

# Using API's to collect data

SI507

# Schedule

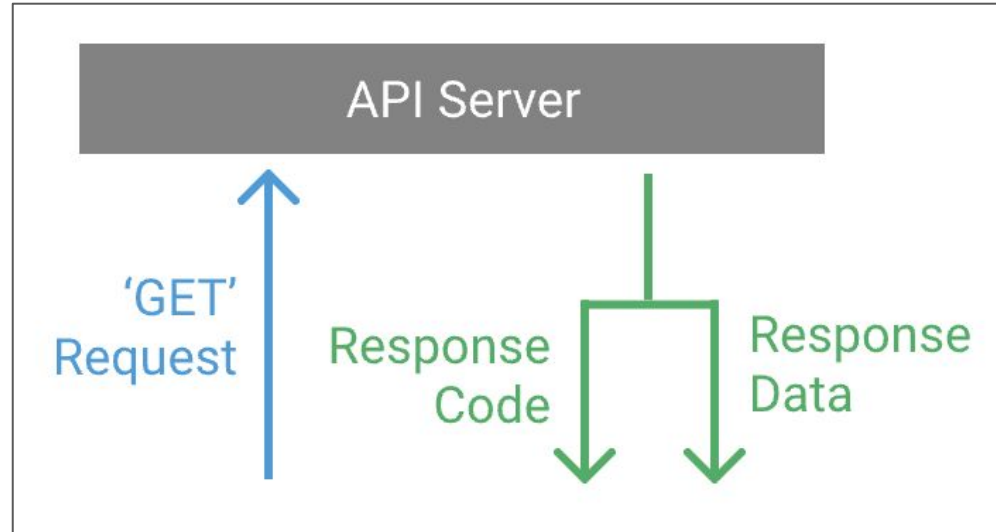
- Lab materials: **[bit.ly/3AGZz5g](https://bit.ly/3AGZz5g)**
  - Download the lab notebook
- Application Programming Interfaces (API)
  - Final Project Overview
  - API Overview
  - [Activity] Making API calls (without credentials)
  - [Activity] Making API calls (with credentials)

# API Overview

- What can API be used for?
  - Getting data
  - But, API's have many other functions (e.g. send an email with the Gmail API)
- Where are API's?
  - Can google "[site] + API" and see
  - Somebody made a database ([link](#))
- **Knowledge required to use an API**
  - **Making requests in Python**
  - **Browsing a site's API docs**
    - Acquiring credentials (if required)
    - Understanding parameters
    - Understanding response

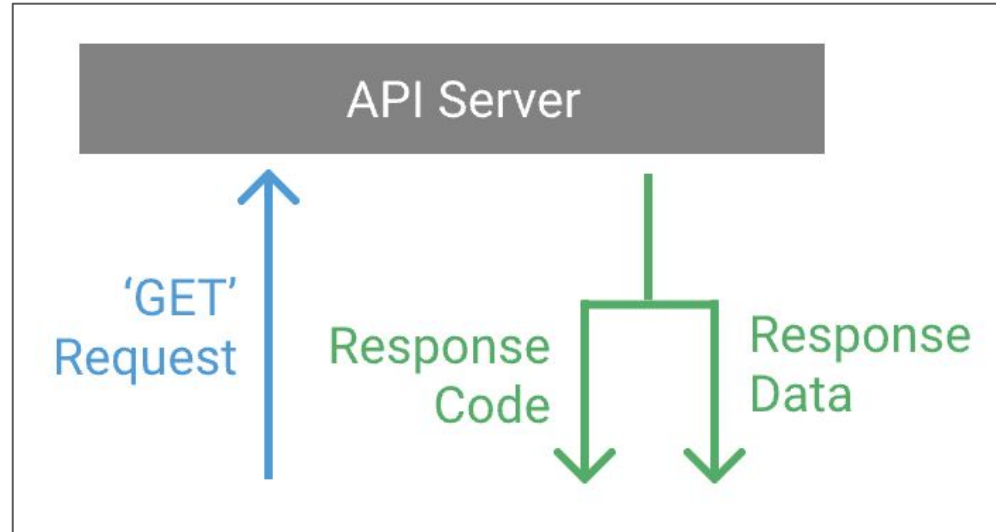
# API Process

1. Acquire credentials, if required
2. Build the request URL
3. Execute the "GET" request
4. Unpack the response
  - a. Response code
  - b. Response data



# API Overview

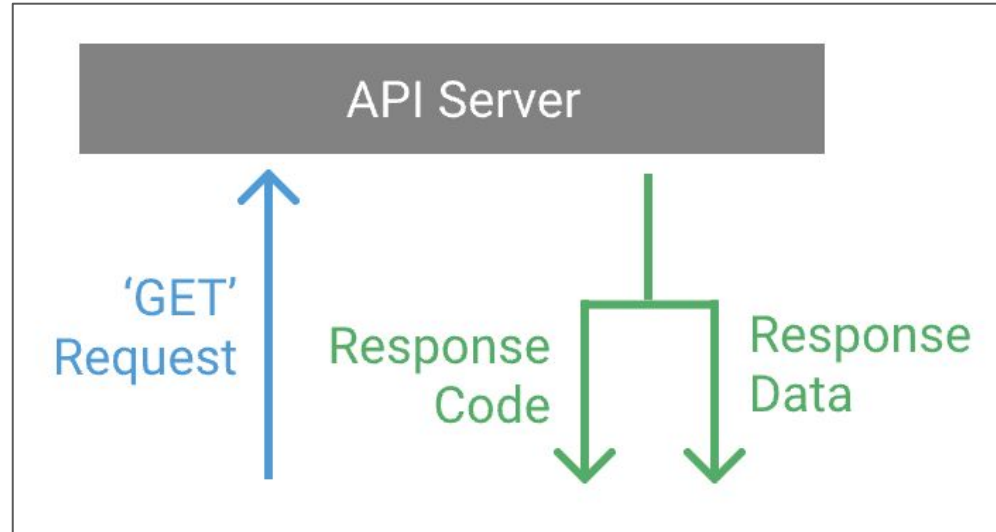
1. Acquire credentials, if required
2. **Build the request URL**
3. **Execute the "GET" request**
4. **Unpack the response**
  - a. Response code
  - b. Response data



## Exercise 1: International space stations API

# API Overview

1. Acquire credentials, if required
2. Build the request URL
3. Execute the "GET" request
4. Unpack the response
  - a. Response code
  - b. Response data



## Exercise 2: last.fm API