# Welcome

Dogs&catsfinder <https://rescuegroups.org/>

In this tutorial we’ll make use of the rescuegroups APII with HTML, Javascript, AJAX, and JSON. It’ll help if you have some knowledge of Javascript.

### Here’s what we’ll cover:

* What’s an API?
* Getting a Key
* Our HTML
* Our Script
* JSON
* Navigating the Response

### Final product

We will build a form that takes a zip code, calls the Petfinder API, and returns the cans & dos name, image, color and other deception.

# Petfinder RescueGroups.org provides a Test API you may be able to use for your development efforts.

# Requests

## Headers

You must provide a Content-Type header with every request. The only content type supported is application/vnd.api+json.

You must provide an Authorization header with every request (except /tokens). Depending on the endpoint you must use either an API key or Bearer token Authorization (but never both).

See the [Authorization Use Cases](https://test1-api.rescuegroups.org/v5/public/docs#authusecases) below for more information

| **Name** | **Example** |
| --- | --- |
| Content type \* | Content-Type: application/vnd.api+json |
| Authorization (API key) \*\* | Authorization: {{apikey}} |
| Authorization (token) \*\* | Authorization: Bearer {{token}} |

**Authorization**

API key (access public data)

The most common authorization is to use a public API key. If you are building a public website you most likely will be using the API key authorization. This should be used to search public adoptable pet data and organizations.

Token-based authorization (access private data)

If you are making a request on behalf of a user with a RescueGroups.org login you should use the token authorization mechanism. You would use the user-provided credentials to generate a token.

When you make a valid request using a token, the response will include an updated Authorization header. You must update your local cache with the new token. See the [tokens](https://test1-api.rescuegroups.org/v5/public/docs#tokens) endpoint for more information.

Use cases

Here are some examples of when you would use API key or token-based authorization:

| **Use case** | **Authorization** |
| --- | --- |
| Requests for public adoptable pet and organization information | API key |
| Rescue/shelter building a public website for showing adoptable pets | API key |
| Add or update an organization's private data | Token (created using staff credentials) |

**Methods**

Below are the HTTP Methods that are supported by the API. Each endpoint will show which methods are supported.

| **Method** | **Description** |
| --- | --- |
| **GET** | The GET method is used to retrieve objects from the database. A GET request uses only the query string. You can use views to filter by commonly used criteria. |
| **POST** | The POST method is used to create an entity. You can also post to the search endpoint to perform an advanced search. |
| **PUT** | The PUT method is used to update an entire entity, or create a relationship when you know the entity Id. |
| **PATCH** | The PATCH method is used to update the attributes of an entity. Only the provided attributes will be updated on the entity. |
| **DELETE** | The DELETE method is used to delete (or mark for deletion) an entity.  **Radius searches**  Distance radius searches are available on specific endpoints. They can accomplished by providing a filterRadius object in the POST data. The distance can be miles or kilometers. The results meta will automatically include distance attribute which is the distance from the provided postal code in the same units as your request (miles or kilometers).  In order to make a valid geodistance search you must provide both a location, and distance. Location can be provided as lat and lon, coordinates (lat,lon), or postalcode. Distance can be provided as either miles or kilometers.  Provide ONE of:   |  |  | | --- | --- | | lat and lon | lat and lon as separate values in the data | | coordinates | Latitude and longitude together as comma separated (lat,lon) | | postalcode | A valid US or Canadian postal code (called zip code in the US). We will convert the postal code into latitude and longitude, using the "center", which is not as accurate as the two alternative methods above. |   and ONE of:   |  |  | | --- | --- | | miles | If you provide a miles value, the returned distance attribute will be in miles. | | kilometers | If you provide a kilometers value, the returned distance attribute will be in kilometers. |   Documentation: <https://documenter.getpostman.com/view/60615/SWT5j1e4?version=latest#d3f867ed-85c0-4239-bee2-9f91dfae2d5d> |