

Project: CRUD on free API with tests in Postman

API: RESTFUL-API (<https://restful-api.dev/>)
allowed methods GET, POST, PUT, PATCH, DELETE, OPTIONS, HEAD,
accepts 2 predefined objects ("name", "data") with free values

Base URL: <https://api.restful-api.dev/>

Endpoint: objects

The screenshot shows the Postman interface with the RESTFULL-API.DEV collection selected. The left sidebar shows the collection structure, including a folder named 'CRUD' containing several requests. The main panel displays the 'Variables' tab for the collection, showing a table of variables defined at the collection level.

RESTFULL-API.DEV

Overview Authorization Scripts **Variables** Runs

These variables are specific to this collection and its requests. Learn more about [collection variables](#)

Filter variables

	Variable	Initial value	Current value	
<input checked="" type="checkbox"/>	entryid		ff808181932badb60195f04fd308768b	
<input checked="" type="checkbox"/>	entryname		Leslie Schuppe	
<input checked="" type="checkbox"/>	entrydata		{ "City": "Port Nathanialland", "Address": "8885 Heidi Well", "Phone": "960-244-5157" }	
	Add new variable			

Collection view with requests in one folder (CRUD)

Creating variables on collection level to store data for requests

Preparing record data with random name, city, address, phone in Pre-request scripts and storing the data in collection variables

HTTP RESTFULL-API.DEV / CRUD / create_new_object Save Share

POST ▼ https://api.restful-api.dev/objects Send ▼

Params Authorization Headers (8) Body ● Scripts ● Settings Cookies Response History ▼

Pre-request ●

```
1 // Creates random full name and stores it in col.variable entryname
2 pm.collectionVariables.set("entryname",
3   pm.variables.replaceIn("{{$randomFullName}}"));
4
5
6 // Creates random data as city, address, phone number and stores it in coll.variable
  entrydata
7 pm.collectionVariables.set("entrydata", "{ \"City\": \"\" + pm.variables.replaceIn("
  {{$randomCity}}") + "\", \"Address\": \"\" + pm.variables.replaceIn("
  {{$randomStreetAddress}}") + "\", \"Phone\": \"\" + pm.variables.replaceIn("
  {{$randomPhoneNumber}}") + "\" }");
8
9 console.log(pm.collectionVariables.get("entryname"));
10 console.log(pm.collectionVariables.get("entrydata"));
11
```

Post-response ●

Creating a new record using POST request

HTTP RESTFULL-API.DEV / CRUD / create_new_object Save Share

POST ▼ https://api.restful-api.dev/objects Send ▼

Params Authorization Headers (8) Body ● Scripts ● Settings Cookies

☐ none ☐ form-data ☐ x-www-form-urlencoded ☒ raw ☐ binary ☐ GraphQL JSON ▼ Beautify

```
1 {
2   "name": "{{$entryname}}",
3   "data": {{$entrydata}}
4 }
```

Body ▼ 🕒 200 OK • 400 ms • 1.03 KB • 🌐 💾 Save Response ⋮

{} JSON ▼ ▶ Preview 🔗 Visualize ▼ 🔄 📄 🔍 🔗

```
1 {
2   "id": "ff808181932badb60195f03687eb7655",
3   "name": "Austin Mante",
4   "createdAt": "2025-04-01T07:17:40.459+00:00",
5   "data": {
6     "City": "Mayerview",
7     "Address": "1509 Brenden Fords",
8     "Phone": "489-796-5376"
9   }
10 }
```

Storing the record id from response in coll. variable for further use and testing the response (http code, header content-type, "name" & "data" match, response time)

RESTFULL-API.DEV / CRUD / create_new_object

SaveShare

POSThttps://api.restful-api.dev/objects

Send

ParamsAuthorizationHeaders (8)BodyScriptsSettingsCookies

Test Results400 ms1.03 KB200 OKSave Response

Pre-requestPost-response

```
1 // Stores the id field from response in the collection variable entryid
2 const respbdy = pm.response.json();
3 pm.collectionVariables.set("entryid", respbdy.id);
4
5
6 // Tests
7 pm.test("Successful POST request", function () {
8   pm.expect(pm.response.code).to.be.oneOf([200, 201]);
9 });
10
11
12 pm.test("Content-Type in header is set to 'application/json'", function () {
13   pm.expect(pm.response.headers.get("Content-Type")).to.include("application/
14     json");
15 });
16
17 pm.test("name in response is equal to the sent name ", function () {
18   pm.expect(respbdy.name).to.eql(pm.collectionVariables.get("entryname"));
19 });
20
21
22 pm.test("data object properties and values in response match the collection
23   variable", function () {
24   const entrydt = JSON.parse(pm.collectionVariables.get("entrydata"));
25   pm.expect(respbdy.data.City).to.eql(entrydt.City);
26   pm.expect(respbdy.data.Address).to.eql(entrydt.Address);
27   pm.expect(respbdy.data.Phone).to.eql(entrydt.Phone);
28 });
29
30 pm.test("Response time is less than 350ms", function () {
31   pm.expect(pm.response.responseTime).to.be.below(350);
32 });
33
```

Filter Results

PASSED

Successful POST request

PASSED

Content-Type in header is set to 'application/json'

PASSED

name in response is equal to the sent name

PASSED

data object properties and values in response match the collection variable

FAILED

Response time is less than 350ms | AssertionError: expected 400 to be below 350

Preparing record data with changed address and storing the data in collection variable

RESTFULL-API.DEV / CRUD / update_object_by_id

SaveShare

PUThttps://api.restful-api.dev/objects/{{entryid}}

Send

ParamsAuthorizationHeaders (8)BodyScriptsSettingsCookiesResponseHistory

Pre-requestPost-response

```
1 // Changes address in coll.variable entrydata
2 const entrydt = JSON.parse(pm.collectionVariables.get("entrydata"));
3 pm.collectionVariables.set("entrydata", "{ \"City\": \"\"+ entrydt.City +\"\",
  \"Address\": \"\" + pm.variables.replaceIn(\"{{$RandomStreetAddress}}\") + \"\",
  \"Phone\": \"\" + entrydt.Phone + \"\" }");
4
5 console.log(pm.collectionVariables.get("entryname"));
6 console.log(pm.collectionVariables.get("entrydata"));
7
8
```

Updating the record using PUT request

RESTFULL-API.DEV / CRUD / update_object_by_id

SaveShare

PUThttps://api.restful-api.dev/objects/{{entryid}}

Send

ParamsAuthorizationHeaders (8)BodyScriptsSettingsCookiesBeautify

noneform-datax-www-form-urlencodedrawbinaryGraphQLJSON

```
1 {
2   "name": "{{entryname}}",
3   "data": {{entrydata}}
4 }
```

Body200 OK362 ms508 BSave Response

{JSONPreviewVisualize

```
1 {
2   "id": "ff808181932badb60195f03687eb7655",
3   "name": "Austin Mante",
4   "updatedAt": "2025-04-01T07:20:00.119+00:00",
5   "data": {
6     "City": "Mayerview",
7     "Address": "74900 Miller Wells",
8     "Phone": "489-796-5376"
9   }
10 }
```

Testing the response (http code, header content-type, "name" & "data" match, response time)

RESTFULL-API.DEV / CRUD / update_object_by_id

PUT

https://api.restful-api.dev/objects/{{entryid}}

Send

ParamsAuthorizationHeaders (8)Body●Scripts●SettingsCookies

Pre-request

Post-response

```
1 // Tests
2 pm.test("Response status code is 200", function () {
3   pm.response.to.have.status(200);
4 });
5
6
7 pm.test("Content-Type in header is set to 'application/json'", function () {
8   pm.expect(pm.response.headers.get("Content-Type")).to.include("application/
9   json");
10 });
11
12 const respbdy = pm.response.json();
13
14 pm.test("name in response is equal to the sent name ", function () {
15   pm.expect(respbdy.name).to.eql(pm.collectionVariables.get("entryname"));
16 });
17
18
19 pm.test("data object properties and values in response match the collection
20   variable", function () {
21   const entrydt = JSON.parse(pm.collectionVariables.get("entrydata"));
22   pm.expect(respbdy.data.City).to.eql(entrydt.City);
23   pm.expect(respbdy.data.Address).to.eql(entrydt.Address);
24   pm.expect(respbdy.data.Phone).to.eql(entrydt.Phone);
25 });
26
27 pm.test("Response time is less than 350ms", function () {
28   pm.expect(pm.response.responseTime).to.be.below(350);
29 });
30
```

Test Results

200 OK · 362 ms · 508 B · Save Response

Filter Results

PASSED

Response status code is 200

PASSED

Content-Type in header is set to 'application/json'

PASSED

name in response is equal to the sent name

PASSED

data object properties and values in response match the collection variable

FAILED

Response time is less than 350ms | AssertionError: expected 362 to be below 350

Preparing record data with changed phone and storing the data in collection variable

HTTP

RESTFULL-API.DEV / CRUD / part_update_object_by_id

Save

Share

PATCH

https://api.restful-api.dev/objects/{{entryid}}

Send

Params

Authorization

Headers (8)

Body

Scripts

Settings

Cookies

Response

History

Pre-request

Post-response

1

// Changes phone nr in coll.variable entrydata

2

const entrydt = JSON.parse(pm.collectionVariables.get("entrydata"));

3

pm.collectionVariables.set("entrydata", "{ \"City\": \"\"+ entrydt.City + \"\",

\"Address\": \"\" + entrydt.Address + \"\", \"Phone\": \"\" + pm.variables.

replaceIn(\"{{\$randomPhoneNumber}}\") + \"\" }");

4

5

console.log(pm.collectionVariables.get("entryname"));

6

console.log(pm.collectionVariables.get("entrydata"));

7

Partially updating the record (only the “data” object) using PATCH request

HTTP

RESTFULL-API.DEV / CRUD / part_update_object_by_id

Save

Share

PATCH

https://api.restful-api.dev/objects/{{entryid}}

Send

Params

Authorization

Headers (8)

Body

Scripts

Settings

Cookies

Body

200 OK

346 ms

508 B

Save Response

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

Beautify

1

{

2

"data": {{entrydata}}

3

}

1

{

2

"id": "ff808181932badb60195f03687eb7655",

3

"name": "Austin Mante",

4

"updatedAt": "2025-04-01T07:21:59.551+00:00",

5

"data": {

6

"City": "Mayerview",

7

"Address": "74900 Miller Wells",

8

"Phone": "606-361-1885"

9

}

10

}

Testing the response (http code, header content-type, "data" match, response time)

RESTFULL-API.DEV / CRUD / part_update_object_by_id

SaveShare

PATCHhttps://api.restful-api.dev/objects/{{entryid}}

Send

ParamsAuthorizationHeaders (8)BodyScriptsSettingsCookies

Test Results200 OK346 ms508 BSave Response

Pre-requestPost-response

```
1 // Tests
2 pm.test("Response status code is 200", function () {
3   pm.response.to.have.status(200);
4 });
5
6
7 pm.test("Content-Type in header is set to 'application/json'", function () {
8   pm.expect(pm.response.headers.get("Content-Type")).to.include("application/
9     json");
10 });
11
12 pm.test("data object properties and values in response match the collection
13   variable", function () {
14   const entrydt = JSON.parse(pm.collectionVariables.get("entrydata"));
15   const respbdy = pm.response.json();
16   pm.expect(respbdy.data.City).to.eql(entrydt.City);
17   pm.expect(respbdy.data.Address).to.eql(entrydt.Address);
18   pm.expect(respbdy.data.Phone).to.eql(entrydt.Phone);
19 });
20
21 pm.test("Response time is less than 350ms", function () {
22   pm.expect(pm.response.responseTime).to.be.below(350);
23 });
24
```

Filter Results

PASSED

Response status code is 200

PASSED

Content-Type in header is set to 'application/json'

PASSED

data object properties and values in response match the collection variable

PASSED

Response time is less than 350ms

Testing the response (http code, header content-type, "name" & "data" match, response time) on GET request

RESTFULL-API.DEV / CRUD / get_object_by_id

GET

https://api.restful-api.dev/objects/ {{entryid}}

Send

ParamsAuthorizationHeaders (6)BodyScriptsSettingsCookies

Pre-request

Post-response

```
1 // Tests
2 pm.test("Response status code is 200", function () {
3   pm.response.to.have.status(200);
4 });
5
6
7 pm.test("Content-Type in header is set to 'application/json'", function () {
8   pm.expect(pm.response.headers.get("Content-Type")).to.include("application/
9   json");
10 });
11
12 const respbdy = pm.response.json();
13
14 pm.test("name in response is equal to the sent name ", function () {
15   pm.expect(respbdy.name).to.eql(pm.collectionVariables.get("entryname"));
16 });
17
18
19 pm.test("data object properties and values in response match the collection
20   variable", function () {
21   const entrydt = JSON.parse(pm.collectionVariables.get("entrydata"));
22   pm.expect(respbdy.data.City).to.eql(entrydt.City);
23   pm.expect(respbdy.data.Address).to.eql(entrydt.Address);
24   pm.expect(respbdy.data.Phone).to.eql(entrydt.Phone);
25 });
26
27 pm.test("Response time is less than 350ms", function () {
28   pm.expect(pm.response.responseTime).to.be.below(350);
29 });
30
```

Body

200 OK • 311 ms • 1020 B

Save Response

JSON

PreviewVisualize

```
1 {
2   "id": "ff808181932badb60195f03687eb7655",
3   "name": "Austin Mante",
4   "data": {
5     "City": "Mayerview",
6     "Address": "74900 Miller Wells",
7     "Phone": "606-361-1885"
8   }
9 }
```

Test Results

200 OK • 311 ms • 1020 B

Save Resp

Filter Results

PASSED

Response status code is 200

PASSED

Content-Type in header is set to 'application/json'

PASSED

name in response is equal to the sent name

PASSED

data object properties and values in response match the collection variable

PASSED

Response time is less than 350ms

Deleting the record and testing the response (http code, message match, response time)

RESTFULL-API.DEV / CRUD / delete_object_by_id

DELETE

https://api.restful-api.dev/objects/ {{entryid}}

Send

ParamsAuthorizationHeaders (6)BodyScriptsSettings

Pre-request

Post-response

```
1 // Tests
2 pm.test("Status code is 200", function () {
3   pm.response.to.have.status(200);
4 });
5
6
7 pm.test("Response has the required field 'message'", function () {
8   const respData = pm.response.json();
9   pm.expect(respData).to.have.property('message');
10 });
11
12
13 pm.test("Message field contains exact text", function () {
14   var tibi = pm.collectionVariables.get("entryid")
15   const respData = pm.response.json();
16   pm.expect(respData.message).to.equal("Object with id = "+tibi+" has been
17     deleted.");
18 });
19
20 pm.test("Response time is less than 350ms", function () {
21   pm.expect(pm.response.responseTime).to.be.below(350);
22 });
23
```

Cookies

Body

200 OK • 299 ms • 982 B • Save Response

JSON

PreviewVisualize

```
1 {
2   "message": "Object with id = ff808181932badb60195f03687eb7655 has been
3     deleted."
4 }
```

Test Results

200 OK • 299 ms • 982 B • Save Respo

Filter Results

PASSED

Status code is 200

PASSED

Response has the required field 'message'

PASSED

Message field contains exact text

PASSED

Response time is less than 350ms

Checking the record was deleted, using HEAD method

RESTFULL-API.DEV / CRUD / head_object_by_id

SaveShare

HEAD

https://api.restful-api.dev/objects/{{entryid}}

Send

ParamsAuthorizationHeaders (6)BodyScriptsSettings

Pre-request

Post-response

```
1 // Tests
2 pm.test("Response status code is 404", function () {
3   pm.response.to.have.status(404);
4 });
5
6
7 pm.test("Response time is less than 350ms", function () {
8   pm.expect(pm.response.responseTime).to.be.below(350);
9 });
10
```

Cookies

Test Results

404 Not Found • 268 ms • 881 B • Save Response

Filter Results

PASSED

Response status code is 404

PASSED

Response time is less than 350ms

All Logs ▾

Clear



"Austin Mante"

{ "City": "Mayerview", "Address": "1509 Brenden Fords", "Phone": "489-796-5376" }

▼ POST https://api.restful-api.dev/objects

200 | 400 ms

► Network [Show raw log](#)

► Request Headers

▼ Request Body ↗

```
{
  "name": "Austin Mante",
  "data": { "City": "Mayerview", "Address": "1509 Brenden Fords", "Phone": "489-796-5376" }
}
```

► Response Headers

▼ Response Body ↗

```
{ "id": "ff808181932badb60195f03687eb7655", "name": "Austin Mante", "createdAt": "2025-04-01T07:17:40.459+00:00", "data": { "City": "Mayerview", "Address": "1509 Brenden Fords", "Phone": "489-796-5376" } }
```

"Austin Mante"

{ "City": "Mayerview", "Address": "74900 Miller Wells", "Phone": "489-796-5376" }

► PUT https://api.restful-api.dev/objects/ff808181932badb60195f03687eb7655

200 | 362 ms

"Austin Mante"

{ "City": "Mayerview", "Address": "74900 Miller Wells", "Phone": "606-361-1885" }

▼ PATCH https://api.restful-api.dev/objects/ff808181932badb60195f03687eb7655

200 | 346 ms

► Network [Show raw log](#)

► Request Headers

► Request Body ↗

► Response Headers

▼ Response Body ↗

```
{ "id": "ff808181932badb60195f03687eb7655", "name": "Austin Mante", "updatedAt": "2025-04-01T07:21:59.551+00:00", "data": { "City": "Mayerview", "Address": "74900 Miller Wells", "Phone": "606-361-1885" } }
```

► GET https://api.restful-api.dev/objects/ff808181932badb60195f03687eb7655

200 | 311 ms

▼ DELETE https://api.restful-api.dev/objects/ff808181932badb60195f03687eb7655

200 | 299 ms

► Network [Show raw log](#)

► Request Headers

► Response Headers

▼ Response Body ↗

```
{ "message": "Object with id = ff808181932badb60195f03687eb7655 has been deleted." }
```

► HEAD https://api.restful-api.dev/objects/ff808181932badb60195f03687eb7655

404 | 268 ms

Test run of the whole collection

RESTFULL-API.DEV - Run results

Run Again

Automate Run

New Run

Export R

Ran today at 09:45:17 · View all runs

Source	Environment	Iterations	Duration	All tests	Avg. Resp. Time
Runner	none	1	5s 289ms	25	721 ms

All Tests Passed (19) Failed (6) Skipped (0)

View Sum

Iteration 1

POST create_new_object

https://api.restful-api.dev/objects

200 OK 641 ms 1.058 KE

- PASS Successful POST request
- PASS Content-Type in header is set to 'application/json'
- PASS name in response is equal to the sent name
- PASS data object properties and values in response match the collection variable
- FAIL Response time is less than 350ms | AssertionError: expected 641 to be below 350

PUT update_object_by_id

https://api.restful-api.dev/objects/ff808181932badb60195f04fd308768b

200 OK 724 ms 1.059 KE

- PASS Response status code is 200
- PASS Content-Type in header is set to 'application/json'
- PASS name in response is equal to the sent name
- PASS data object properties and values in response match the collection variable
- FAIL Response time is less than 350ms | AssertionError: expected 724 to be below 350

PATCH part_update_object_by_id

https://api.restful-api.dev/objects/ff808181932badb60195f04fd308768b

200 OK 727 ms 1.064 KE

- PASS Response status code is 200
- PASS Content-Type in header is set to 'application/json'
- PASS data object properties and values in response match the collection variable
- FAIL Response time is less than 350ms | AssertionError: expected 727 to be below 350

GET

get_object_by_id

https://api.restful-api.dev/objects/ff808181932badb60195f04fd308768b

200 OK739 ms1.036 KiB

- PASS

Response status code is 200
- PASS

Content-Type in header is set to 'application/json'
- PASS

name in response is equal to the sent name
- PASS

data object properties and values in response match the collection variable
- FAIL

Response time is less than 350ms | AssertionError: expected 739 to be below 350

DELETE

delete_object_by_id

https://api.restful-api.dev/objects/ff808181932badb60195f04fd308768b

200 OK642 ms983 B

- PASS

Status code is 200
- PASS

Response has the required field 'message'
- PASS

Message field contains exact text
- FAIL

Response time is less than 350ms | AssertionError: expected 642 to be below 350

HEAD

head_object_by_id

https://api.restful-api.dev/objects/ff808181932badb60195f04fd308768b

404 Not Found854 ms880 B

- PASS

Response status code is 404
- FAIL

Response time is less than 350ms | AssertionError: expected 854 to be below 350