In this chapter, we'll be looking more closely at the ArchivesSpace REST API. We'll be using a tool called ASnake to make requests to the ArchivesSpace API.

To send a GET request to ArchivesSpace, we use the ASnake tool to make an HTTP GET request:

```python
client.get('http://localhost:8080/resource/response_json')
```

We can also use the ASnake tool to send a POST request to ArchivesSpace:

```python
```

Both requests and ArchivesSpace have Python methods named for the HTTP request type they represent. This can be very useful for writing API client libraries.

When we talk about working with the ArchivesSpace API, we're talking about writing and running scripts that make HTTP requests.

For the following exercises, we'll be actually running ASnake requests instead of just looking at the code.

### Summary

It's essentially a set of instructions for how to communicate with a system.

An API (Application Programming Interface) is a means for one program to interact with another.

To search for this in a repository:

```
FIELD_TO_SEARCH:TERM_TO_SEARCH_FOR
```

This can be used, for example, to search for all names containing the term "Dave's Script".

SOLR documents do not automatically contain nested JSONModel Objects in ASpace. However, we can insert and retrieve these JSONModel Objects using the ASnake tool.

If your repository record is stored as a JSONModel Object, you can use the ASnake tool to retrieve it:

```python
client.get('http://localhost:8080/repositories/24/top_containers/129087')
```

### HTTP Clients

Software that make HTTP requests.

Example:

```python
import requests

response = requests.get('http://example.com')
```

### HTTP Status Codes

HTTP status codes are a standardized way to indicate the success or failure of a request.

For example, a status code of 200 indicates success, while a status code of 404 indicates "not found".

### HTTP Methods

They are:

- GET
- POST
- PUT
- DELETE

### Commissioners

A record in ArchivesSpace consists of:

- A JSONModel Object
- A set of SOLR documents

SOLR documents can be used to search for records.

### API URLS

- Repository URL: `http://localhost:8080/repositories/:id`
- Top Containers URL: `http://localhost:8080/top_containers/:id`
- Resources URL: `http://localhost:8080/resources/:id`
- Agents URL: `http://localhost:8080/agents/:id`

### HTTP Authentication

ASnake supports basic HTTP authentication.

Example:

```python
client = asnake.client.HTTPClient('http://localhost:8080', username='example', password='example')
```

### More About

- [HTTP Authentication](#)
- [HTTP Clients](#)
- [HTTP Status Codes](#)
- [HTTP Methods](#)
- [SOLR Documents](#)
- [API URLs](#)
- [HTTP Authentication](#)
- [HTTP Clients](#)
- [HTTP Status Codes](#)
- [HTTP Methods](#)
- [SOLR Documents](#)
- [API URLs](#)