

**General**

- Skillset: Java
- Data will be stored in local file. Detail information will be explained below
- Local file format ([Click her to download sample](#))
- Need to refer data from online API as well as local file
- 7 API are explained below

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## 1. Get list of customers in JSON format

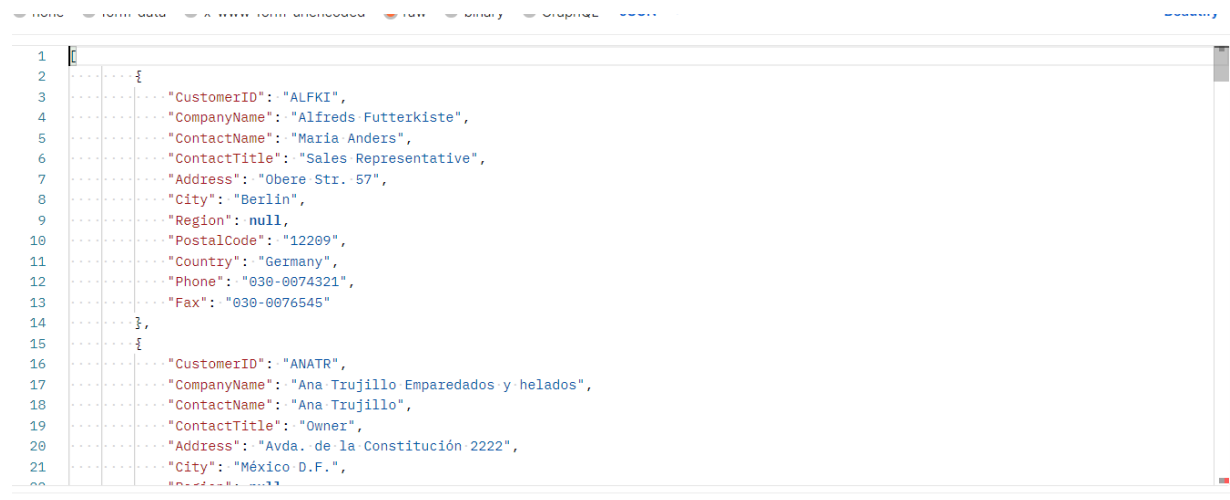
**URL** : localhost/MyApp/Customers/json

**HTTP Method** : GET

**Logic** :

1. Get the list from online [https://services.odata.org/V2/Northwind/Northwind.svc/Customers?\\$format=json](https://services.odata.org/V2/Northwind/Northwind.svc/Customers?$format=json)
2. Get the list from local file
3. Combine both content
4. Return data in JSON

**Response**:



```
1 [
2   {
3     "CustomerID": "ALFKI",
4     "CompanyName": "Alfreds Futterkiste",
5     "ContactName": "Maria Anders",
6     "ContactTitle": "Sales Representative",
7     "Address": "Obere Str. 57",
8     "City": "Berlin",
9     "Region": null,
10    "PostalCode": "12209",
11    "Country": "Germany",
12    "Phone": "030-0074321",
13    "Fax": "030-0076545"
14  },
15  {
16    "CustomerID": "ANATR",
17    "CompanyName": "Ana Trujillo Emparedados y helados",
18    "ContactName": "Ana Trujillo",
19    "ContactTitle": "Owner",
20    "Address": "Avda. de la Constitución 2222",
21    "City": "M\u00e9xico D.F.",
22    "PostalCode": "06100",
23    "Country": "Mexico",
24    "Phone": "(52) 55 54 93 12",
25    "Fax": "(52) 55 54 97 33"
26  }
27 ]
```

## 2. Download list of customers in Excel format

**URL :** localhost/MyApp/Customers/excel

**HTTP Method :** GET

**Logic :**

1. Get the list from online [https://services.odata.org/V2/Northwind/Northwind.svc/Customers?\\$format=json](https://services.odata.org/V2/Northwind/Northwind.svc/Customers?$format=json)
2. Get the list from local file
3. Combine both content
4. Download Excel

**Response:**

CustomerID	CompanyName	ContactName	ContactTitle	Address	City	Region	PostalCode	Country	Phone	Fax
ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57	Berlin		12209	Germany	030-0074321	030-0076545
ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 2222	México D.F.		05021	Mexico	(5) 555-4729	(5) 555-3745
ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 2312	México D.F.		05023	Mexico	(5) 555-3932	
AROUT	Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Sq.	London		WA1 1DP	UK	(171) 555-7788	(171) 555-6750
BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsvägen 8	Luleå		S-958 22	Sweden	0921-12 34 65	0921-12 34 67
BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forsterstr. 57	Mannheim		68306	Germany	0621-08460	0621-08924
BLONP	Blondesddsl père et fils	Frédérique Citeaux	Marketing Manager	24, place Kléber	Strasbourg		67000	France	88.60.15.31	88.60.15.32
BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	C/ Araquil, 67	Madrid		28023	Spain	(91) 555 22 82	(91) 555 91 99
BONAP	Bon app'	Laurence Lebihan	Owner	12, rue des Bouchers	Marseille		13008	France	91.24.45.40	91.24.45.41
BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729	(604) 555-3745
BSBEV	B's Beverages	Victoria Ashworth	Sales Representative	Fauntleroy Circus	London		EC2 5NT	UK	(171) 555-1212	
CACTU	Cactus Comidas para llevar	Patricio Simpson	Sales Agent	Cerrito 333	Buenos Aires		1010	Argentina	(1) 135-5555	(1) 135-4892
CENTC	Centro comercial Moctezuma	Francisco Chang	Marketing Manager	Sierras de Granada 9993	México D.F.		05022	Mexico	(5) 555-3392	(5) 555-7293
CHOPS	Chop-suey Chinese	Yang Wang	Owner	Hauptstr. 29	Bern		3012	Switzerland	0452-076545	
COMMI	Comércio Mineiro	Pedro Afonso	Sales Associate	Av. dos Lusíadas, 23	Sao Paulo	SP	05432-043	Brazil	(11) 555-7647	
CONSH	Consolidated Holdings	Elizabeth Brown	Sales Representative	Berkeley Gardens 12 Brewery	London		WX1 6LT	UK	(171) 555-2282	(171) 555-9199
DRACD	Drachenblut Delikatessen	Sven Ottlieb	Order Administrator	Walsenweg 21	Aachen		52066	Germany	0241-039123	0241-059428
DUMON	Du monde entier	Janine Labruno	Owner	67, rue des Cinquante Otages	Nantes		44000	France	40.67.88.88	40.67.89.89
EASTC	Eastern Connection	Ann Devon	Sales Agent	35 King George	London		WX3 6FW	UK	(171) 555-0297	(171) 555-3373

### 3. Read customer

**URL** : localhost/MyApp/Customers('CustomerID')

**HTTP Method** : GET

**Logic** :

1. Search online [https://services.odata.org/V2/Northwind/Northwind.svc/Customers\('CustomerID'\)?\\$format=json](https://services.odata.org/V2/Northwind/Northwind.svc/Customers('CustomerID')?$format=json)
2. If not found in online then search in local file
3. Return customer detail
4. In case, not found in online as well as local file then raise custom exception "no customer found"

**Response:**

```
1  {
2    "CustomerID": "ALFKI",
3    "CompanyName": "Alfreds Futterkiste",
4    "ContactName": "Maria Anders",
5    "ContactTitle": "Sales Representative",
6    "Address": "Obere Str. 57",
7    "City": "Berlin",
8    "Region": null,
9    "PostalCode": "12209",
10   "Country": "Germany",
11   "Phone": "030-0074321",
12   "Fax": "030-0076545"
13 }
```

## 4. Create multiple customers from JSON

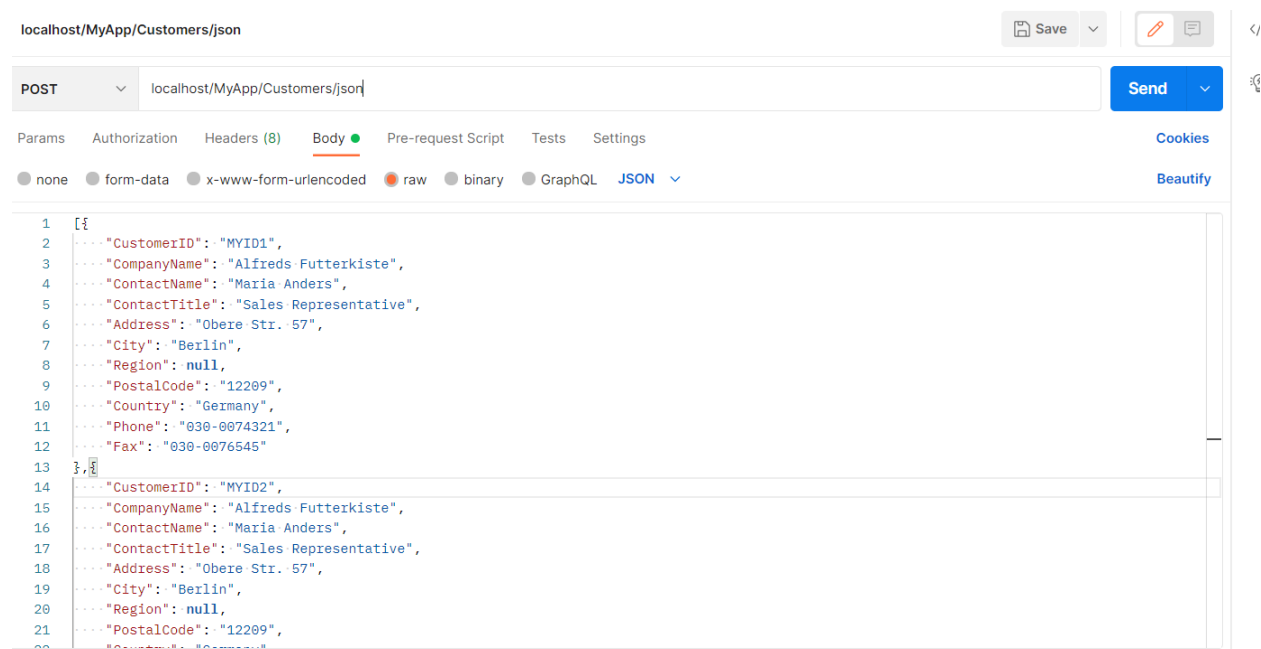
**URL :** localhost/MyApp/Customers/json

**HTTP Method :** POST

**Logic :**

1. Search customers the list from online  
[https://services.odata.org/V2/Northwind/Northwind.svc/Customers?\\$format=json](https://services.odata.org/V2/Northwind/Northwind.svc/Customers?$format=json)
2. Search customers the list from local file
3. Even one customer already exist in online or local file then raise custom exception “customer CustomerID already created”
4. Add new Customer detail in Local file

**Request Body :**



The screenshot shows a REST client interface with the following details:

- URL:** localhost/MyApp/Customers/json
- Method:** POST
- Body Type:** JSON
- Request Body (JSON):**

```

1  [
2  {
3    "CustomerID": "MYID1",
4    "CompanyName": "Alfreds Futterkiste",
5    "ContactName": "Maria Anders",
6    "ContactTitle": "Sales Representative",
7    "Address": "Obere Str. 57",
8    "City": "Berlin",
9    "Region": null,
10   "PostalCode": "12209",
11   "Country": "Germany",
12   "Phone": "030-0074321",
13   "Fax": "030-0076545"
14 },
15 {
16   "CustomerID": "MYID2",
17   "CompanyName": "Alfreds Futterkiste",
18   "ContactName": "Maria Anders",
19   "ContactTitle": "Sales Representative",
20   "Address": "Obere Str. 57",
21   "City": "Berlin",
22   "Region": null,
23   "PostalCode": "12209",
24   "Country": "Germany",
25   "Phone": "030-0074321",
26   "Fax": "030-0076545"
27 }
28 ]

```

**Response:**

No Response

## 5. Create multiple customers from Excel

**URL** : localhost/MyApp/Customers/excel

**HTTP Method** : POST

**Logic** :

1. Search customers the list from online  
[https://services.odata.org/V2/Northwind/Northwind.svc/Customers?\\$format=json](https://services.odata.org/V2/Northwind/Northwind.svc/Customers?$format=json)
2. Search customers the list from local file
3. Even one customer already exist in online or local file then raise custom exception “customer CustomerID already created”
4. Add new Customer detail in Local file

**Request Body** :

The screenshot shows a REST client interface with the following details:

- URL: localhost/MyApp/Customers/excel
- Method: POST
- Body type: binary (selected)
- Attachment: Input.xlsx

	A	B	C	D	E	F	G	H	I	J	K	L
1	CustomerID	CompanyName	ContactName	ContactTitle	Address	City	Region	PostalCode	Country	Phone	Fax	
2	MYID1	Alfreds Futterkiste	María Anders	Sales Representative	Obere Str. 57	Berlin		12209	Germany	030-0074321	030-0076545	
3	MYID2	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 2222	México D.F.		05021	Mexico	(5) 555-4729	(5) 555-3745	
4												

**Response:**

No Response

## 6. Update multiple customers

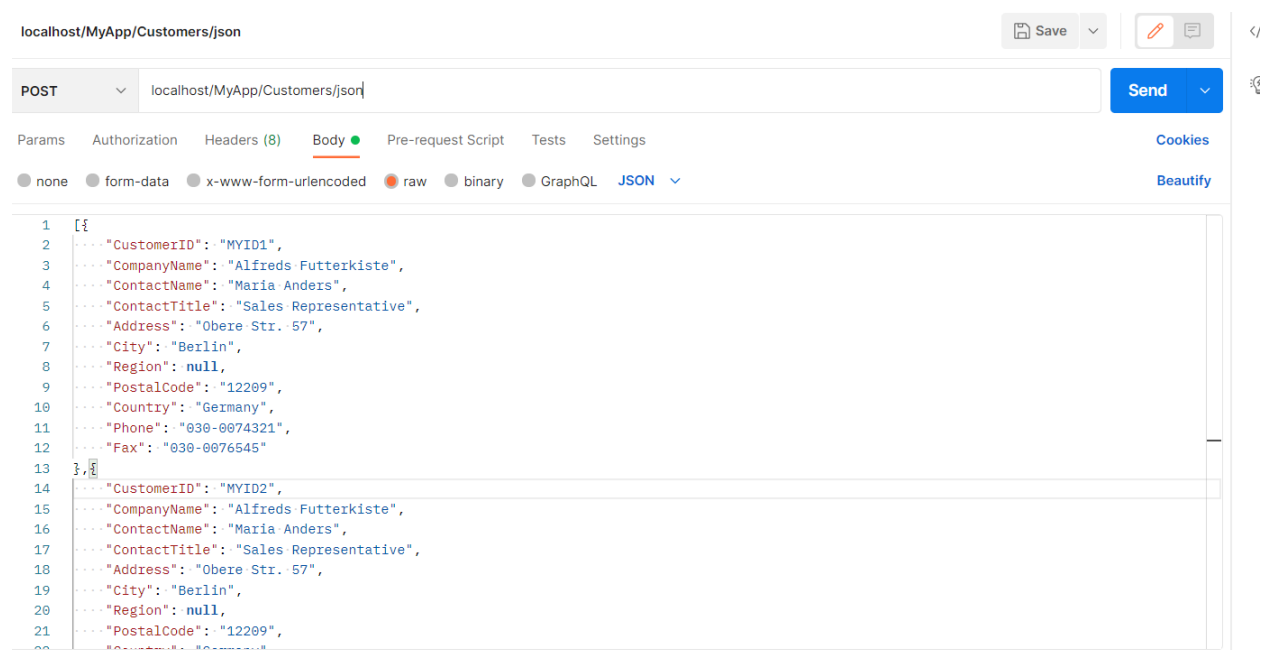
**URL:** localhost/MyApp/Customers/json

**HTTP Method:** PUT

**Logic:**

1. Search customers the list from online  
[https://services.odata.org/V2/Northwind/Northwind.svc/Customers?\\$format=json](https://services.odata.org/V2/Northwind/Northwind.svc/Customers?$format=json)
2. Search customers the list from local file
3. Even one customer already exist in online or local file then raise custom exception "customer CustomerID cannot be updated since it is online API"
4. Update existing Customer detail in Local file

**Request Body:**



The screenshot shows a REST client interface with the following details:

- URL:** localhost/MyApp/Customers/json
- Method:** POST (dropdown menu)
- Body:** Selected, showing a JSON array of two customer objects.
 

```

1  [ {
2    "CustomerID": "MYID1",
3    "CompanyName": "Alfreds Futterkiste",
4    "ContactName": "Maria Anders",
5    "ContactTitle": "Sales Representative",
6    "Address": "Obere Str. 57",
7    "City": "Berlin",
8    "Region": null,
9    "PostalCode": "12209",
10   "Country": "Germany",
11   "Phone": "030-0074321",
12   "Fax": "030-0076545"
13 },
14 {
15   "CustomerID": "MYID2",
16   "CompanyName": "Alfreds Futterkiste",
17   "ContactName": "Maria Anders",
18   "ContactTitle": "Sales Representative",
19   "Address": "Obere Str. 57",
20   "City": "Berlin",
21   "Region": null,
22   "PostalCode": "12209",
23   "Country": "Germany"
24 } ]
      
```
- Buttons:** Save, Send, Cookies, Beautify.

**Response:**

No Response

## 7. Delete multiple customers

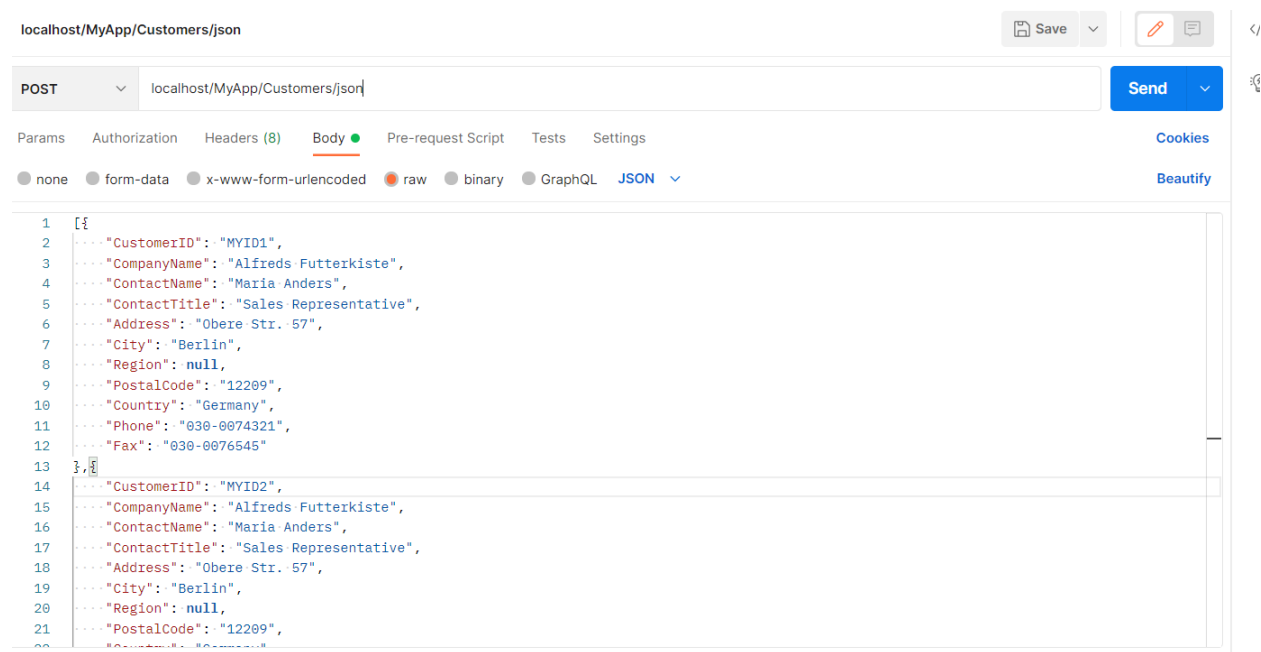
**URL:** localhost/MyApp/Customers/json

**HTTP Method:** DELETE

**Logic:**

5. Search customers the list from online  
[https://services.odata.org/V2/Northwind/Northwind.svc/Customers?\\$format=json](https://services.odata.org/V2/Northwind/Northwind.svc/Customers?$format=json)
6. Search customers the list from local file
7. Even one customer already exist in online or local file then raise custom exception "customer CustomerID cannot be deleted since it is online API"
8. Delete Customer detail from Local file

**Request Body:**



The screenshot shows a REST client interface with the following details:

- URL: localhost/MyApp/Customers/json
- Method: POST (dropdown menu)
- Body: JSON (selected)
- Request Body Content:
 

```

1  [ {
2    "CustomerID": "MYID1",
3    "CompanyName": "Alfreds Futterkiste",
4    "ContactName": "Maria Anders",
5    "ContactTitle": "Sales Representative",
6    "Address": "Obere Str. 57",
7    "City": "Berlin",
8    "Region": null,
9    "PostalCode": "12209",
10   "Country": "Germany",
11   "Phone": "030-0074321",
12   "Fax": "030-0076545"
13 },
14 {
15   "CustomerID": "MYID2",
16   "CompanyName": "Alfreds Futterkiste",
17   "ContactName": "Maria Anders",
18   "ContactTitle": "Sales Representative",
19   "Address": "Obere Str. 57",
20   "City": "Berlin",
21   "Region": null,
22   "PostalCode": "12209",

```

**Response:**

No Output