POSTMAN GALAXY

VeriToll

Using Cookies to Store Your Postman Secrets

Lightning Talk on February 4, 2021

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www.veritoll.com

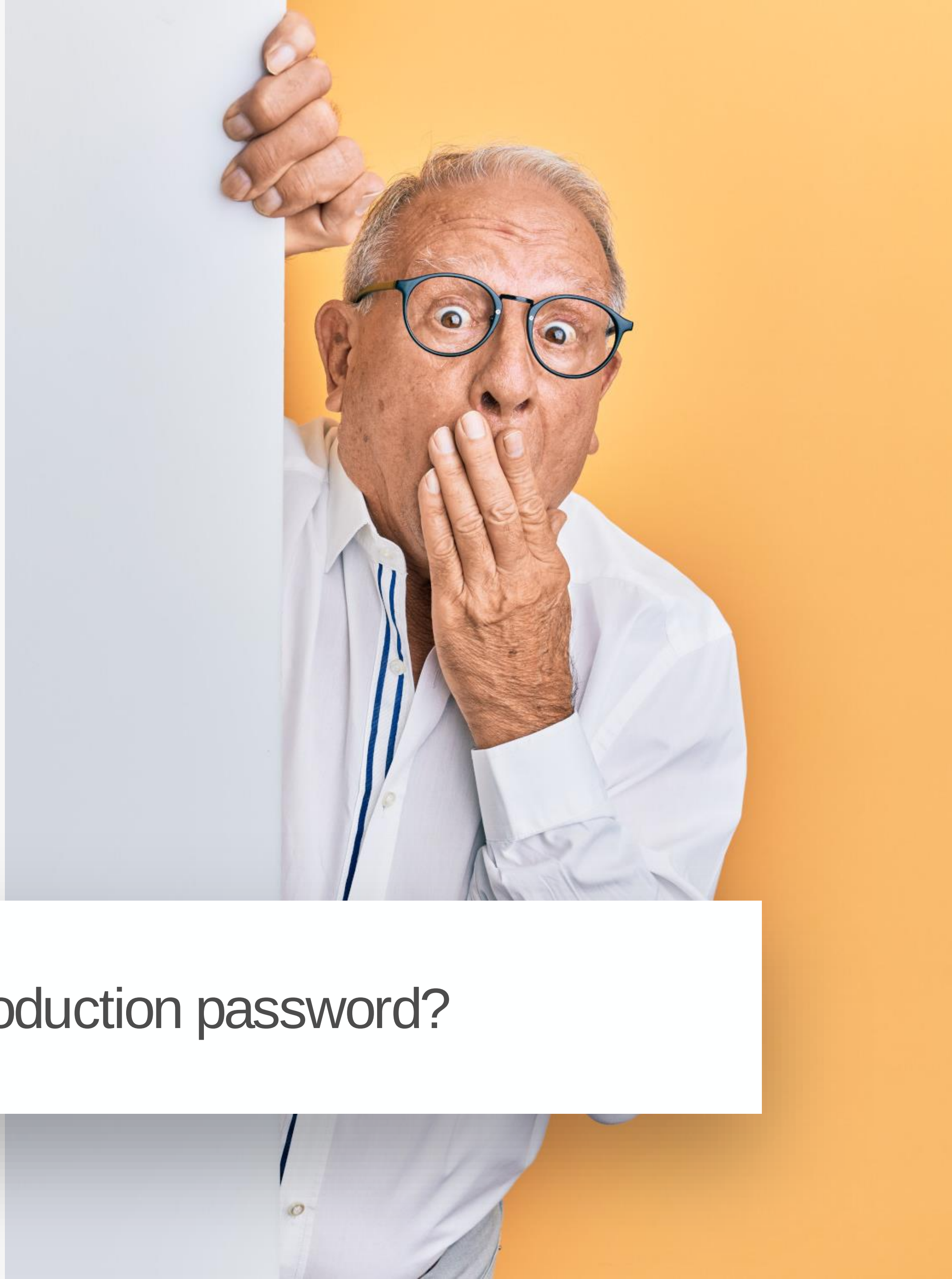
Let's suppose

We are testing the production environment.

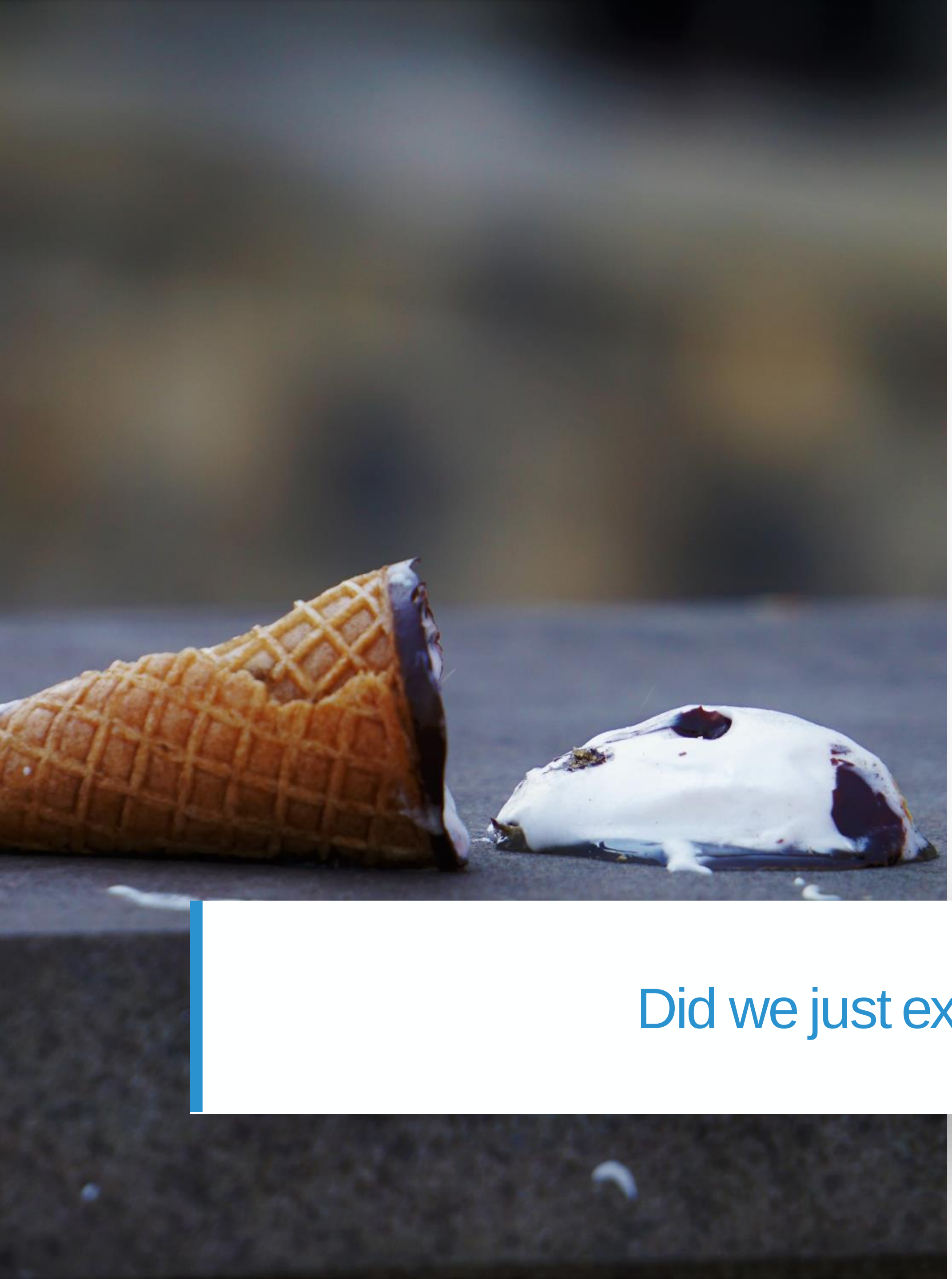
We want to test an API in a team collection.

We enter our actual username and password.

We complete the test and move on.



Did we just forget to remove our production password?



Let's suppose

We make a collection public.

We decide to make a "quick" change.

We "temporarily" add an API key.

We get a phone call from our boss.

Did we just expose an API key to the public?

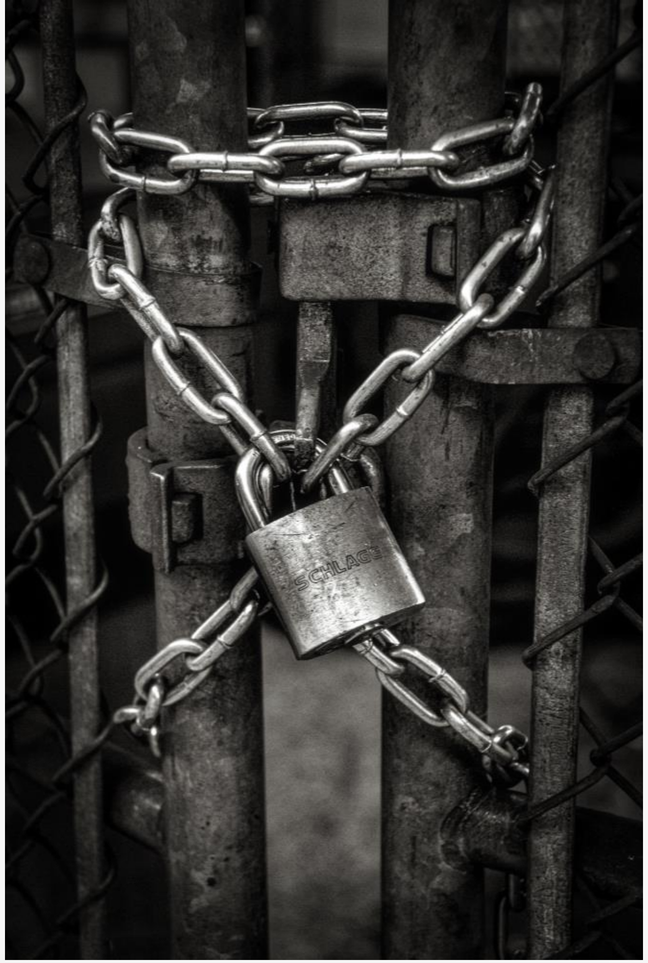
Postman's Security

Strong encryption at-rest and in-transit

Postman Sessions

Role-based access control (RBAC)

Strong security program



Learn more at https://www.postman.com/security/

Shared Responsibility

Protect your account, installation, and computer

Implement user roles with RBAC

Use Postman Sessions

Be careful what you share

Learn more at https://www.postman.com/security/shared-responsiblity/

Sessions + Cookies

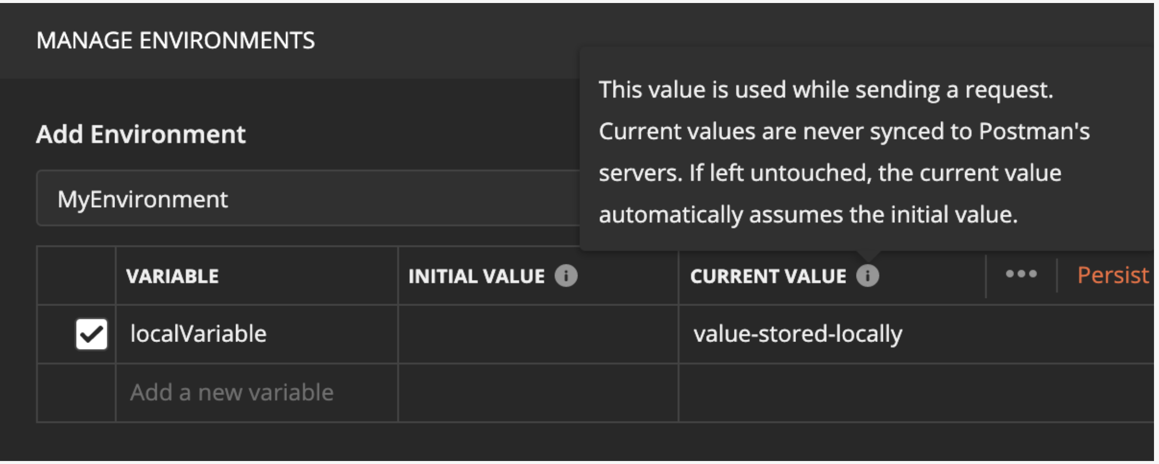
Environments (obviously) have no encryption in-use

Avoid syncing with Sessions

Use cookies as a local data store

Store secrets in cookies and use them with sessions

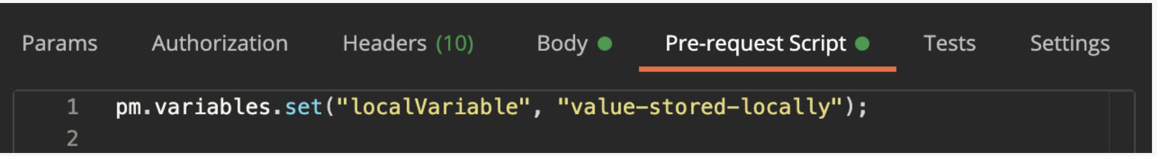
Using Sessions



MyEnvironment

This value is used while sending a request. Current values are never synced to Postman's servers. If left untouched, the current value automatically assumes the initial value.

	VARIABLE	INITIAL VALUE	CURRENT VALUE	••• Persist
☑	localVariable		value-stored-locally	
	Add a new variable			



```
pm.variables.set("localVariable", "value-stored-locally");
```

Done with the UI and scripts.

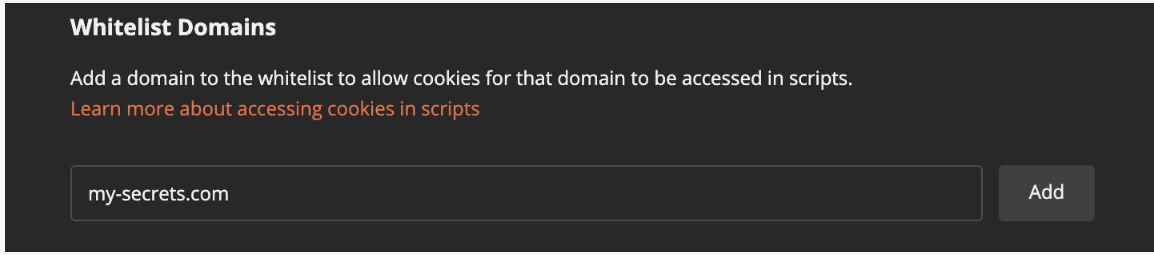
Must carefully avoid setting Initial Value

Learn more at https://learning.postman.com/docs/sending-requests/variables/

Using Cookies

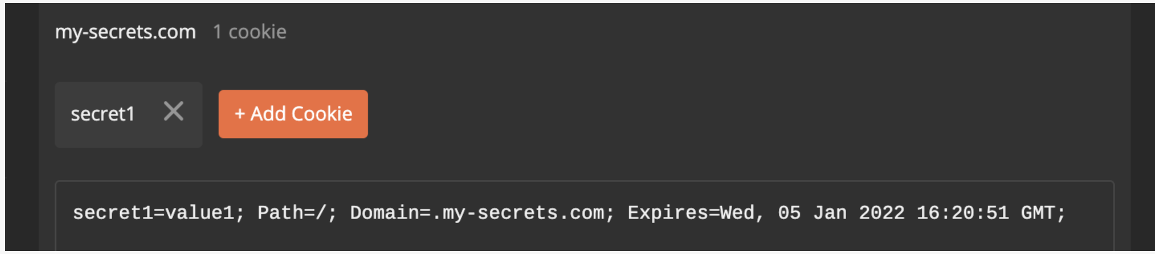
Done with the UI and scripts

Must whitelist domain



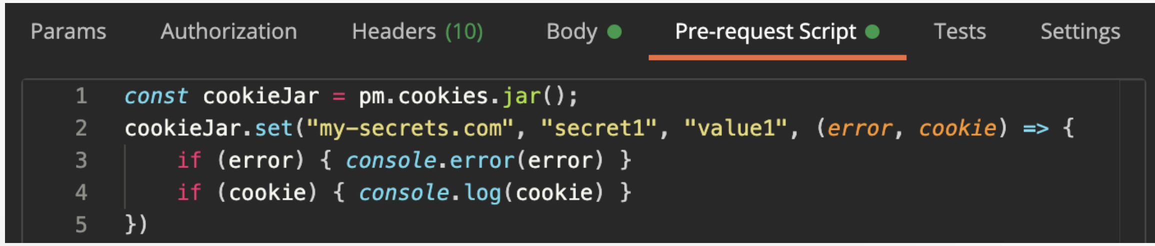
Whitelist Domains

Add a domain to the whitelist to allow cookies for that domain to be accessed in scripts.
Learn more about accessing cookies in scripts



my-secrets.com 1 cookie

```
secret1=value1; Path=/; Domain=.my-secrets.com; Expires=Wed, 05 Jan 2022 16:20:51 GMT;
```

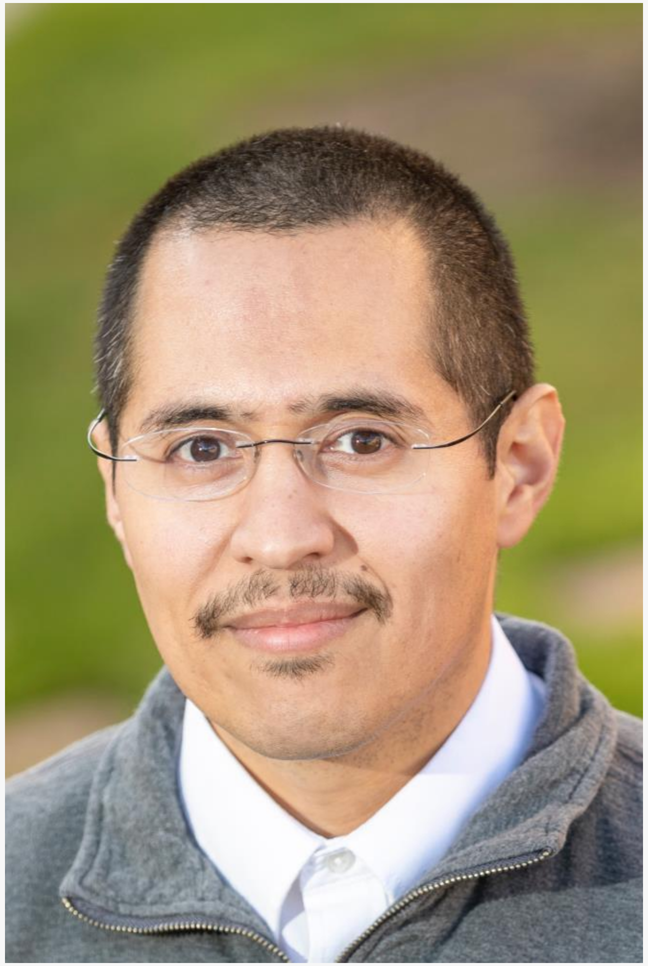


```javascript
const cookieJar = pm.cookies.jar();
cookieJar.set("my-secrets.com", "secret1", "value1", (error, cookie) => {
    if (error) { console.error(error) }
    if (cookie) { console.log(cookie) }
})
```

Learn more at https://learning.postman.com/docs/sending-requests/cookies/

Demo

Putting it all together



About me

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Published Author

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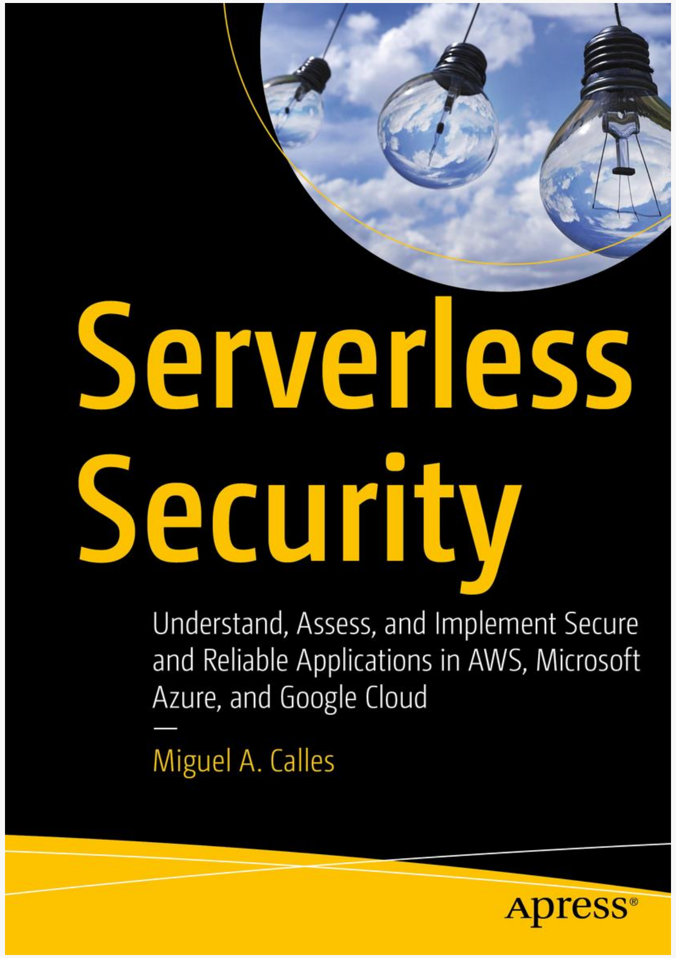

Serverless Security

Understand, Assess, and Implement Secure and Reliable Applications in AWS, Microsoft Azure, and Google Cloud

—

Miguel A. Calles

Apress®

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VeriToll

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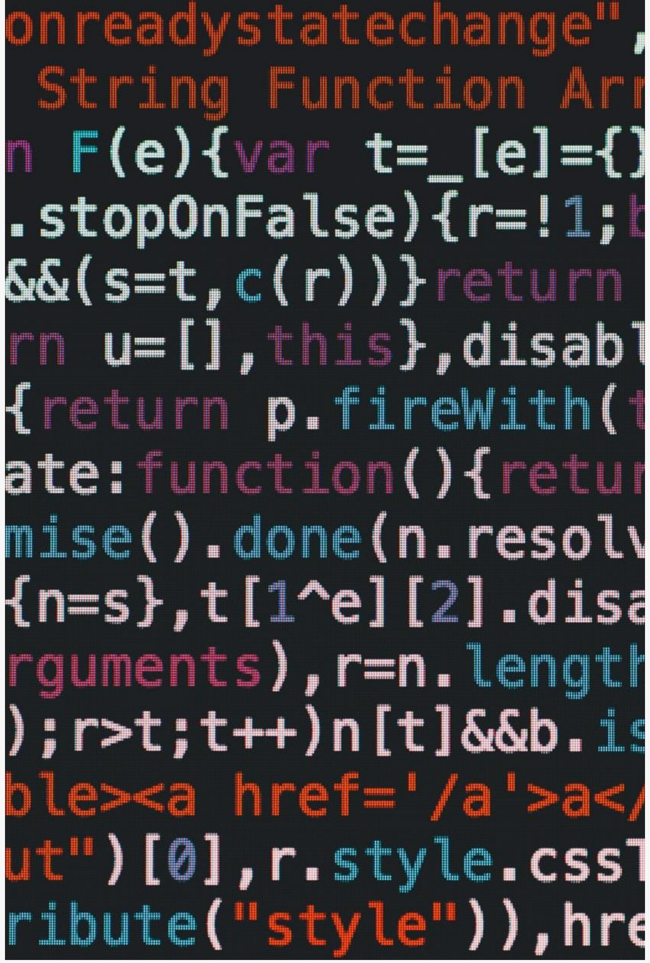
CrowdToll

Human quality image review and quality assurance services for tolling operations by crowdsourcing the image review services and utilizing patented AI/ML techniques.

The power of innovation. The power of people.



```
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ribute("style")),hre
```
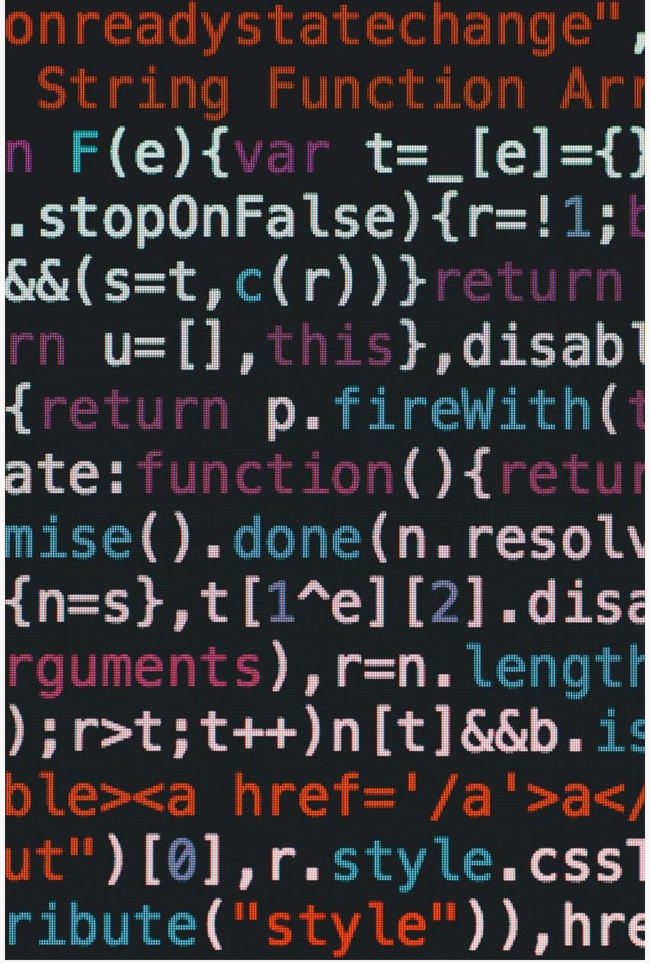

Code · Pre-request Script · Using Cookie

```
const cookieJar = pm.cookies.jar();
const cookieName = "xApiKey"
const domain = "postman.galaxy.demo"
cookieJar.get(domain, cookieName, (error, cookie)
=> {
  if (error) {
    console.error(error);
    pm.variables.set(cookieName, "error");
  }
  if (cookie) {
    pm.variables.set(cookieName, cookie);
  } else {
    console.error("Cookie is missing")
    pm.variables.set(cookieName, "missing");
  }
});
```



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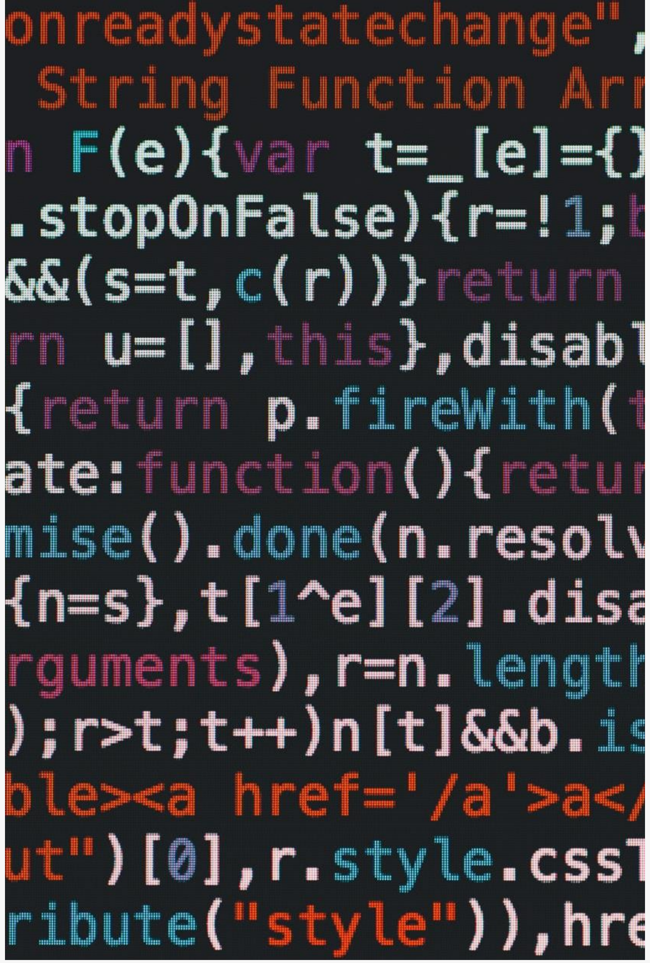
```

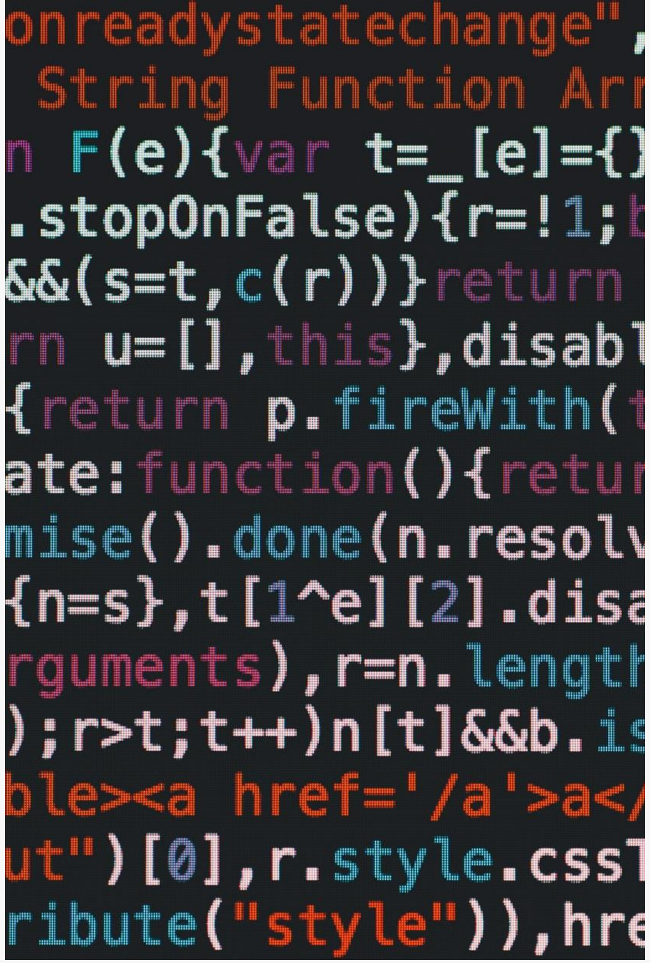
Code · Tests Script · Clearing Session Variable

```
pm.variables.unset("xApiKey");
```



Code · Pre-request Script · CryptoJS · Part 1

```
// https://postman-quick-reference-guide.readthedocs.io/en/latest/libraries.html
const cookieJar = pm.cookies.jar();
const sessionVarName = "xApiKey";
const cookieName = "secretKey";
const domain = "postman.galaxy.demo";
```



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ribute("style")),hre
```
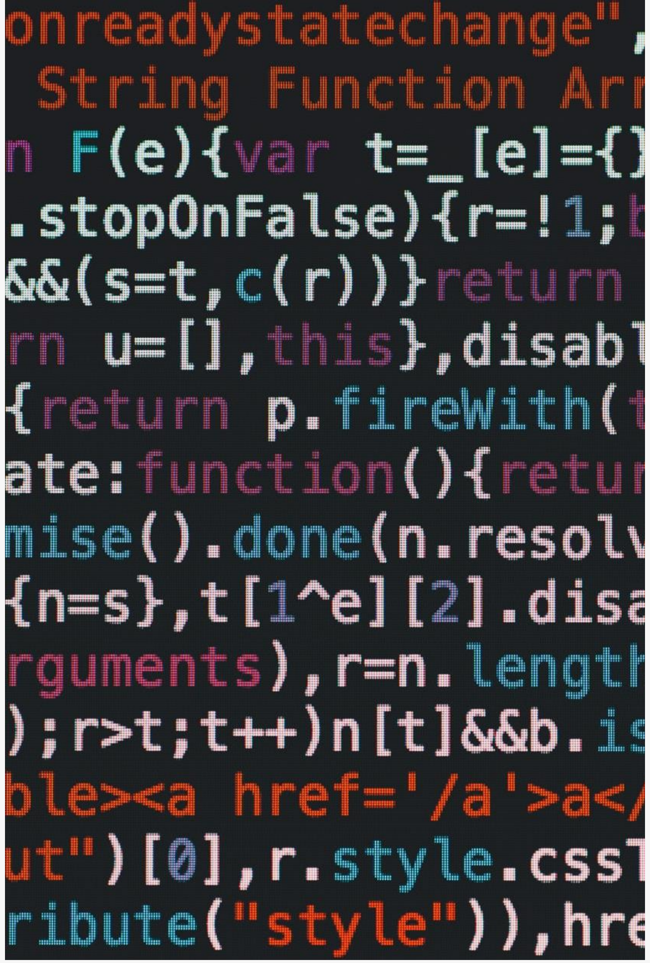
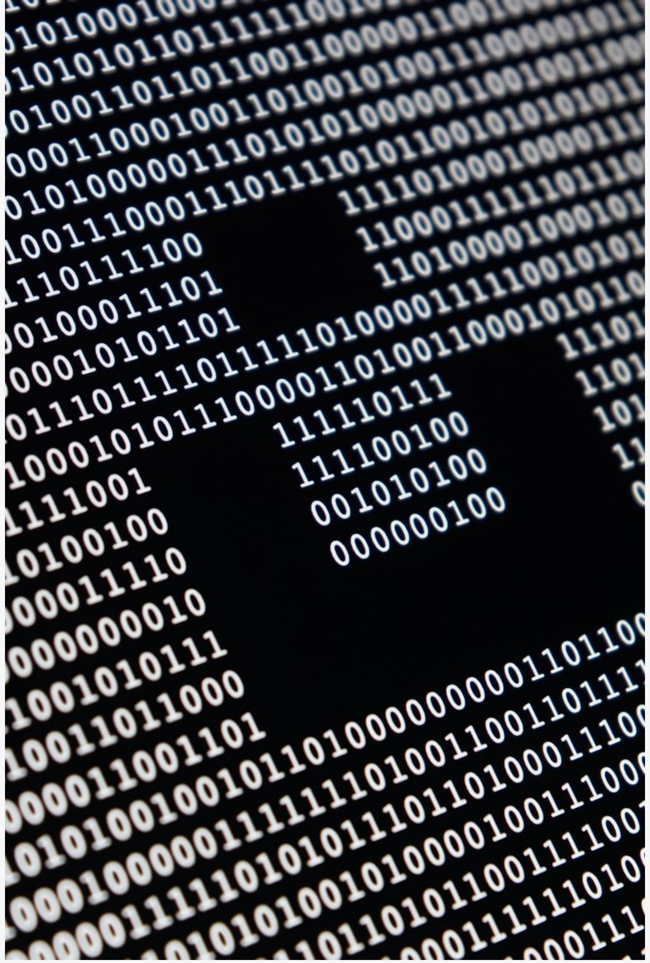

Code · Pre-request Script · CryptoJS · Part 2

```
cookieJar.get(domain, cookieName, (error,
secretKey) => {
  if (error) {
    console.error(error);
    pm.variables.set(sessionVarName, "error");
  }
  if (secretKey) {
    // encryption
    const encryptedText =
CryptoJS.AES.encrypt('<data-to-encrypt>',
secretKey).toString();
    console.log('encryptedText', encryptedText);
```



Code · Pre-request Script · CryptoJS · Part 3

```
    // decryption
    console.log('secretKey', secretKey);
    const xApiKeyEnc = pm.environment.get('x-api-
key-enc');
    console.log('xApiKeyEnc', xApiKeyEnc);
    const xApiKey =
CryptoJS.AES.decrypt(xApiKeyEnc,
secretKey).toString(CryptoJS.enc.Utf8);
    console.log('xApiKey', xApiKey);
    pm.variables.set(sessionVarName, xApiKey);
  } else {
    console.error("Cookie is missing")
    pm.variables.set(sessionVarName, "missing");
  }
});
```



Credits

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