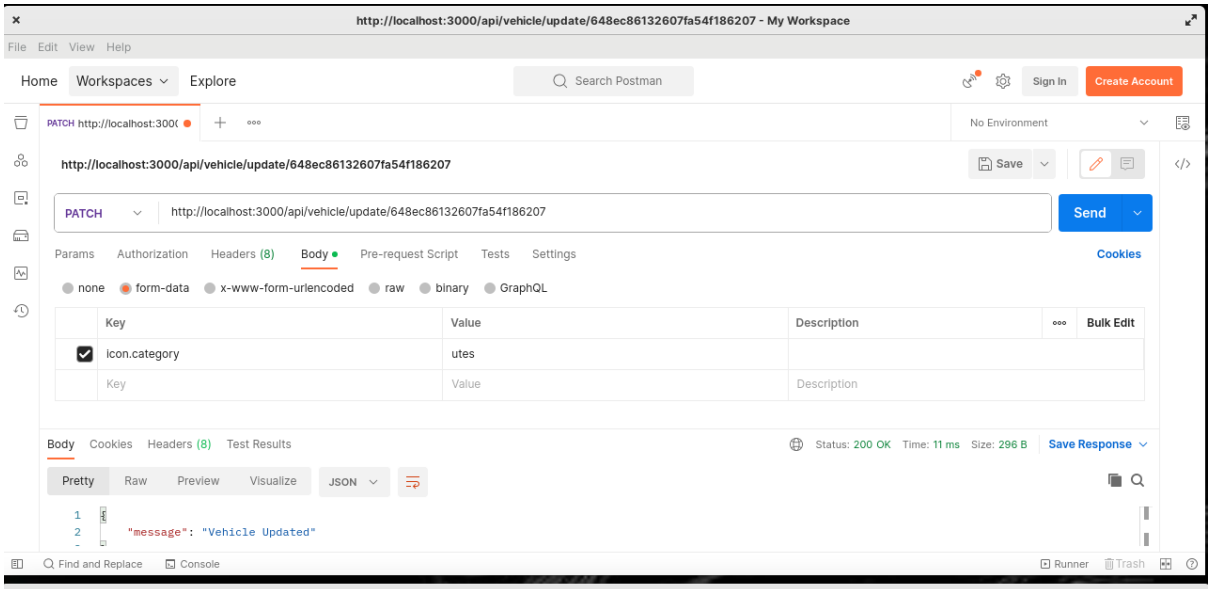
i. Create

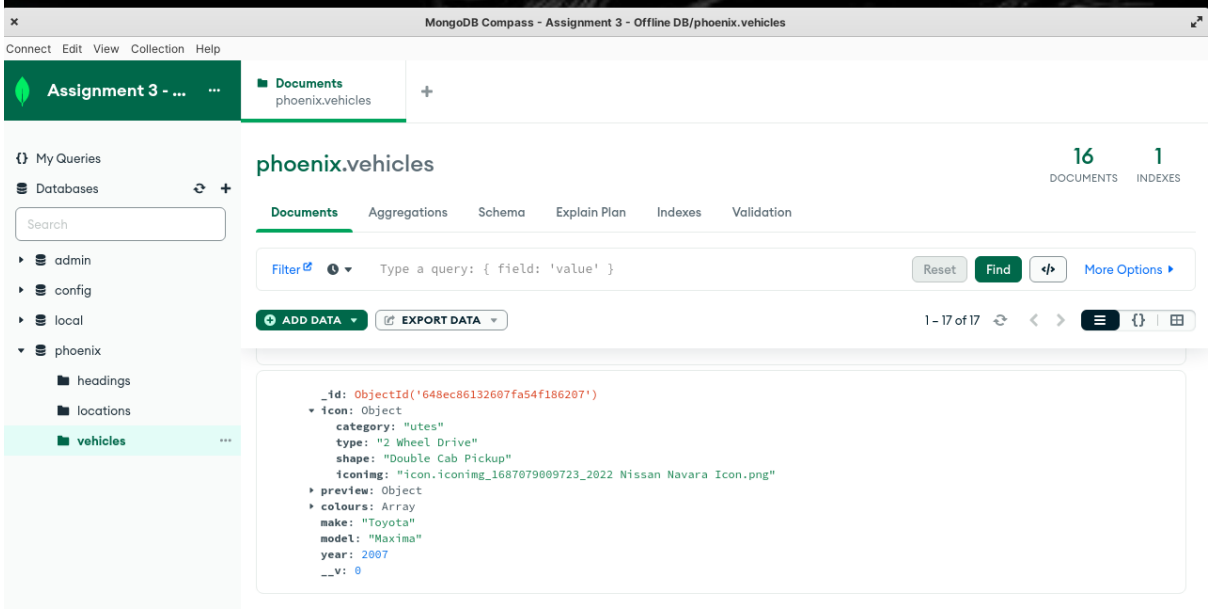


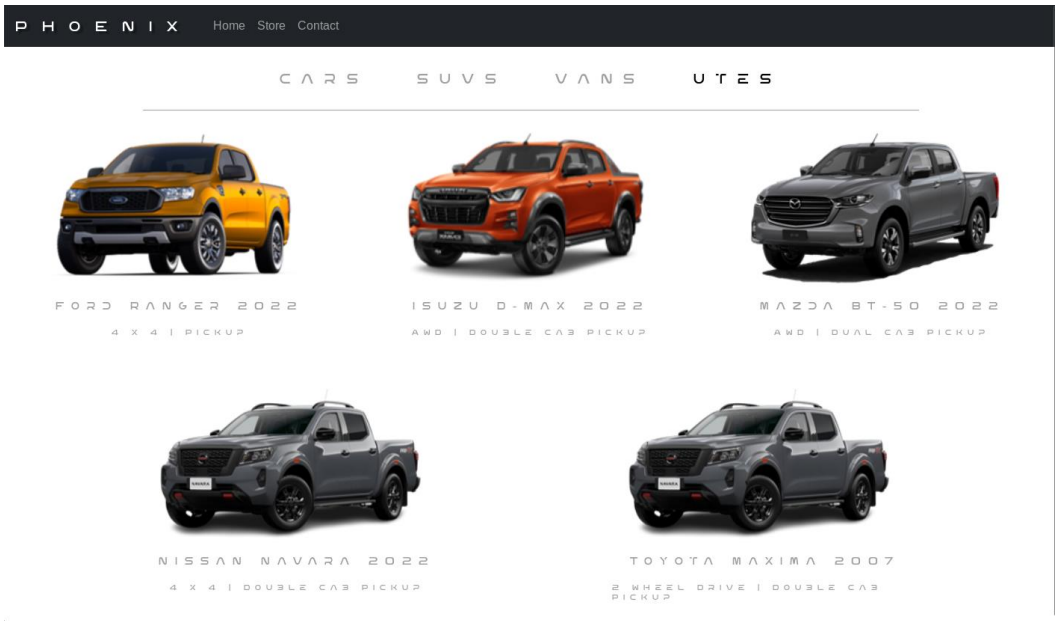




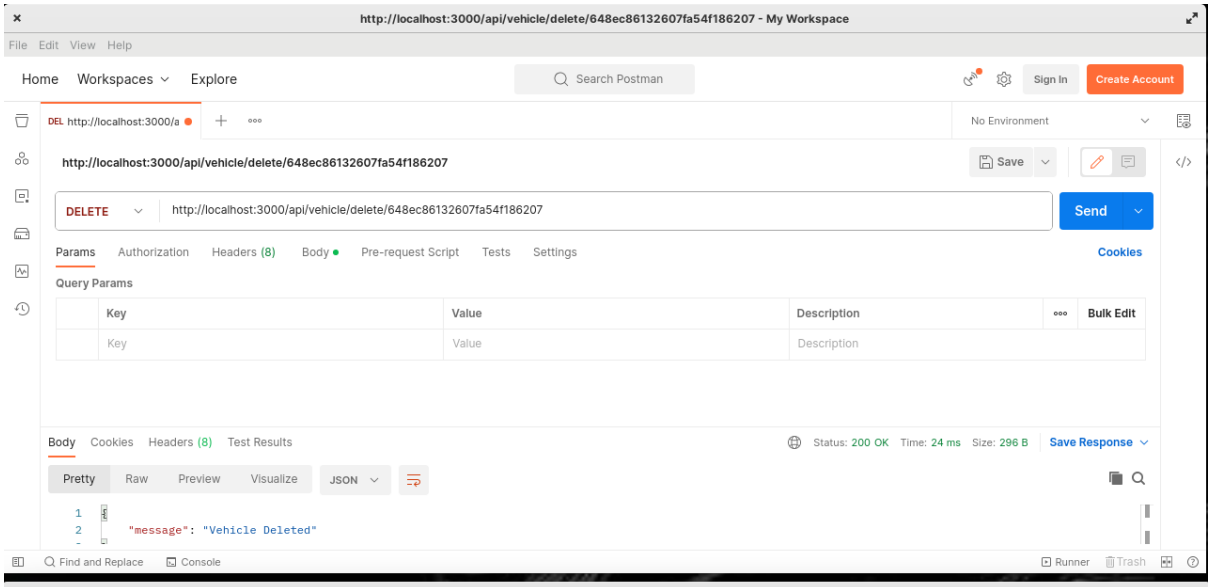
ii. Update

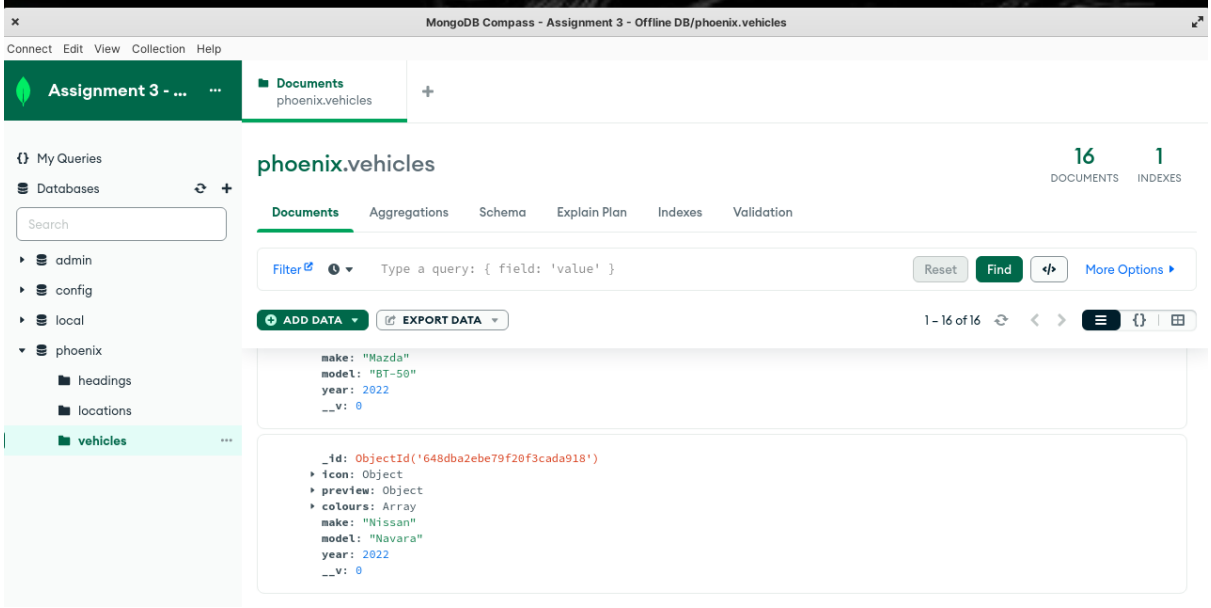

http://localhost:3000/api/vehicle/update/648ec86132607fa54f186207 - My Workspace
PATCH
http://localhost:3000/api/vehicle/update/648ec86132607fa54f186207
Send
Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Cookies
Key
Value
Description
Bulk Edit
icon.category
utes
Status: 200 OK
Time: 11 ms
Size: 296 B
Save Response
Pretty
Raw
Preview
Visualize
JSON
{
"message": "Vehicle Updated"
}

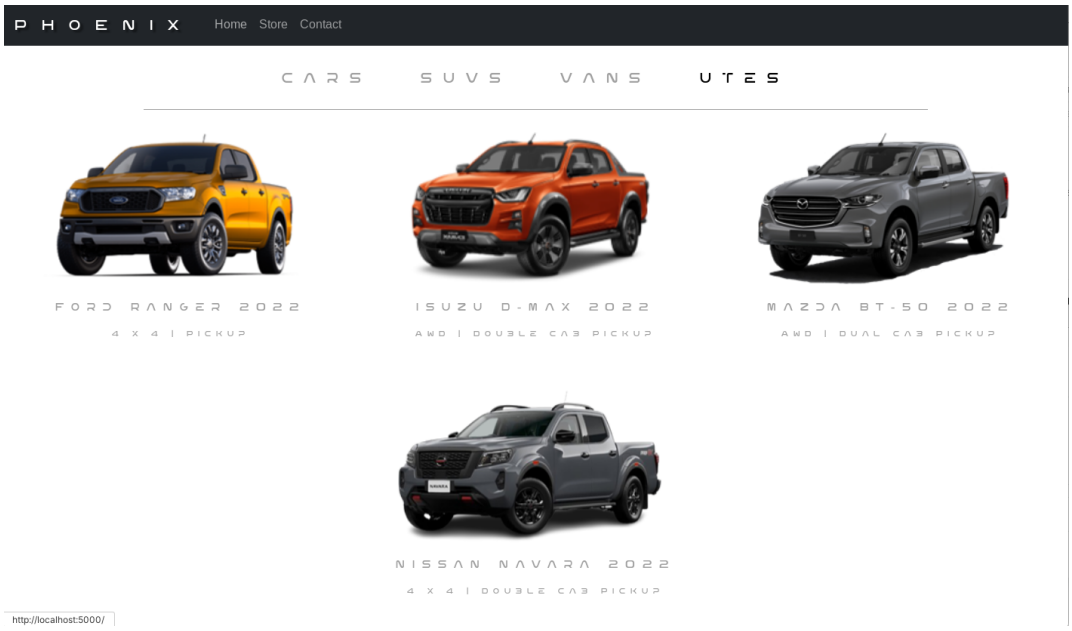

MongoDB Compass - Assignment 3 - Offline DB/phoenix.vehicles
Assignment 3 - ...
Documents
phoenix.vehicles
My Queries
Databases
admin
config
local
phoenix
headings
locations
vehicles
phoenix.vehicles
16
DOCUMENTS
1
INDEXES
Documents
Aggregations
Schema
Explain Plan
Indexes
Validation
Filter
Type a query: { field: 'value' }
Reset
Find
More Options
ADD DATA
EXPORT DATA
1 - 17 of 17
_id: ObjectId('648ec86132607fa54f186207')
icon: Object
category: "utes"
type: "2 Wheel Drive"
shape: "Double Cab Pickup"
iconimg: "icon.iconimg_1687079009723_2022 Nissan Navara Icon.png"
preview: Object
colours: Array
make: "Toyota"
model: "Maxima"
year: 2007
__v: 0


PHOENIX
Home
Store
Contact
CARS
SUVS
VANS
UTES
FORD RANGER 2022
4 X 4 | PICKUP
ISUZU D-MAX 2022
AWD | DOUBLE CAB PICKUP
MAZDA BT-50 2022
AWD | DUAL CAB PICKUP
NISSAN NAVARA 2022
4 X 4 | DOUBLE CAB PICKUP
TOYOTA MAXIMA 2007
2 WHEEL DRIVE | DOUBLE CAB PICKUP

iii. Delete

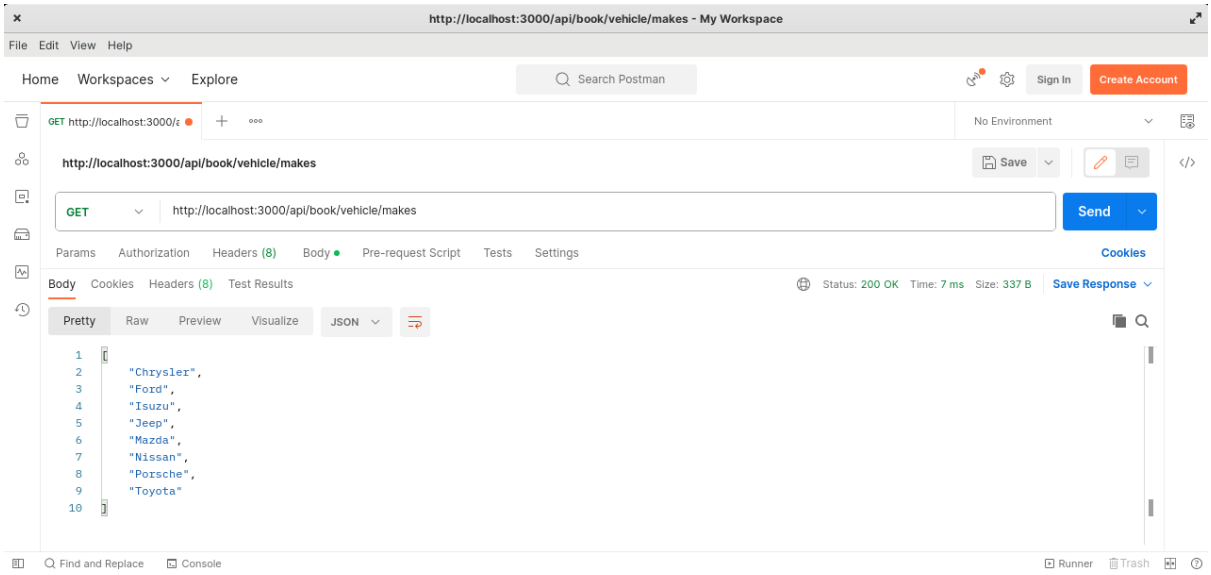

http://localhost:3000/api/vehicle/delete/648ec86132607fa54f186207 - My Workspace
DELETE
http://localhost:3000/api/vehicle/delete/648ec86132607fa54f186207
Send
Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Query Params
Key
Value
Description
Bulk Edit
Status: 200 OK
Time: 24 ms
Size: 296 B
Save Response
{
"message": "Vehicle Deleted"
}


MongoDB Compass - Assignment 3 - Offline DB/phoenix.vehicles
Assignment 3 - ...
Documents
phoenix.vehicles
My Queries
Databases
admin
config
local
phoenix
headings
locations
vehicles
phoenix.vehicles
16
DOCUMENTS
1
INDEXES
Documents
Aggregations
Schema
Explain Plan
Indexes
Validation
Filter
Type a query: { field: 'value' }
Reset
Find
More Options
ADD DATA
EXPORT DATA
1 - 16 of 16
make: "Mazda"
model: "BT-50"
year: 2022
__v: 0
_id: ObjectId('648dba2ebe79f20f3cada918')
icon: Object
preview: Object
colours: Array
make: "Nissan"
model: "Navara"
year: 2022
__v: 0

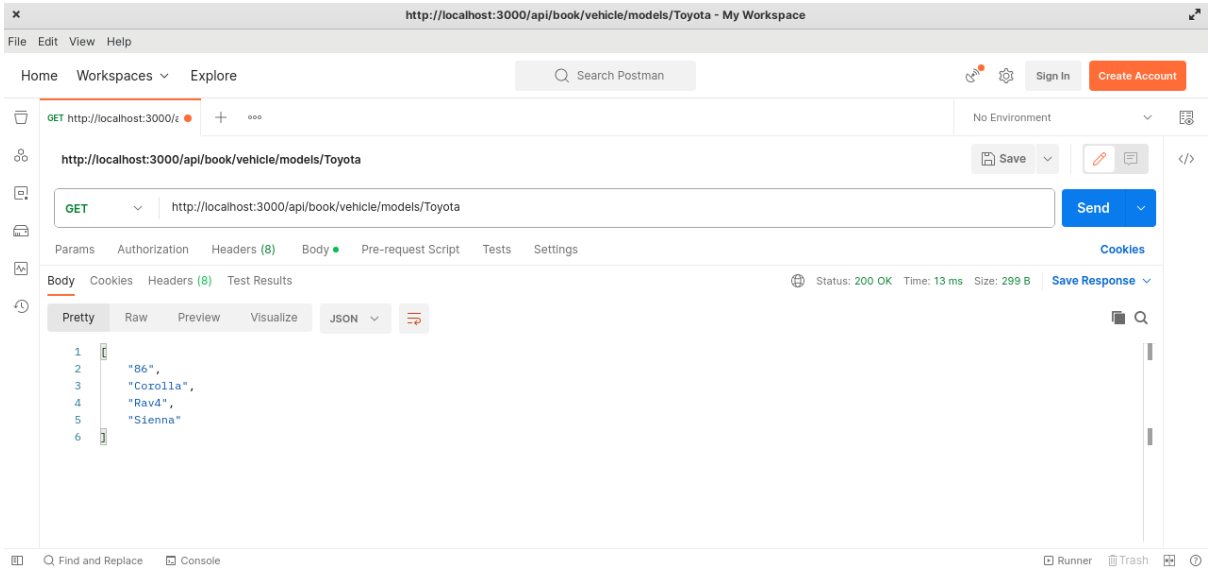

PHOENIX
Home
Store
Contact
CARS
SUVS
VANS
UTES
FORD RANGER 2022
4 X 4 | PICKUP
ISUZU D-MAX 2022
AWD | DOUBLE CAB PICKUP
MAZDA BT-50 2022
AWD | DUAL CAB PICKUP
NISSAN NAVARA 2022
4 X 4 | DOUBLE CAB PICKUP
http://localhost:5000/

D. Book

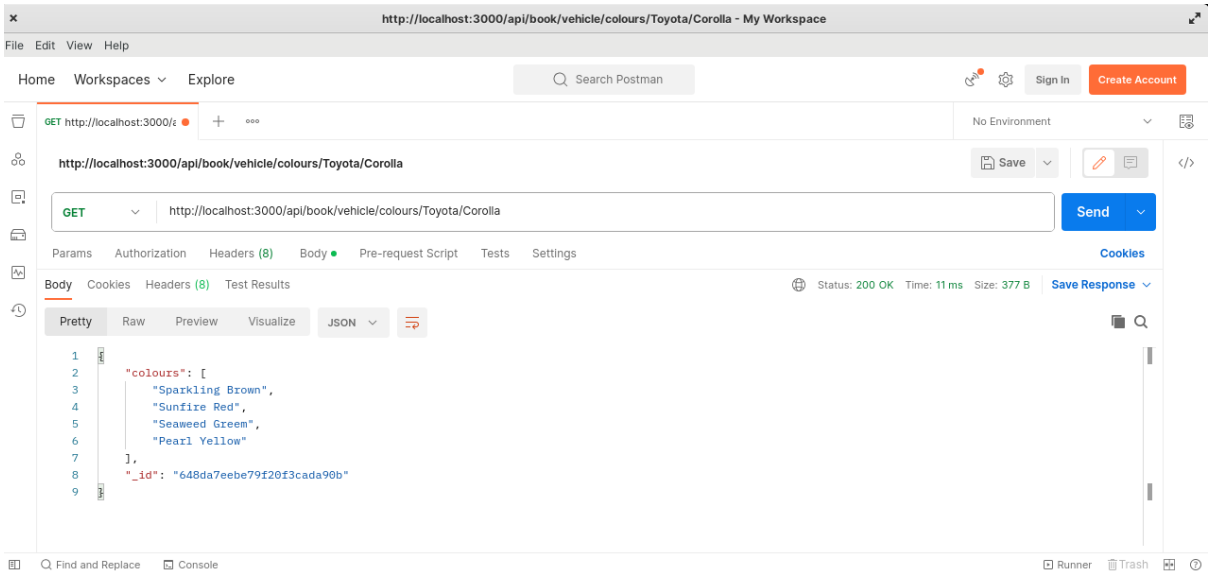
a. Get All Vehicle Makes



b. Get All Distinct Vehicle Models by a Specific Make



c. Get All Colours for a Specific Vehicle



3. Database Testing

A. Headings

a. Find One By Page

webuser webuser

```
phoenix> db.headings.findOne({page: "home"})
{
  _id: ObjectId("64859e06b521bf085a554dde"),
  page: 'home',
  heading: 'The Future Looks Bright',
  subheading: 'Our Vision of Tomorrow is Safe',
  isunderline: false,
  islight: true
}
phoenix>
```

B. Locations

a. Find All

```
phoenix> db.locations.find()
[
  {
    _id: ObjectId("6485a758b521bf085a554de5"),
    name: 'Auckland',
    phone: '3075089',
    address: {
      street: '289 Greenland Ave',
      city: 'Hamilton',
      country: 'New Zealand',
      postcode: 3582
    },
    hours: {
      sunday: [ '11am', '10pm' ],
      monday: [ '9am', '10am' ],
      tuesday: [ '9am', '10pm' ],
      wednesday: [ '9am', '10pm' ],
      thursday: [ '9am', '10pm' ],
      friday: [ '9am', '10pm' ],
      saturday: [ '9am', '10pm' ]
    },
    link: 'https://www.google.com/maps/place/Auckland/@-36.8588062,174.3764653,10z/data=!3m1!4b1!4m6!3m5!1s0
x6d0d47fb5a9ce6fb:0x500ef6143a29917!8m2!3d-36.8508827!4d174.7644881!16zL20vMDEydHM?entry=ttu'
  },
  {
    _id: ObjectId("6485a60eb521bf485a554de4"),
    name: 'Head Office',
    phone: '3035026',
    isheadoffice: true,
    address: {
      street: '15 King Street',
      city: 'Hamilton',
      country: 'New Zealand',
      postcode: 3159
    },
    hours: {
      sunday: [ '9am', '10pm' ],
      monday: [ '9am', '10am' ],
      tuesday: [ '9am', '10pm' ],
      wednesday: [ '9am', '10pm' ],
      thursday: [ '9am', '10pm' ],
      friday: [ '9am', '10pm' ],
      saturday: [ '9am', '10pm' ]
    },
    email: 'headoffice@phoenix.co.nz',
    link: 'https://www.google.com/maps/place/Hamilton/@-37.7776566,175.1659885,12z/data=!3m1!4b1!4m6!3m5!1s0
x6d6d227487a63621:0x500ef6143a29903!8m2!3d-37.7825893!4d175.2527624!16zL20vMGx3X3M?entry=ttu'
```

b. Find All Store Names

```
phoenix> db.locations.find({}, {"name": 1}).pretty()
[
  { _id: ObjectId("6485a758b521bf085a554de5"), name: 'Auckland' },
  { _id: ObjectId("6485a60eb521bf485a554de4"), name: 'Head Office' },
  { _id: ObjectId("648dbcaf01b4bd8da1b10a5f"), name: 'Tauranga' },
  { _id: ObjectId("648dbcf901b4bd8da1b10a61"), name: 'Wellington' },
  { _id: ObjectId("648dbd8a01b4bd8da1b10a62"), name: 'New Plymouth' }
]
phoenix>
```

Find By Store Name

```
phoenix> db.locations.find({"name": "Auckland"}).pretty()
[
  {
    _id: ObjectId("6485a758b521bf085a554de5"),
    name: 'Auckland',
    phone: '3075089',
    address: {
      street: '289 Greenland Ave',
      city: 'Hamilton',
      country: 'New Zealand',
      postcode: 3582
    },
    hours: {
      sunday: [ '11am', '10pm' ],
      monday: [ '9am', '10am' ],
      tuesday: [ '9am', '10pm' ],
      wednesday: [ '9am', '10pm' ],
      thursday: [ '9am', '10pm' ],
      friday: [ '9am', '10pm' ],
      saturday: [ '9am', '10pm' ]
    },
    link: 'https://www.google.com/maps/place/Auckland/@-36.8588062,174.3764653,10z/data=!3m1!4b1!4m6!3m5!1s0
x6d0d47fb5a9ce6fb:0x500ef6143a29917!8m2!3d-36.8508827!4d174.7644881!16zL20vMDEydHM?entry=ttu'
  }
]
phoenix>
```

c. Find Head Office

```
phoenix> db.locations.find({"isheadoffice": true}).pretty()
[
  {
    _id: ObjectId("6485a60eb521bf485a554de4"),
    name: 'Head Office',
    phone: '3035026',
    isheadoffice: true,
    address: {
      street: '15 King Street',
      city: 'Hamilton',
      country: 'New Zealand',
      postcode: 3159
    },
    hours: {
      sunday: [ '9am', '10pm' ],
      monday: [ '9am', '10am' ],
      tuesday: [ '9am', '10pm' ],
      wednesday: [ '9am', '10pm' ],
      thursday: [ '9am', '10pm' ],
      friday: [ '9am', '10pm' ],
      saturday: [ '9am', '10pm' ]
    },
    email: 'headoffice@phoenix.co.nz',
    link: 'https://www.google.com/maps/place/Hamilton/@-37.7776566,175.1659885,12z/data=!3m1!4b1!4m6!3m5!1s0
x6d6d227487a63621:0x500ef6143a29903!8m2!3d-37.7825893!4d175.2527624!16zL20vMGx3X3M?entry=ttu'
  }
]
```

C. Vehicles

a. Find By ID

```
phoenix> db.vehicles.find({"_id": ObjectId("648d99cdbe79f20f3cada904")}).pretty()
[
  {
    _id: ObjectId("648d99cdbe79f20f3cada904"),
    icon: {
      category: 'suvs',
      type: '4 x 4',
      shape: 'Double Cab Pickup',
      iconimg: 'icon.iconimg_1687001549818_2021 Ford Explorer Icon.png'
    },
    preview: {
      features: [
        'Push Start',
        '3.5 Ton Towing Capacity',
        'Power Roller Shutter'
      ],
      description: [
        'The Ford Ranger is the pick-up truck always ready to work or play, with the power and capability fo
r the toughest jobs, it also has the comfort and smart safety features you want for your family.'
      ],
      price: 52500,
      edition: 'Standard',
      previewimg: 'preview.previewimg_1687001549820_2021 Ford Explorer Preview.png'
    },
    colours: [
      'Cactus Gray',
      'Carbonized Gray',
      'Cyber Orange',
      'Velocity Blue'
    ],
    make: 'Ford',
    model: 'Explorer',
    year: 2021,
    __v: 0
  }
]
```

b. Find By Category

```
phoenix> db.vehicles.find({"icon.category": "cars"}).pretty()
[
  {
    _id: ObjectId("648da7eebe79f20f3cada90b"),
    icon: {
      category: 'cars',
      type: '2 Wheel Drive',
      shape: 'Hatchback',
      iconimg: 'icon.iconimg_1687005166699_2013 Toyota Corolla GX Icon.png'
    },
    preview: {
      features: [
        'Hand-Treated Materials',
        'Electric Mirrors',
        'Emersive Sound System'
      ],
      description: [
        "Just about the only thing we didn't update in the latest Toyota Corolla is its reputation for excep
tional driving. The European-inspired design, clever technology and thoughtful features make every model in
the Toyota Corolla range a joy to drive."
      ],
      price: 88769,
      edition: 'GX',
      previewimg: 'preview.previewimg_1687005166699_2013 Toyota Corolla GX Preview.png'
    },
    colours: [
      'Sparkling Brown',
      'Sunfire Red',
      'Seaweed Greem',
      'Pearl Yellow'
    ],
    make: 'Toyota',
    model: 'Corolla',
    year: 2013,
    __v: 0
  },
  {
    _id: ObjectId("648dab75be79f20f3cada90c"),
    icon: {
      category: 'cars',
      type: '2 Wheel Drive',
      shape: 'Coupe',
      iconimg: 'icon.iconimg_1687006069983_2015 Toyota 86 Icon.png'
    },
    preview: {
      features: [ 'Hand-Treated Materials', 'Luxurious Design', 'Racing Tires' ],
```

c. Update By ID

```
phoenix> db.vehicles.updateOne({"make": "Jeepy", "model": "Wagoneer"}, {$set: {"make": "Jeep"}} )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
phoenix> db.vehicles.findOne({"make": "Jeep", "model": "Wagoneer"})
{
  _id: ObjectId("648d9fdfbe79f20f3cada909"),
  icon: {
    category: 'suvs',
    type: '4 x 4',
    shape: 'SUV',
    iconimg: 'icon.iconimg_1687003103029_2022 Jeep Grand Wagoneer Icon.png'
  },
  preview: {
    features: [
      'Hand-Treated Materials',
      'Cinematic Sound',
      'Full Colour, Complete Clarity'
    ],
    description: [
      'Built for those who want to share a lifetime of success with the people they hold dear. The All-New G
rand Wagoneer and Wagoneer reinterpret their own legacies and take the premium SUV into uncharted territorie
s of style, comfort and adventure. These are more than sport utility vehicles. They're the means to make exc
eptional memories and create your own legend.'
    ],
    price: 88769,
    edition: 'Standard',
    previewimg: 'preview.previewimg_1687003103030_2022 Jeep Grand Wagoneer Preview.png'
  },
  colours: [ 'Silver Zynith', 'Baltic Gray', 'Valvet Red', 'Bright White' ],
  make: 'Jeep',
  model: 'Wagoneer',
  year: 2022,
  __v: 0
}
phoenix>
```

d. Delete By ID

```
phoenix> db.vehicles.remove({"_id": ObjectId("648d9d19be79f20f3cada908")})
DeprecationWarning: Collection.remove() is deprecated. Use deleteOne, deleteMany, findOneAndDelete, or bulkW
rite.
{ acknowledged: true, deletedCount: 1 }
phoenix>
```

D. Book

a. Get All Vehicle Makes

```
phoenix> db.vehicles.find({}, {"make": 1}).pretty()
[
  { _id: ObjectId("648d9fdfbe79f20f3cada909"), make: 'Jeep' },
  { _id: ObjectId("648da20bbe79f20f3cada90a"), make: 'Porsche' },
  { _id: ObjectId("648da7eebe79f20f3cada90b"), make: 'Toyota' },
  { _id: ObjectId("648dab75be79f20f3cada90c"), make: 'Toyota' },
  { _id: ObjectId("648dacc1be79f20f3cada90d"), make: 'Nissan' },
  { _id: ObjectId("648dadabbe79f20f3cada90e"), make: 'Ford' },
  { _id: ObjectId("648daf09be79f20f3cada90f"), make: 'Chrysler' },
  { _id: ObjectId("648db0e5be79f20f3cada910"), make: 'Chrysler' },
  { _id: ObjectId("648db1e9be79f20f3cada911"), make: 'Ford' },
  { _id: ObjectId("648db302be79f20f3cada913"), make: 'Toyota' },
  { _id: ObjectId("648db461be79f20f3cada914"), make: 'Ford' },
  { _id: ObjectId("648db61bbe79f20f3cada916"), make: 'Isuzu' },
  { _id: ObjectId("648db871be79f20f3cada917"), make: 'Mazda' },
  { _id: ObjectId("648dba2ebe79f20f3cada918"), make: 'Nissan' }
]
phoenix>
```

b. Get All Distinct Vehicle Models by a Specific Make

```
phoenix> db.vehicles.distinct("model", {"make": "Toyota"})
[ '86', 'Corolla', 'Sienna' ]
phoenix>
```

c. Get All Colours for a Specific Vehicle

```
phoenix> db.vehicles.distinct("colours", {"make": "Toyota", "model": "86"})
[ 'Beach Brown', 'Diamond White', 'Graphite Gray', 'Sparkling Red' ]
phoenix>
```

References

DCodeMania. (2021). *#01 MEVN Full Stack Web Application Tutorial | Working on Back-End* [Video]. YouTube.

https://www.youtube.com/watch?v=-qdG_P85fFQ&ab_channel=DCodeMania