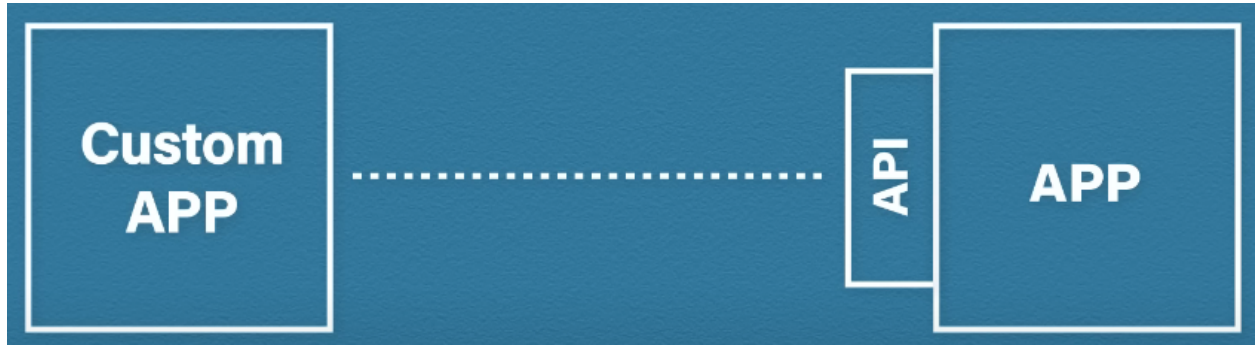


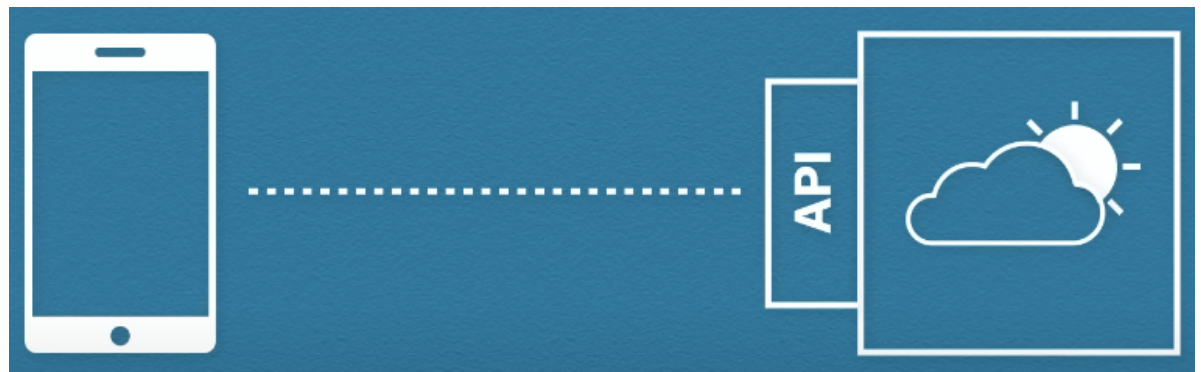
What is an API?

- API (Application Programming Interface) is a system that allows communication between two software components
- An API server is the connection between the client and the source of the data
- APIs connect data between applications

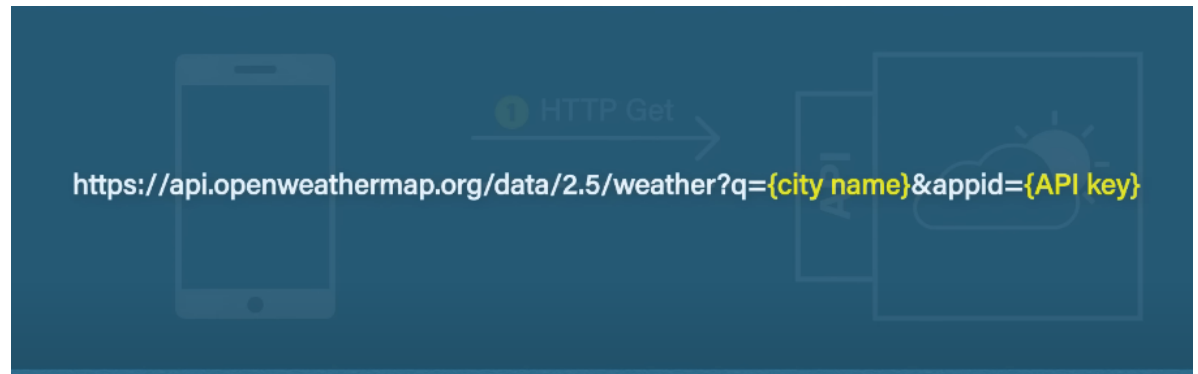


How does an API work?

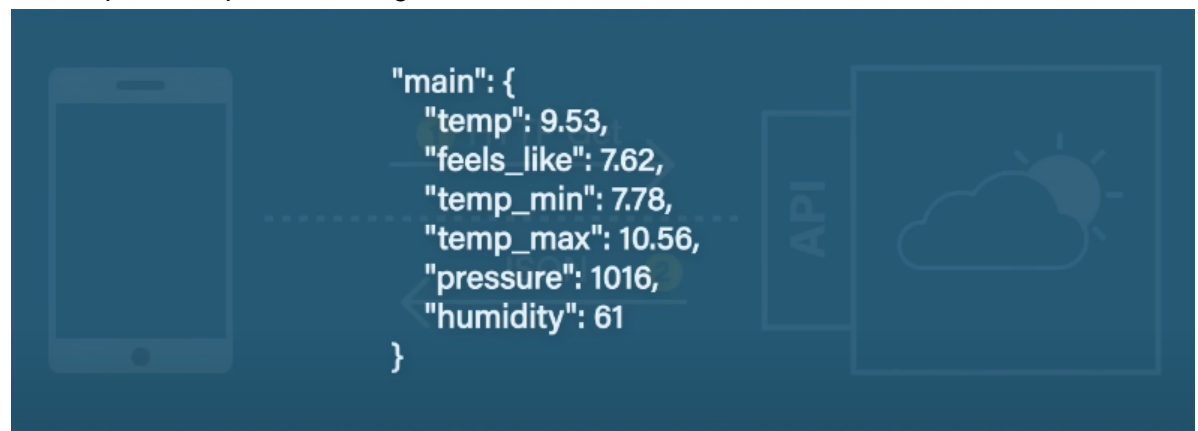
- When an application requests information, the API server will process the request and return an appropriate response
  - HTTP Methods used to request data
    - POST - creates on the web application
    - GET - reads from the web application
    - PUT - updates information (replace)
    - PATCH - updates information (modify)
    - DELETE - deletes information
  - The response is usually sent back in a JSON or XML format
- Take a mobile app and an existing weather application



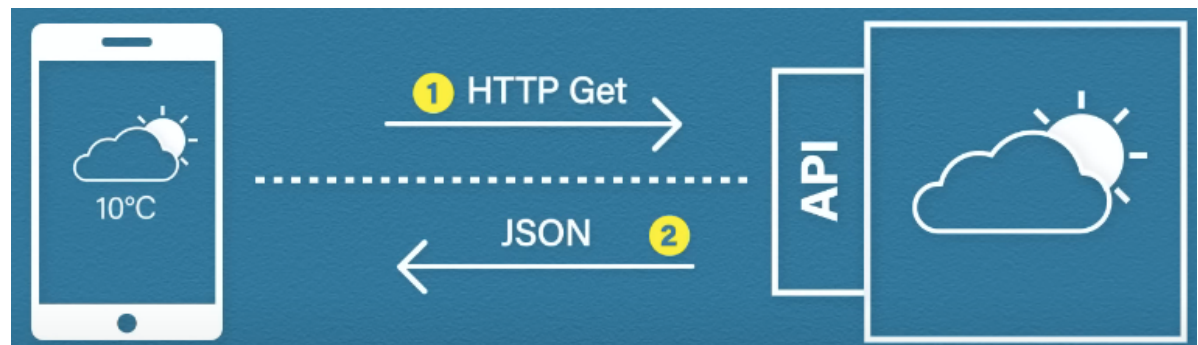
- 
- We can send an API GET request from our mobile application to the weather application (see below for an example)



- 
- An API key allows the application to keep track of the number of requests sent as well as prevent spams that might take the server offline



- 
- Here is an example response in JSON format




- 
- This information could be taken and programmed into our mobile application to display it.

### API Use Cases

- API servers in connection to social media can allow third-party applications access and authorization to edit data such as retrieving user information and making posts
- Logging into a website requires authentication by checking the inputted credentials. If the login credentials are correct then the system will allow you to proceed.

## Source

-  APIs Explained | Real World Examples
- <https://blog.interactor.com/what-is-an-api-server>