MongoDB Assignment

Guidelines:

i. ***This assignment is mandatory for everyone***

ii. *There will only be a single attempt for each exam and **no deadline extension in case of assignments***

iii. *Any case of unfair means or **plagiarism would lead to debarring** in final placements without any further consideration.*

iv. The assignment solutions should be uploaded on Github and links to Github repository links should be shared with the coach for code review. Make sure to add appropriate comments in code wherever possible.

Problem 1:

Build an API to add and retrieve college student details from a database

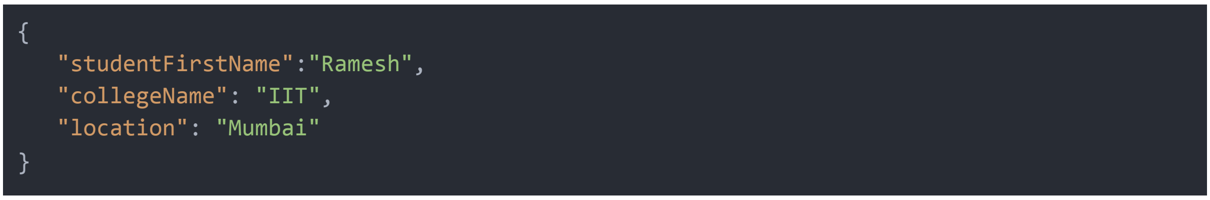
Steps:

1. Create a connection with local or remote Mongo database
2. Build a model in express.js for student details
   The model should have following parameters of type string:-
   name, collegeName, location
3. Next build a route as shown below and write logic to add student details sent from API into MongoDB database

Request URL:- *http://localhost:3000/student/add*

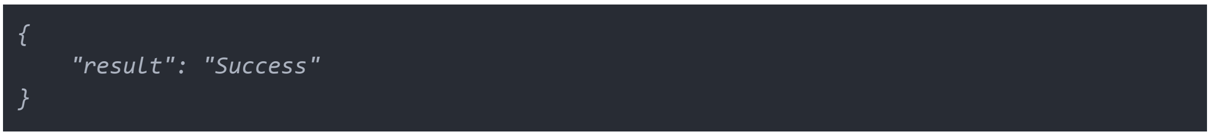
Request Method:- POST

Request JSON:-



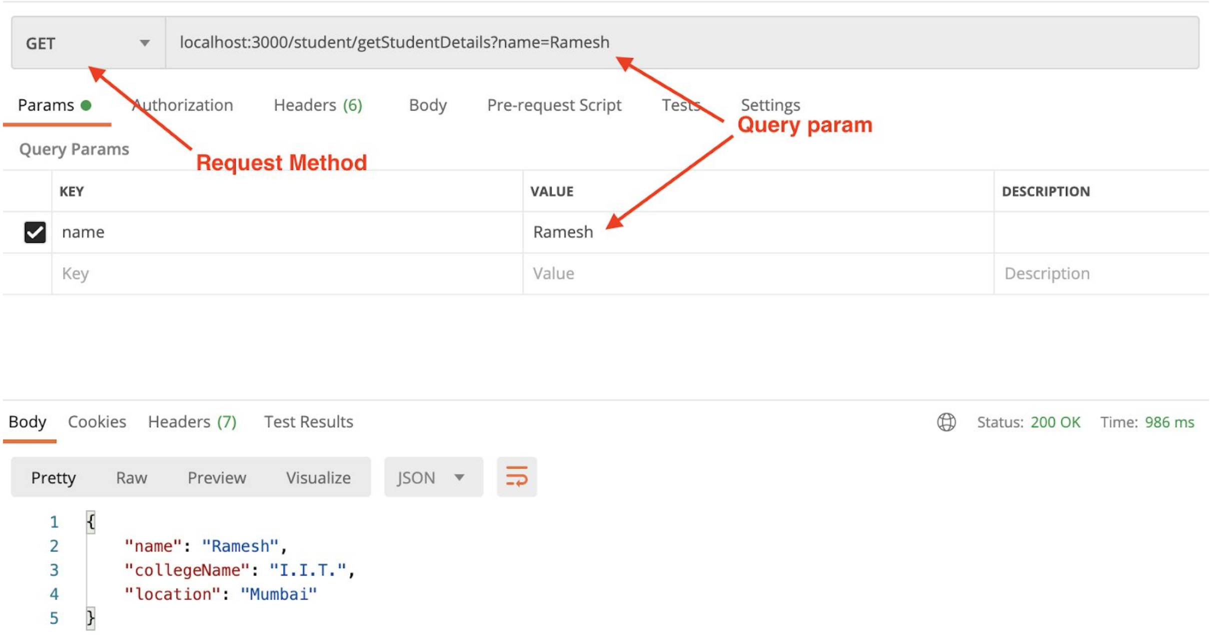
```
{
   "studentFirstName":"Ramesh",
   "collegeName": "IIT",
   "location": "Mumbai"
}
```

Response JSON:-



```
{
    "result": "Success"
}
```

4. Once student details are saved to database, build another API which can be used to get stored student details based on student name as shown below:-



localhost:3000/student/getStudentDetails?name=Ramesh

Request Method

Query param

	KEY	VALUE	DESCRIPTION
☑	name	Ramesh	
	Key	Value	Description

Status: 200 OK Time: 986 ms

```
{
    "name": "Ramesh",
    "collegeName": "I.I.T.",
    "location": "Mumbai"
}
```

Request URL:- *localhost:3000/student/getStudentDetails?name=Ramesh*

Request Method:- GET

Query Param:- name

Response JSON:-

```
{
  "name": "Ramesh",
  "collegeName": "I.I.T.",
  "location": "Mumbai"
}
```

Learnings:

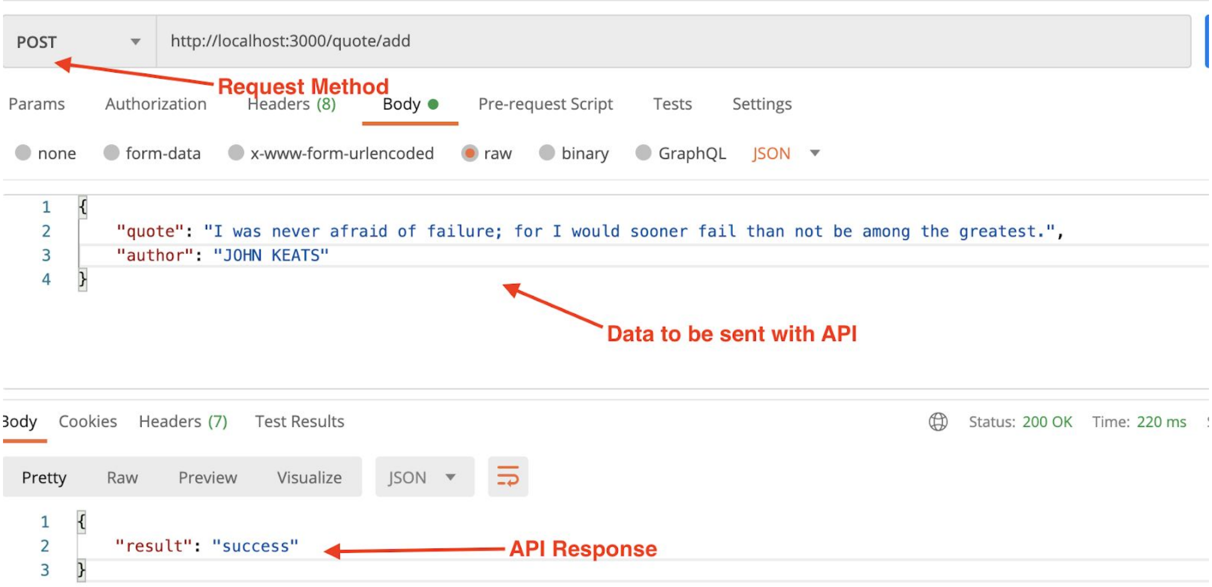
How to make connection to mongodb database using express.js

Problem 2:

Build a quotes generation API

Steps:

1. Create a connection with local or remote Mongo database
2. Build a model in express.js for quotes details
   The model should have following parameters of type *string*:-
   quote, author
3. Next build a API route as shown below and write logic to add a quote sent from API below into MongoDB database



POST http://localhost:3000/quote/add

Request Method

```
{
    "quote": "I was never afraid of failure; for I would sooner fail than not be among the greatest.",
    "author": "JOHN KEATS"
}
```

Data to be sent with API

Status: 200 OK Time: 220 ms

```
{
    "result": "success"
}
```

API Response

Request URL:- http://localhost:3000/quote/add

Request Method:- POST

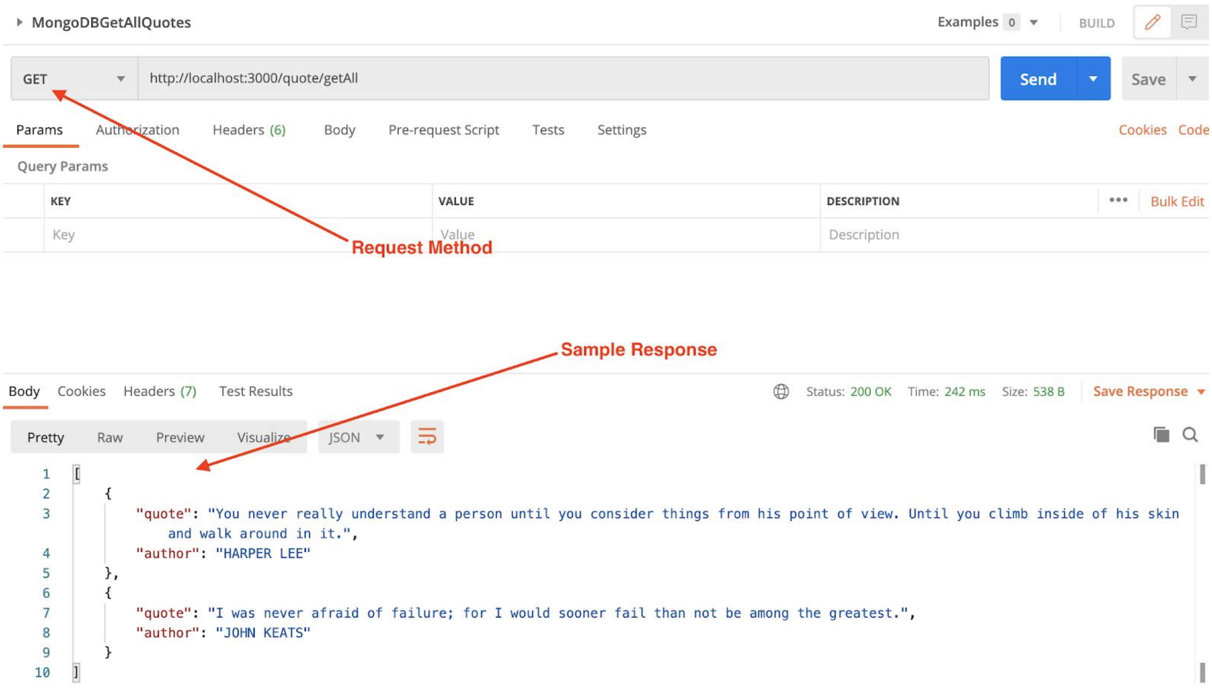
Request JSON:-

```
{
   "quote": "I was never afraid of failure; for I would sooner fail than not be among the greatest.",
   "author": "JOHN KEATS"
}
```

Response:-

```
{
   "result": "success"
}
```

4. Once quote details are saved to database, build another API which can be used to get all the saved quotes as shown below:-

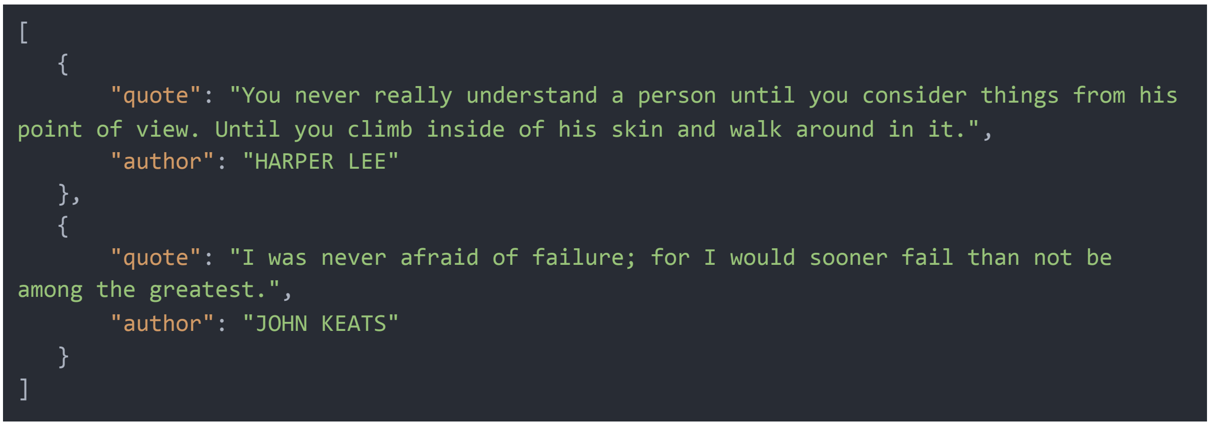


```
[
    {
        "quote": "You never really understand a person until you consider things from his point of view. Until you climb inside of his skin
            and walk around in it.",
        "author": "HARPER LEE"
    },
    {
        "quote": "I was never afraid of failure; for I would sooner fail than not be among the greatest.",
        "author": "JOHN KEATS"
    }
]
```

Request URL:- http://localhost:3000/quote/getAll

Request Method:- GET

Sample Response JSON:-



```
[
   {
       "quote": "You never really understand a person until you consider things from his
point of view. Until you climb inside of his skin and walk around in it.",
       "author": "HARPER LEE"
   },
   {
       "quote": "I was never afraid of failure; for I would sooner fail than not be
among the greatest.",
       "author": "JOHN KEATS"
   }
]
```

Learnings

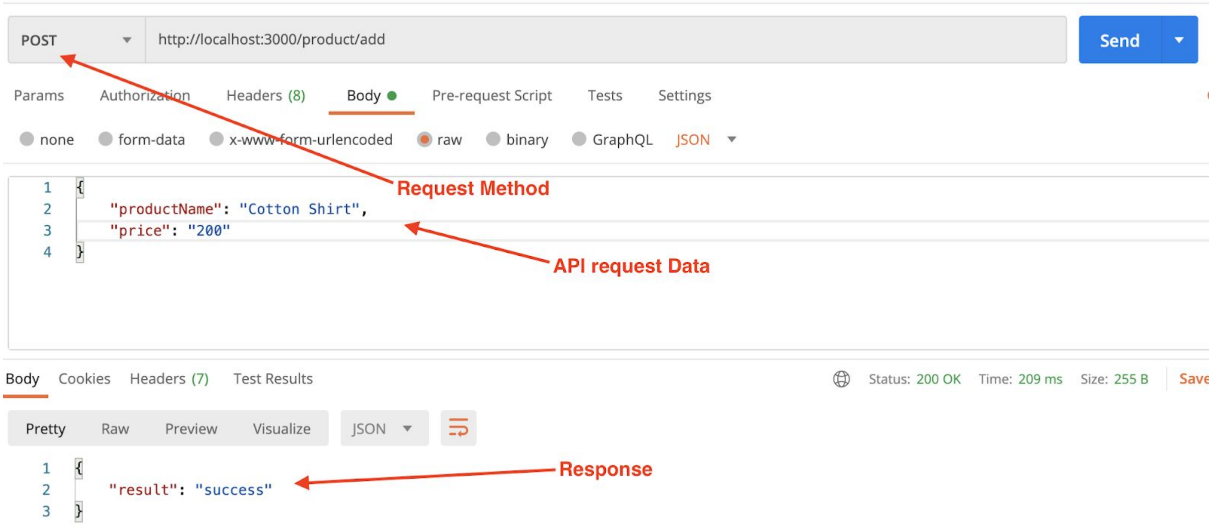
How to create APIs with database connection in express.js

Problem 3:

Build a product details API

Steps:

1. Create a connection with local or remote Mongo database
2. Build a model in express.js for quotes details
   The model should have following parameters of type *string*:-
   productName, price
3. Next build a route shown below and write logic to add a product detail sent from API into MongoDB database



POST http://localhost:3000/product/add

```
{
    "productName": "Cotton Shirt",
    "price": "200"
}
```

Request Method

API request Data

```
{
    "result": "success"
}
```

Response

Request URL:- http://localhost:3000/product/add

Request Method:- POST

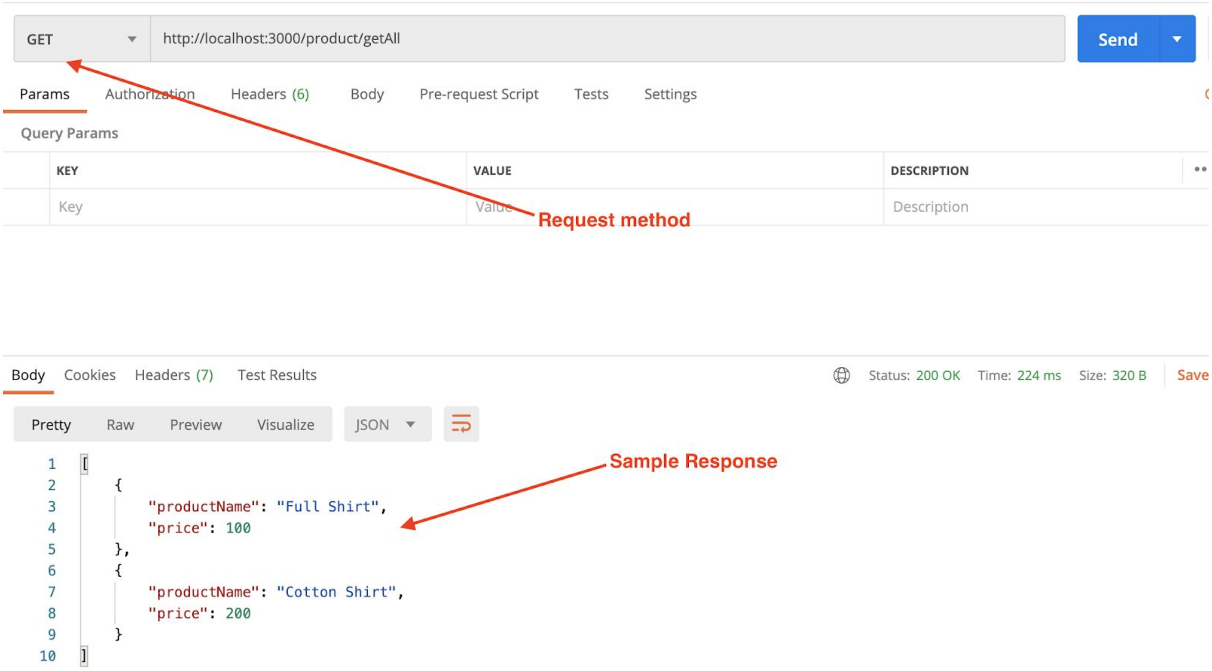
Request JSON:-

```
{
   "productName": "Cotton Shirt",
   "price": "200"
}
```

Response:-

```
{
   "result": "success"
}
```

5. Once product details are saved to database, build another API which can be used to get all the saved products as shown below:-



http://localhost:3000/product/getAll

```
[
    {
        "productName": "Full Shirt",
        "price": 100
    },
    {
        "productName": "Cotton Shirt",
        "price": 200
    }
]
```

Request URL:- http://localhost:3000/product/getAll

Request Method:- GET

Sample Response JSON:-

```
[
   {
       "productName": "Full Shirt",
       "price": 100
   },
   {
       "productName": "Cotton Shirt",
       "price": 200
   }
]
```

Learnings

How to create APIs with database connection in express.js