

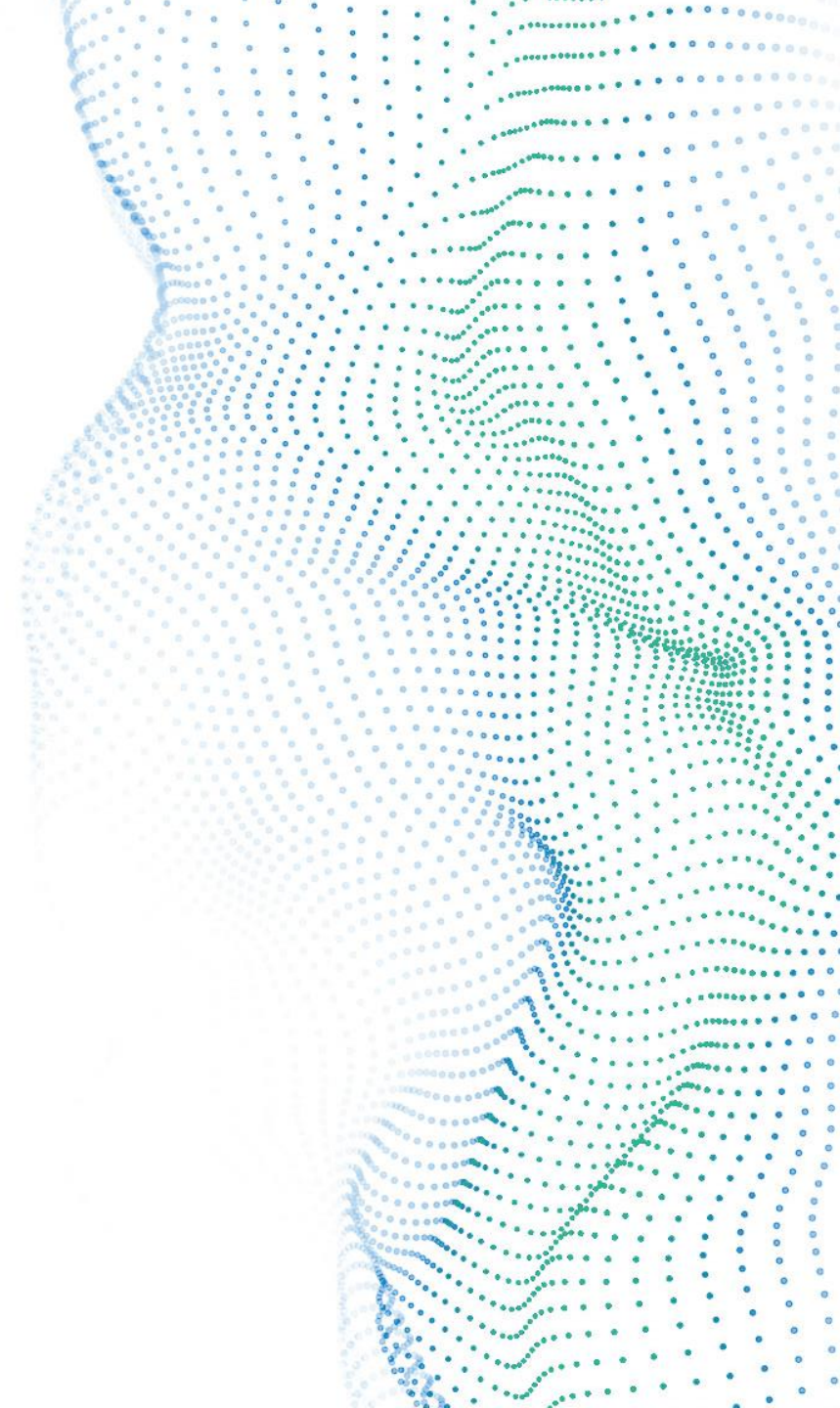
The Alteryx logo is displayed in a blue, lowercase sans-serif font. A solid blue vertical bar is positioned to the left of the text.

alteryx

Connecting to REST APIs

First Last | Your Job Title

July 2021



Agenda

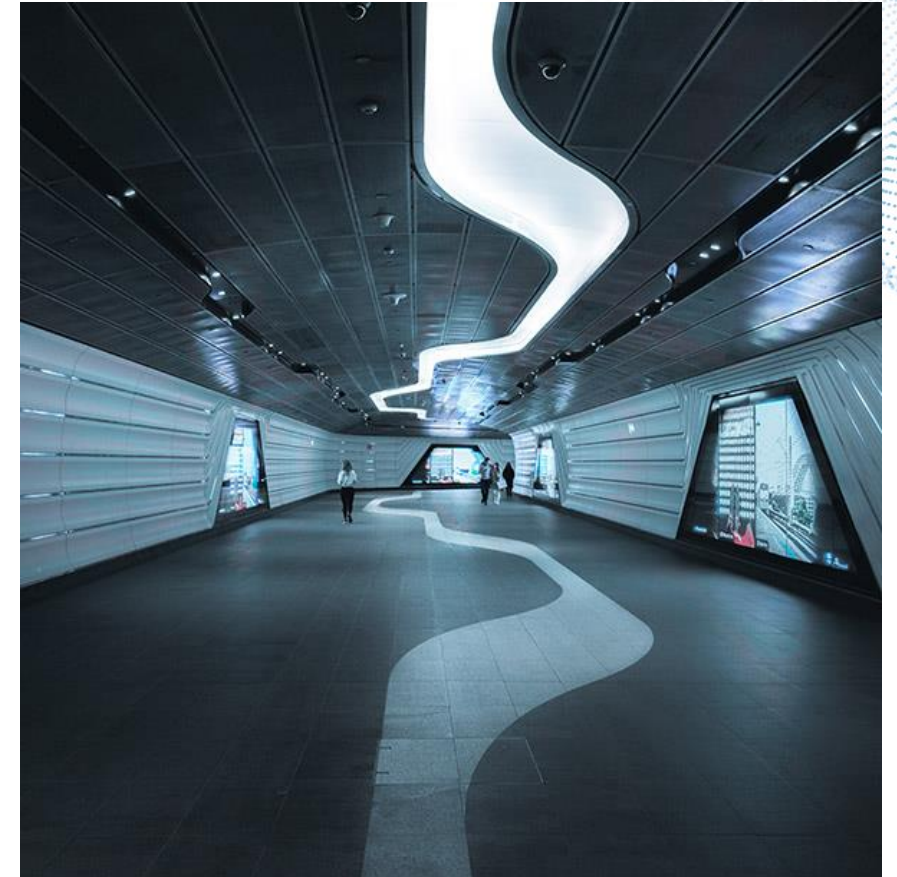
1 API Overview

2 APIs to Leverage

3 Download Tool

4 Authentication Types

5 Connecting to APIs



APIs Overview

What is an API?

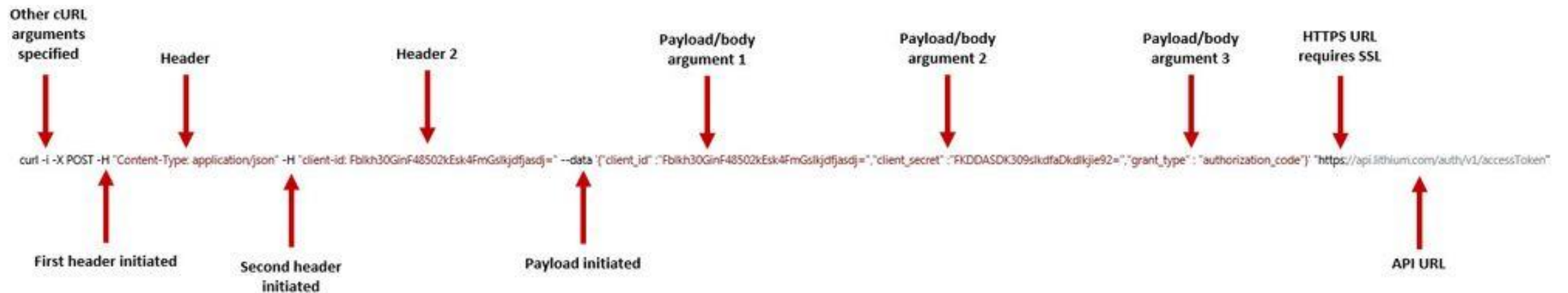
- An **application programming interface (API)** is a set of functional definitions, protocols, and tools for building application software.
- In general terms, it is a set of clearly defined methods of **communication** between various software components

Types of APIs

- REST APIs – Representation State Transfer
 - Not a protocol, set of a architecture style
- SOAP – Simple Object Access Protocol
 - XML Data Transfer
 - Publishes a definition of its interface in a machine-readable document, using Web Services Definition Language (WSDL)
- SOAP is like an envelope while REST is just a postcard.

REST APIs

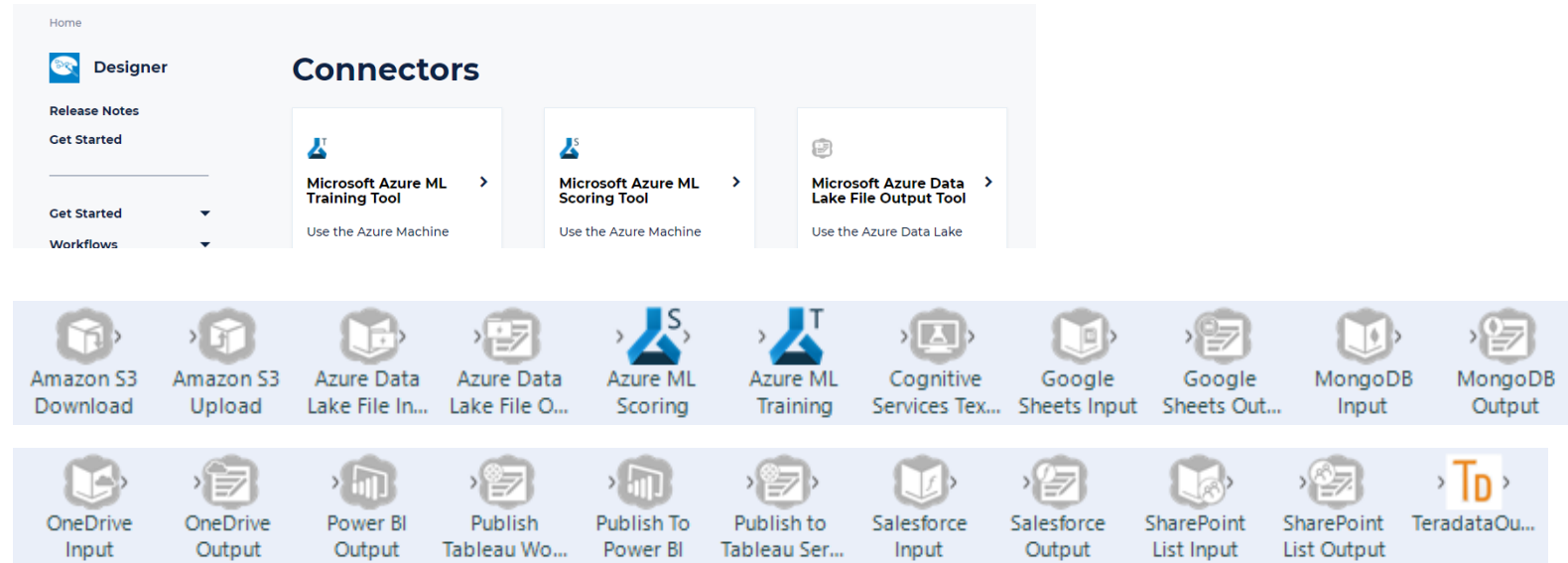
- **Key things** to look for in the developer documentation:
 - URL/Endpoint
 - Request Type
 - GET
 - POST
 - DELETE
 - Headers
 - Parameters/Payload



APIs you can leverage easily

Alteryx has its own connector category

- Salesforce
- Adobe
- Publish to Tableau Server
- SharePoint List
- OneDrive
- Microsoft Power BI
- Google Sheets
- etc



- Connector Help Docs: <https://help.alteryx.com/current/designer/connectors> for more information
- Download other connectors from Gallery.Alteryx.com

Download Tool

Specify field that contains URL

Choose output field type

- String – Returning Text
- Blob – Returning an image

Headers Tab

- Modify HTTP headers sent

Payload

- GET, POST, PUT, DELETE, HEAD

Download (7) - Configuration

Basic Headers Payload Connection

URL Field

URL

Encode URL Text

Output

To a Field

String

Data Encoded As Unicode UTF-8

Blob

To a File

Temporary File

Filename from a Field

URL

Types of Authentication

- **API Key:**
 - May involve creating/registering an app
 - Use a unique API Key granted to you in your request header
- **Basic:**
 - Base 64 encoded username and password you already use to access your account
- **OAuth:**
 - Works by sending your client id/secret or username/password to an endpoint in exchange for an authorization code or access token to use in a resource request. Most often requires you to create/register an application with the service which is used to authenticate you as a client to the service. There are currently two types of OAuth:
 - OAuth 1.0
 - OAuth 2.0

OAuth Support in Designer

- Please see the below summary for OAuth authentication methods and whether they can be levered within Alteryx.
- **OAuth 1.0**
 1. Temporary Credentials - Requires a redirect URI, does not lend itself to Alteryx workflows.
 2. Resource Owner Authorization - Can be used within Alteryx workflows.
 3. Token Credentials - Can be used within Alteryx workflows.
- **OAuth 2.0**
 1. Authorization Code Grant - Requires a redirect URI, does not lend itself to Alteryx workflows.
 2. Implicit Grant - Requires a redirect URI, does not lend itself to Alteryx workflows.
 3. Resource Owner Password Credentials Grant - Can be used within Alteryx workflows.
 4. Client-Credentials Grant - Can be used within Alteryx workflows.

CONNECTING TO APIs

1. Explore API docs to find required information
 - What authentication do we need?
 - How is the request set up?
 - What is the URL I am hitting?
2. Sort out Authentication
3. Generate Requests (and workflow/data required)
4. Receive response
5. Parse API response

Use Case: Connecting to yelp API

Use Case: Yelp

API Docs:

https://www.yelp.com/developers/documentation/v3/get_started

Authentication:

<https://www.yelp.com/developers/documentation/v3/authentication>

This API uses an API Key for authentication.

Build a query to identify pizza businesses located in Huntington Beach, California.



Build Your Own Connector Series

Alteryx Community Knowledge Base

[Guide to Creating Your Own Connector - Authentication](#)

[Guide to Creating Your Own Connector - Generating the Request](#)

[Guide to Creating Your Own Connector - Parsing API Response](#)

[Guide to Creating Your Own Connector - Handling Errors](#)

[Guide to Creating Your Own Connector - User Interface](#)

This series can be found here: <https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Guide-to-Creating-Your-Own-Connector-Series/ta-p/23578>

Support Resources

Support Resources

1

ALTERYX COMMUNITY

Post your questions, search discussion forums, read Knowledge Base articles and contribute your knowledge at community.alteryx.com.

2

ALTERYX ACADEMY

Complete interactive lessons, participate in the Weekly Challenge and learn about product certification at academy.alteryx.com.

3

TECHNICAL SUPPORT

The Alteryx Global Customer Support Team is available to provide Customers with Support assistance and guidance on various issues and questions regarding supported versions of Alteryx Products.

<https://community.alteryx.com/t5/Support/bd-p/SupportPage>



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Thank you

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