

What is an API?

Memilavi
www.memilavi.com



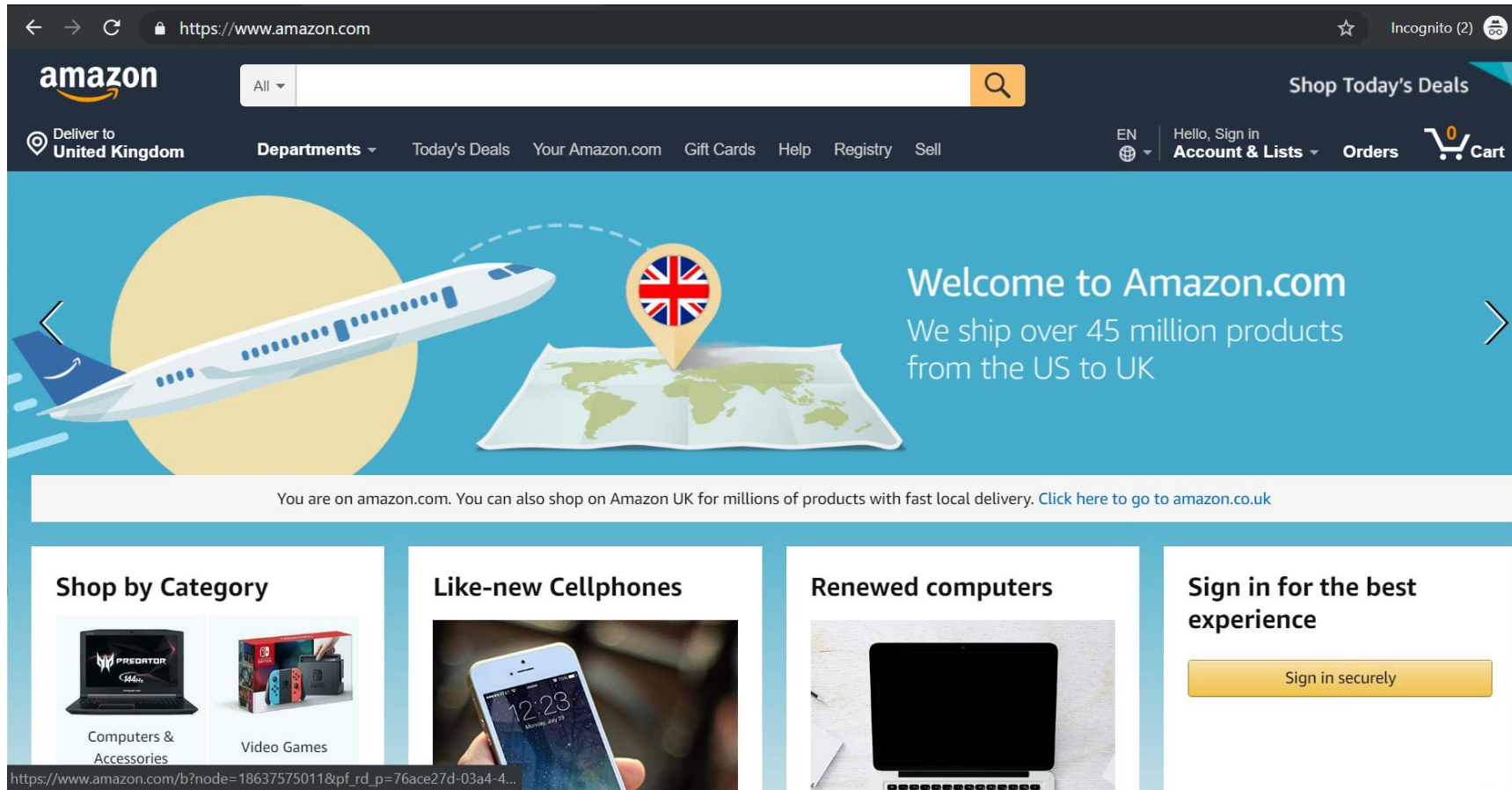
Application Programming Interface



*A set of clearly defined methods of
communication among various components*

https://en.wikipedia.org/wiki/Application_programming_interface

Interfaces



User Interface

Interfaces

```
GET /account HTTP/1.1
```

```
Content-Type: application/json
```

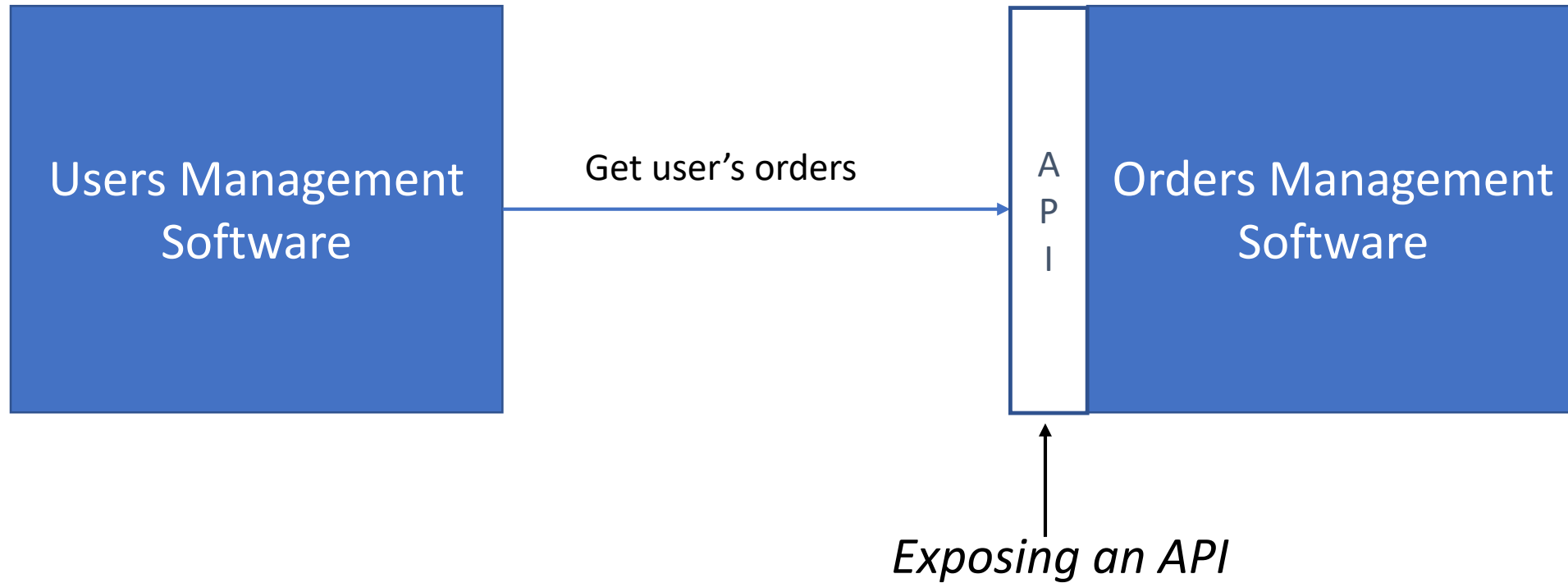
```
Host: apigateway.us-east-1.amazonaws.com
```

```
X-Amz-Date: 20160531T184618Z
```

```
Authorization: AWS4-HMAC-SHA256 Credential={access_key_ID}/us-east-1/apigateway/aws4_request, SignedHeaders=content-type;host;x-amz-date, Signature={sig4_hash}
```

Application Interface

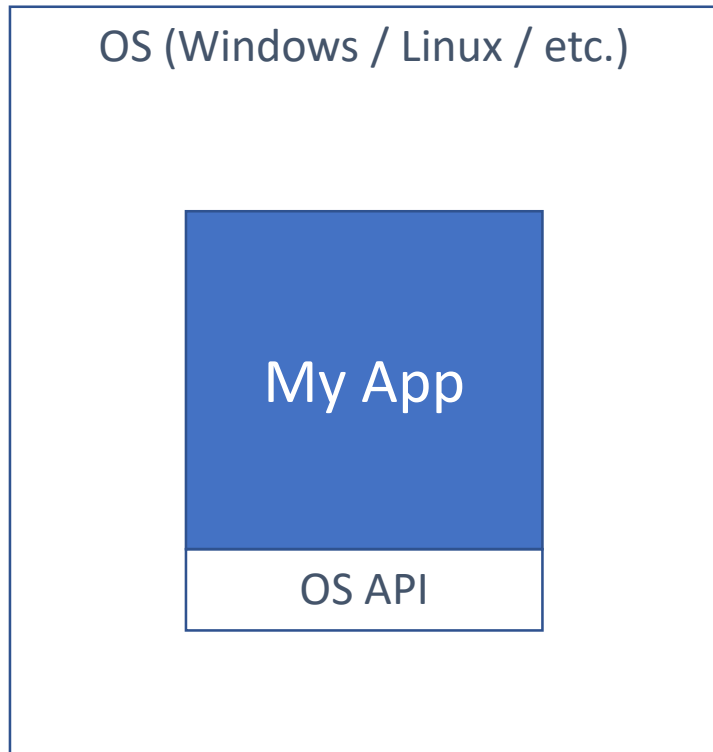
How It Works?



API Types

- Operating System
- Library
- Remote
- Web

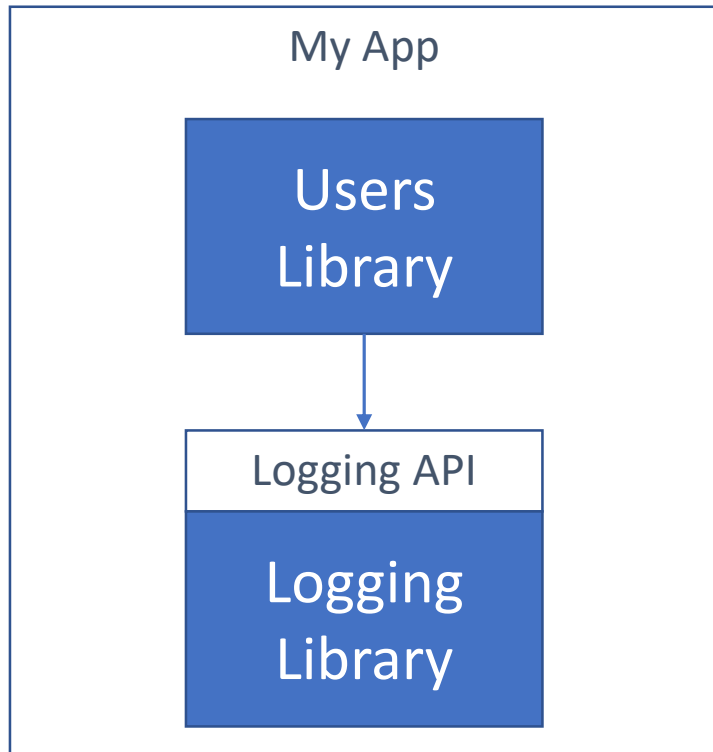
Operating System API



- File System
- Network Devices
- User Interface Elements

Win32 API

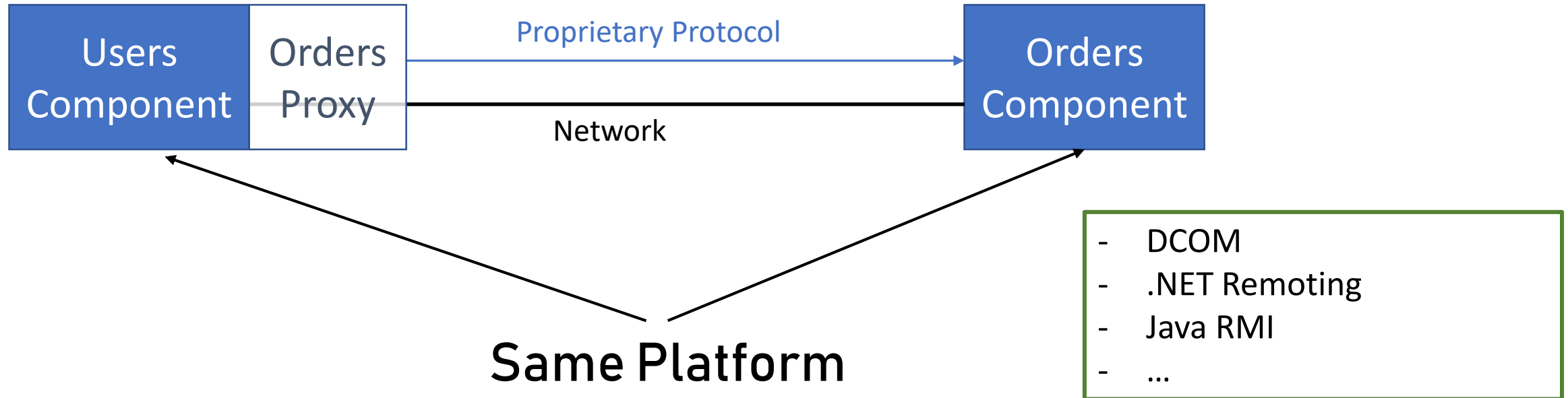
Library API



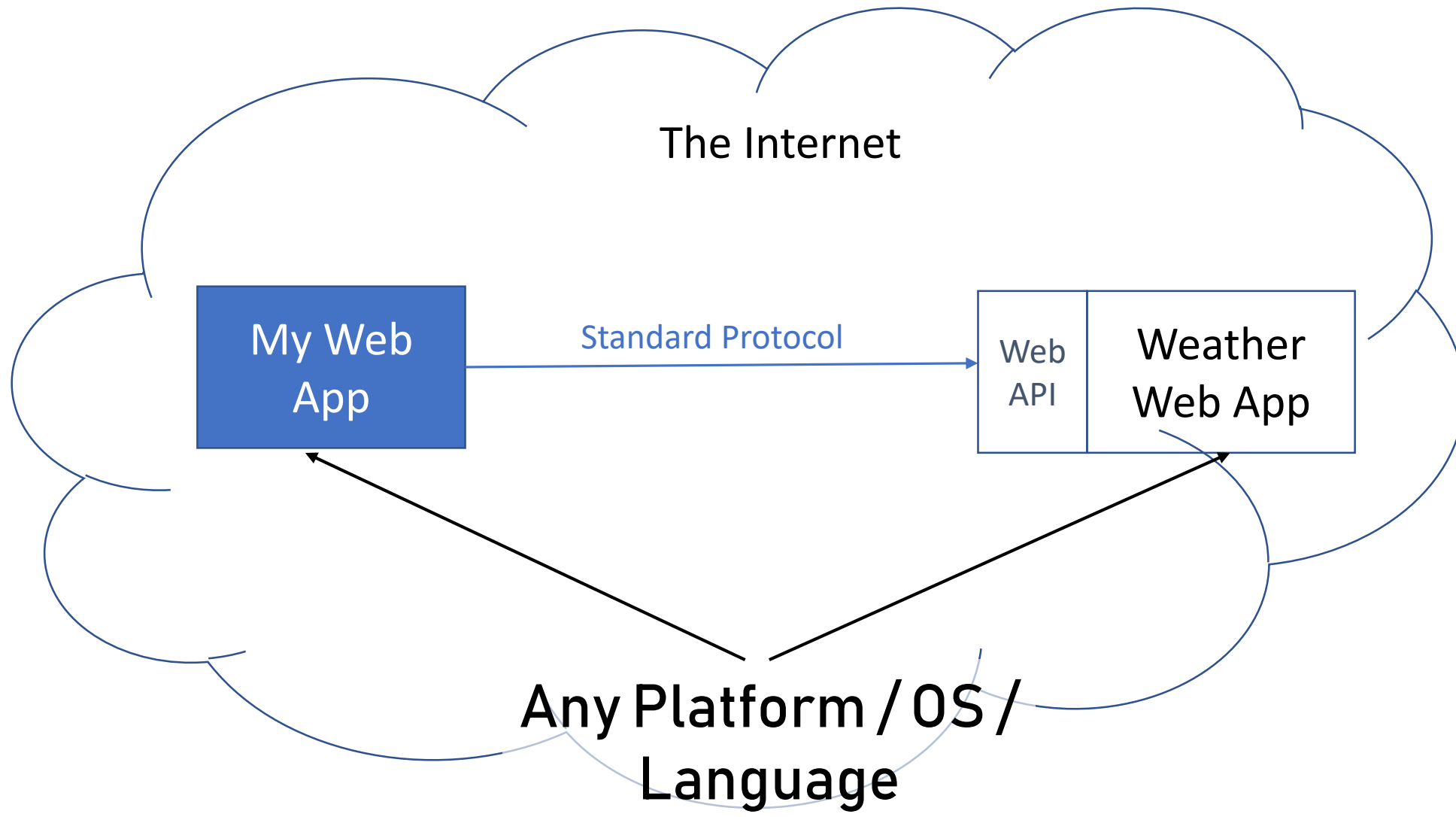
Class Library

- .NET
- Java
- Python
- node.js
- ...

Remote API



Web API

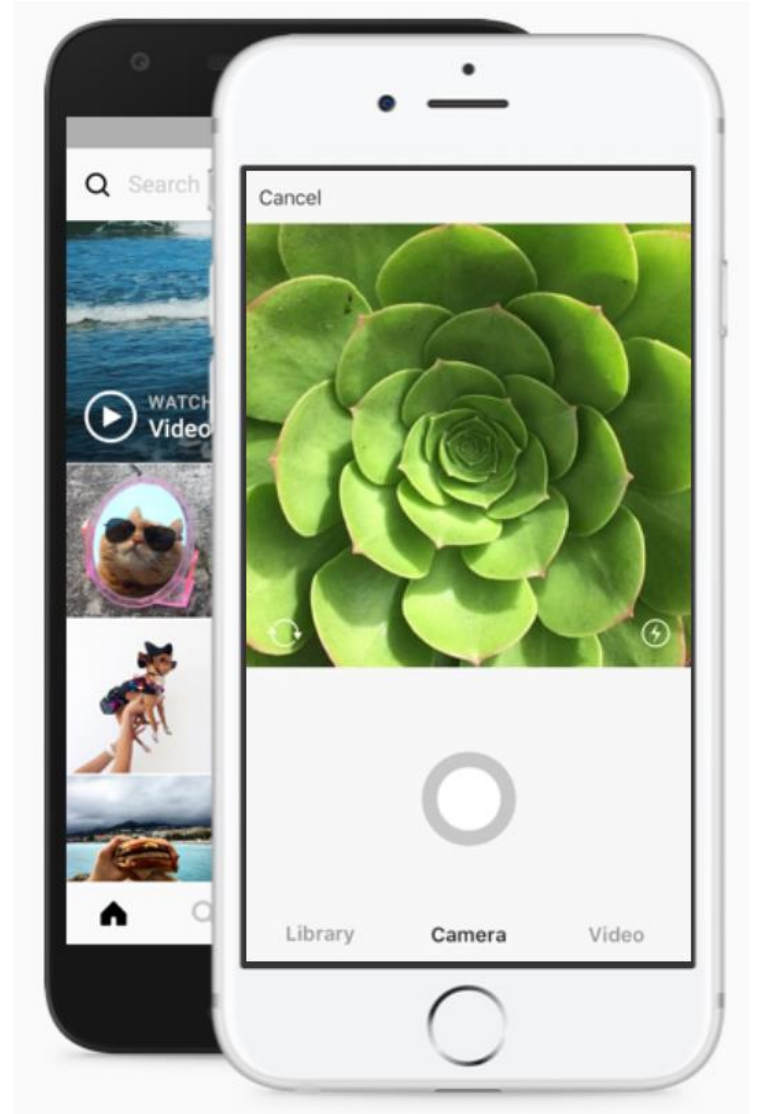


Importance of API

- Your API will be used:
 - By your UI
 - To extend your app's reach
 - To allow monetization

API For The UI

- Modern apps are built for web and mobile
- Mobile apps **MUST** have an API on the server in order to communicate with it
- Web clients built using SPA also **MUST** have an API on the server



Extend Your Reach

- By exposing API, other apps can use your data

The screenshot displays the Microsoft Outlook calendar application. The top ribbon includes tabs for File, Home, Send / Receive, Folder, View, and Help. The Home tab is active, showing various calendar-related actions like 'New Appointment', 'New Meeting', 'New Skype Meeting', 'Today', 'Next 7 Days', 'Day', 'Work Week', 'Week', 'Month', 'Schedule View', 'Open Calendar', 'Calendar Groups', 'E-mail Calendar', 'Share Calendar', 'Publish Online', 'Calendar Permissions', 'New Group', 'Browse Groups', 'Search People', and 'Address Book'. The main calendar view shows a weekly layout for July 28 - August 3, 2019, with the location set to Washington, D.C. A weather widget is overlaid on the calendar, displaying the current temperature as 93°F with light rain, and a link to <http://www.foreca.com/>. A red arrow points to this URL. The weather widget also shows wind speed (3 mph South), humidity (39%), and precipitation (10%).

Calendar - Outlook

File Home Send / Receive Folder View Help Tell me what you want to do

New Appointment Meeting Items New New Meeting New Skype Meeting Today Next 7 Days Day Work Week Week Month Schedule View Open Calendar Groups E-mail Calendar Calendar Online Permissions New Group Browse Groups Search People Address Book

July 2019

SU MO TU WE TH FR SA

30 1 2 3 4 5 6

7 8 9 10 11 12 13

14 15 16 17 18 19 20

21 22 23 24 25 26 27

28 29 30 31

July 28 - August 3, 2019 Washington, D.C.

Today 91° F / 76° F Tomorrow 92° F / 77° F Tuesday 92° F / 76° F

SUNDAY MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY

28 29 2 3

93° F Light Rain as of 9:26 PM Wind: 3 mph South Humidity: 39% Precipitation: 10%

<http://www.foreca.com/> See more online

Monetize!

- Charge for access for your data

The screenshot shows the Twitter Developer API pricing page. The header is purple with the Twitter logo, 'Developer' link, and navigation links for 'Use cases', 'Products', 'Docs', 'More', and 'Labs'. On the right of the header are 'Dashboard' and a user profile 'memilavi' with a dropdown arrow. The main content area has a white background. On the left, there's a section titled 'Subscription levels'. The main heading is 'Developer tools and APIs built for innovation and scale.' Below this is a paragraph explaining the different levels of data access. The pricing is presented in three columns, each with a blue header: 'Standard', 'Premium', and 'Enterprise'. Each column describes the level of access and lists features.

Standard	Premium	Enterprise
Our free, standard APIs are great for getting started, testing an integration, or validating a concept.	Our premium APIs offer scalable access to Twitter data for those looking to grow, experiment, and innovate.	Our enterprise APIs offer the highest level of access and reliability to those who depend on Twitter data.
Featuring: Foundational, free APIs Basic query complexity Forum access	Featuring: Scalable access to increased data Free sandbox and flexible month-to-month contracts Forum access	Featuring: Enterprise-grade APIs Tailored packages and annual contracts Dedicated account managers and technical support

Why Do You Need a Well-Designed API?

A background image of a business meeting. In the foreground, a man in a dark suit and striped tie is shaking hands with a woman in a light-colored blazer. In the background, two other men are visible, one in a grey suit and one in a white shirt. The scene is set in a modern office with large windows.

Your Developers Are Customers

They Have Alternatives

**Your API Should Be Easy To Use
and Consistent**

Satisfied Customers => Less Support Calls

