Getting Started with Dovetail APIs

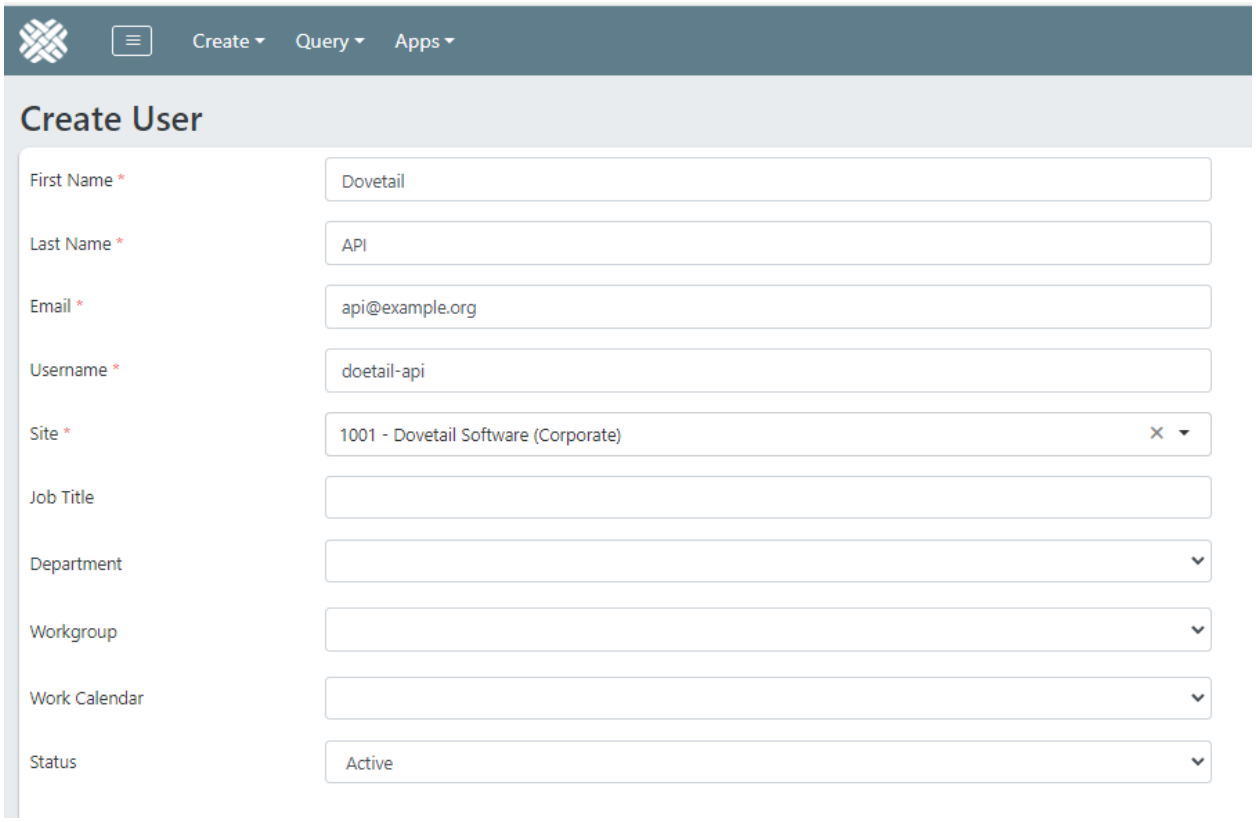
API Documentation

API docs are available online at https://YourTenant.dovetailnow.com/api/doc
Example: https://sandbox.dovetailnow.com/api/doc

API User

From within the Dovetail Agent application, create a new user.
A common pattern is to have the username be something easy to identify as an API user, e.g. *api*, *dovetail-api*,etc.

By creating a user explicitly for API use, this allows you to have some control and insights into activities that are done by that user. Separation of API users from standard application users allows for greater security and access control to the Dovetail application.

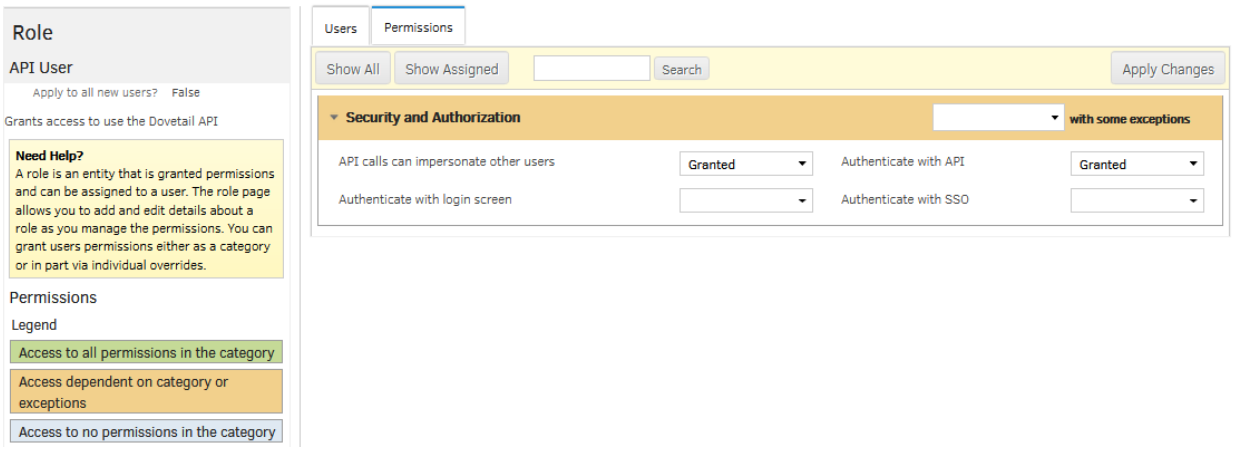


Password
Once the user is created, be sure to set the user's password, as API users need to login using a loginName and password, not via SSO.

User Status
The user must have a status of *Active*. If the status is changed to Inactive, the user will not be able to login and APIs will error.

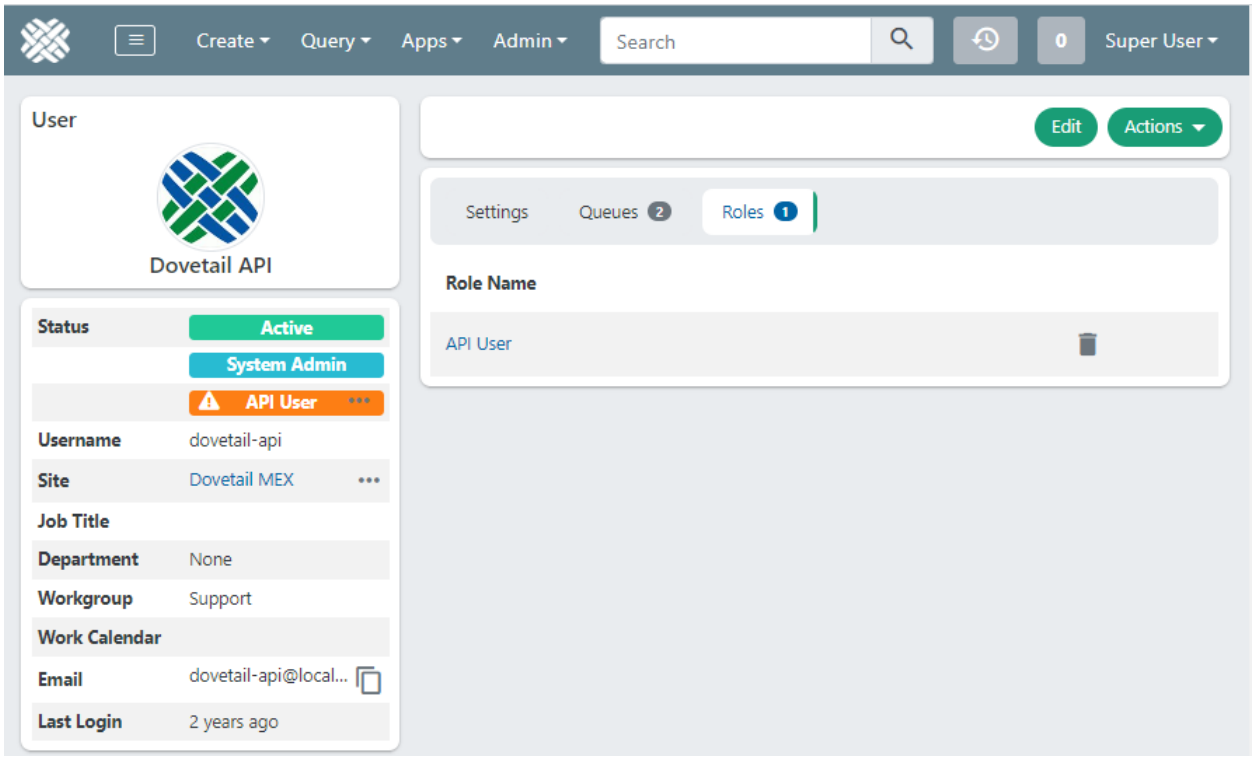
User Roles

The user must belong to a role, and that role needs to be granted access to *Authenticate with API*.



Additionally, you may wish to grant permission for *API calls can impersonate other users.*
Some of the newer Dovetail APIs (create case, close case, log note, and add attachment) allow for passing in arbitrary usernames as the user performing the action.
For example, the user “John” can call the log-note API, and pass in a username of "Mary", thus making it appear like the note was logged by "Mary".
The “API calls can impersonate other users” permission determines whether or not a user is allowed to do this.

The API user should be added to this role.



Tools

Let's look at a couple of common tools used for getting started and testing APIs.

curl

Curl is a command line tool for transferring data with URLs, and is a quick way to test APIs. curl is available for all major platforms, including Windows, MacOS, and UNIX. It is typically included as part of the operating system.

Postman

Postman is a tool that also allows you to call APIs. It has a user interface, which often makes it easier to understand how to make API calls, and to understand the results.

Both curl and Postman are useful to do some quick testing of APIs. But, once you understand how an API works, you'll likely want to make those API calls from a programming language, or some other tool or service.

Calling Dovetail APIs with curl

Get the details of a case

From a command line terminal on your machine, use curl to call the Dovetail API in order to retrieve the details of a case.

```
curl  -u "dovetail_api:mypassword"
https://mytenant.dovetailnow.com/api/v1/Cases/1234
```

(be sure to specify your own username, password, tenant, and case ID)

That should succeed and return a bunch of data to the screen. This data is all of the details of the case, in a JSON format. (What is JSON?)

What if that fails?

If that fails, and returns nothing, then likely there's a problem with the username, password, or the status of that user.

Run that same curl command again, but this time, include the *-i* option, which tells curl to show us the response headers.

```
curl  -i -u "dovetail_api:mypassword"
https://mytenant.dovetailnow.com/api/v1/Cases/1234
```

If the first line says: HTTP/1.1 403 UNAUTHORIZED
Then the problem is likely one of:

- Invalid username
- Invalid password
- User status is not Active

If the first line says: HTTP/1.1 404 Not Found
Then the problem is likely that the case ID supplied was not found in the system

All that case data is hard to read!

If the GET case API succeeds, it will output a bunch of data to the screen. This data is all of the details of the case, in a JSON format. It can be overwhelming and difficult to read.

Rather than have all of that case data in your terminal window, you can redirect the output to a file. For example:

```
curl  -u "dovetail_api:mypassword"
https://mytenant.dovetailnow.com/api/v1/Cases/1234 > case1234.txt
```

That will create a text file named *case1234.txt*. Open that file with your favorite text editor, and you will see all of the details of that case.

The JSON data that is in that file is not in a pretty format. Typically, JSON is read by a computer program, not a human. But, if you want to see it in a pretty, more readable format, then simply open that text file, copy everything to your clipboard, and paste it into a *Pretty JSON too*l such as http://jsonprettyprint.net/

Create a case

Now that we've retrieved the details of a case, let's create a case.

Rather than doing a GET to retrieve the details, we'll POST data to the API. (GET and POST are two of the verbs/methods that are built-in to HTTP. Learn More here)

```
curl -i -u "dovetail_api:mypassword"
https://mytenant.dovetailnow.com/api/v2/Cases --request POST --header
"Content-Type: application/json" --header "Accept: application/json"
--data-raw "{'title': 'Hello from the API', 'notes': 'These are some
notes', 'employee': '12345'}"
```

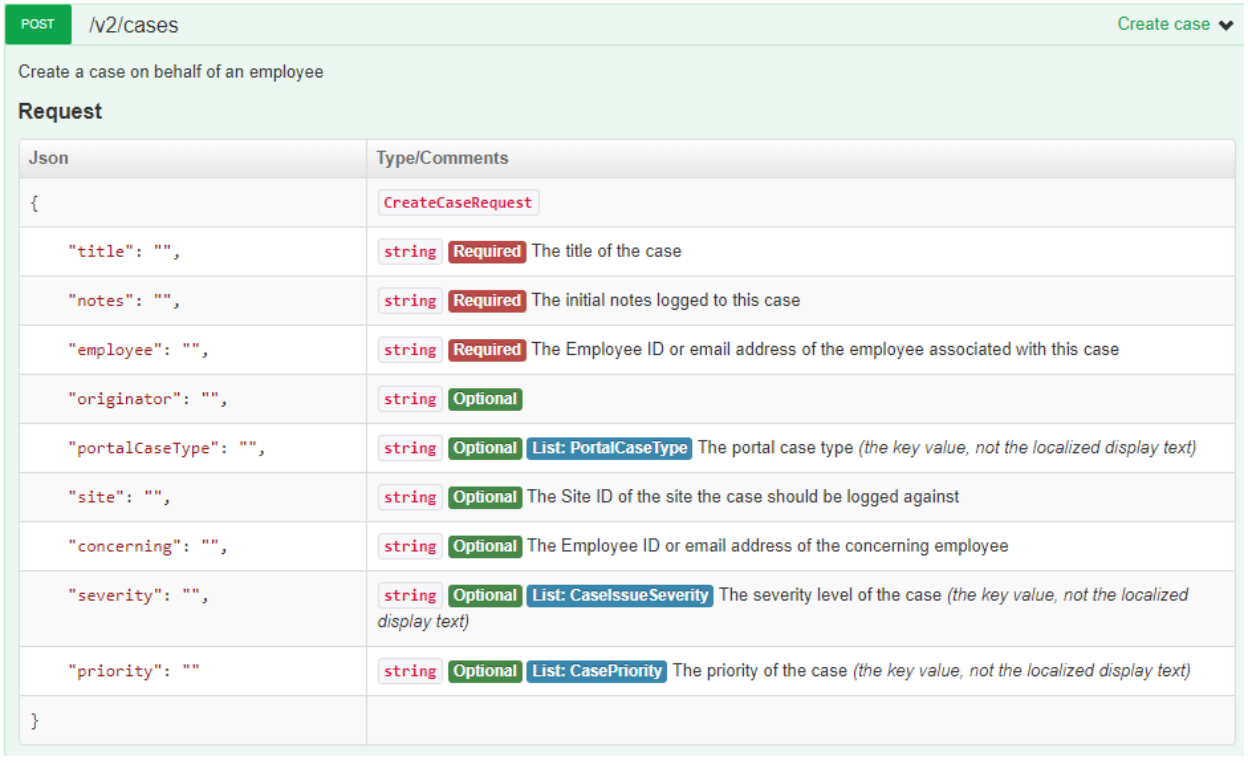
There's a bunch of new stuff there, so let's break that down:

`curl`	The curl executable
`-i`	Display the headers of the response. Useful when troubleshooting
`-u "dovetail_api:mypassword`	Username and Password
`https://mytenant.dovetailnow.com/api/v2/Cases`	The URL for the create case API

`--request POST`	Defines this as a POST, as opposed to a GET request. Learn More here
`--header "Content-Type: application/json"`	This tells the API that we're sending data in a JSON format
`--header "Accept: application/json"`	This tells the API that we expect to receive the response in a JSON format
`--data-raw "{ 'title': 'Hello from the API', 'notes': 'These are some notes', 'employee': '12345' }"`	This is the actual data that we're sending. Notice that it's in a JSON format. We're sending the case title, the initial notes, and the ID of the employee that the case is to be created for.

Other available options?

If we look at the API documentation, we can see that we have a number of additional optional options that can be set when creating the case:



POST /v2/cases — Create case

Create a case on behalf of an employee

Request

Json	Type/Comments
{	CreateCaseRequest
"title": "",	string Required The title of the case
"notes": "",	string Required The initial notes logged to this case
"employee": "",	string Required The Employee ID or email address of the employee associated with this case
"originator": "",	string Optional
"portalCaseType": "",	string Optional List: PortalCaseType The portal case type *(the key value, not the localized display text)*
"site": "",	string Optional The Site ID of the site the case should be logged against
"concerning": "",	string Optional The Employee ID or email address of the concerning employee
"severity": "",	string Optional List: CaseIssueSeverity The severity level of the case *(the key value, not the localized display text)*
"priority": ""	string Optional List: CasePriority The priority of the case *(the key value, not the localized display text)*
}	

Response Codes

Every HTTP request will return a status code, indicating success or failure, and potentially some additional information. Here are some common responses from the Dovetail APIs:

Response	Comments
200 OK or 201 Successfully Created	All is well. Depending on the specific API, the success response code could be either 200 or 201. A 201 is commonly used to indicate that something was successfully *created* (such as a new case).
500 Internal Server Error	Typically, this means something went wrong on the API side. You will also get this error if the employee ID passed in does not match to an employee in the Dovetail system.
400 Bad List Value	This means one of the list values (Severity, Priority, or PortalCaseType) that you passed in is invalid. Check the *X-Dovetail-BadListValue* header to see which list it is.
400 Value is Required	This means one of the required parameters (title, notes, or employee) was not supplied. Check the *X-Dovetail-MissingParameter* header to see which parameter it is
400 Invalid Parameter	Invalid parameter. Check the *X-Dovetail-InvalidParameter* header to see which parameter it is
403 UNAUTHORIZED	The problem is likely one of: ● Invalid username ● Invalid password ● User status is not Active
404 Not Found	This can happen if: ● The URL supplied for the API is incorrect ● The case ID provided is not correct when retrieving a case by ID.

Rinse, Lather, Repeat

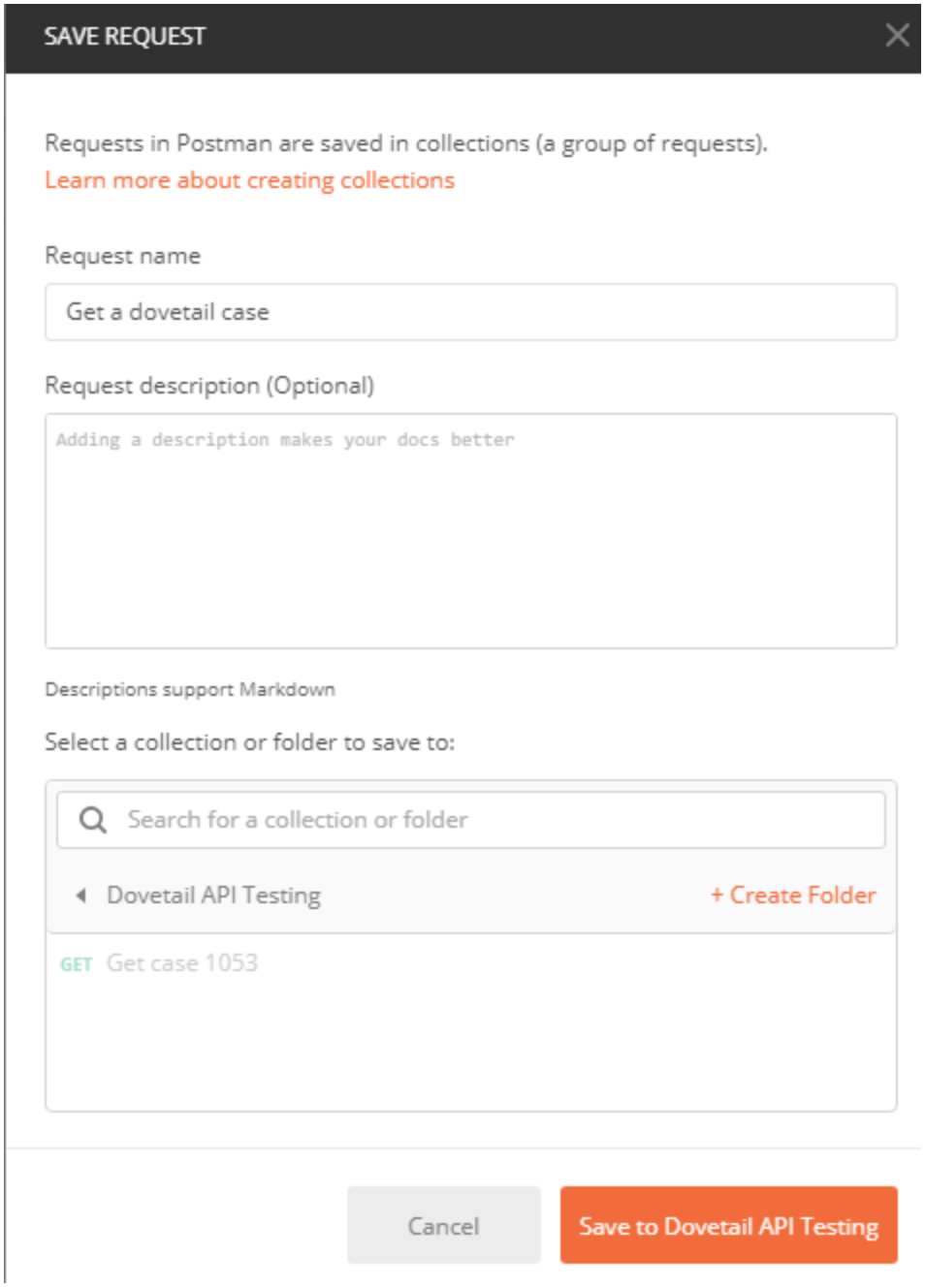
Follow the same patterns as above for using the other available Dovetail APIs

Calling Dovetail APIs with Postman

Rather than using curl from the command line, we can use Postman, a free app with a helpful user interface that is often easier to use than a command line.

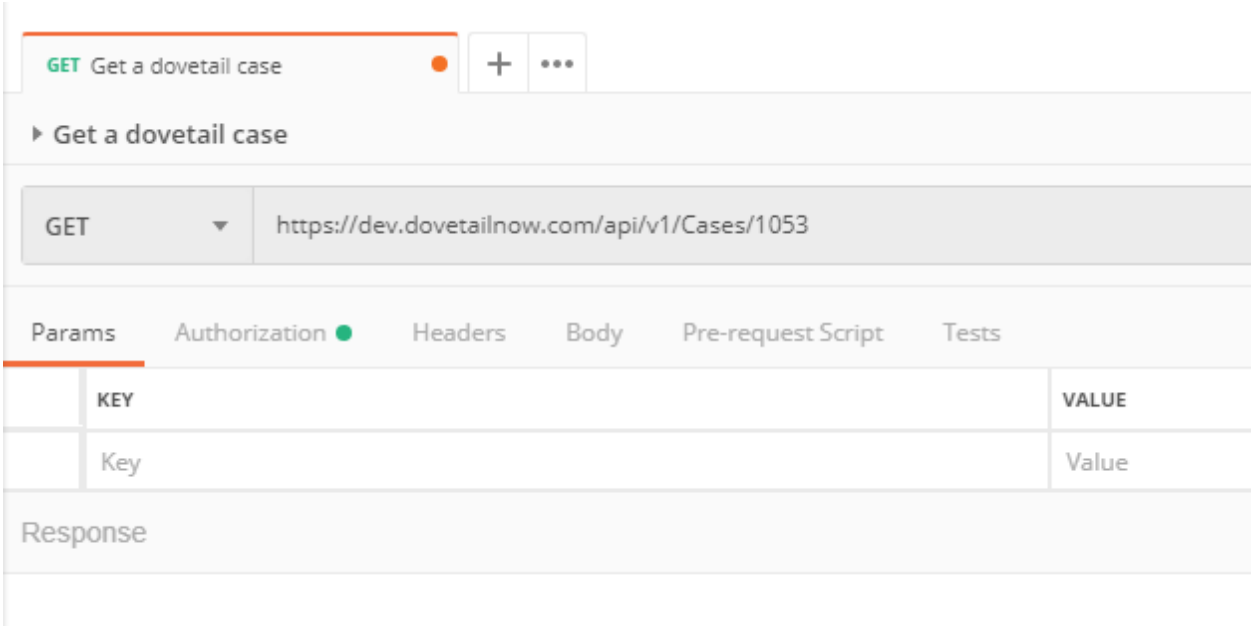
Get the details of a case

- Download and Install the Postman app
- Within the app, from the *New* menu in the upper-left, choose *New - Request*
- Give it a name, such as *Get a dovetail case*
- Optionally put it into a collection/folder. Here, it's being saved to a collection called *Dovetail API testing*
- Click *Save*

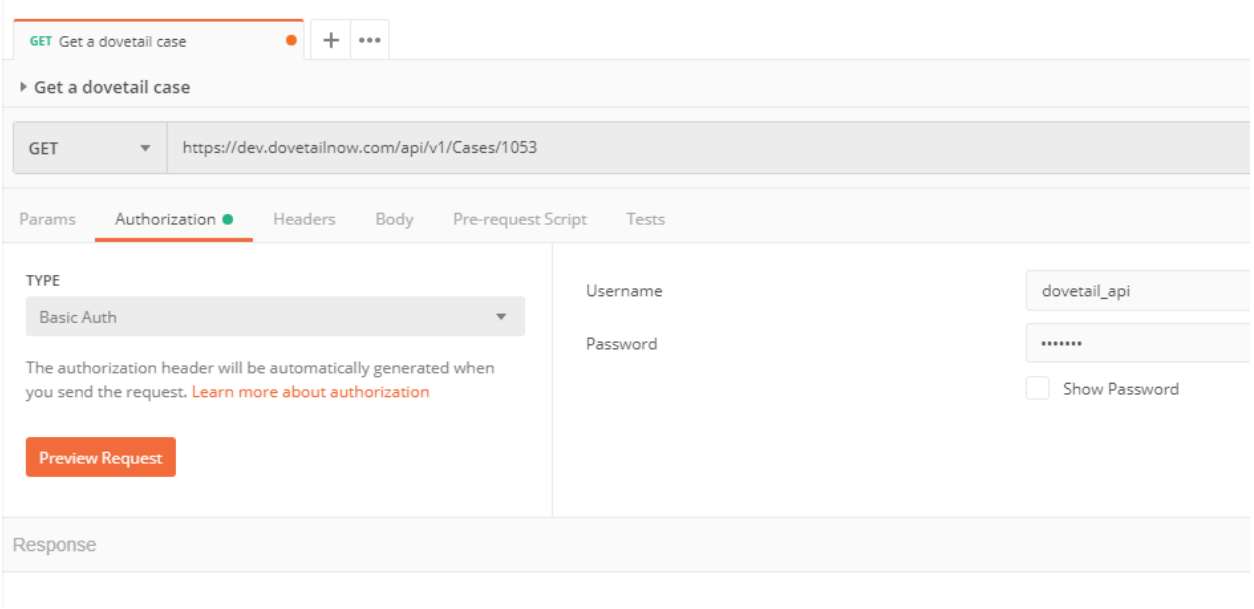


This will create a new tab where we can continue to define the request.
Enter the URL to retrieve a case, just as we did earlier. e.g.
https://mytenant.dovetailnow.com/api/v1/Cases/1234

Note: the last part of that URL (*1234*) is the ID number of the case that we wish to retrieve.That should be a valid case in your system.

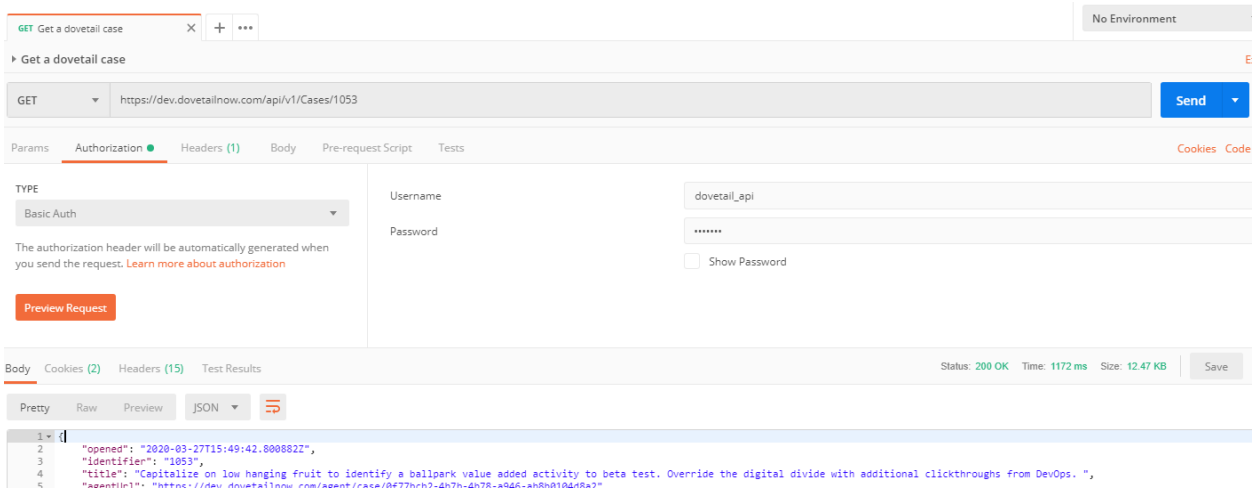


1. Click on the Authorization tab
2. Select Basic Auth from the Type dropdown
3. Enter the username
4. Enter the password



1. Click the Save button, so that our work is saved.

2. Click on the Send button. This will send the request, and the lower portion of the screen will show the response. If all is well, it will show the details of the case, in a pretty JSON format.



Take Note of:

- The Status is displayed (in this case 200 OK)
- In addition to the Body of the response, there is also a Headers tab, so we can investigate the response headers, which is helpful when troubleshooting a problem.

Create a case

Now that we've retrieved the details of a case, let's create a case.

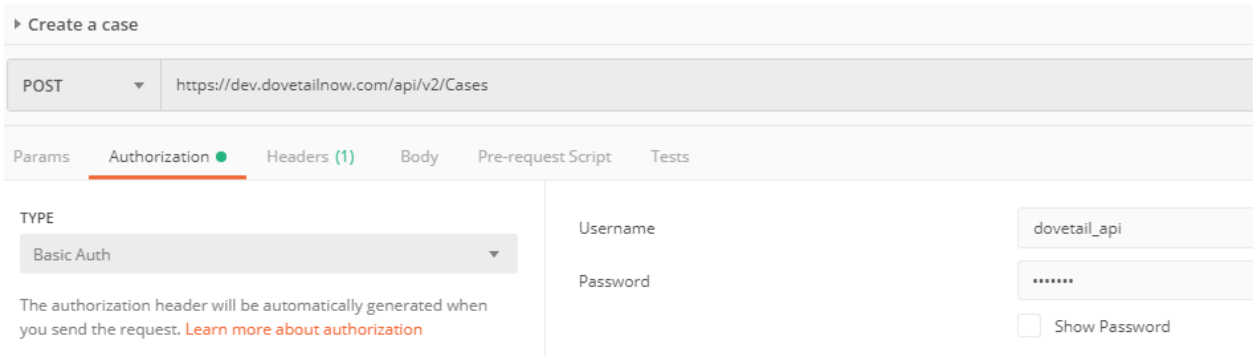
Rather than doing a GET to retrieve the details, we'll POST data to the API. (GET and POST are two of the verbs/methods that are built-in to HTTP. Learn More here)

Basics

- Create a new request, as before, but this time we'll name it *Create a case*
- Change the method dropdown to POST
- Enter the URL for the API to create a case, e.g. *https://mytenant.dovetailnow.com/api/v2/Cases*

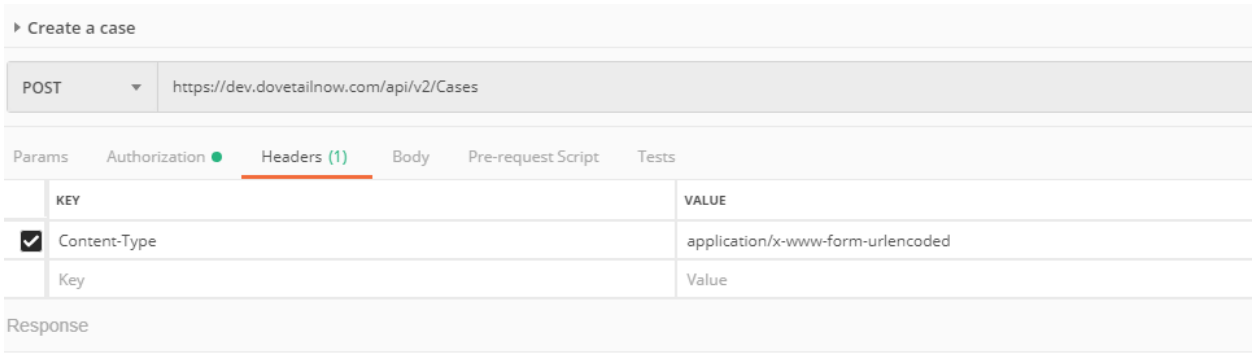
Authorization

- Click on the Authorization tab
- Select Basic Auth from the Type dropdown
- Enter the username
- Enter the password



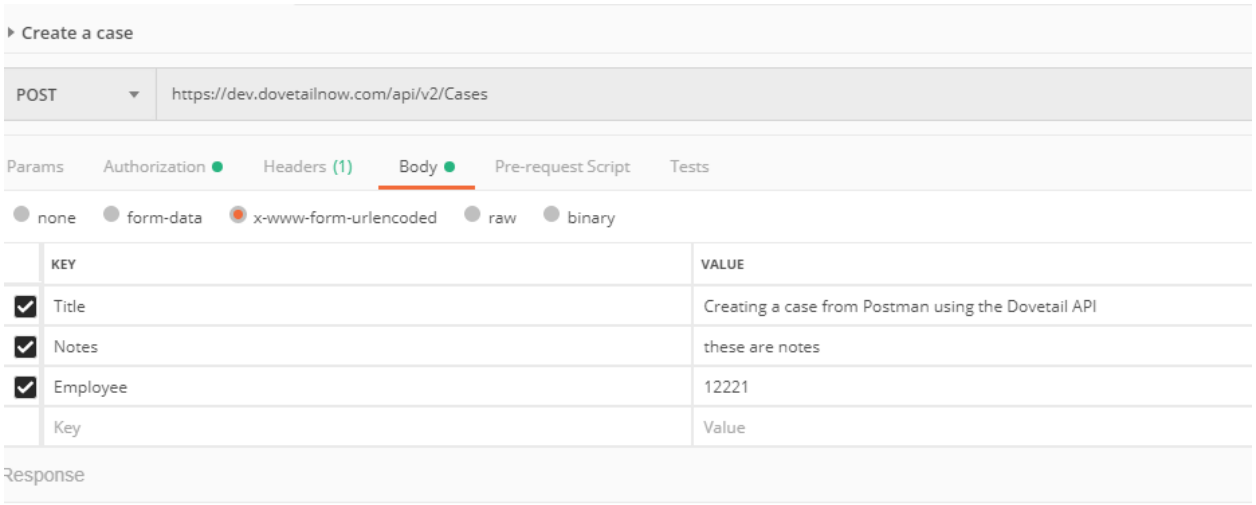
Headers

- Click on the Headers tab
- Add a new key of “Content-Type”
- Add a value of application/x-www-form-urlencoded



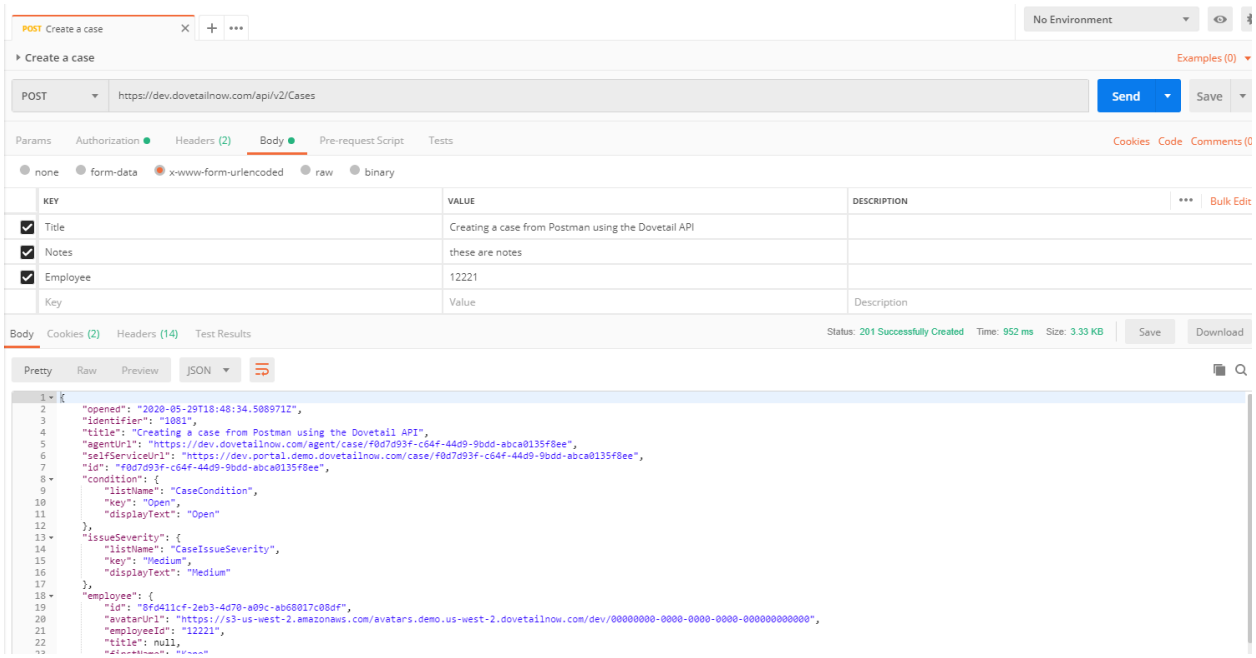
Body

- Click on the Body tab
- Select the x-www-form-urlencoded radio button
- Add in the key/value pairs for the data.
    - Title
    - Notes
    - Employee



Save & Send

- Click the *Save* button, so that our work is saved.
- Click on the *Send* button. This will send the request, and the lower portion of the screen will show the response. If all is well, it will show the details of the newly created case, in a pretty JSON format.



Take Note of

- The Status is displayed (in this case 201 Successfully Created)
- In addition to the Body of the response, there is also a Headers tab, so we can investigate the response headers, which is helpful when troubleshooting a problem.

Rinse, Lather, Repeat

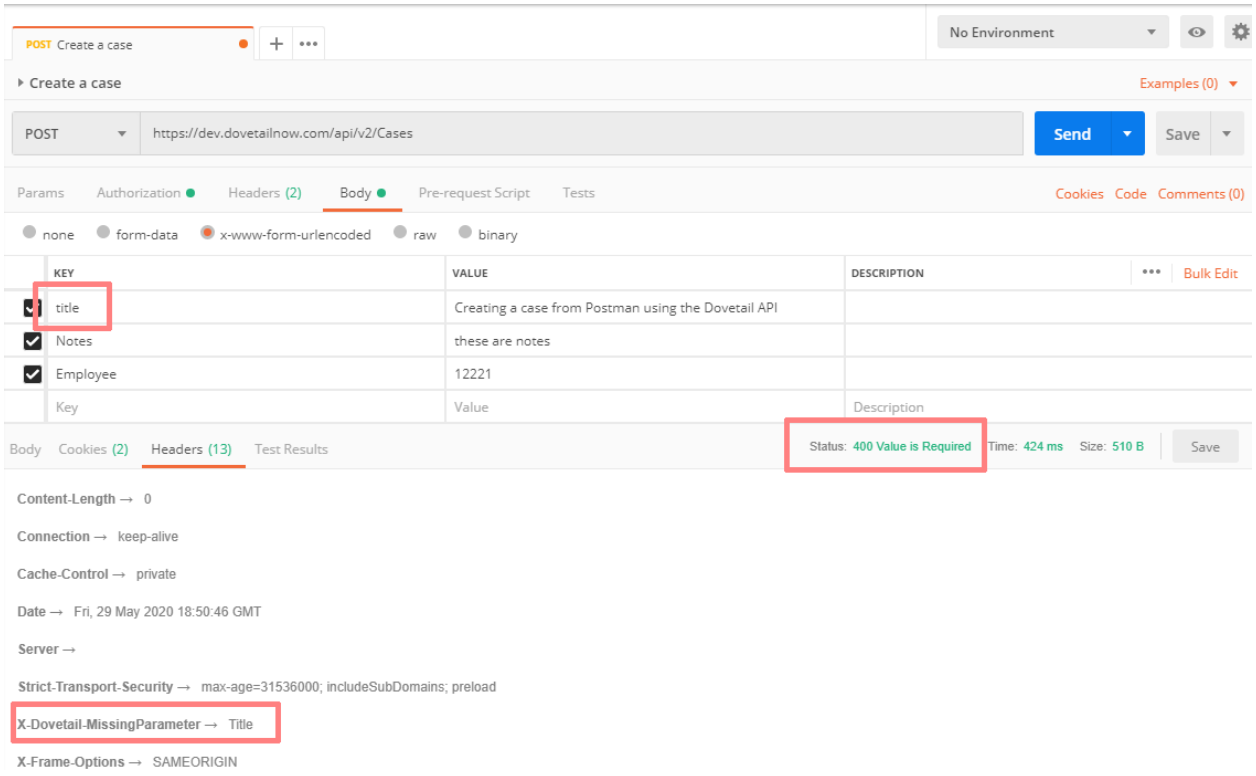
Follow the same patterns as above for using the other [available Dovetail APIs]

Additional Notes

For **multi-line text fields**, such as *notes*, use "**\n**" to indicate a newline.
Example: "This is line 1 of notes.\nThis is line 2 of notes",

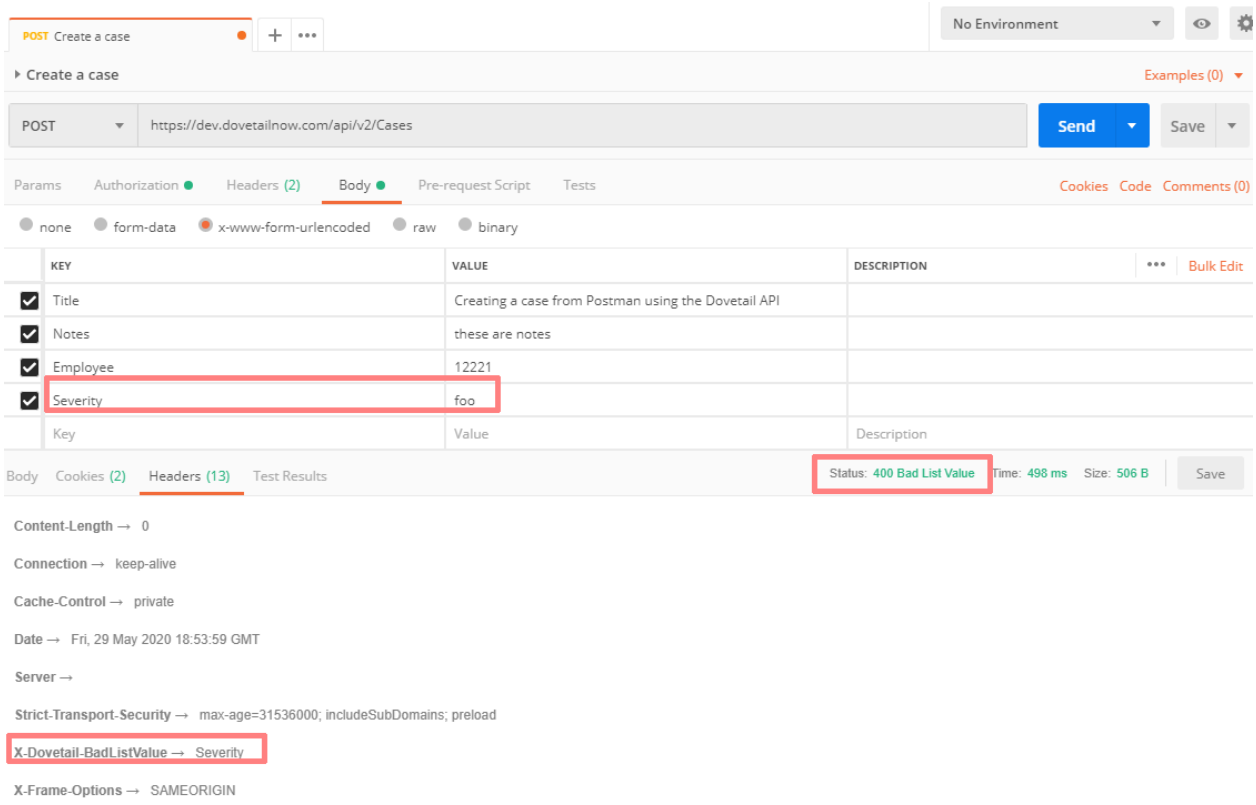
Common Problems:

Status: 400 Value is Required
This can happen when the form data parameter does not have the proper casing. Notice that this request failed, because the form data uses a key of *title* instead of *Title*



Status: 400 Bad List Value

This means one of the list values (Severity, Priority, or PortalCaseType) that you passed in is invalid. Check the *X-Dovetail-BadListValue* header to see which list it is.

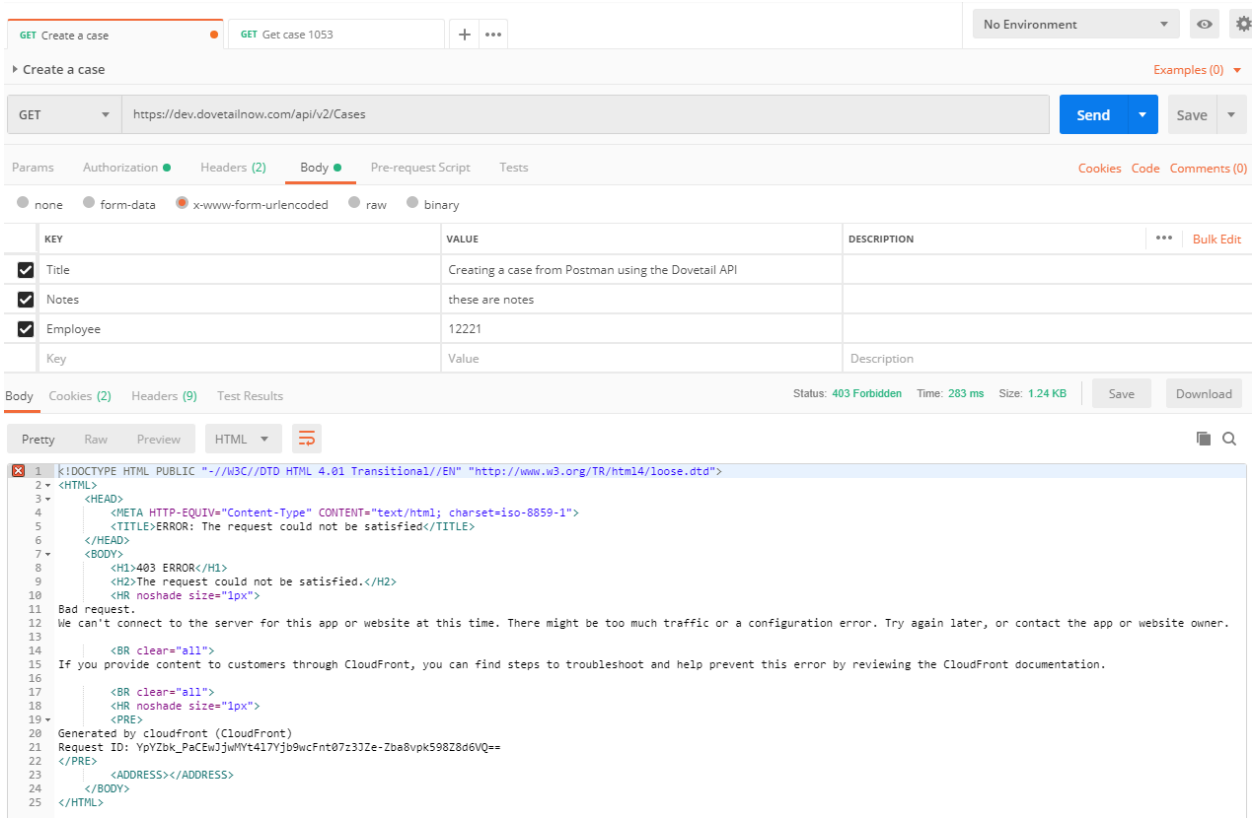


Status: 403 Forbidden

Normally, this is one of:

- Invalid username
- Invalid password
- User status is not Active

In addition, this can happen when using GET instead of POST when trying to create a case, as shown here:


GET Create a case
GET Get case 1053
No Environment
Create a case
Examples (0)
GET
https://dev.dovetailnow.com/api/v2/Cases
Send
Save
Params
Authorization
Headers (2)
Body
Pre-request Script
Tests
Cookies
Code
Comments (0)
none
form-data
x-www-form-urlencoded
raw
binary
KEY
VALUE
DESCRIPTION
Bulk Edit
Title
Creating a case from Postman using the Dovetail API
Notes
these are notes
Employee
12221
Key
Value
Description
Body
Cookies (2)
Headers (9)
Test Results
Status: 403 Forbidden
Time: 283 ms
Size: 1.24 KB
Save
Download
Pretty
Raw
Preview
HTML
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<HTML>
<HEAD>
<META HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=iso-8859-1">
<TITLE>ERROR: The request could not be satisfied</TITLE>
</HEAD>
<BODY>
<H1>403 ERROR</H1>
<H2>The request could not be satisfied.</H2>
<HR noshade size="1px">
Bad request.
We can't connect to the server for this app or website at this time. There might be too much traffic or a configuration error. Try again later, or contact the app or website owner.
<BR clear="all">
If you provide content to customers through CloudFront, you can find steps to troubleshoot and help prevent this error by reviewing the CloudFront documentation.
<BR clear="all">
<HR noshade size="1px">
<PRE>
Generated by cloudfront (CloudFront)
Request ID: YpYZbk_PaCEwJjwMYt417Yjb9wcFnt07z3JZe-Zba8vpk598Z8d6VQ==
</PRE>
<ADDRESS></ADDRESS>
</BODY>
</HTML>