

SALLE ÉDUCATION

● JAMF
NATION
LIVE



Extension de Jamf School avec l'API

Julien Simonin Channel Sales Engineer, Jamf

Extending Jamf School with the API

● **JAMF
NATION
LIVE**



Julien Simonin
Channel Sales Engineer
France
Jamf

Agenda

1 | Qu'est ce qu'une API?

Si vous n'avez jamais entendu parler de l'API, jetons les bases et découvrons pourquoi elle est utile.

2 | Les Endpoints API

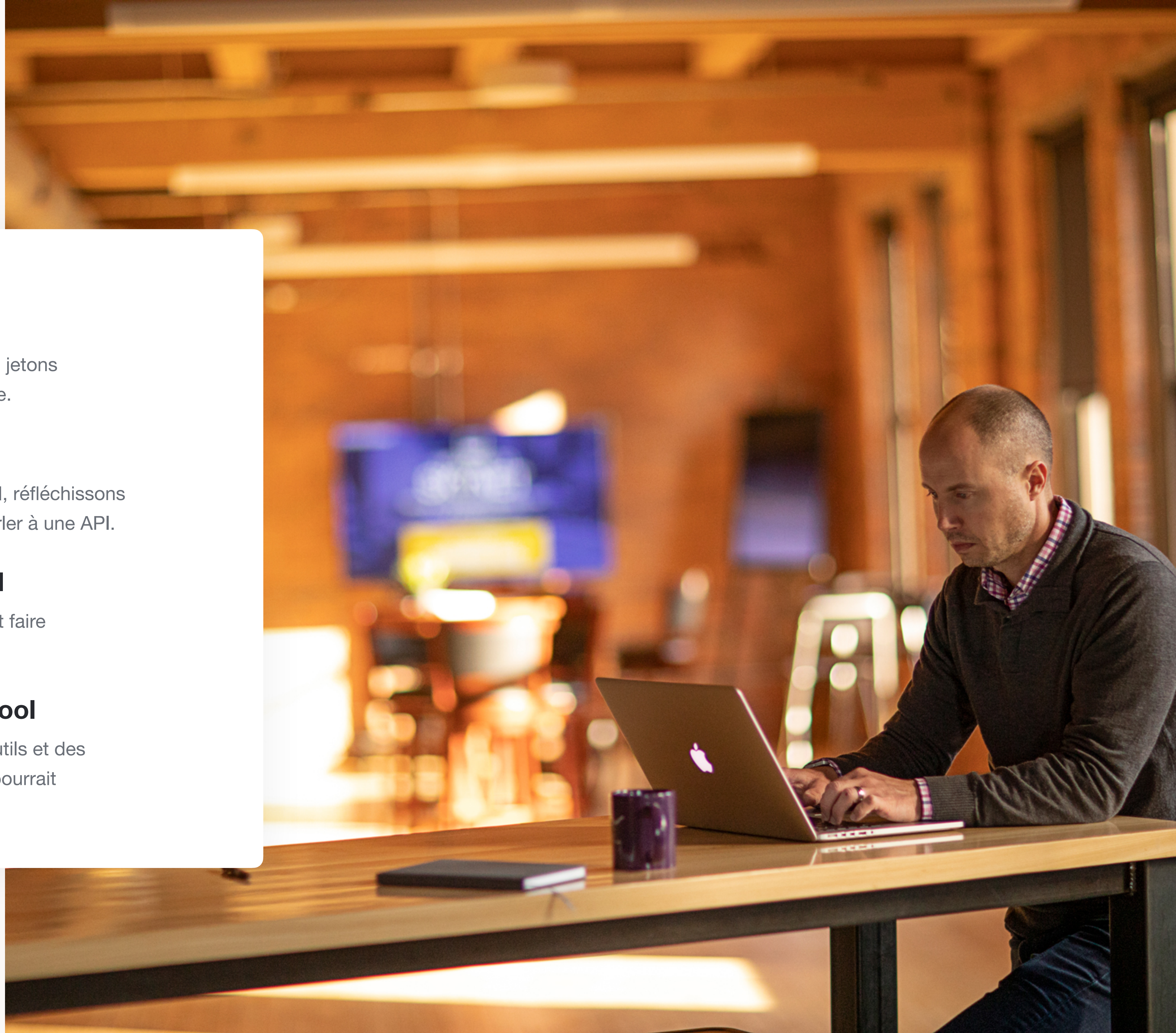
Maintenant que vous savez ce qu'est une API, réfléchissons aux éléments dont vous avez besoin pour parler à une API.

3 | Interagir avec l'API Jamf School

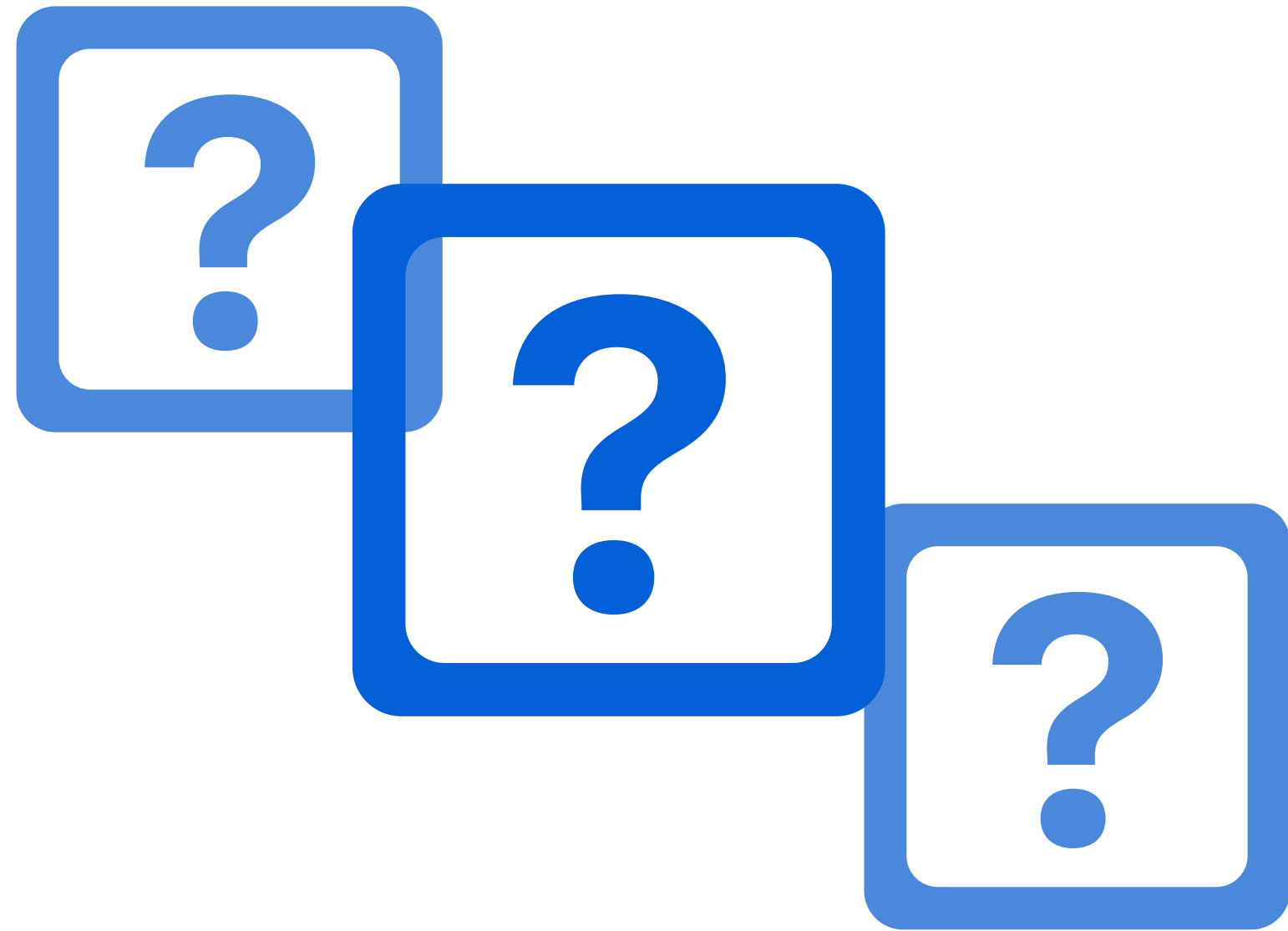
Comment démarrer avec l'API Jamf School et faire votre premier appel API

4 | Étendre le pouvoir de Jamf School

Nous terminerons par des ressources, des outils et des réflexions sur des situations réelles où l'API pourrait améliorer votre flux de travail.



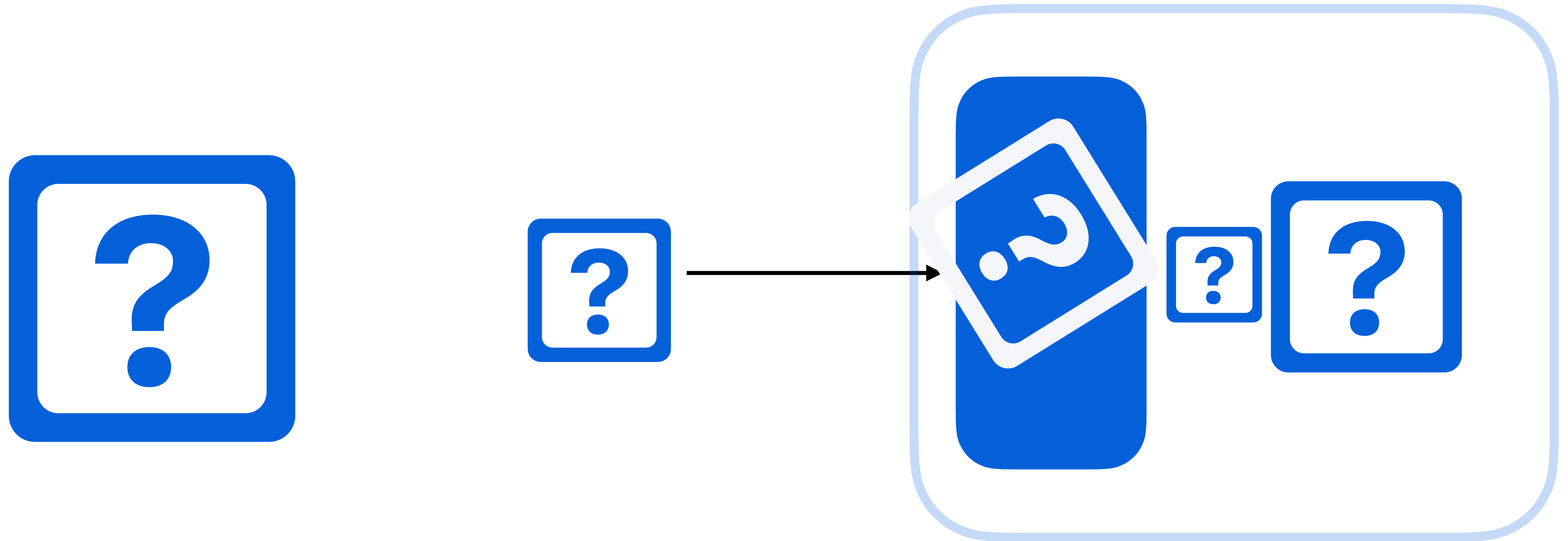
Qu'est-ce qu'une API ?



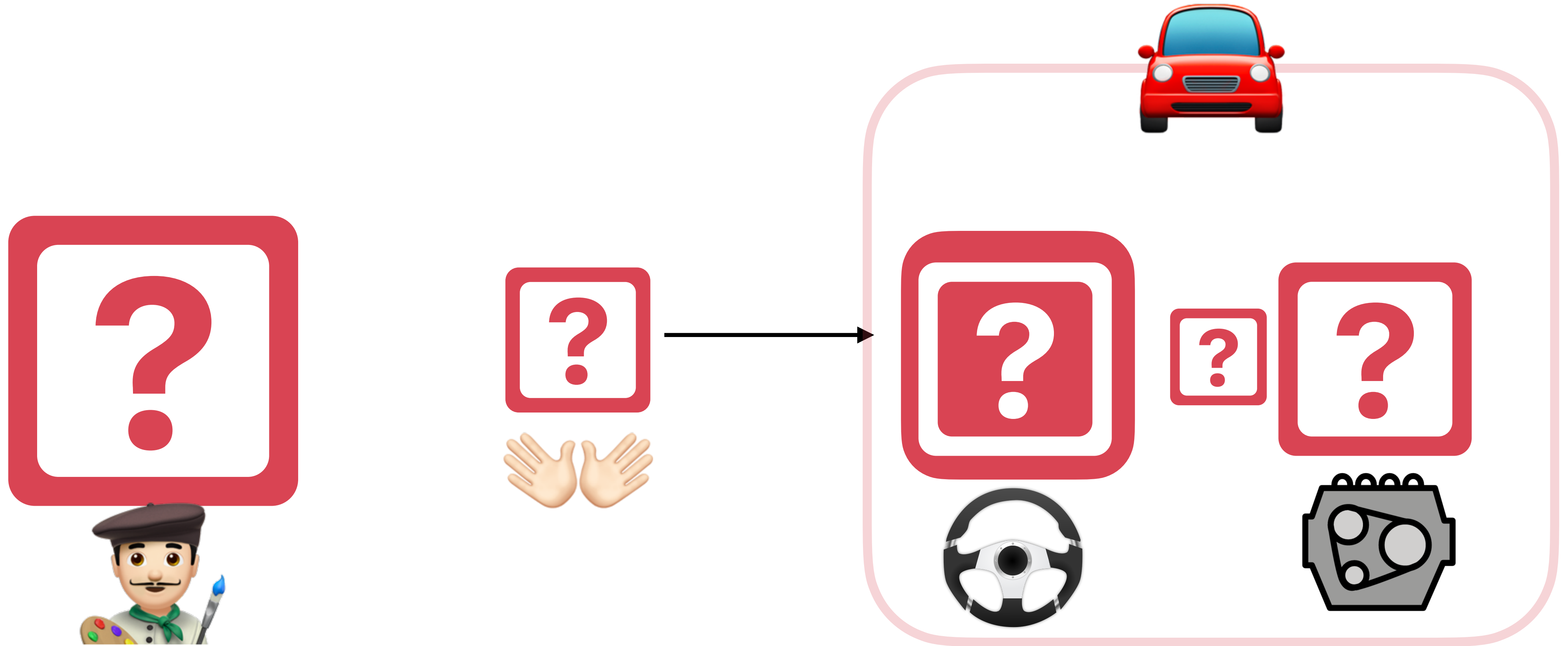
“Une API est un ensemble de routines, de protocoles, et d'outils permettant de créer des applications logicielles.”



Application Programming Interface



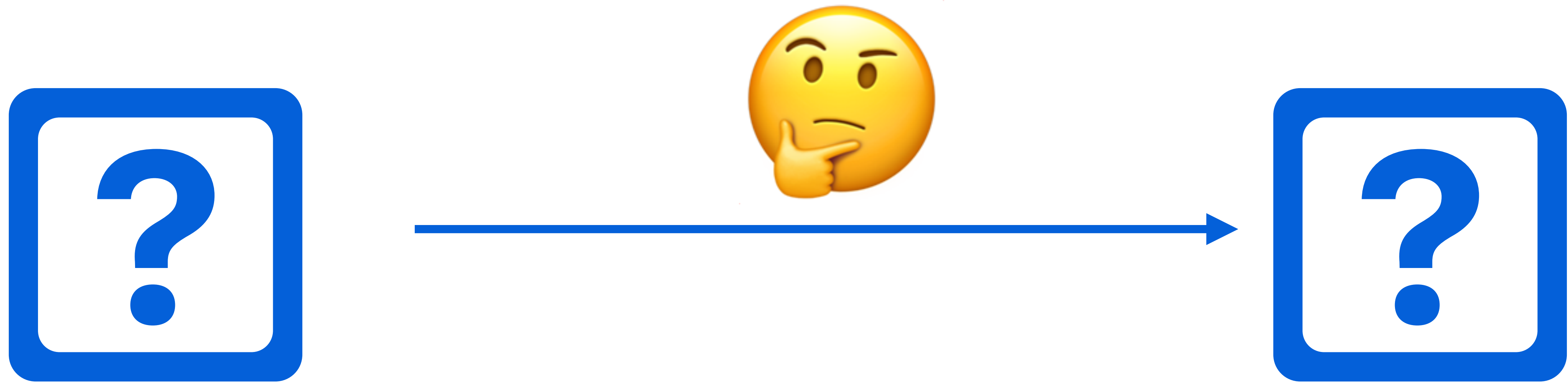
Application Programming Interface



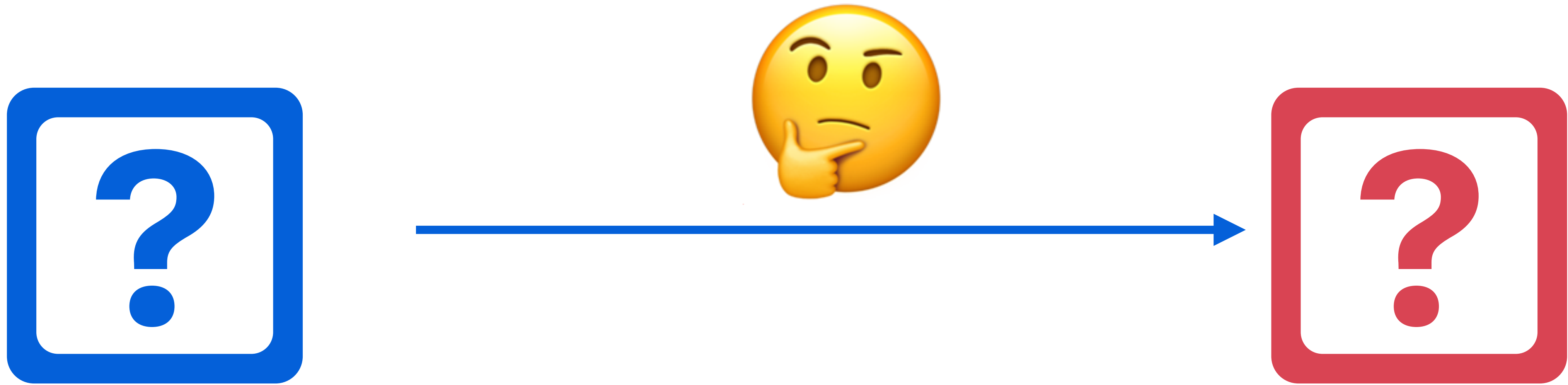
Application Programming Interface



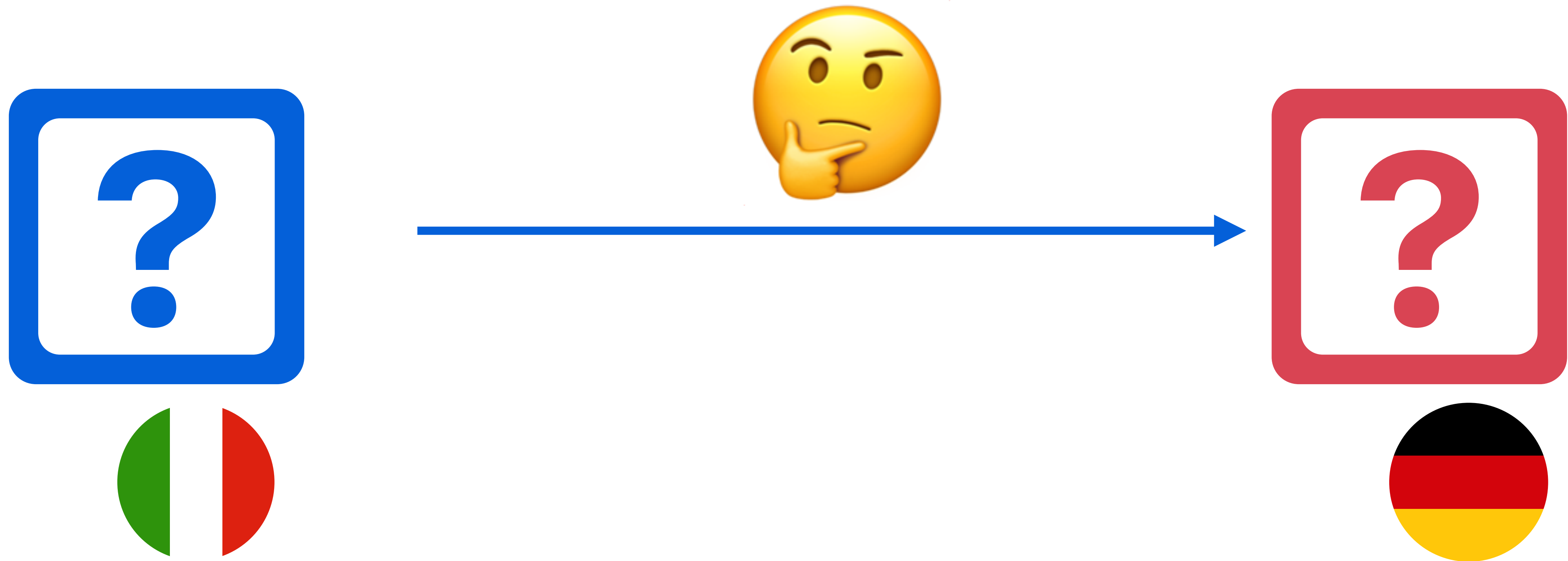
Application Programming Interface



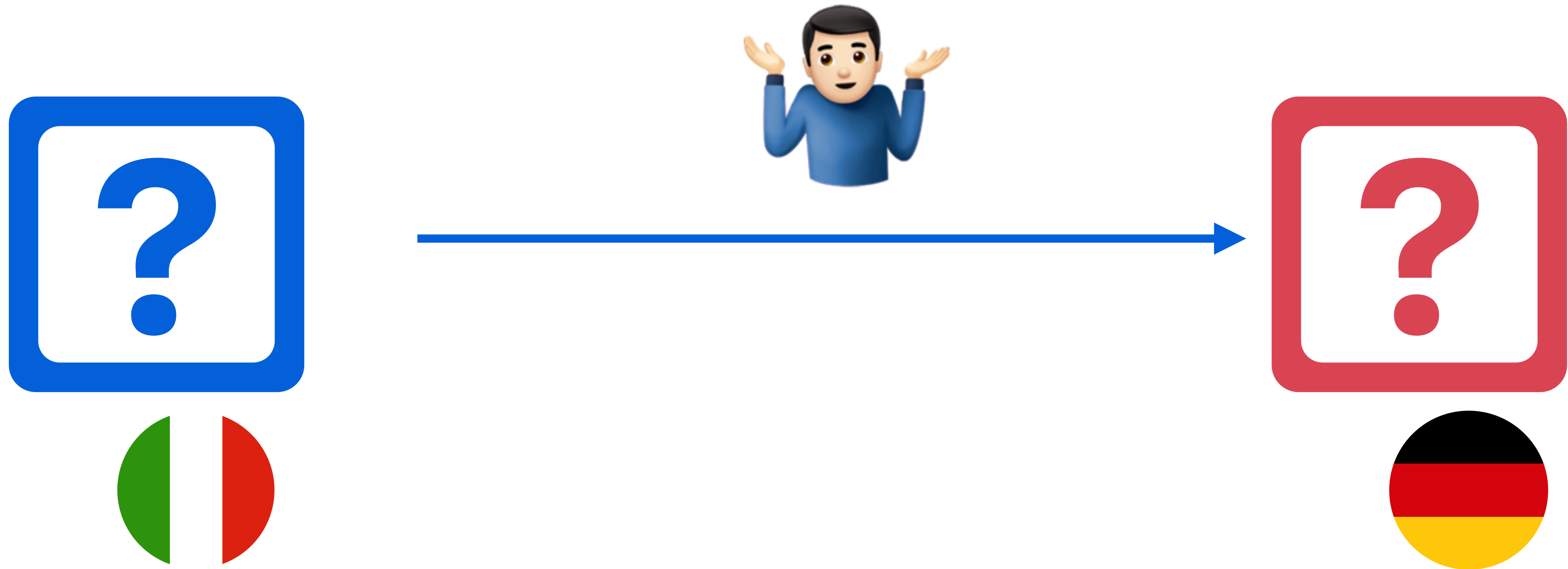
Application Programming Interface



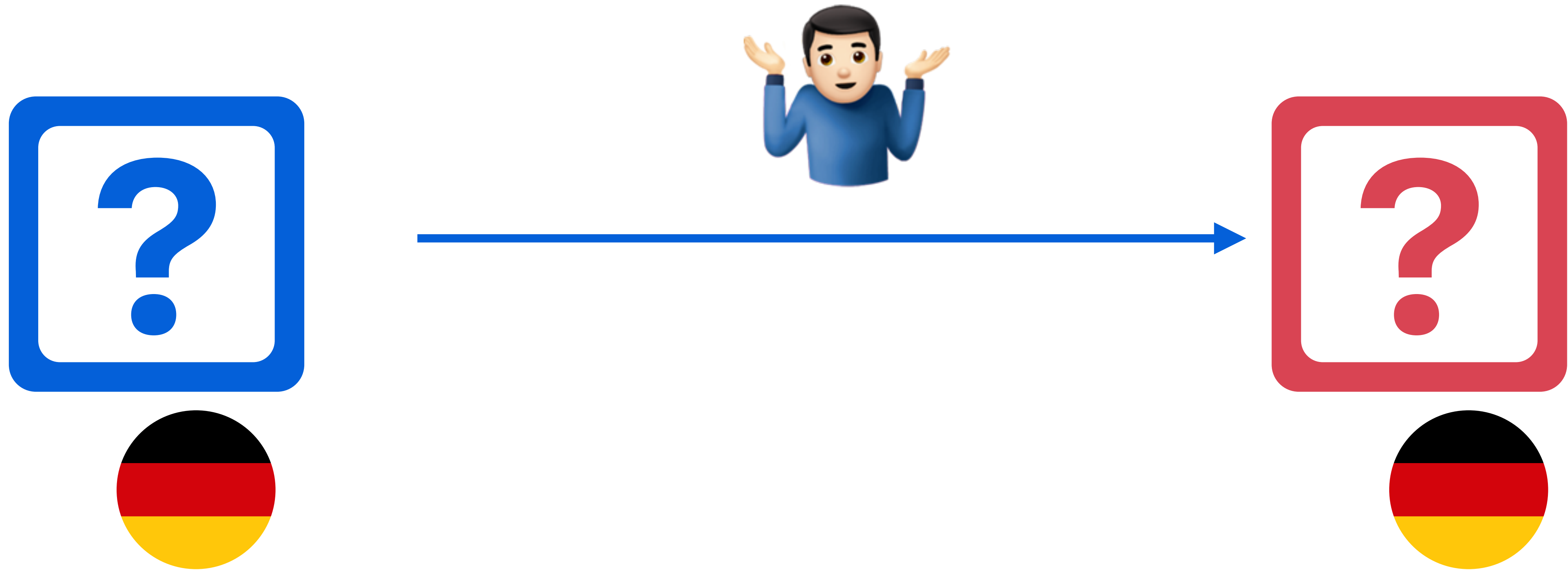
Application Programming Interface



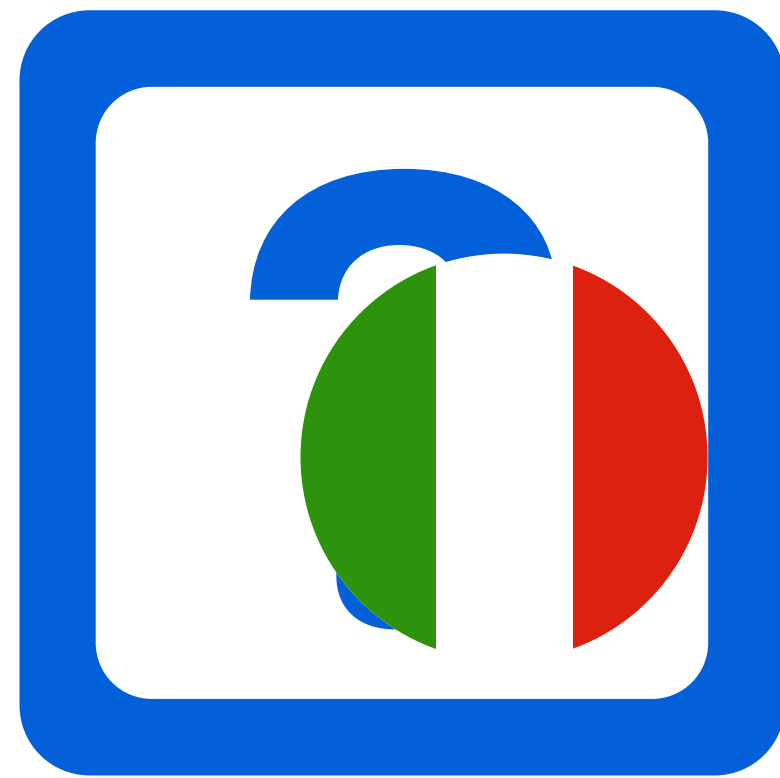
Application Programming Interface



Application Programming Interface



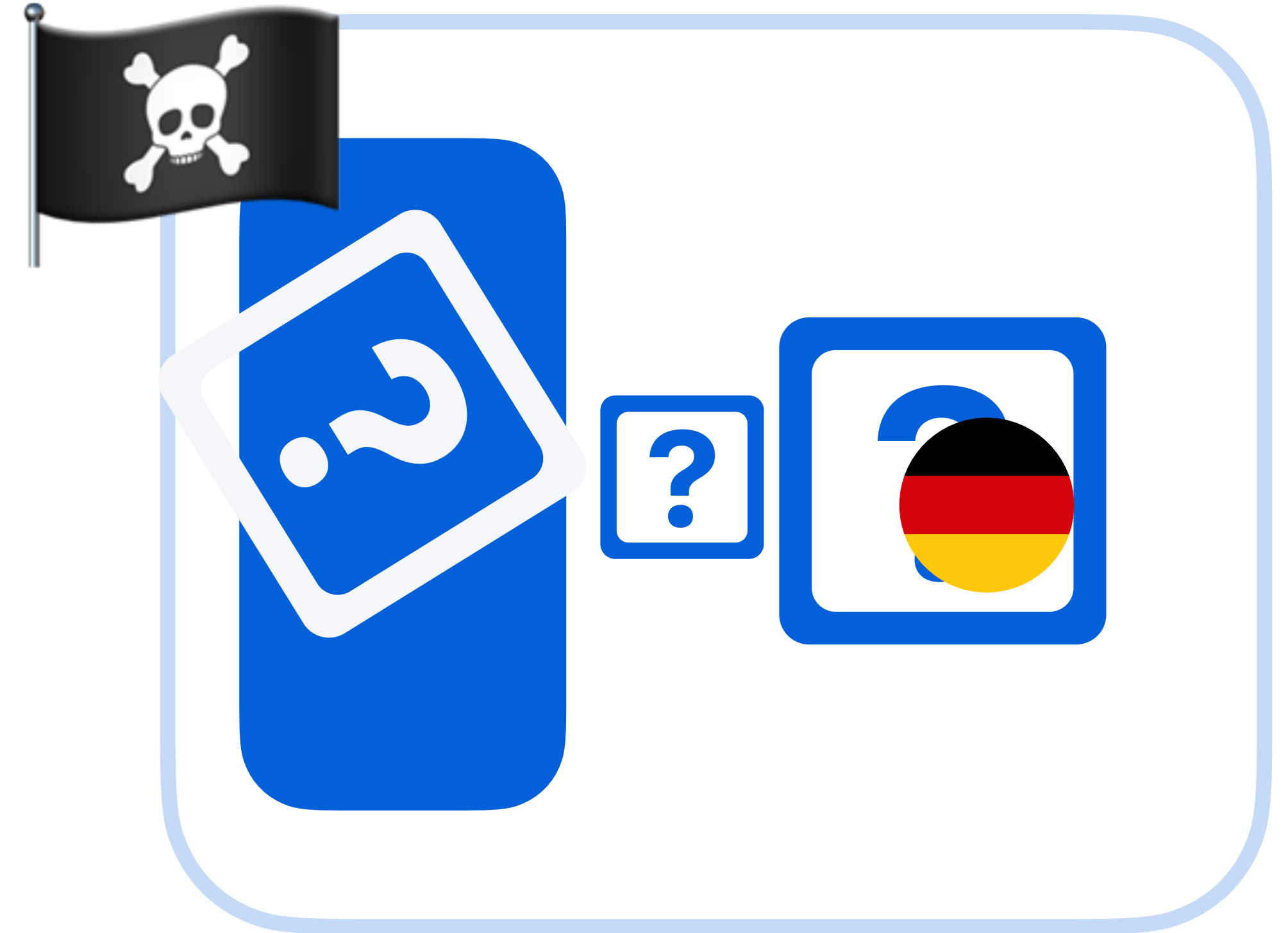
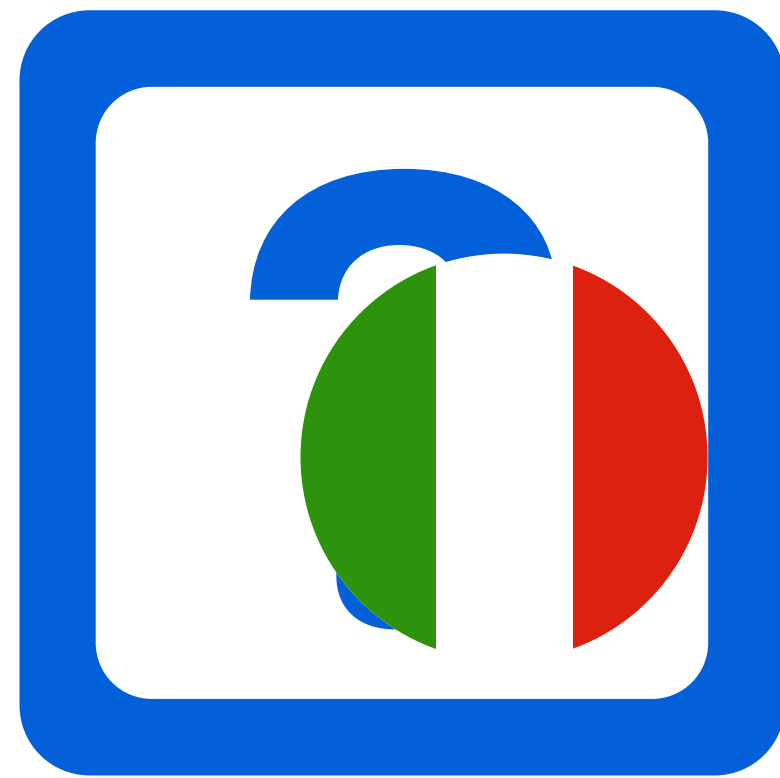
Application Programming Interface



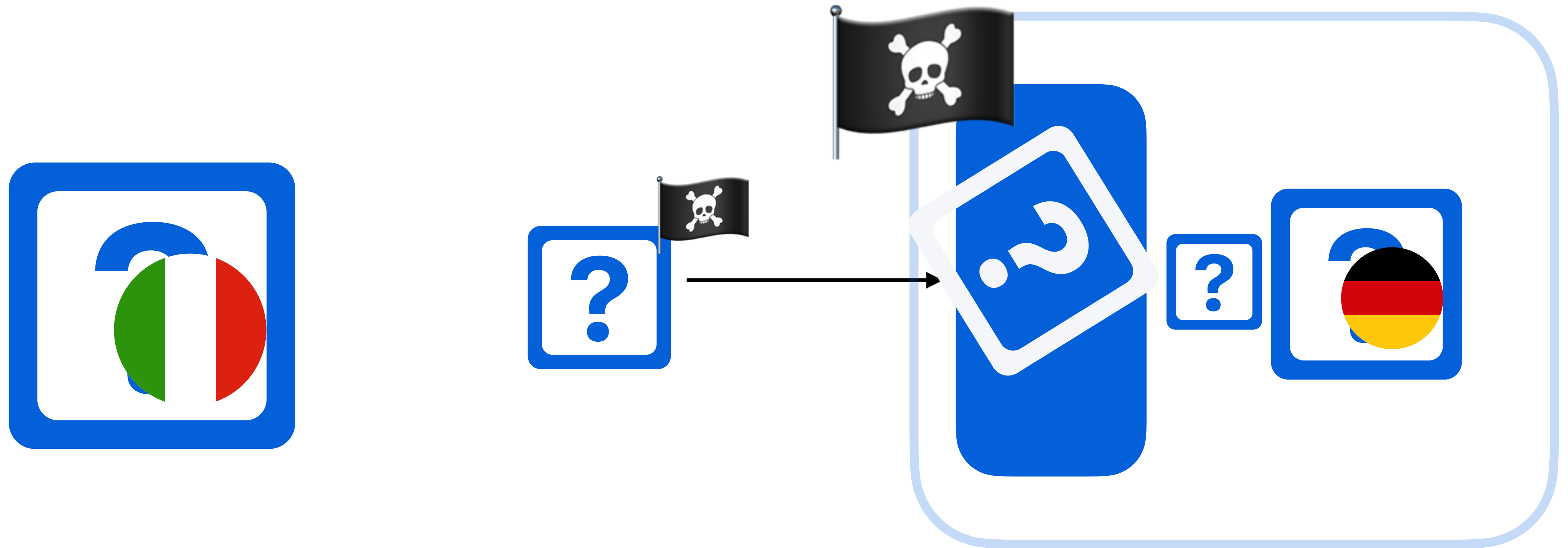
Application Programming Interface



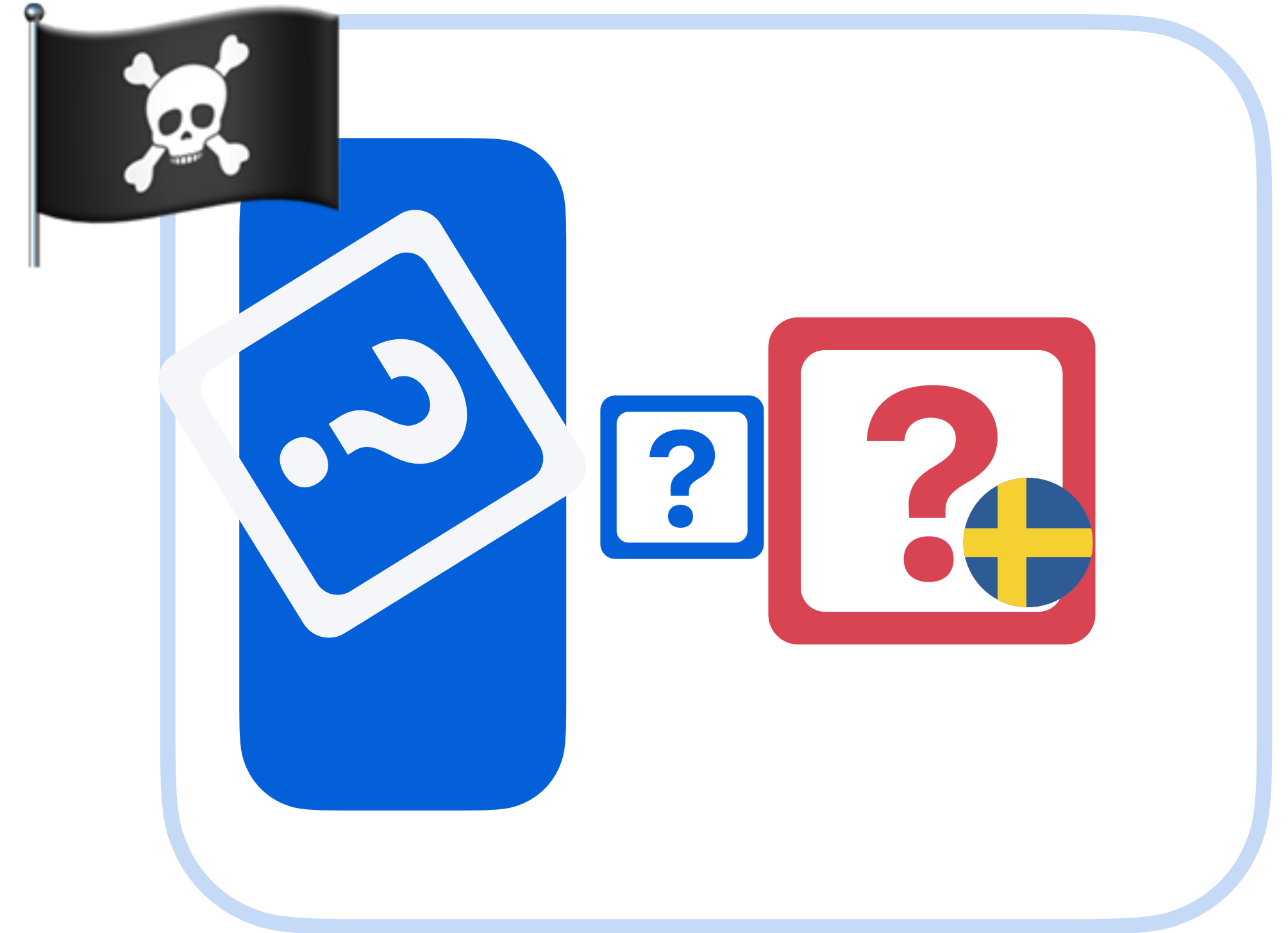
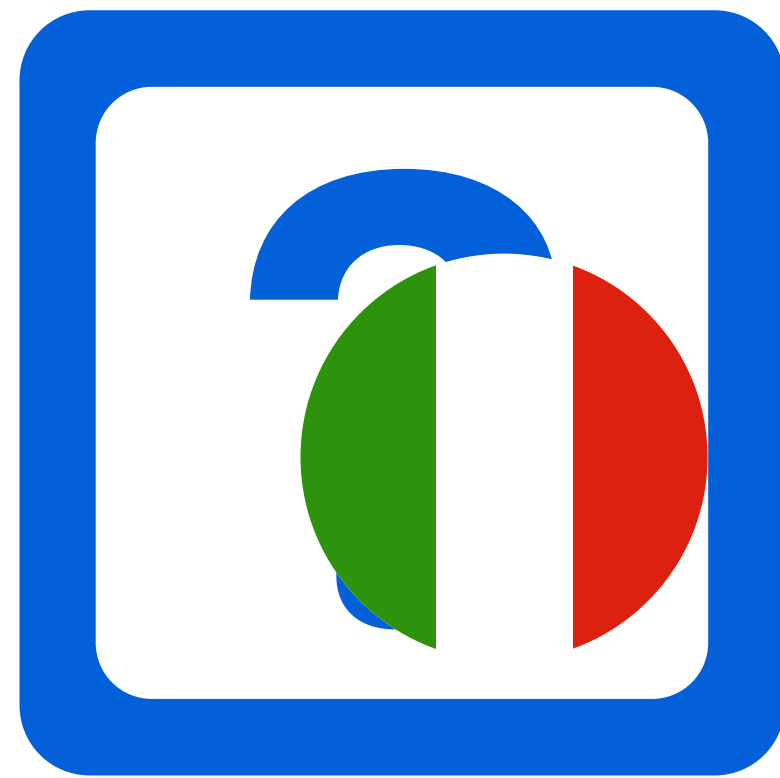
Application Programming Interface



Application Programming Interface



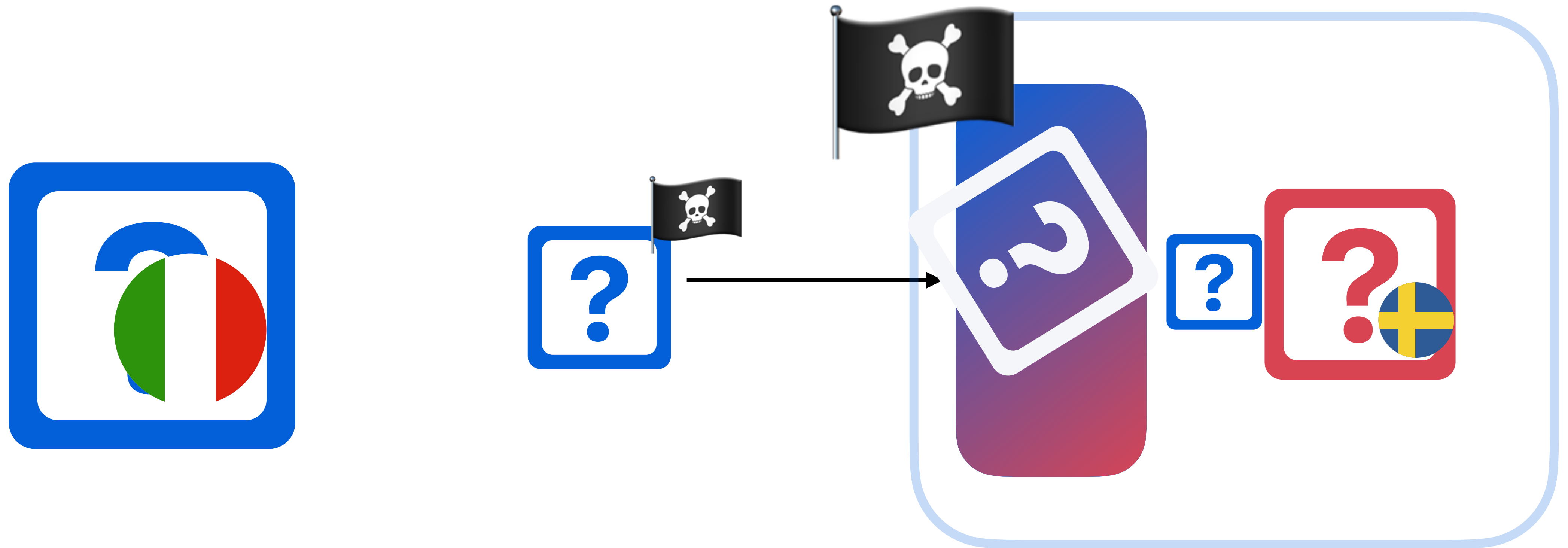
Application Programming Interface



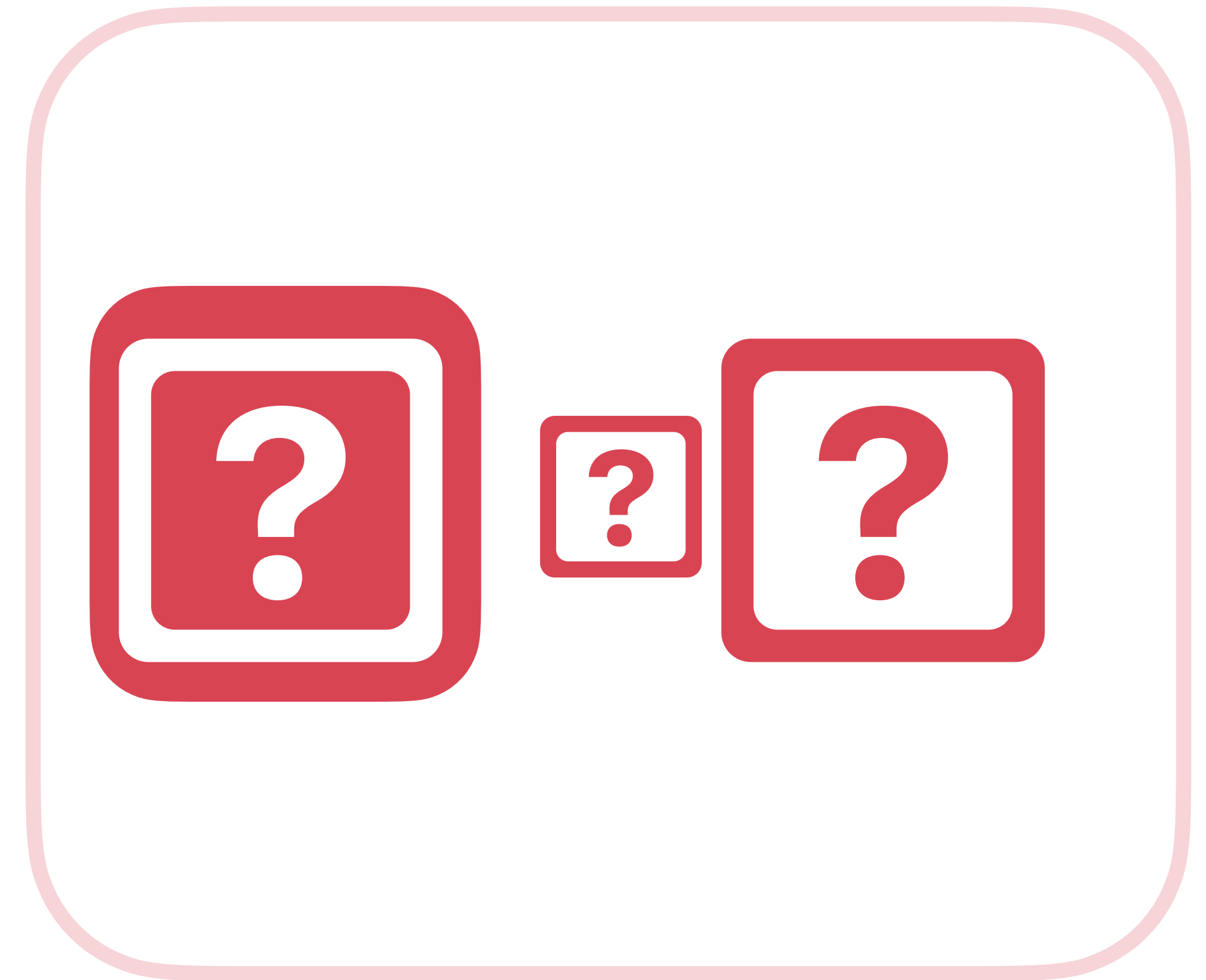
Application Programming Interface



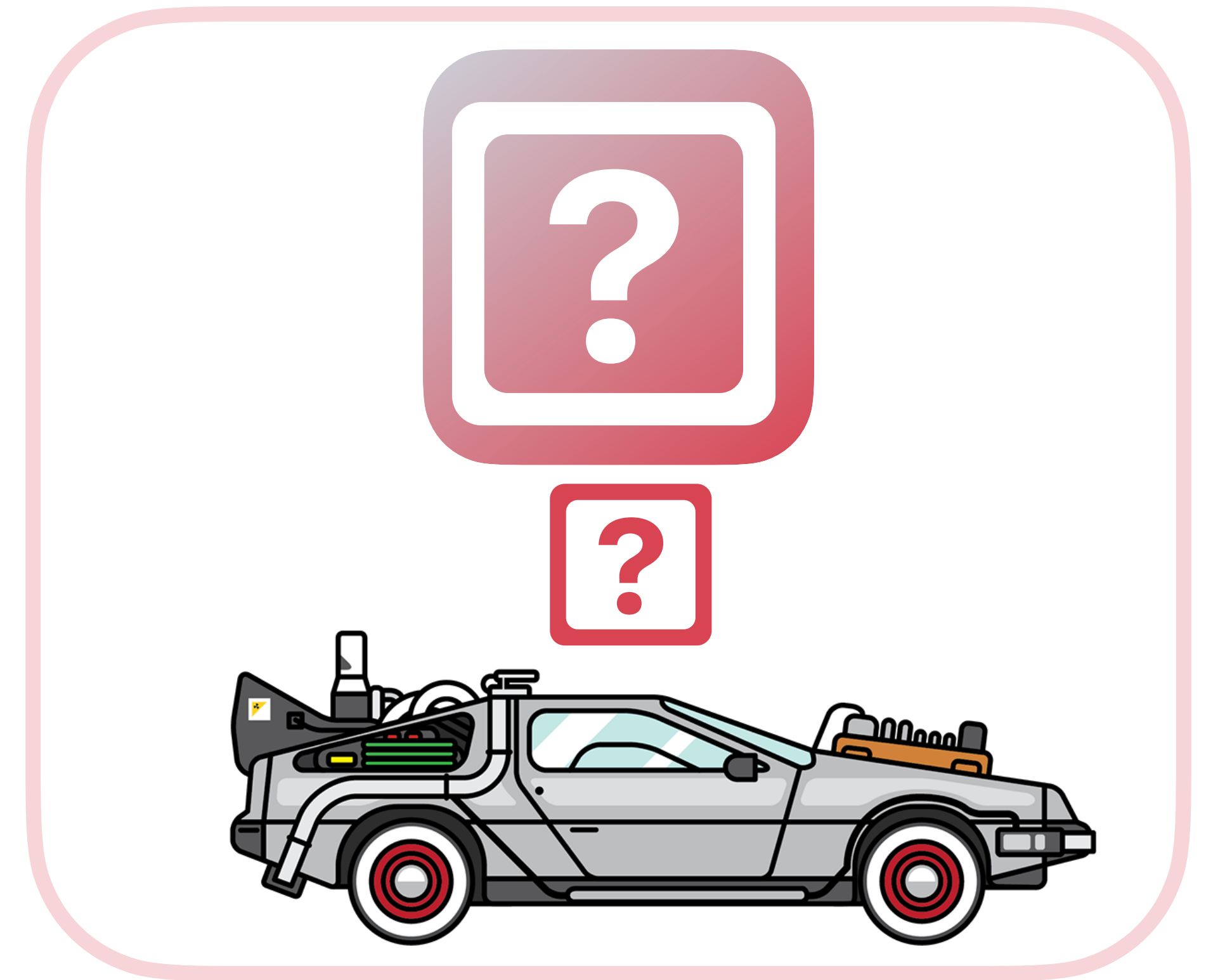
Application Programming Interface

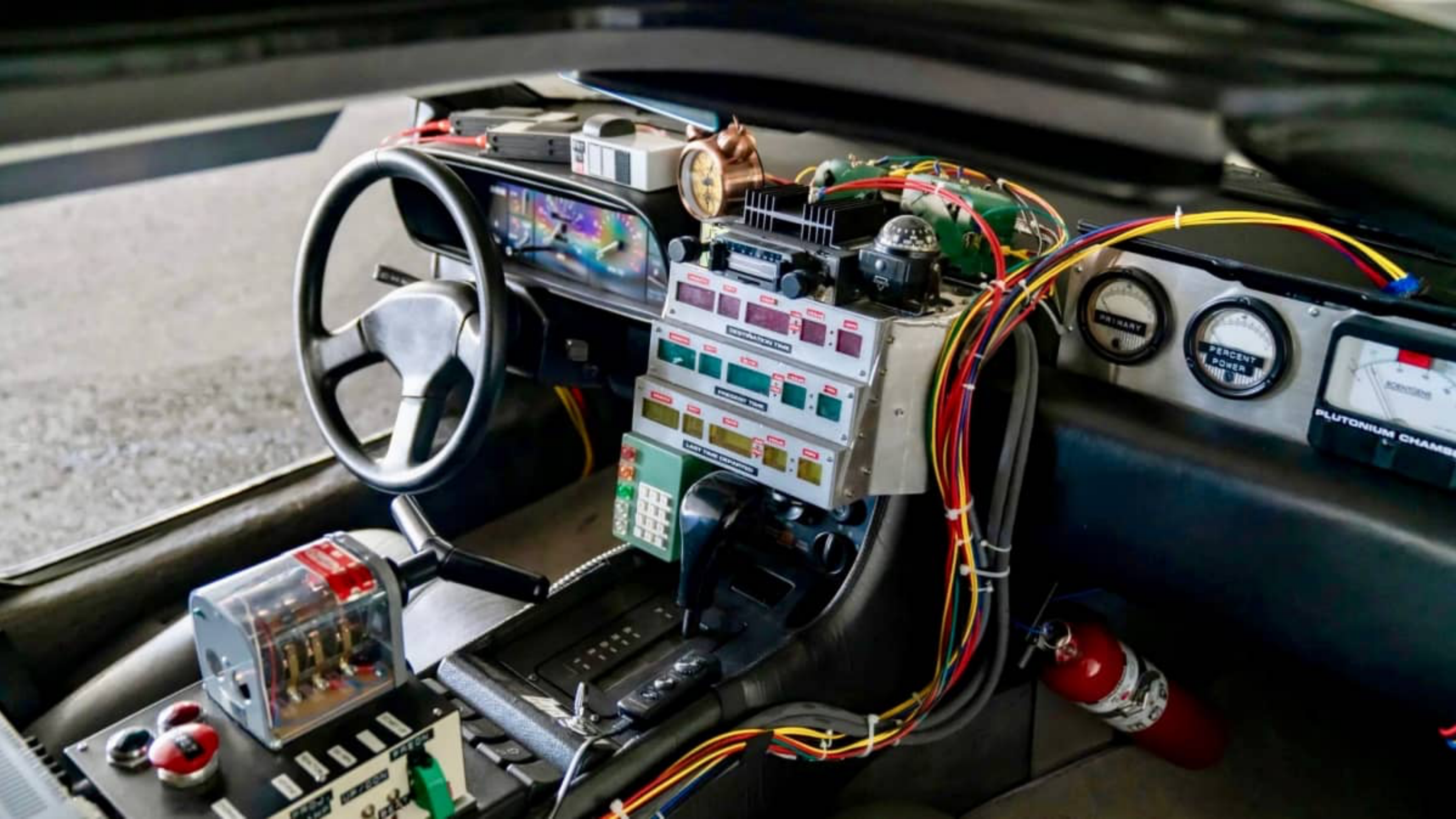


Application Programming Interface

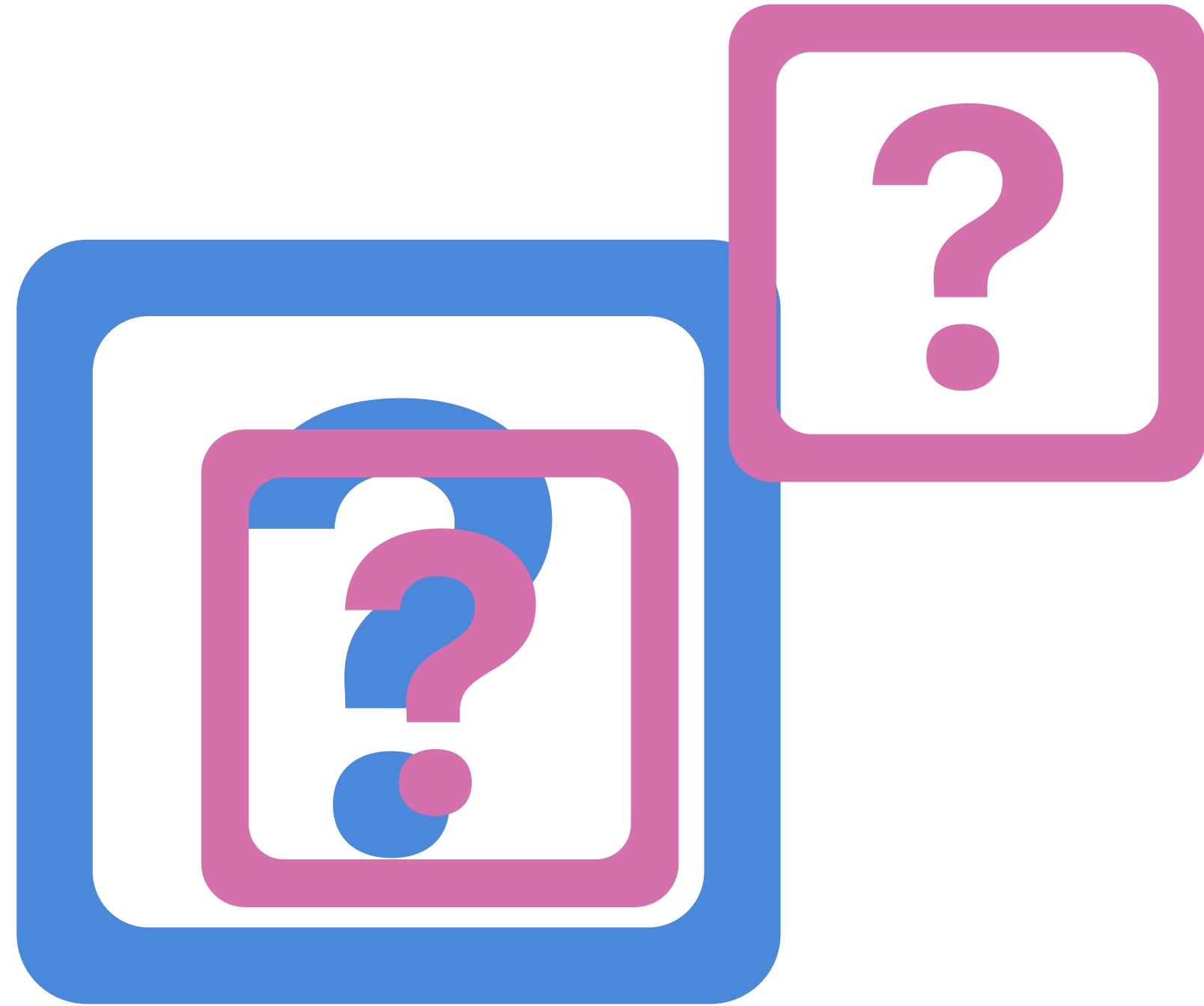


Application Programming Interface





Les Endpoints API



Les Endpoints API

https://your.app.com

GET : Récupérer ou lire des données

PUT : Mettre à jour des données

DELETE : Supprimer les données

POST : Créer des données



GET Devices - Device details
GET Devices - Device app details
PUT Devices - As
PUT Devices - M
PUT Devices - M
POST Devices - C
POST Devices - Re
POST Devices - Restart a Device
POST Devices - Restore device



Les Endpoints API

<https://your.app.com/api/apps>

GET : Récupérer ou lire des données

PUT : Mettre à jour des données

DELETE : Supprimer les données

POST : Créer des données



GET Devices - Device details
GET Devices - Device app details
PUT Devices - As
PUT Devices - M
PUT Devices - M
POST Devices - C
POST Devices - Re
POST Devices - Restart a Device
POST Devices - Restore device



Données **API**

GET

```
https://darlowsch.jamfcloud.com/  
    api/devices/  
00008020-001129AE3A2A402E
```



Données **Console**



Données **API**

GET

```
https://darlowsch.jamfcloud.com/  
    api/devices/  
00008020-001129AE3A2A402E
```



Données **Console**



Données API

GET

```
https://darlowsch.jamfcloud.com/  
    api/devices/  
00008020-001129AE3A2A402E
```



Données Console



Données **API**

GET

```
https://darlowsch.jamfcloud.com/  
api/devices/  
00008020-001129AE3A2A402E
```



Données **Console**



Données **API**

GET

```
https://darlowsch.jamfcloud.com/  
api/devices/  
00008020-001129AE3A2A402E
```



Données **Console**



```
https://darlowsch.jamfcloud.com/  
devices/details/  
00008020-001129AE3A2A402E
```



Données API

```
{
  "UDID": "00008020-001129AE3A2A402E",
  "locationId": 0,
  "serialNumber": "DMQF4G7DQ1GC",
  "assetTag": "",
  "class": "ipad",
  "model": {
    "name": "iPad (8th generation, Wi-Fi Only)",
    "identifier": "iPad11,6",
    "type": "iPad"
  },
  "os": {
    "prefix": "iOS",
    "version": "16.4.1"
  },
  "name": "Jak Porter",
  "isManaged": true,
  "isSupervised": true,
  "enrollType": "dep",
  "depProfile": "Authenticated Enrolment",
  "groups": [
    "All iPad",
    "All Student iPad",
    "Create!",
    "MS Office",
    "User Test",
    "Coding",
    "Home App Sim ",
    "DDM Passcode",
  ],
}
```

Données Console

Name	Jak Porter Set by policy.
Location	Jamf - anthony.darlow
Enrollment Method	Automated Device Enrollment
Model	iPad (8th generation, Wi-Fi Only)
Serial	DMQF4G7DQ1GC
OS Version	iOS 16.4.1
Supplemental build version	20E252
Declarative Device Management supported	✓
Declarative Device Management enabled	✓
Supervised	✓
Shared iPad	✗
Member of	All iPad , All Student iPad , Coding , Create! , DDM Passcode , Home App Sim , MS Office , User Test
Current owner	Jak Porter
Charge	<div><div>38%</div></div>
Available space	<div><div>34%</div></div> (11.08 GB / 32 GB)

Données API

Serial Number

Données Console

```
{
  "UDID": "00008020-001129AE3A2A402E",
  "locationId": 0,
  "serialNumber": "DMQF4G7DQ1GC",
  "assetTag": "",
  "class": "ipad",
  "model": {
    "name": "iPad (8th generation, Wi-Fi Only)",
    "identifier": "iPad11,6",
    "type": "iPad"
  },
  "os": {
    "prefix": "iOS",
    "version": "16.4.1"
  },
  "name": "Jak Porter",
  "isManaged": true,
  "isSupervised": true,
  "enrollType": "dep",
  "depProfile": "Authenticated Enrolment",
  "groups": [
    "All iPad",
    "All Student iPad",
    "Create!",
    "MS Office",
    "User Test",
    "Coding",
    "Home App Sim ",
    "DDM Passcode",
  ],
}
```

Name	Jak Porter
	Set by policy.
Location	Jamf - anthony.darlow
Enrollment Method	Automated Device Enrollment
Model	iPad (8th generation, Wi-Fi Only)
Serial	DMQF4G7DQ1GC
OS Version	iOS 16.4.1
Supplemental build version	20E252
Declarative Device Management supported	✓
Declarative Device Management enabled	✓
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Member of	All iPad , All Student iPad , Coding , Create! , DDM Passcode , Home App Sim , MS Office , User Test
Current owner	Jak Porter
Charge	<div><div>38%</div></div>
Available space	<div><div>34%</div></div> (11.08 GB / 32 GB)

Données API

Groupes

Données Console

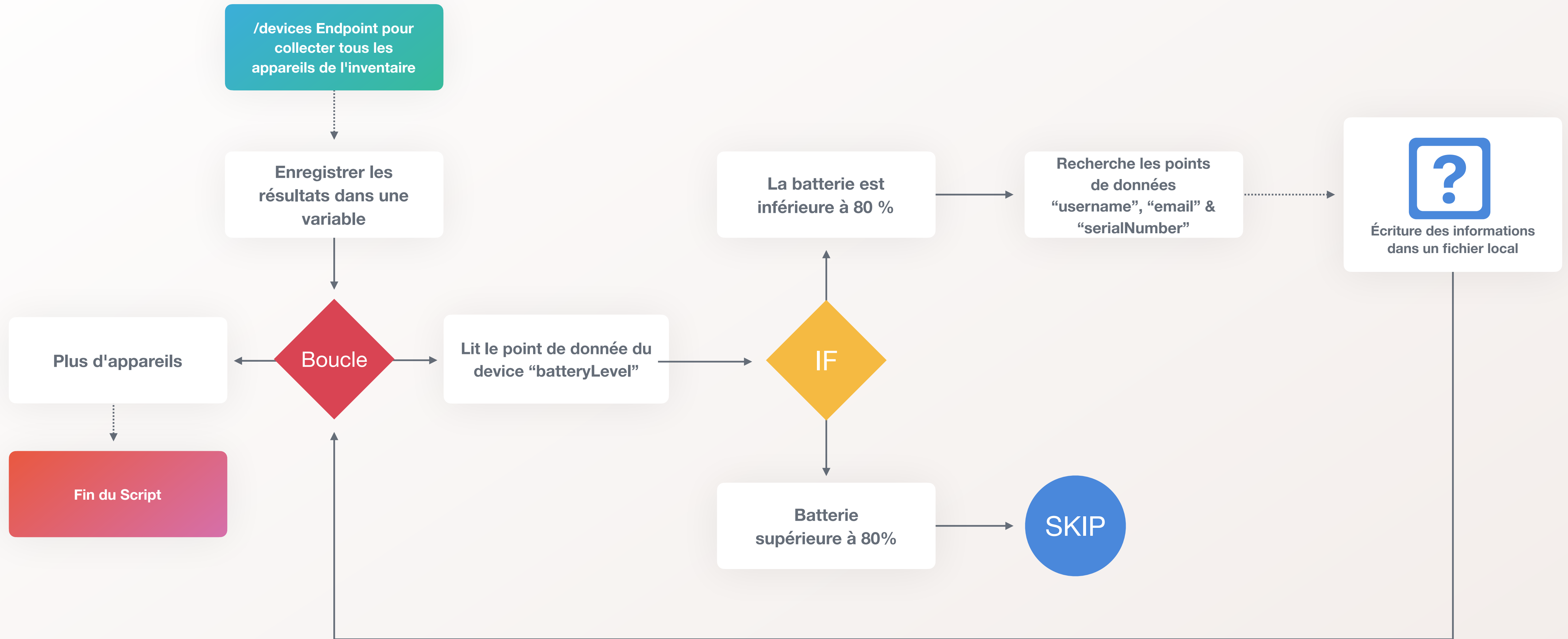
```
{
  "UDID": "00008020-001129AE3A2A402E",
  "locationId": 0,
  "serialNumber": "DMQF4G7DQ1GC",
  "assetTag": "",
  "class": "ipad",
  "model": {
    "name": "iPad (8th generation, Wi-Fi Only)",
    "identifier": "iPad11,6",
    "type": "iPad"
  },
  "os": {
    "prefix": "iOS",
    "version": "16.4.1"
  },
  "name": "Jak Porter",
  "isManaged": true,
  "isSupervised": true,
  "enrollType": "dep",
  "depProfile": "Authenticated Enrolment",
  "groups": [
    "All iPad",
    "All Student iPad",
    "Create!",
    "MS Office",
    "User Test",
    "Coding",
    "Home App Sim ",
    "DDM Passcode",
  ],
}
```

Name	Jak Porter Set by policy.
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Declarative Device Management supported	✓
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Shared iPad	✗
Member of	All iPad , All Student iPad , Coding , Create! , DDM Passcode , Home App Sim , MS Office , User Test
Current owner	Jak Porter
Charge	<div><div>38%</div></div>
Available space	<div><div>34%</div></div> (11.08 GB / 32 GB)



“ J'ai besoin d'un rapport au début de chaque journée contenant les élèves dont l'iPad n'est pas chargé à au moins 80%. ”

Exemple logique de script de vérification de la batterie



Authentification de l'API

Name

Demo

Key

YESI1VS8797ABAAW8Q4UQIG9R1RAGIXW

Generate new key

Access rights

☒ Read

☒ Add

☒ Edit

☒ Delete

Description

Optional




Authentication de l'API



USERNAME = Network ID

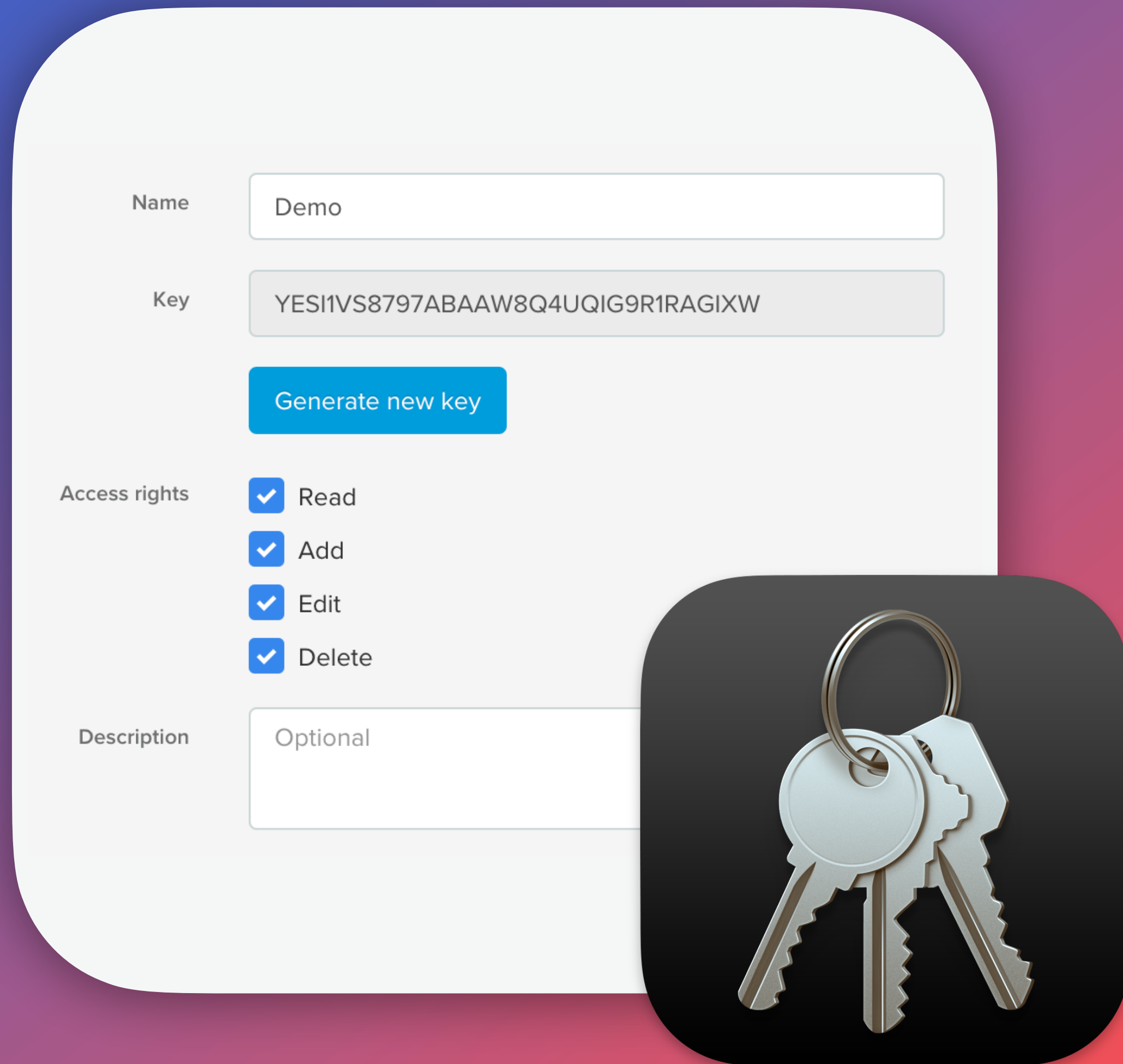
Network ID: Devices ➡ Enroll Device(s)



Form for API authentication setup:

- Name: Demo
- Key: YESI1VS8797ABAAW8Q4UQIG9R1RAGIXW
- Generate new key (button)
- Access rights:
 - ☒ Read
 - ☒ Add
 - ☒ Edit
 - ☒ Delete
- Description: Optional

Authentification de l'API



Name: Demo

Key: YESI1VS8797ABAAW8Q4UQIG9R1RAGIXW

[Generate new key](#)

Access rights:

- ☒ Read
- ☒ Add
- ☒ Edit
- ☒ Delete

Description: Optional



USERNAME = Network ID

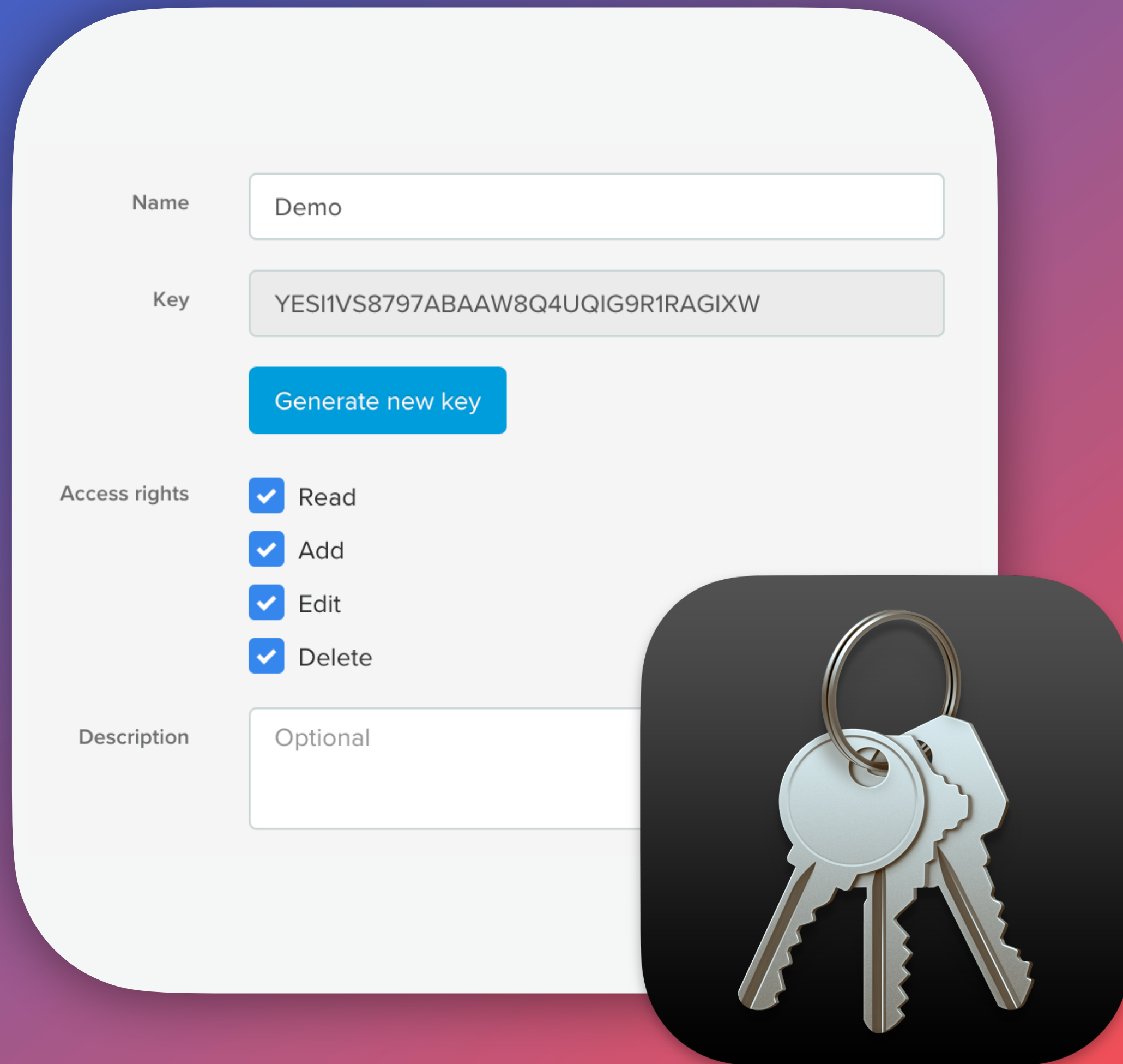
Network ID: Devices ➡ Enroll Device(s)



PASSWORD = API Key

API Key: Organisation ➡ Settings ➡ API

Authentification de l'API



The screenshot shows a web interface for managing API keys. It includes a form with the following fields and options:

- Name:** A text input field containing the word "Demo".
- Key:** A text input field containing the alphanumeric string "YESI1VS8797ABAAW8Q4UQIG9R1RAGIXW".
- Generate new key:** A blue button located below the key field.
- Access rights:** A section with four checkboxes, all of which are checked:
 - ☒ Read
 - ☒ Add
 - ☒ Edit
 - ☒ Delete
- Description:** A text input field containing the word "Optional".

Below the form, there is a dark rounded square icon containing a realistic illustration of a set of keys on a ring.



USERNAME = Network ID

Network ID: Devices ➡ Enroll Device(s)



PASSWORD = API Key


API Key: Organisation ➡ Settings ➡ API



USERNAME:PASSWORD

Base 64 Encoded

Authentification de l'API



Name

Key

[Generate new key](#)

Access rights

- ☒ Read
- ☒ Add
- ☒ Edit
- ☒ Delete


Description



USERNAME:PASSWORD

Base 64 Encoded

Authentification de l'API



Form for API authentication:

Name: Demo

Key: YESI1VS8797ABAAW8Q4UQIG9R1RAGIXW

Generate new key

Access rights:

- ☒ Read
- ☒ Add
- ☒ Edit
- ☒ Delete

Description: Optional



USERNAME:PASSWORD


Base 64 Encoded



> _

```
echo '12731485:EHII9MIVZWFTGCG13K6WNW4T2SEBX21C' | base64  
MTI3MzE0ODQ6RUhJSTlNSVZaV0ZUR0NHOT1LNldOVzRUMlNFQlwyMUMK
```


Authentification de l'API



Form for API authentication:

Name: Demo

Key: YESI1VS8797ABAAW8Q4UQIG9R1RAGIXW

Generate new key

Access rights:

- ☒ Read
- ☒ Add
- ☒ Edit
- ☒ Delete

Description: Optional



USERNAME:PASSWORD


Base 64 Encoded



> _

```
echo '12731485:EHII9MIVZWFTGCG13K6WNW4T2SEBX21C' | base64  
MTI3MzE0ODQ6RUhJSTlNSVZaV0ZUR0NHOT1LNldOVzRUMlNFQlwyMUMK
```

Authentification de l'API



Form for API authentication:

Name: Demo

Key: YESI1VS8797ABAAW8Q4UQIG9R1RAGIXW

Generate new key

Access rights:

- ☒ Read
- ☒ Add
- ☒ Edit
- ☒ Delete

Description: Optional



USERNAME:PASSWORD


Base 64 Encoded



> _

```
echo '12731485:EHII9MIVZWFTGCG13K6WNW4T2SEBX21C' | base64  
MTI3MzE0ODQ6RUhJSTlNSVZaV0ZUR0NHOT1LNldOVzRUMlNFQlwyMUMK
```

Authentification de l'API



Form for API authentication:

Name: Demo

Key: YESI1VS8797ABAAW8Q4UQIG9R1RAGIXW

Generate new key

Access rights:

- ☒ Read
- ☒ Add
- ☒ Edit
- ☒ Delete

Description: Optional



USERNAME:PASSWORD


Base 64 Encoded



> _

```
echo '12731485:EHII9MIVZWFTGCG13K6WNW4T2SEBX21C' | base64  
MTI3MzE0ODQ6RUhJSTlNSVZaV0ZUR0NHOT1LNldOVzRUMlNFQlwyMUMK
```


Authentification de l'API



Form for API authentication:

Name: Demo

Key: YESI1VS8797ABAAW8Q4UQIG9R1RAGIXW

Generate new key

Access rights:

- ☒ Read
- ☒ Add
- ☒ Edit
- ☒ Delete

Description: Optional



USERNAME:PASSWORD


Base 64 Encoded



> _

```
echo '12731485:EHII9MIVZWFTGCG13K6WNW4T2SEBX21C' | base64  
MTI3MzE0ODQ6RUhJSTlNSVZaV0ZUR0NHOT1LNldOVzRUMlNFQlwyMUMK
```

Authentification de l'API



Form for API authentication:

Name: Demo

Key: YESI1VS8797ABAAW8Q4UQIG9R1RAGIXW

Generate new key

Access rights:

- ☒ Read
- ☒ Add
- ☒ Edit
- ☒ Delete

Description: Optional



USERNAME:PASSWORD

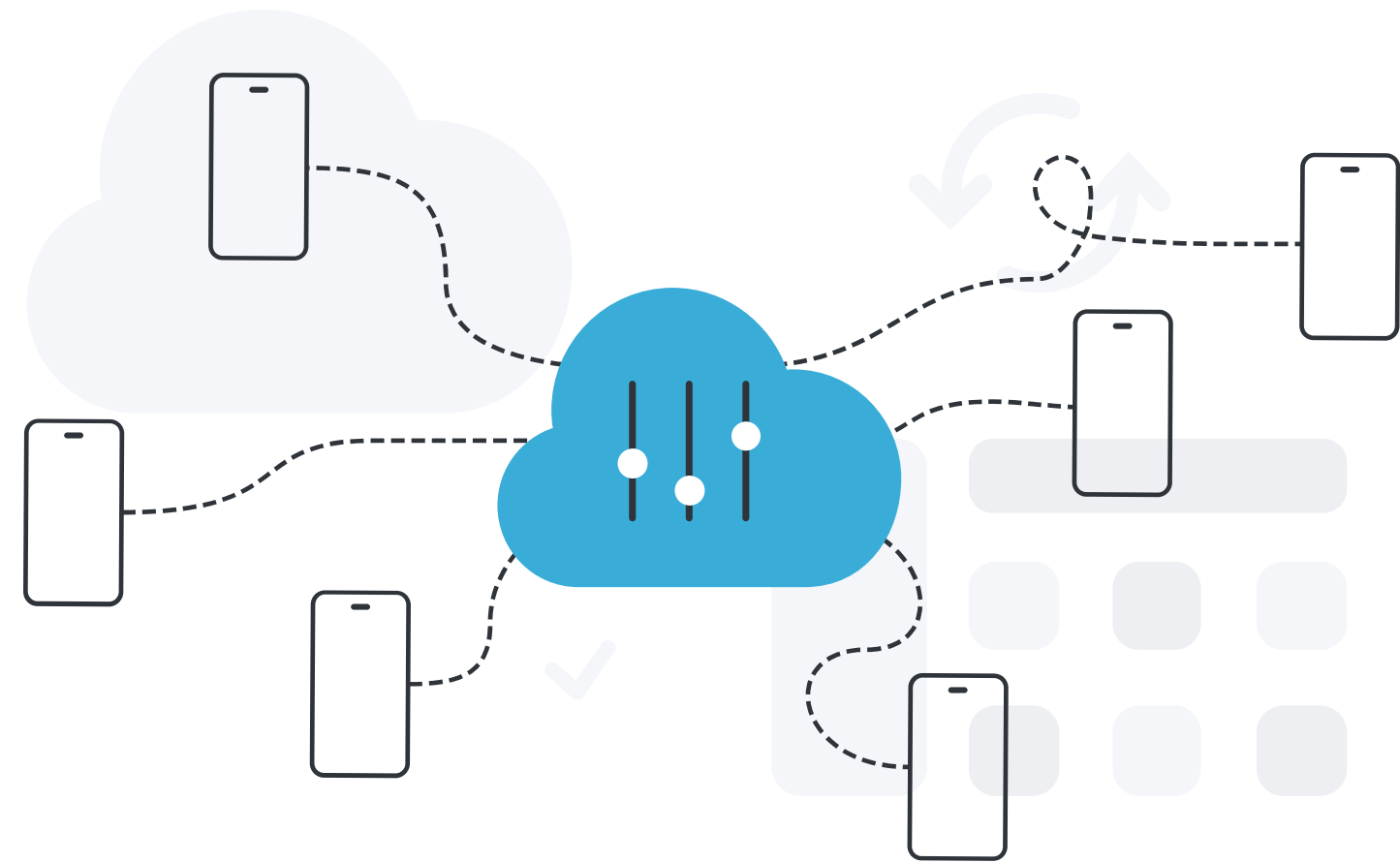
Base 64 Encoded



> _

```
echo '12731485:EHII9MIVZWFTGCG13K6WNW4T2SEBX21C' | base64  
MTI3MzE0ODQ6RUhJSTlNSVZaV0ZUR0NHOT1LNldOVzRUMlNFQlwyMUMK
```


Réaliser un Appel API



? Command

? Endpoint

? Authorisation



Réaliser un Appel API



Command



Endpoint



Authorisation

```
#!/usr/bin/env python3
```

```
import requests
```

```
response = requests.request("GET", https://darlowsch.jamfcloud.com/api/devices, headers='Authorization':  
'Basic MTI3MzE0ODQ6RUhJSTlNSVZaV0ZUR0NHOTlLNldOVzRUMlNFQlwyMUM=')
```

```
print(response.text)
```

Réaliser un Appel API



Command



Endpoint



Authorisation

```
#!/usr/bin/env python3
```

```
import requests
```

```
response = requests.request("GET", "https://darrowson.jamfcloud.com/api/devices", headers={'Authorization':  
'Basic MTI3MzE0ODQ6RUhJST1NSVZaV0ZUR0NHOT1LNldOVzRUM1NFQlwyMUM='})
```

```
print(response.text)
```

Syntaxe Python pour effectuer un appel API

Réaliser un Appel API



Command



Endpoint



Authorisation

Lire les Données

```
#!/usr/bin/env python3
```

```
import requests
```

```
response = requests.request("GET", https://darlowsch.jamfcloud.com/api/devices, headers='Authorization':  
'Basic MTI3MzE0ODQ6RUhJSTlNSVZaV0ZUR0NHOTlLNldOVzRUMlNFQlwyMUM=')
```

```
print(response.text)
```

Réaliser un Appel API



Command



Endpoint



Authorisation



URL du point de terminaison à partir duquel les données sont collectées

```
#!/usr/bin/env python3
```

```
import requests
```

```
response = requests.request("GET", https://darlowsch.jamfcloud.com/api/devices, headers='Authorization':  
'Basic MTI3MzE0ODQ6RUhJSTlNSVZaV0ZURUNHOTILNIdOVZRUMINFQIwymUM=')
```

```
print(response.text)
```


Réaliser un Appel API



Command



Endpoint



Authorisation



```
#!/usr/bin/env python3
```

Network ID & API Key encodés en base64

```
import requests
```

```
response = requests.request("GET", https://darlowsch.jamfcloud.com/api/devices, headers='Authorization':  
'Basic MTI3MzE0ODQ6RUhJSTlNSVZaV0ZUR0NHOTlLNldOVzRUMlNFQlwyMUM=')
```

```
print(response.text)
```

Réaliser un Appel API



Command



Endpoint



Authorisation



```
#!/usr/bin/env python3
```

```
import requests
```

```
response = requests.get('https://api.jamf.com/v1/users', headers='Authorization':  
'Basic MTI3MzE0ODQ6RUhJSTlNSVZaV0ZUR0NHOTlLNldOVzRUMlNFQlwyMUM=')
```

```
print(response.text)
```

Imprimer les résultats de l'appel API

API Jamf School — Que puis je faire?

Que peut-on faire avec l'**API Jamf School** ?

GET Informations sur l'appareil ou l'élève/l'enseignant, ...

PUT Attribuer des appareils à un nouveau utilisateur, ...

DELETE Déplacer les anciens appareils vers la corbeille, ...

POST Créer des classes, effacer des appareils, ...



Extend Jamf School with the API

VOUS RENDRE LE TRAVAIL PLUS INTELLIGENT, PAS PLUS DIFFICILE

- 1** Enregistrez les appareils aux heures cruciales de la journée grâce à `/devices/:udid/refresh`
- 2** Effacer les restrictions de l'enseignant à la fin des créneaux de cours avec `/teacher/lessons/stop`
- 3** Désaffecter en masse les utilisateurs des appareils et enregistrer leurs utilisateurs avec `/.devices/:udid/owner` & `/devices/:udid/details`

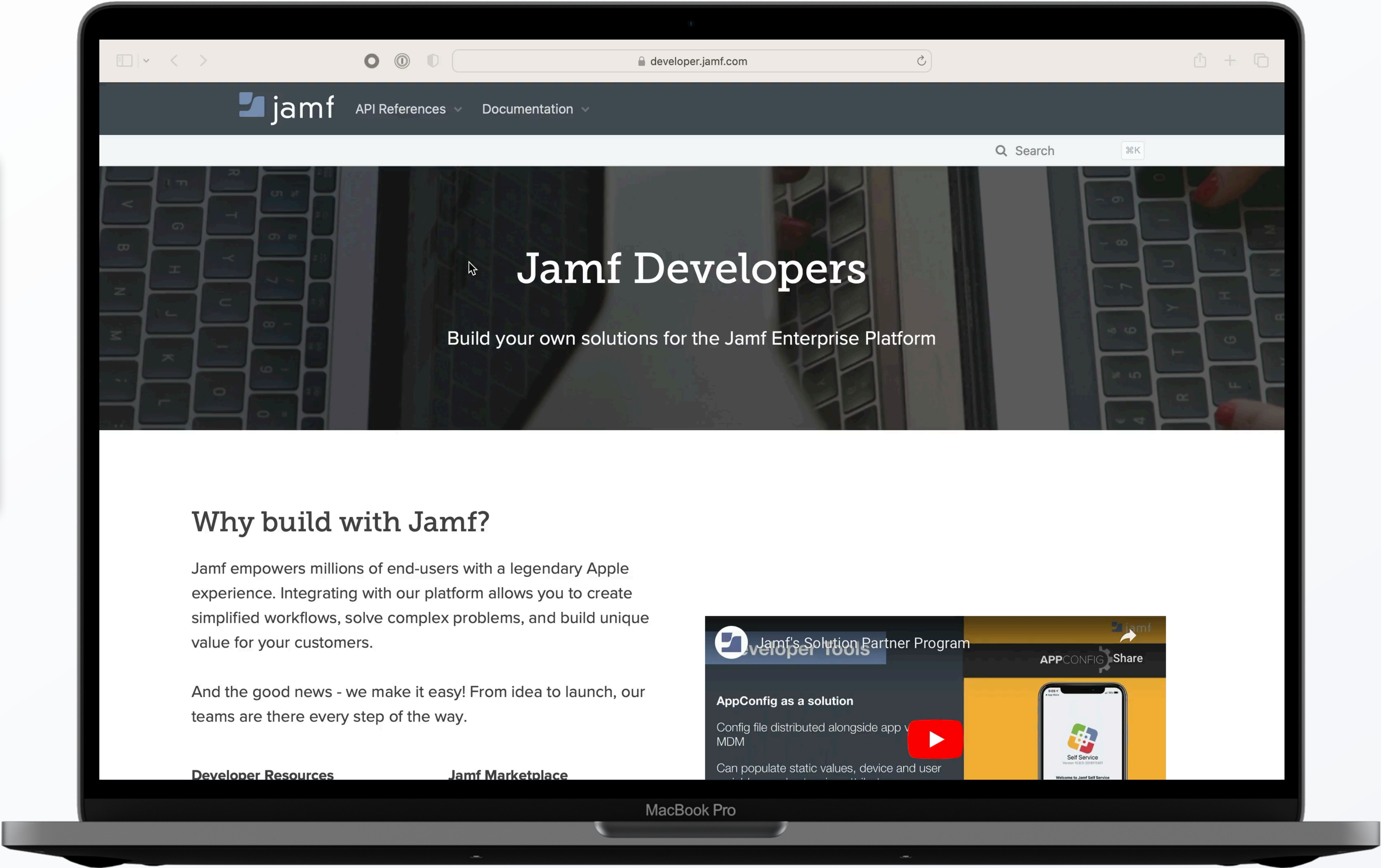


API Jamf School

Que puis je faire?



developer.jamf.com

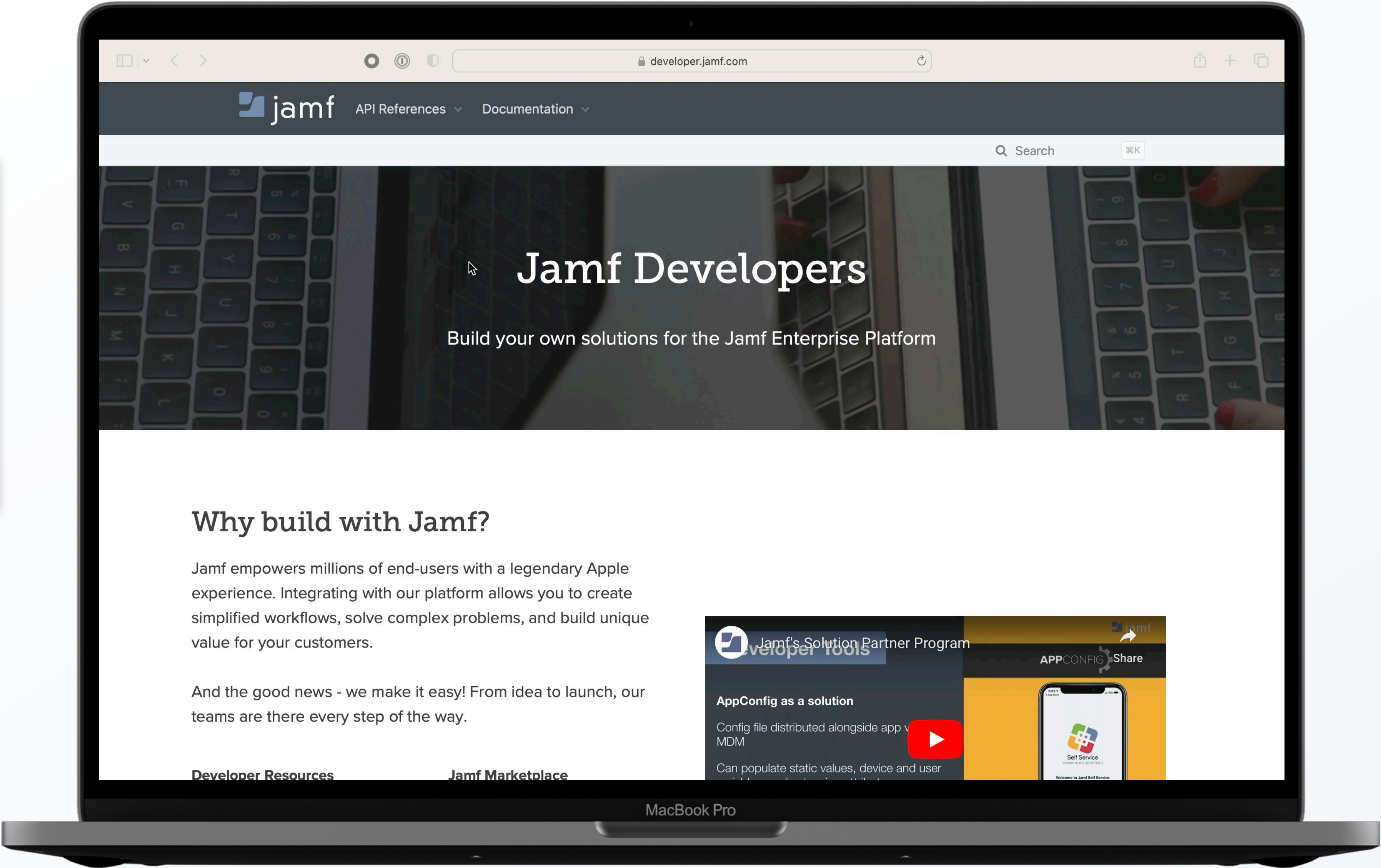


API Jamf School

Que puis je faire?

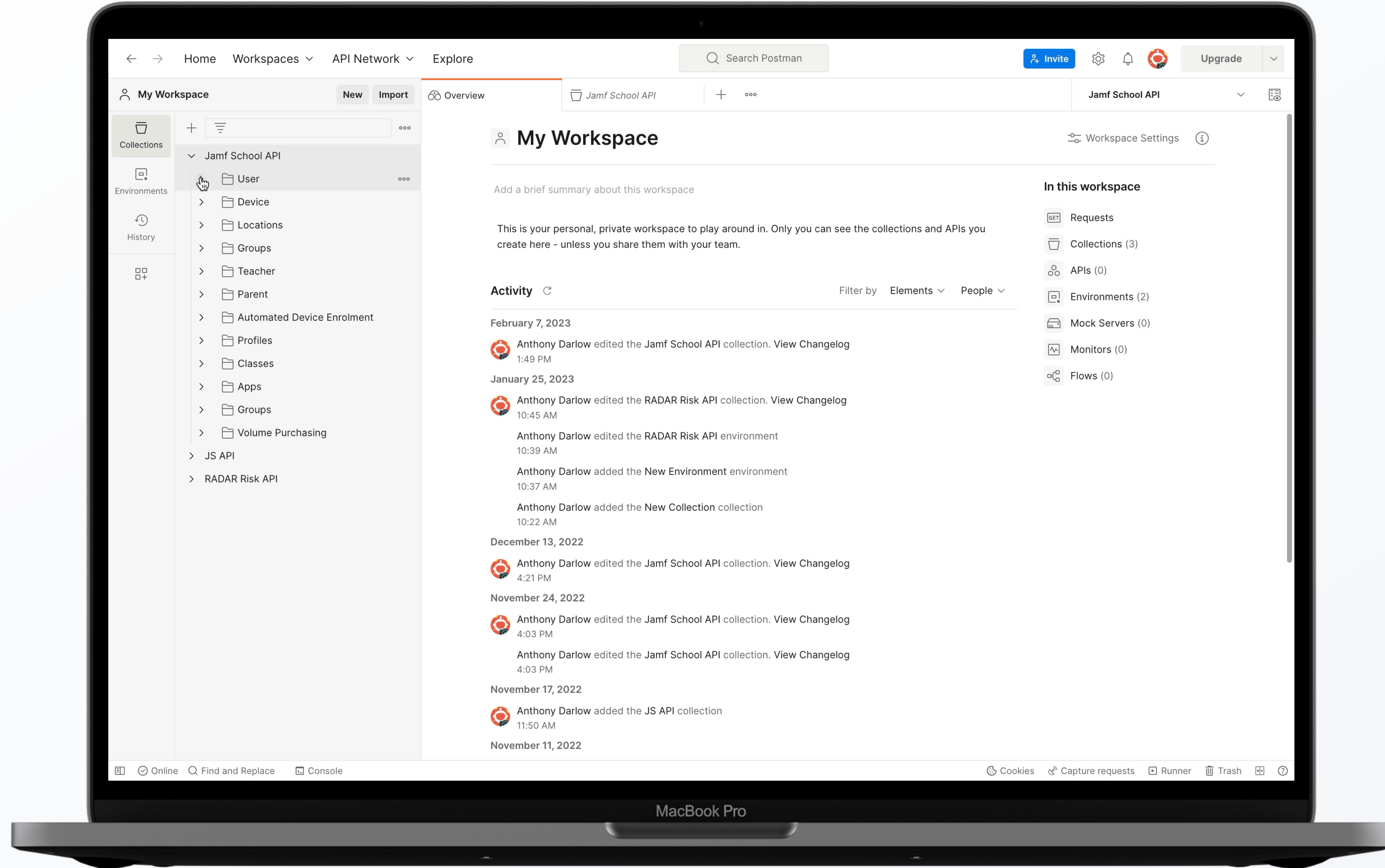


developer.jamf.com



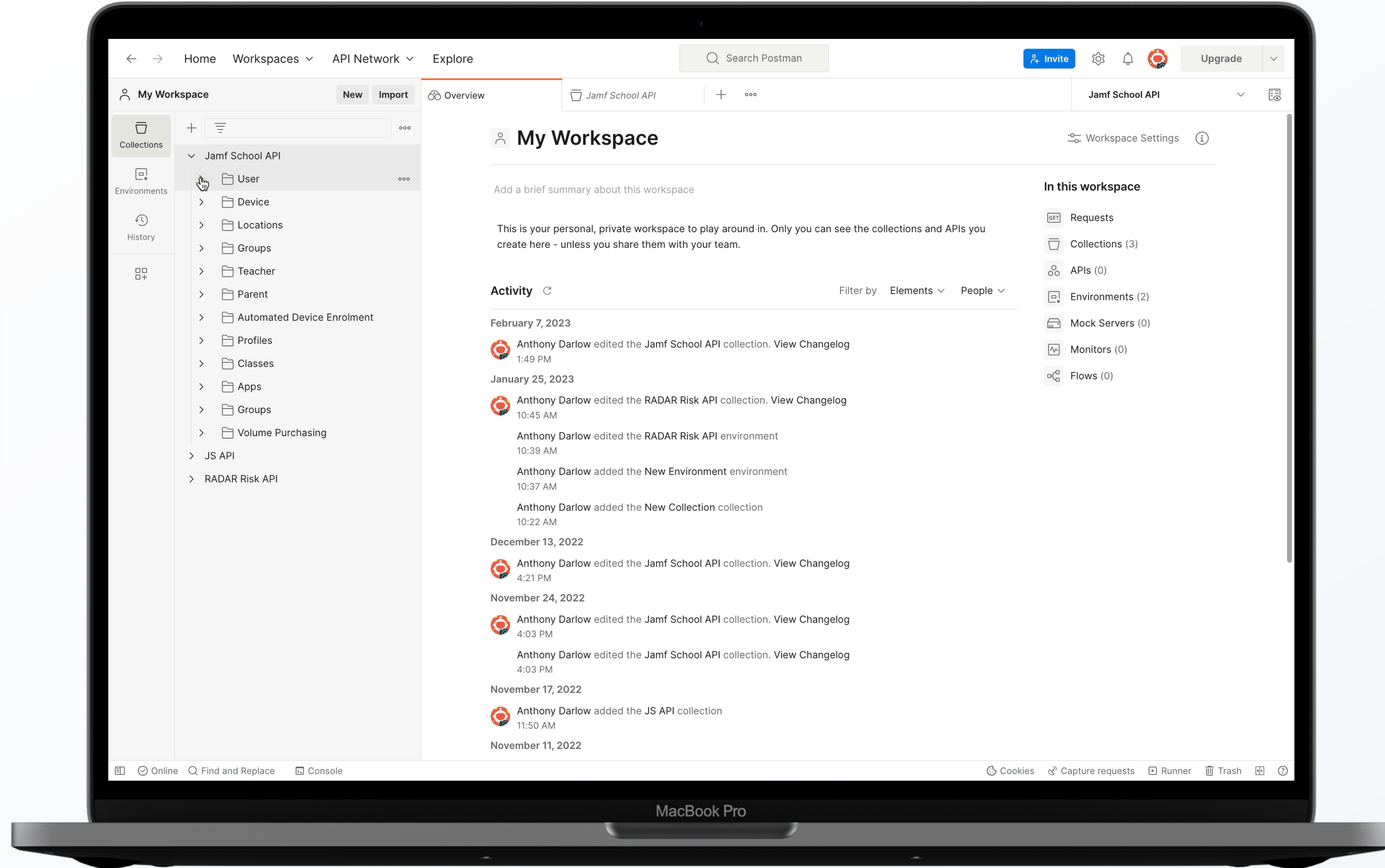
Postman App

API interaction



Postman App

API interaction

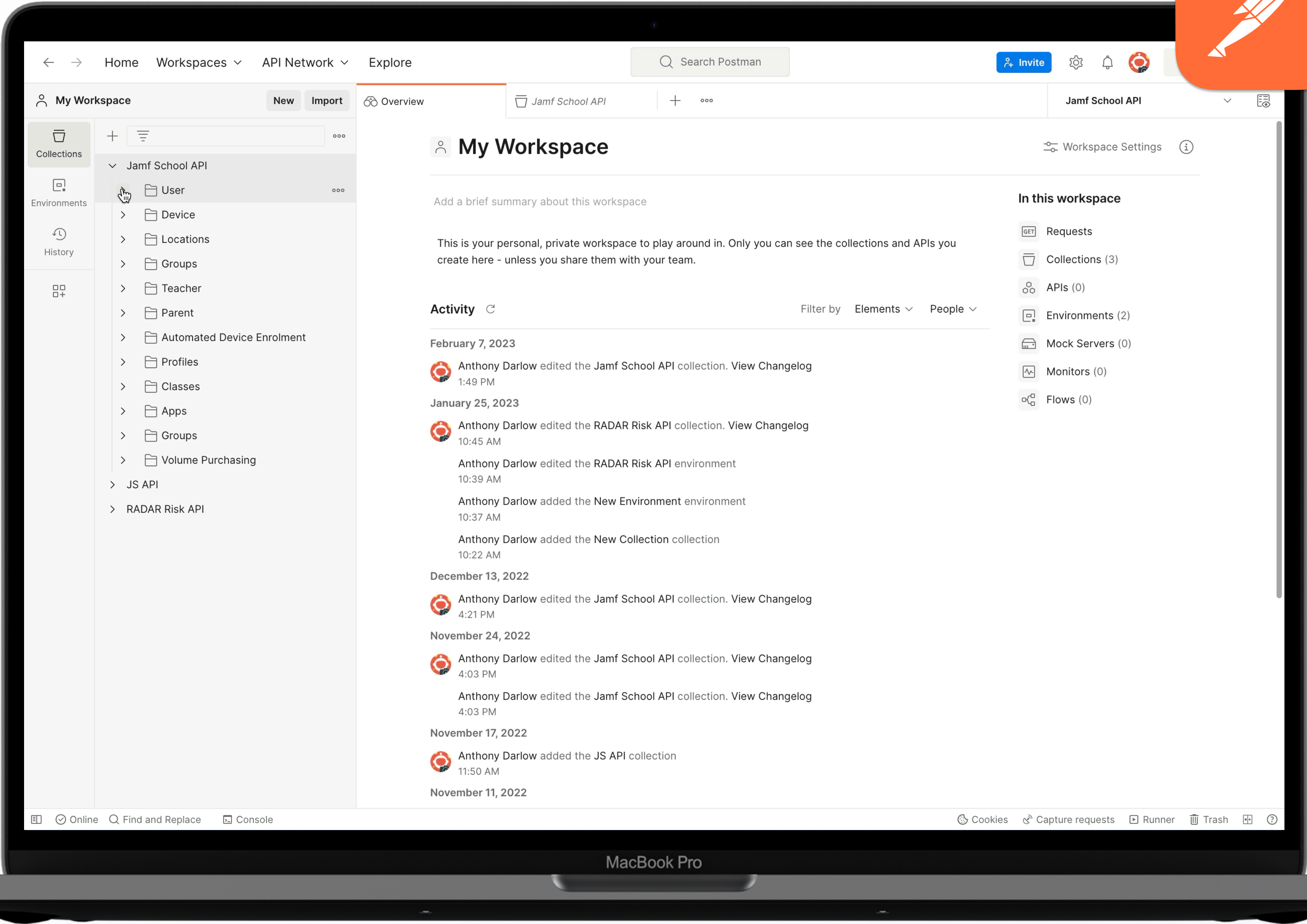


Postman App

API interaction



Postman Collection

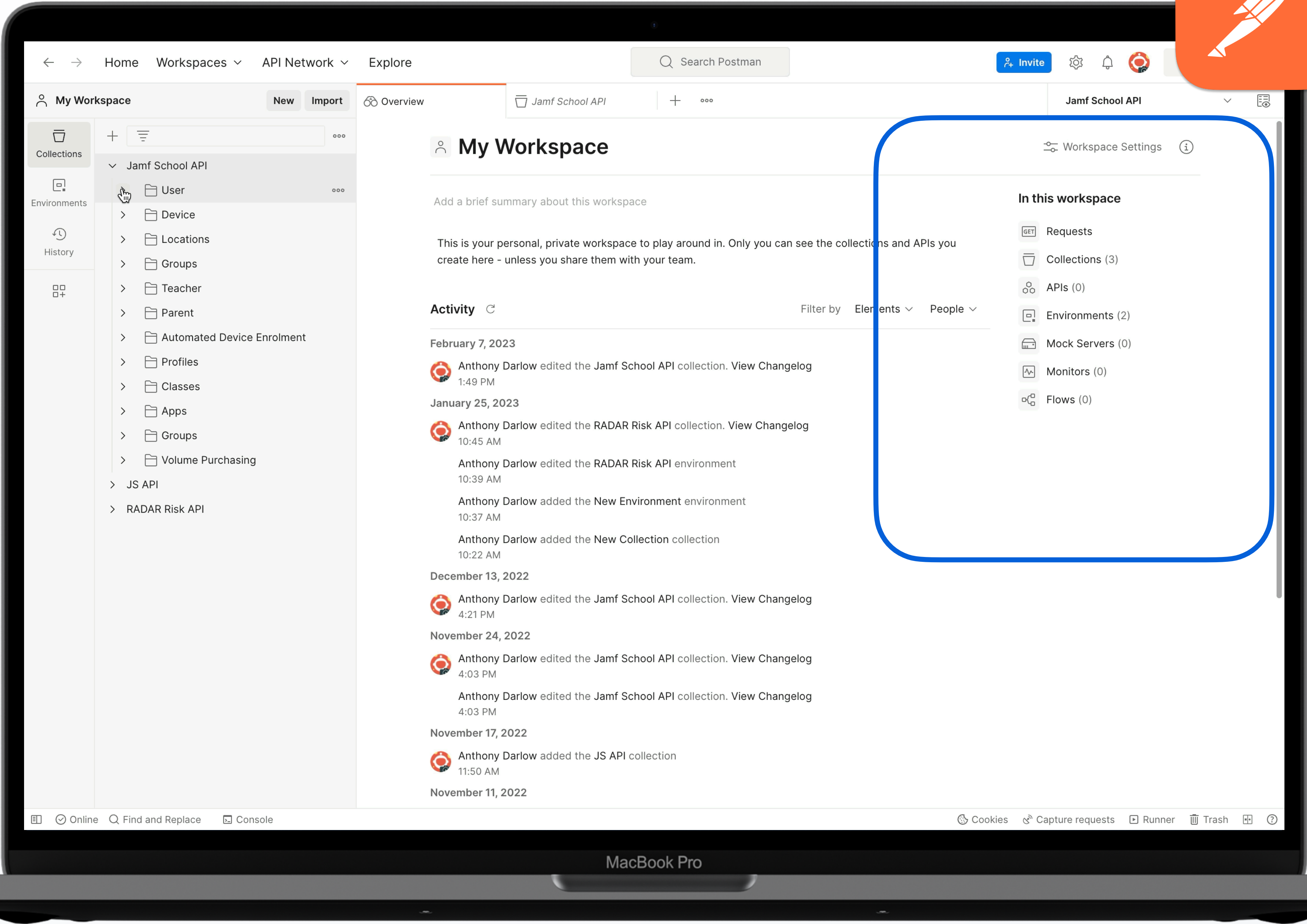


Postman App

API interaction



Postman Collection



Étendre Jamf School

1 | Qu'est ce qu'une API?

Un outil utile pour travailler avec des applications web

2 | Les Endpoints API

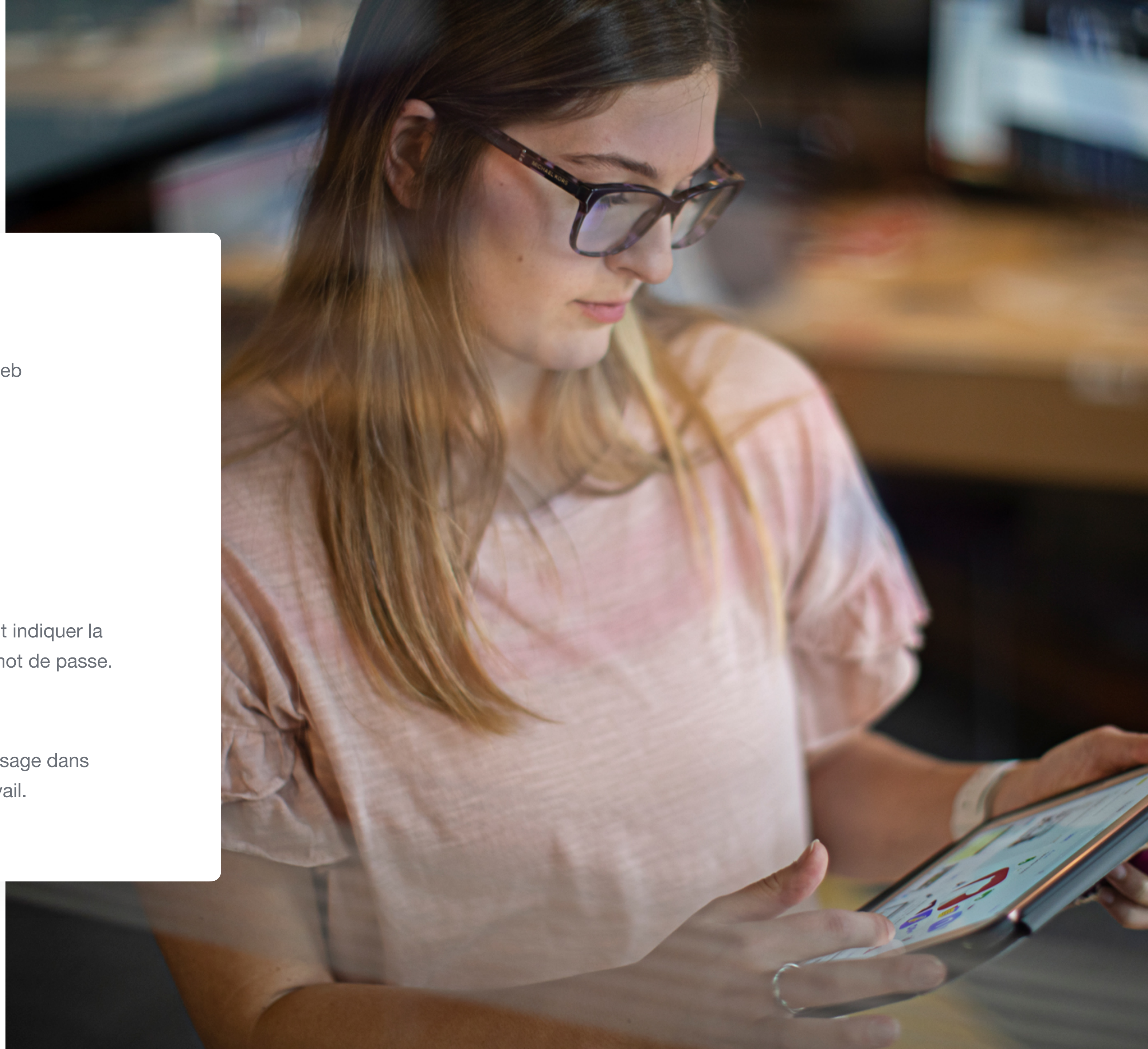
Communiquer avec des parties spécifiques d'une application web

3 | Interagir avec l'API Jamf School

Pour effectuer des appels API à Jamf School, il faut indiquer la commande, le endpoint, le nom d'utilisateur et le mot de passe.

4 | Étendre le pouvoir de Jamf School

Nous avons terminé en réfléchissant à des cas d'usage dans lesquelles l'API pourrait améliorer votre flux de travail.



Merci!

● **JAMF
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