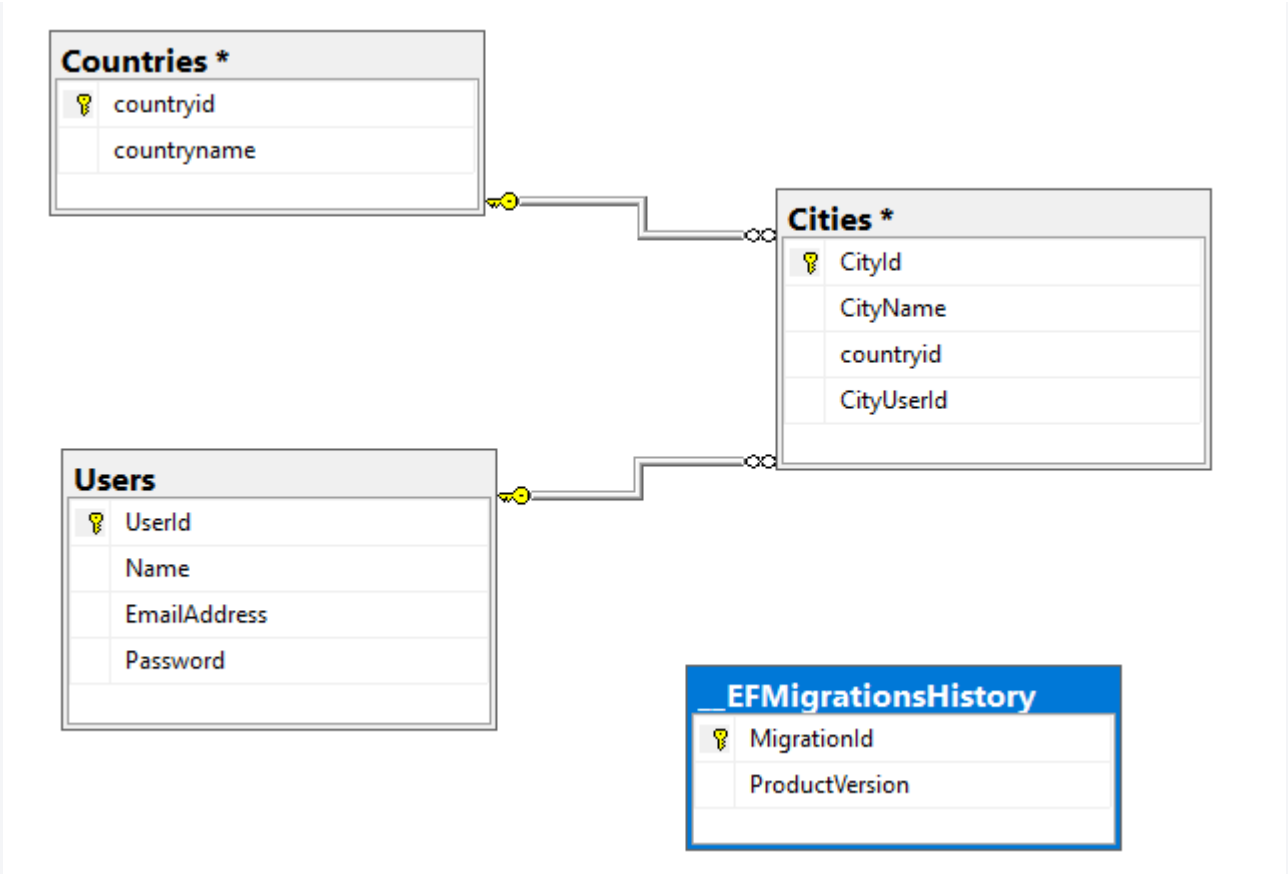
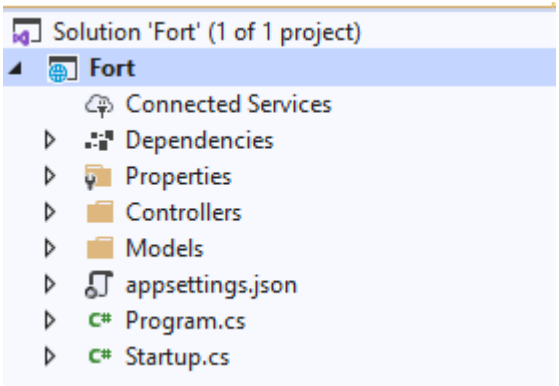
Exercise-1 EXPLANATIONS

Data Base: FortCode

Created 3 tables – **Users, Countries, Cities**



Solution: Created new empty ap.net core API Project – **Fort**



1. Added below **nuGet** packages.

   - ✓ Microsoft.EntityFrameworkCore.SqlServer
   - ✓ Microsoft.EntityFrameworkCore.Tools
   - ✓ Microsoft.EntityFrameworkCore.Design

- ✓ Microsoft.AspNetCore.Identity
- ✓ Microsoft.AspNetCore..Authentication.JwtBearer
- ✓ Microsoft.AspNetCore.Mvc.NewtonsoftJson

2. Using Scaffold-DbContext command(E.F) Added DbContext class and models.
3. Added DB connection string in **appsettings.json** file

```
"AllowedHosts": "*",
"ConnectionStrings": {
  "FortDB": "Server=VALI-PC\\SQLEXPRESS;Database=FortCode;UID=sa;PWD=123;"
},
```

4. "Controllers" folder created 2 new controllers and "Model " folder 2 interface classes and 2 classes.

1. UserController
2. CityController

1. IAuthRepository
2. ICityRepository

3. AuthRepository
4. CityRepository

==========**********==========

UserController:

```
[Route("api/[controller]")]
1.  [HttpPost("Register")]
2.  [HttpPost("Login")]
```

Register: **1)** Required fields and format validation
2) Checking User Email address exists or not
2) Security purpose password will be encrypting.
Ex: Test@12345 ---> VGVzdEAxMjM0

Login: **1)** Required fields and format validation
2) Checking User Id(Email address) exists or not
3) Password validation (Encrypt)
Ex: Test@12345 ---> VGVzdEAxMjM0==DB Password
4) Create **JwtSecurityToken** for **Authorize** user. That will be expire one day.

Note: For API testing we used "**POSTMAN**" **App.**

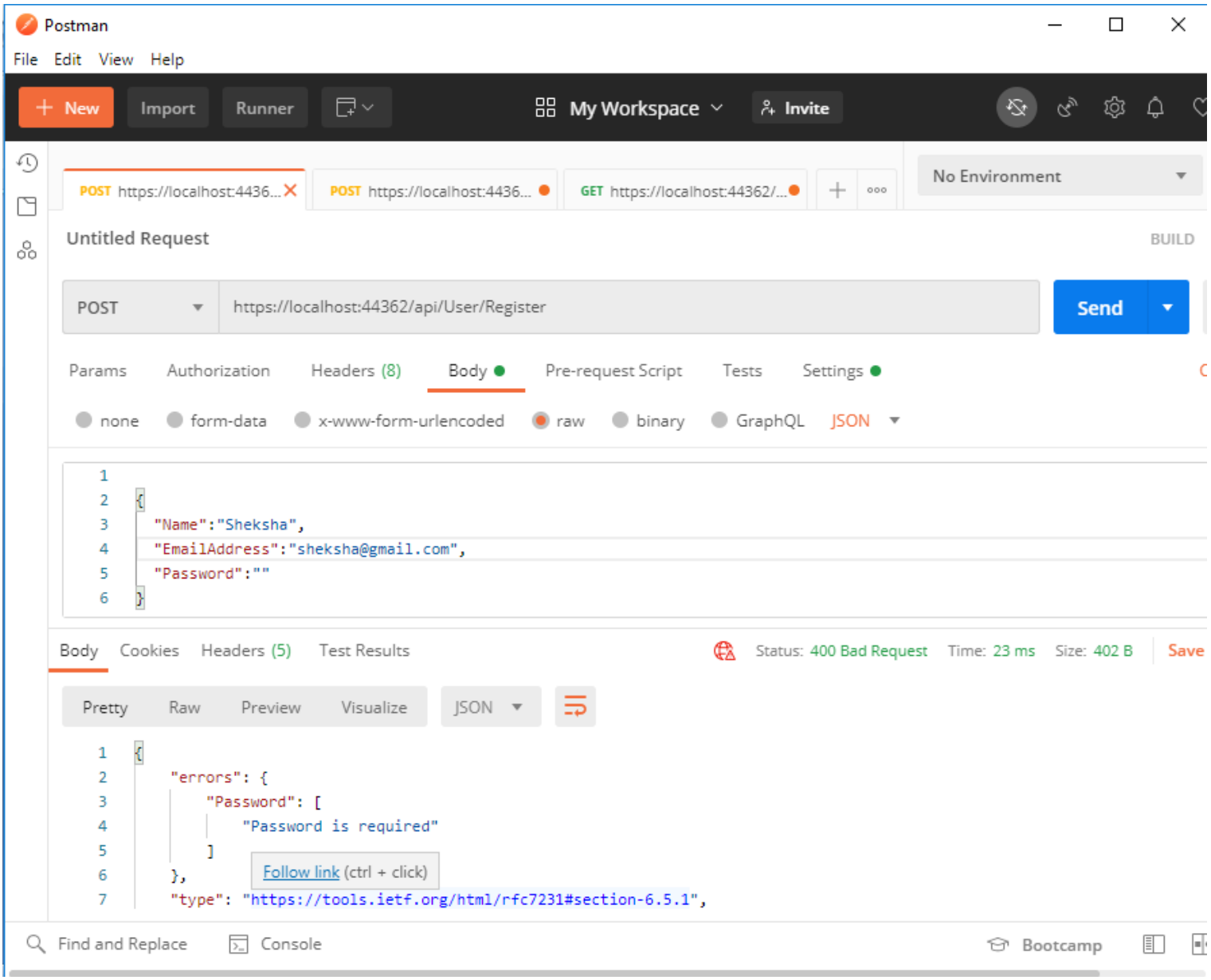
Testing: POSTMAN

1. Register

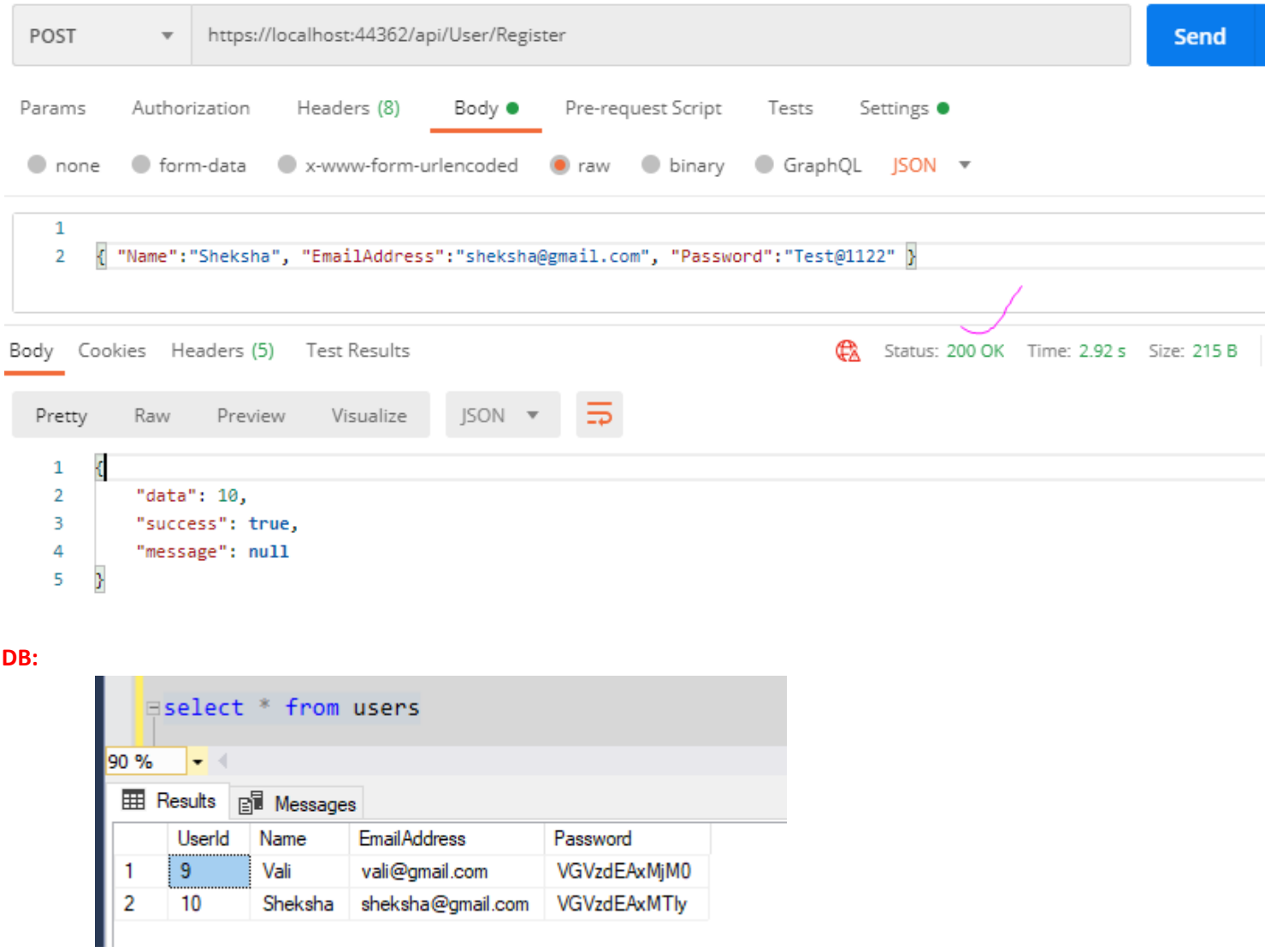
Post: https://localhost:44362/api/User/Register

Body: { "Name":"Sheksha", "EmailAddress":"sheksha@gmail.com", "Password":""}

- Password=null



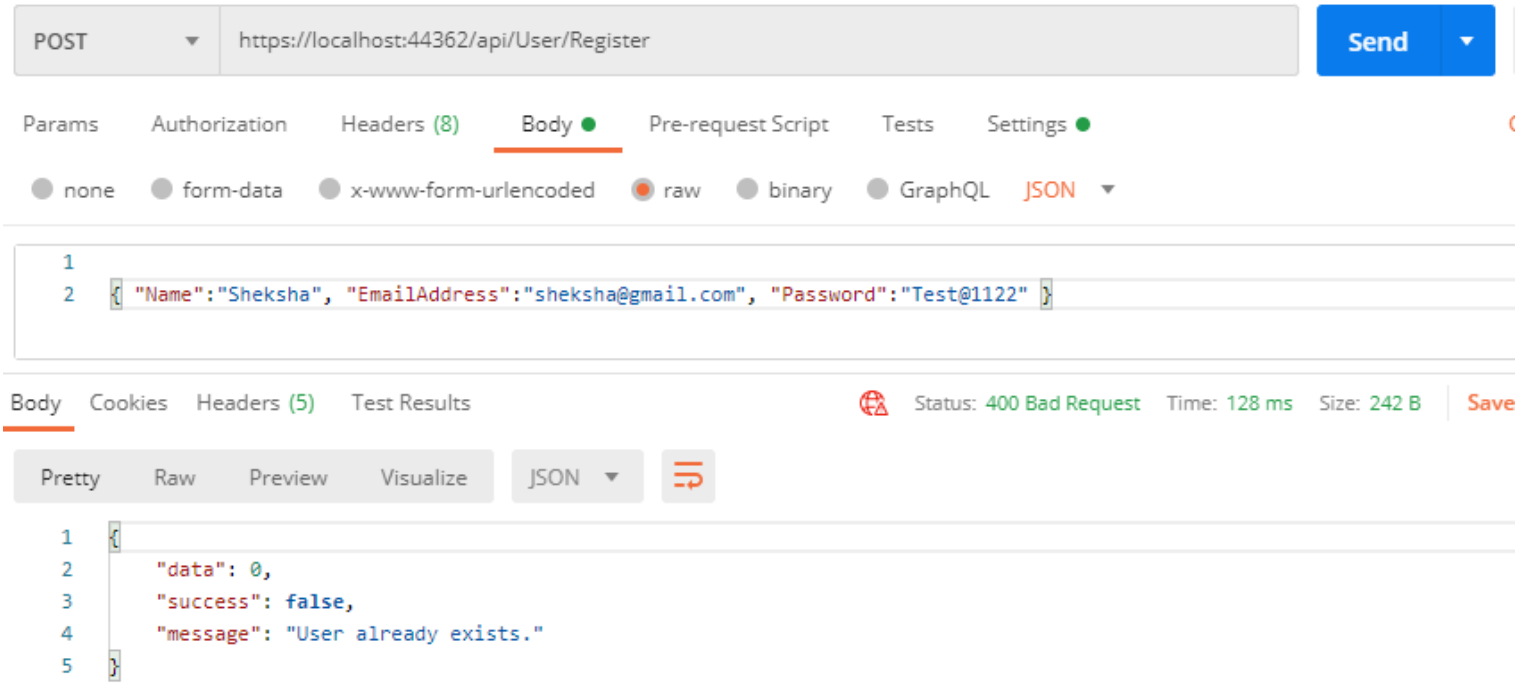
Body: {"Name":"Sheksha", "EmailAddress":"sheksha@gmail.com", "Password":"Test@1122"}



DB:

Body: { "Name":"Sheksha", "EmailAddress":"sheksha@gmail.com", "Password":"Test@1122"}

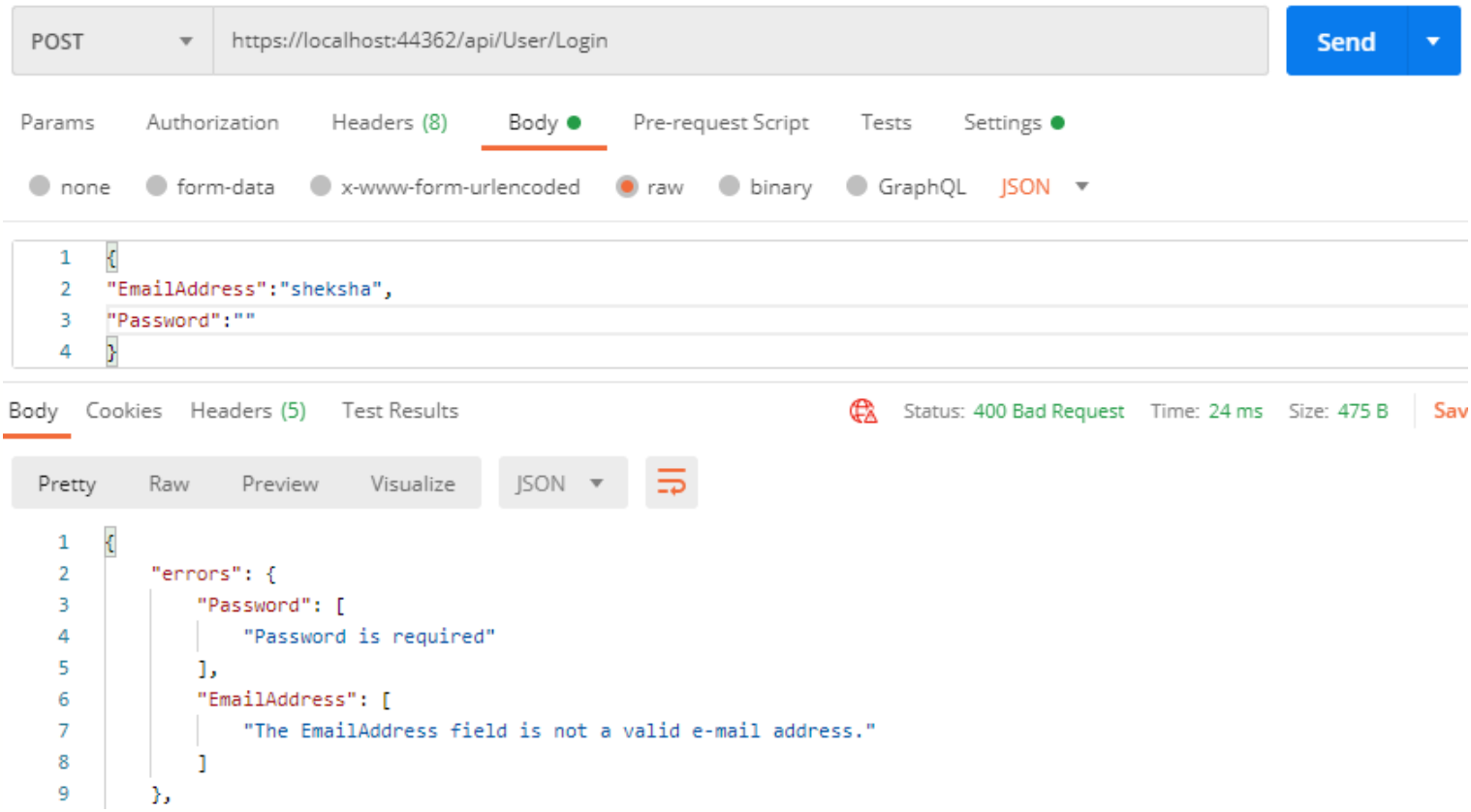
- EmailAddress =Already register email address



2. Login

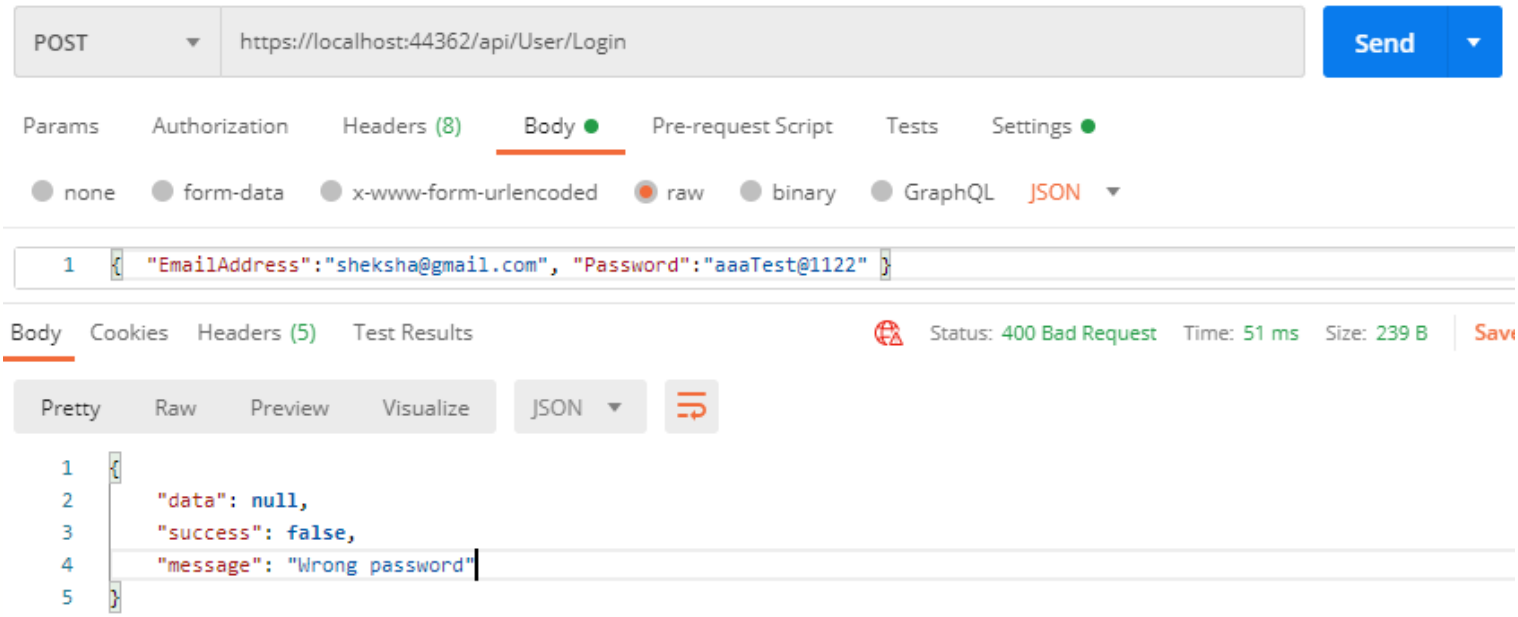
Post: https://localhost:44362/api/User/Login
Body: { "EmailAddress":"sheksha","Password":"" }

- EmailAddress =Invalid email format
- Passwords=null



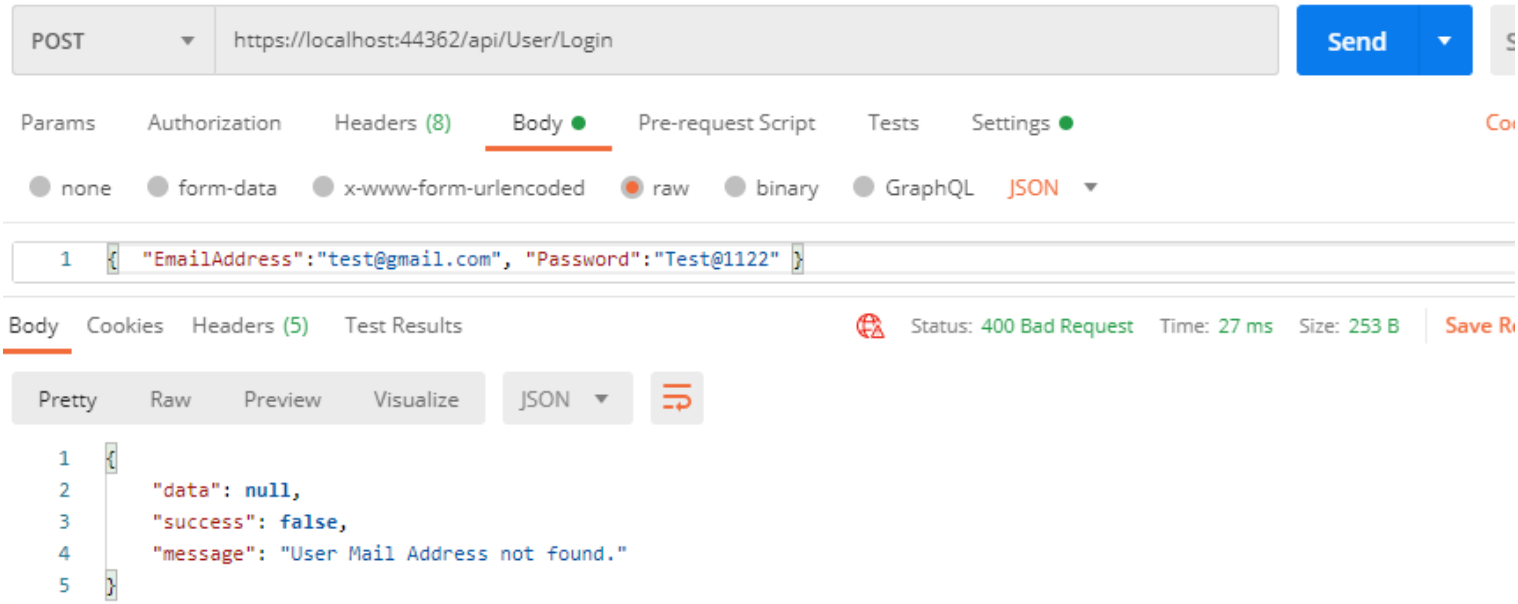
Body: { "EmailAddress":"sheksha@gmail.com", "Password":"aaaTest@1122" }

- Password is wrong



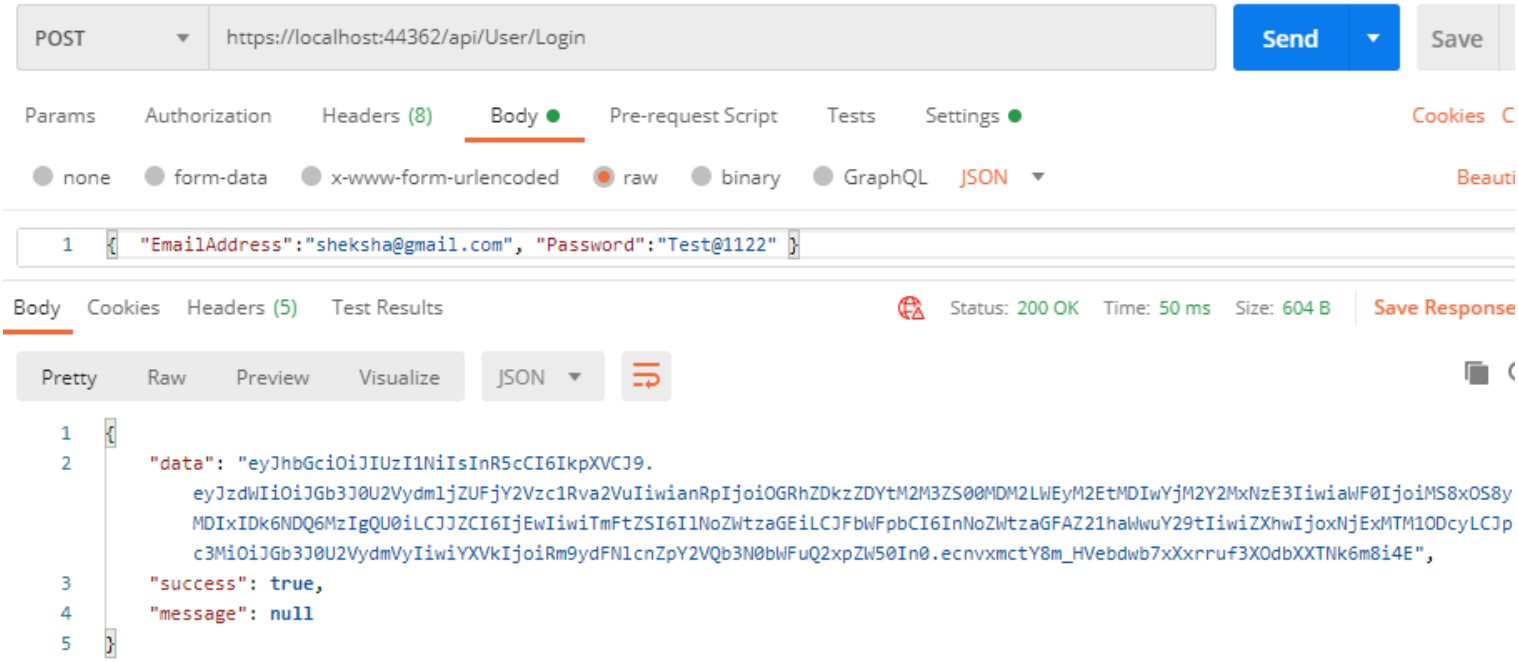
Body: { "EmailAddress":"test@gmail.com", "Password":"aaaTest@1122" }

- User Id not there



Body: { "EmailAddress":"sheksha@gmail.com", "Password":"Test@1122" }

- Valid Credientials then generate Authorize key (Using JWT).



========== End – **UserController** ==========

CityController:

```
[Route("api/[controller]")]


[Authorize]
1.  [HttpPost("AddCountry")]
2.  [HttpGet("GetCityList")]
3.  [HttpGet("GetCity")]
4.  [HttpPost("AddCity")]
5.  [HttpPost("UpdateCity")]
6.  [HttpPost("DeleteCity")]
```

Note: In this controller we added [Authorize]. That's why we have to pass Key and Value in header. Without add key value json request will show 401-Unauthorized error.

Header:

Key: Authorization

Value: Bearer + JWT Key

ex: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiJGb3J0U2VydmljZUFjY2Vzc1Rva2VuIiwianRpIjoiZDYyYTJmNmUtOTZkZS00MGMxLWFhNmQtNGUwZTAzOTBkMjgwIiwiaWF0IjoiMS8xOS8yMDIxIDEwOjI4OjA2IEFNIiwiSWQiOiIxMCIsIk5hbWUiOiJTaGVrc2hhIiwiRW1haWwiOiJzaGVrc2hhQGdtYWlsLmNvbSIsImV4cCI6MTYxMTEzODQ4NiwiaXNzIjoiRm9ydFNlcnZlciIsImF1ZCI6IkZvcnRTZXJ2aWNlUG9zdG1hbkNsaWVudCJ9.RtyZGHCMjFztBmXJeF5Q73g7AVDLn6XHA6nJdmxcWIs

AddCountry: **1) Verify** JSON Web Token ID
2) Required fields validation
3) Checking Country exists or not

AddCity: **1) Verify** JSON Web Token ID
2) Required fields validation
3) Checking User Favorite City exists or not

GetCity: **1) Verify** JSON Web Token ID
2) City Id Validation
3). Check CityUserId == LoginUseeID

GetCityList: **1) Verify** JSON Web Token ID
2) Check CityUserId == LoginUseeID

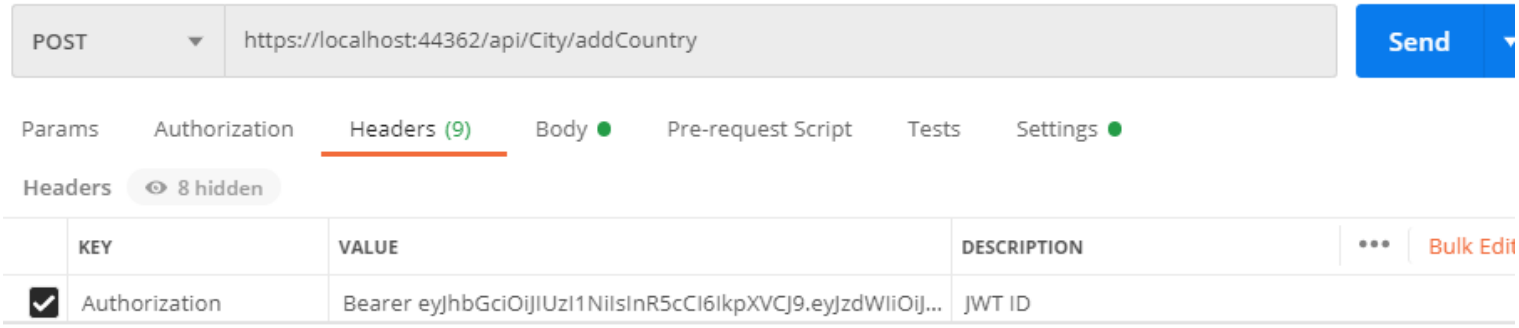
UpdateCity: **1) Verify** JSON Web Token ID
2) Required fields validation
3) Check City exist or not and CityUserId == LoginUseeID
4) Show response City Updated or not

DeleteCity: **1) Verify** JSON Web Token ID
2) City Id Validation
3) Check CityUserId == LoginUseeID
4) Show response City Deleted or not

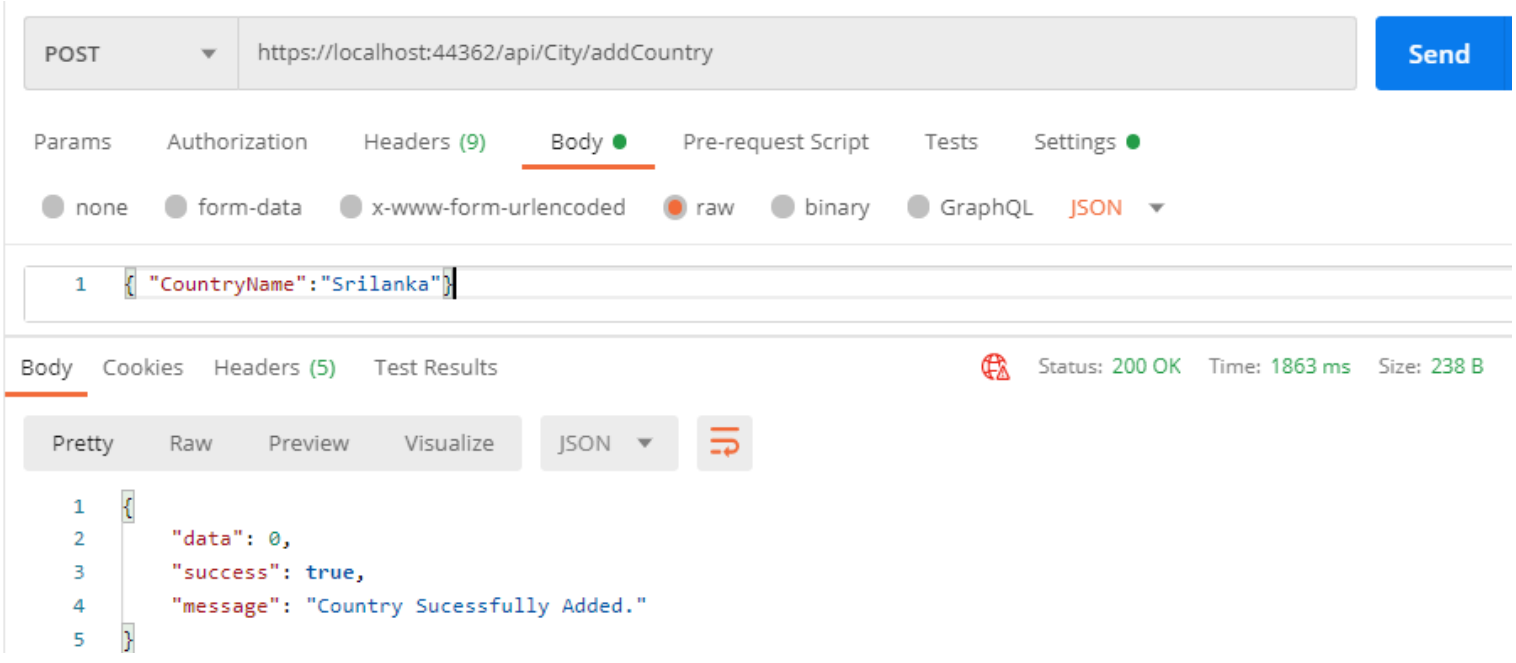
1. Add Country

Post: https://localhost:44362/api/City/addCountry

JSON Header: Adding JWT key, value (In this controller we have to add JWT id to all API requests)

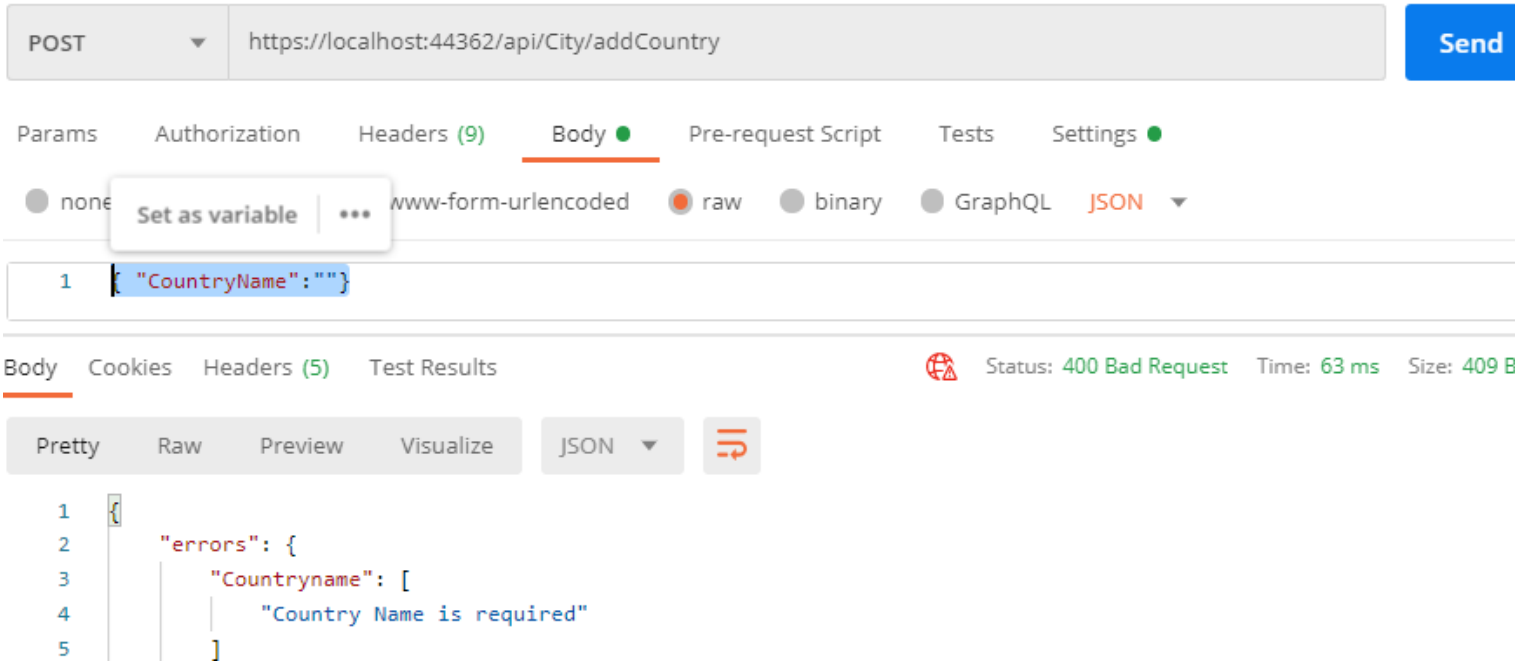


Body: { "CountryName":"Srilanka"}



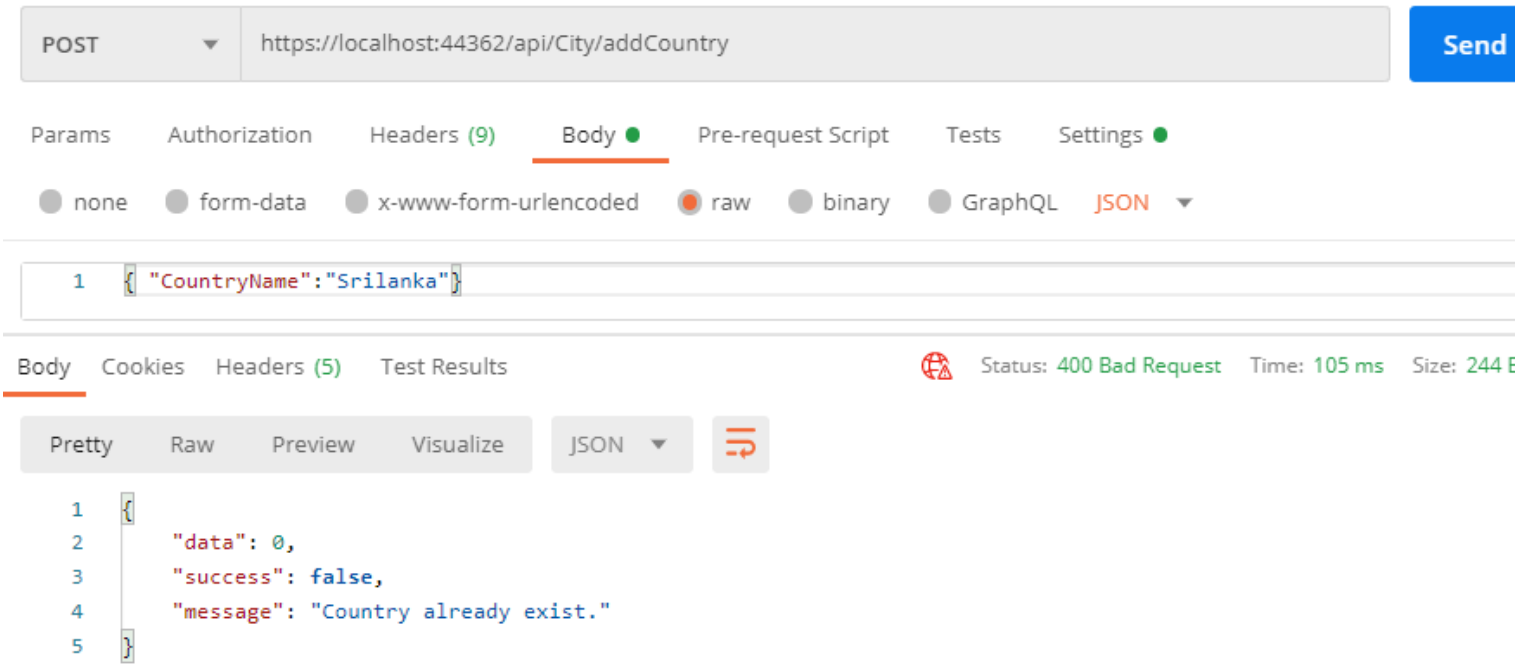
Body: { "CountryName":""}

- CountryName =null



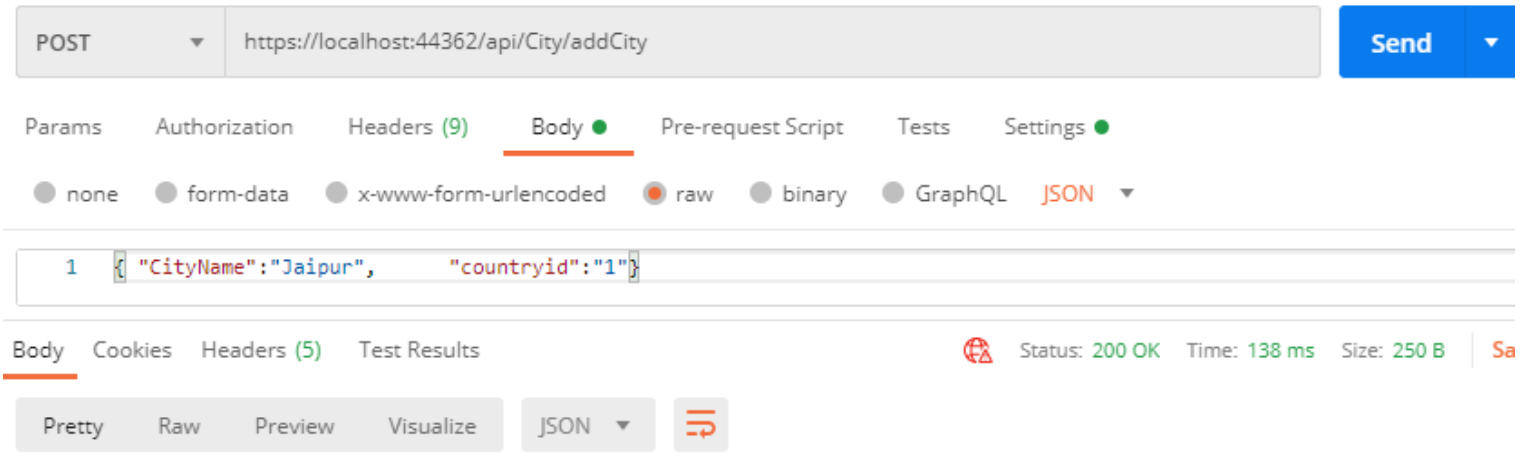
Body: { "CountryName":" Srilanka "}

- CountryName =Already exists

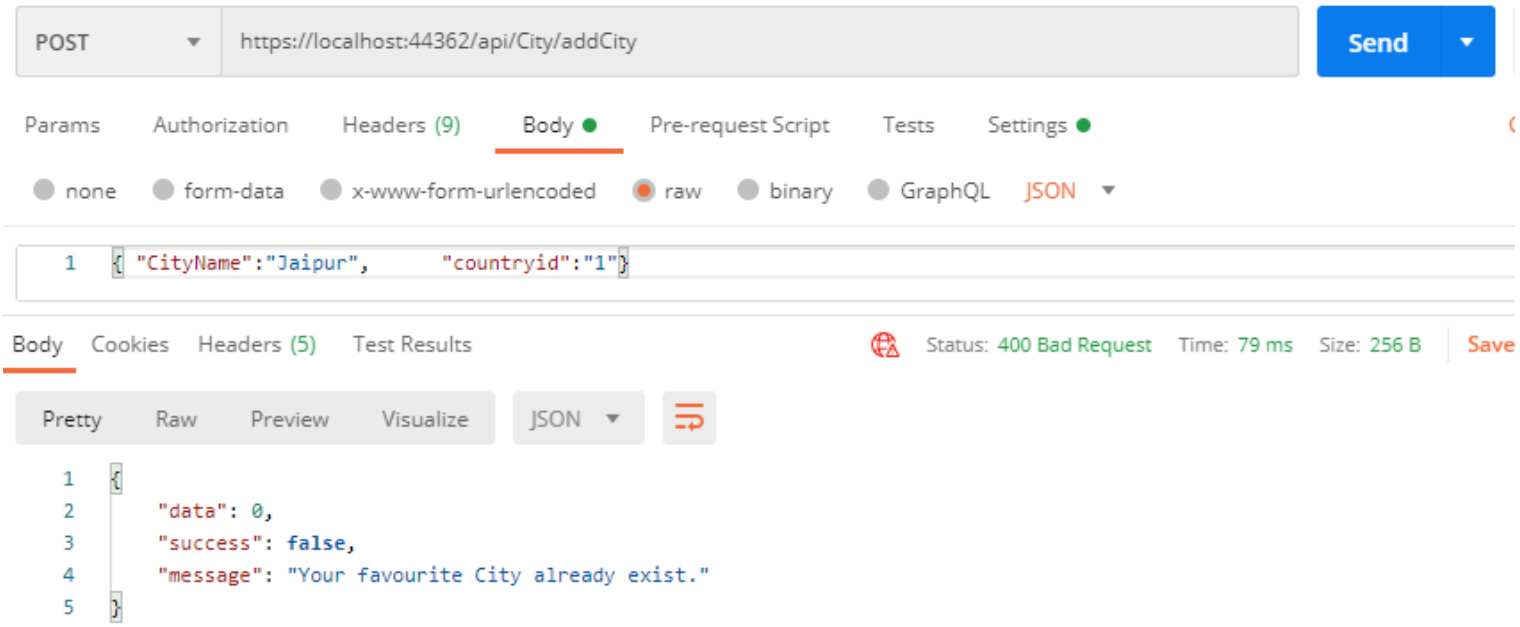


2. AddCity

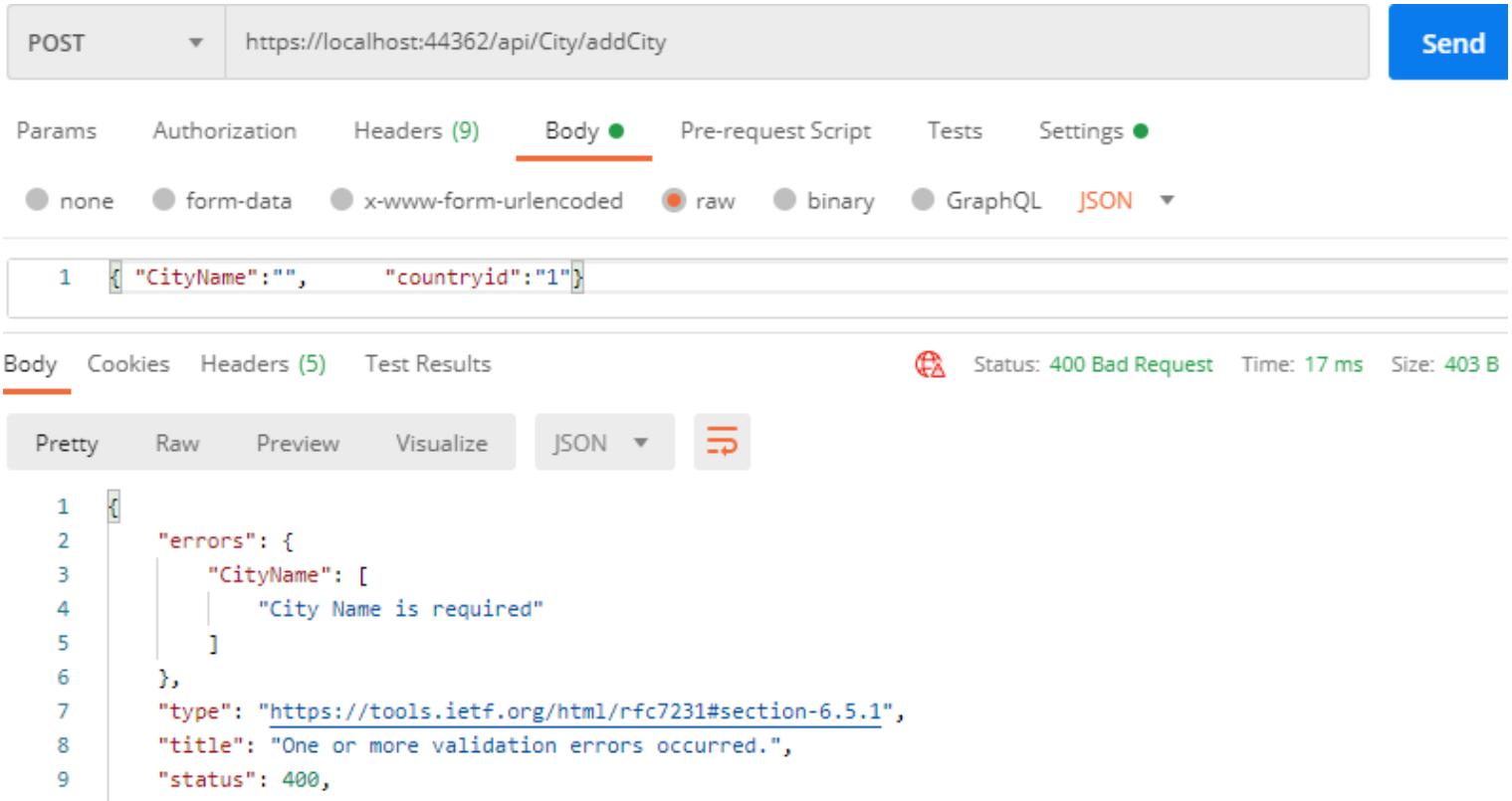
Post: https://localhost:44362/api/City/addCity
Header: // Same as above
Body: { "CityName":"Jaipur", "countryid":"1"}



Body: { "CityName":"Jaipur", "countryid":"1"}

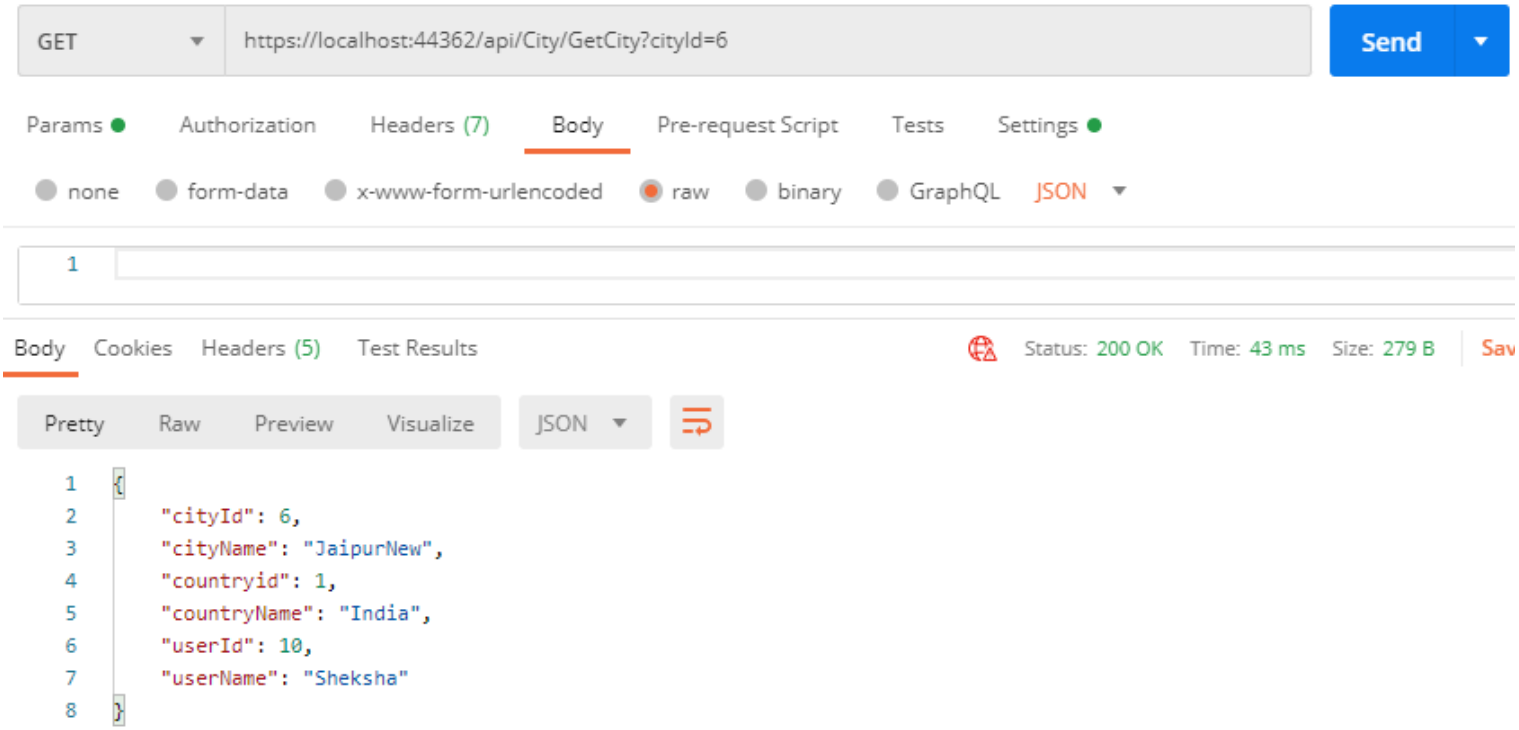


Body: { "CityName":"", "countryid":"1"}



3. GetCity

Get: https://localhost:44362/api/City/GetCity?cityId=6
Header: // Same as above



DB:

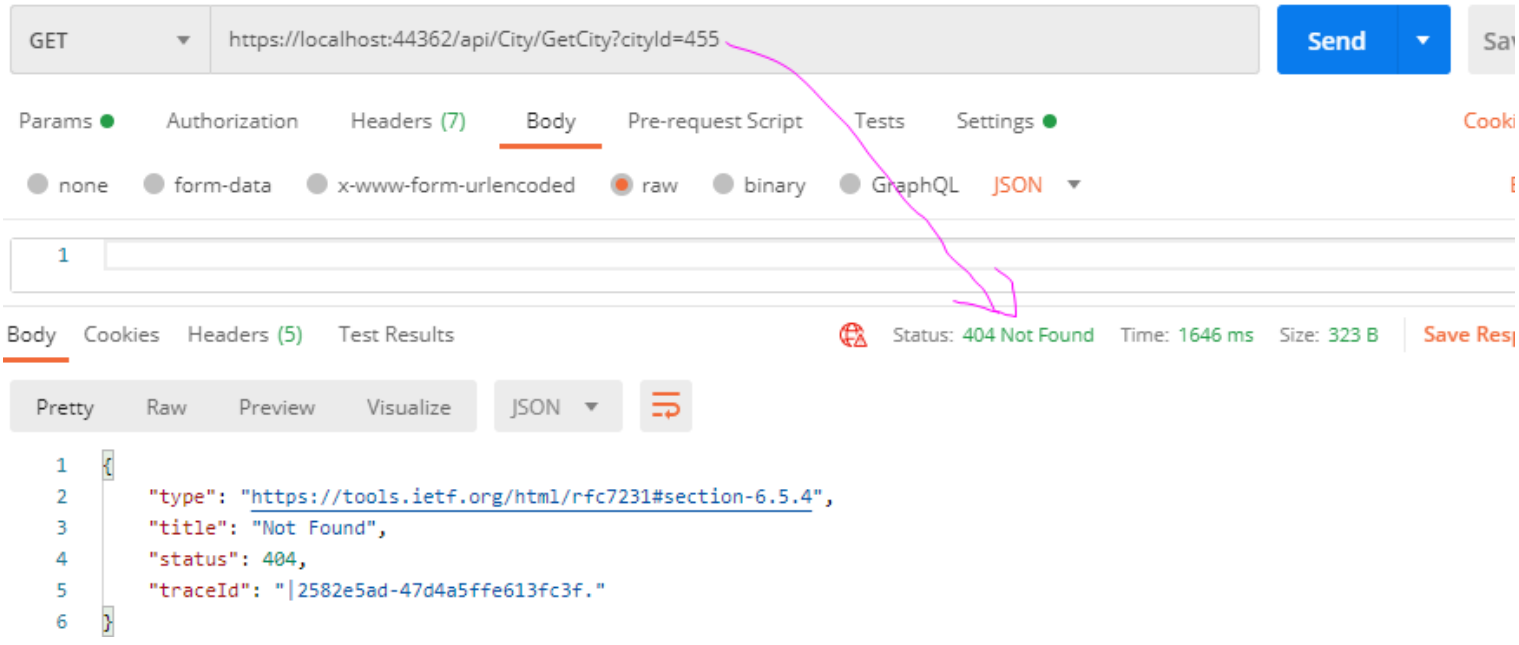
```
select * from Cities where CityUserId=10
```

Results | Messages

	CityId	CityName	countryid	CityUserId
1	6	Jaipur	1	10
2	7	Pune	1	10

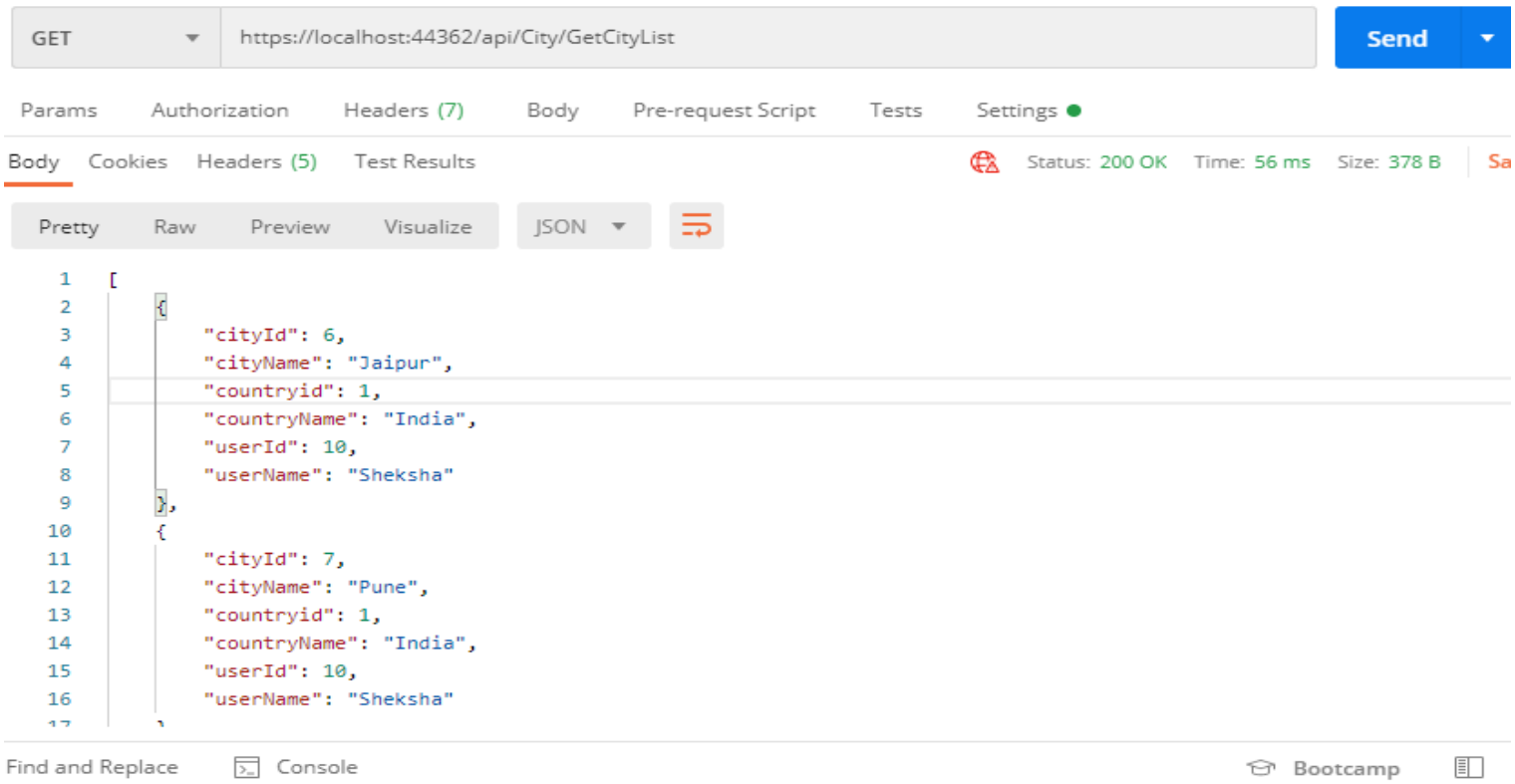
Get: https://localhost:44362/api/City/GetCity?cityId=455

- User Favorite city not there



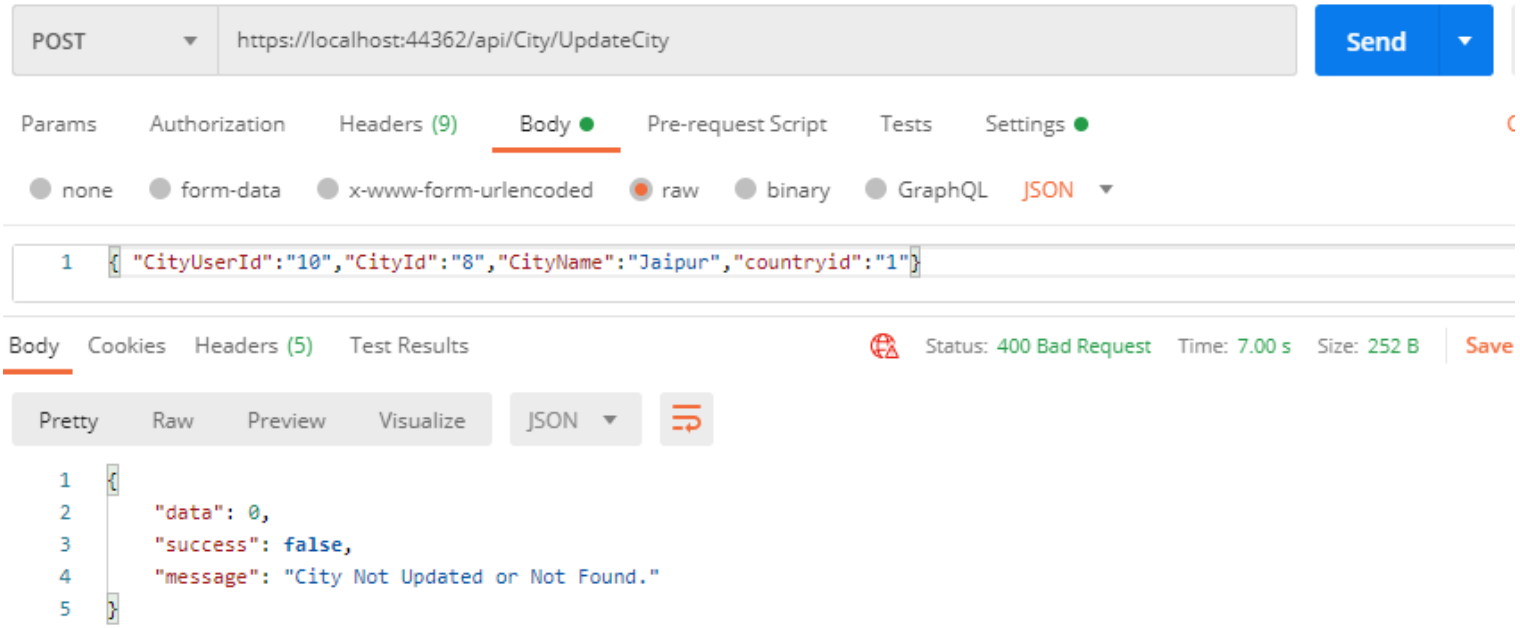
4. GetCityList

Get: https://localhost:44362/api/City/GetCityList

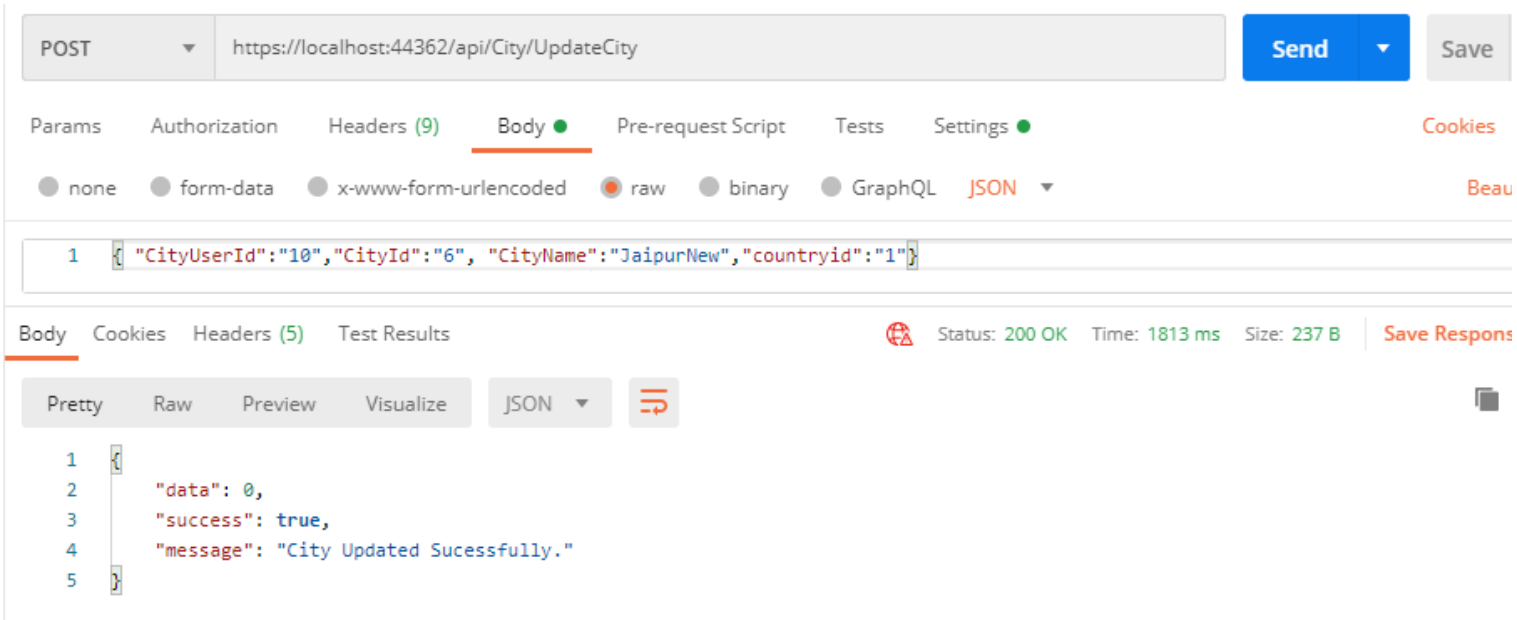


5. UpdateCity

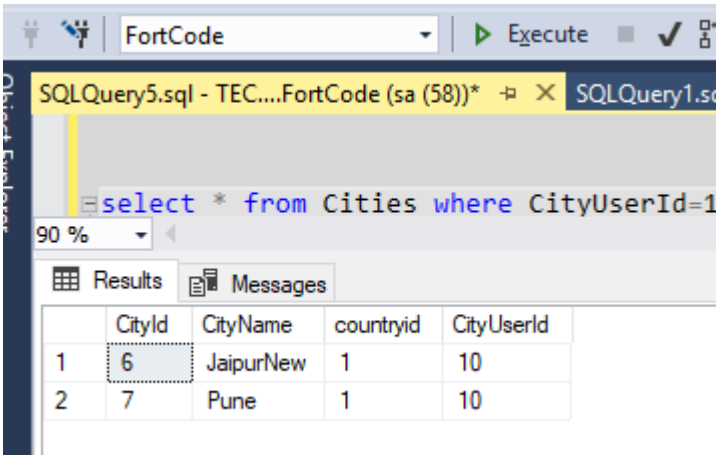
Post: https://localhost:44362/api/city/UpdateCity
Header: // Same as above
Body: { "CityUserId":"10","CityId":"8","CityName":"Jaipur","countryid":"1"}



Body { "CityUserId":"10","CityId":"6", "CityName":"JaipurNew","countryid":"1"}

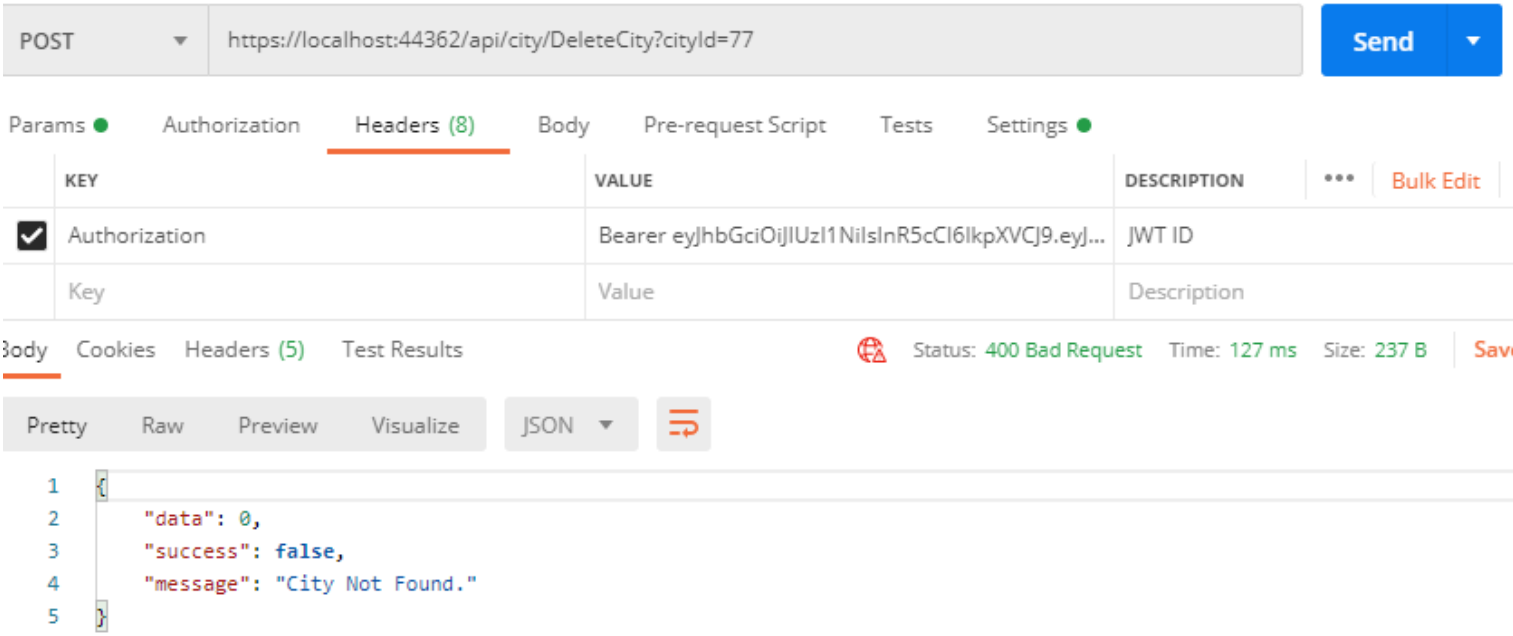


DB:

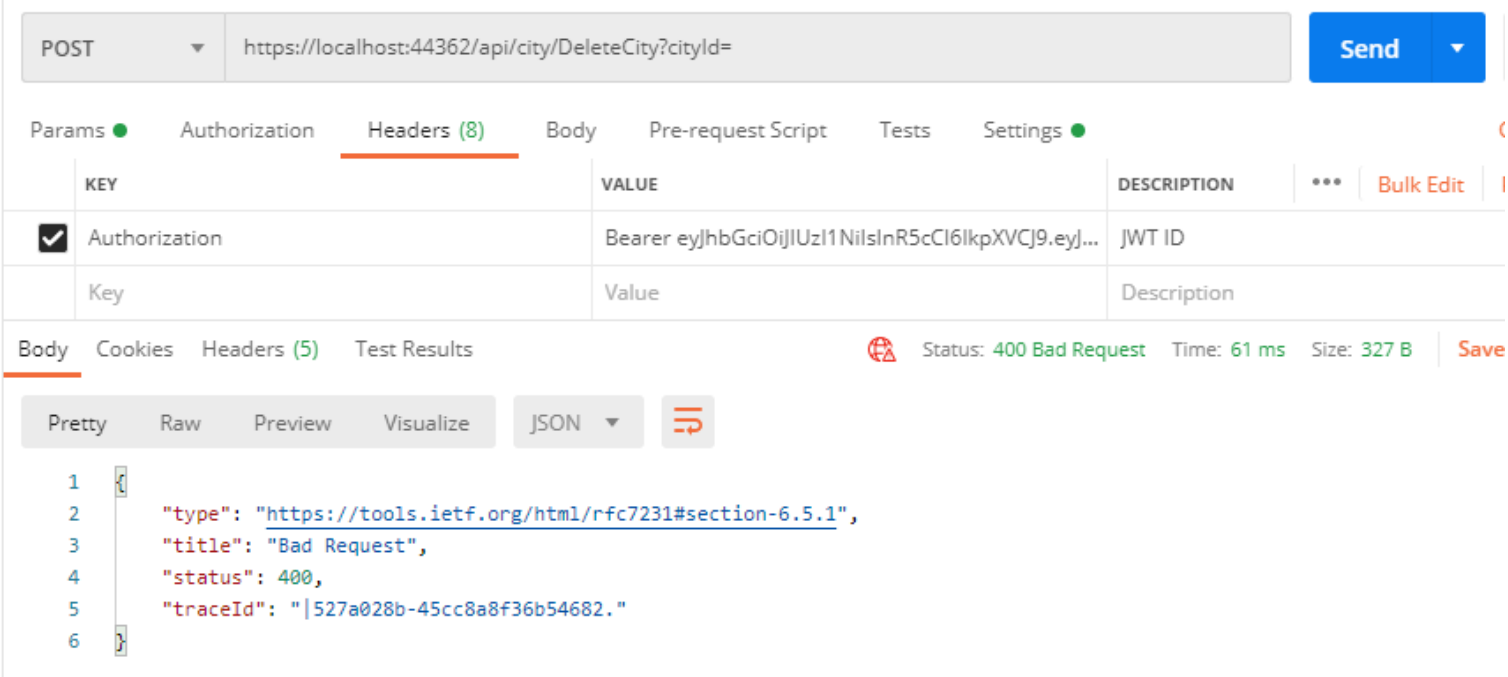


6. DeleteCity

Post: https://localhost:44362/api/city/DeleteCity?cityId=77
Header: // Same as above



Post: https://localhost:44362/api/city/DeleteCity?cityId=



DB:

```
select * from Cities where CityUserId=10
```

90 %

Results | Messages

	CityId	CityName	countryid	CityUserId
1	6	JaipurNew	1	10
2	7	Pune	1	10

Post: https://localhost:44362/api/city/DeleteCity?cityId=7

POST | https://localhost:44362/api/city/DeleteCity?cityId=7 | Send

Params | Authorization | Headers (8) | Body | Pre-request Script | Tests | Settings

KEY	VALUE	DESCRIPTION	Bulk Edit
Authorization	Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ...	JWT ID	
Key	Value	Description	

Body | Cookies | Headers (5) | Test Results | Status: 200 OK | Time: 115 ms | Size: 237 B | Sav

Pretty | Raw | Preview | Visualize | JSON

```
{
    "data": 0,
    "success": true,
    "message": "City Deleted Sucessfully."
}
```

DB:

```
select * from Cities where CityUserId=10
```

Results | Messages

	CityId	CityName	countryid	CityUserId
1	6	JaipurNew	1	10

========== End – **CityController** ==========