

# imagine 2019

## **Adobe Experience Platform Launch & Magento**

Intro to Client-Side Development on the Adobe Experience Platform

### **Lab Manual**

#### **Abstract**

Mobile and web marketing technologies are growing by leaps and bounds. Learn how to simplify your use of JavaScript tags, advertising measurement tech, and marketing pixels using brand new tools now available to Magento Enterprise customers through the Adobe acquisition. While the principles we learn can apply to any Tag Management Platform, this lab will use Adobe Launch to install and practice the basics of Tag Management on a sample Magento website.

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# Implementing the Adobe Experience Cloud in Websites with Adobe Experience Platform Launch

## Lab Overview

This lab is geared toward those that are interested in the first integration between Magento and Adobe's Marketing and Advertising Products.

Time permitting, by the end of this lab you should be able to:

- Login into the Adobe Experience Cloud
- Become familiar with Adobe.io Developer Portal
- Have an understanding of how Tag Management works and how to use them on Magento
- 

## Prerequisites

Some things you'll need in order to complete this lab.

- A stable test instance of Magento 2.2 or higher
- NPM version 5.2.0 or higher
- Node.js version 10.x.x or higher
- Access and login credentials to Adobe Experience Cloud

Also, it is assumed that you are familiar with front-end development languages like HTML and JavaScript. You do not need to be a master of these languages to complete the lessons, but you will get more out of them if you can comfortably read and understand code.

## About Launch

Launch, by Adobe is the next generation of website tag and mobile SDK management capabilities from Adobe. Launch gives customers a simple way to deploy and manage all of the analytics, marketing, and advertising solutions necessary to power relevant customer experiences. There is no additional charge for Launch. It is available for any Adobe Experience Cloud customer.

## About the Lessons

We plan to cover some of the basics of Tag Management and will be using Adobe's Tag Management Platform, however the principles should apply to any Tag Management system available on the market. We also plan to do a brief overview of Extension Development on Adobe's Tag management Platform and give you the basics to get started building your own Extensions for the product

## Exercise 1: Install the Embed Code

### Login to the Adobe Experience Cloud

In this exercise, you will create your first Launch property and deploy it to Magento.


A “property” is basically a container that you fill with extensions, rules, data elements, and libraries as you deploy tags to your site.

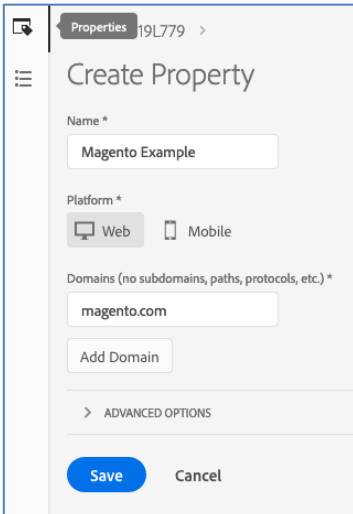
### Prerequisites

In order to complete the next few lessons, you must have access to Adobe Experience Cloud and be assigned permissions to Develop, Approve, Publish, Manage Extensions, and Manage Environments in Launch. If you are unable to complete any of these steps because the user interface options are not available to you, reach out to your Experience Cloud Administrator to request access. For more information on Launch permissions, see [the documentation](#).

### Go to Launch

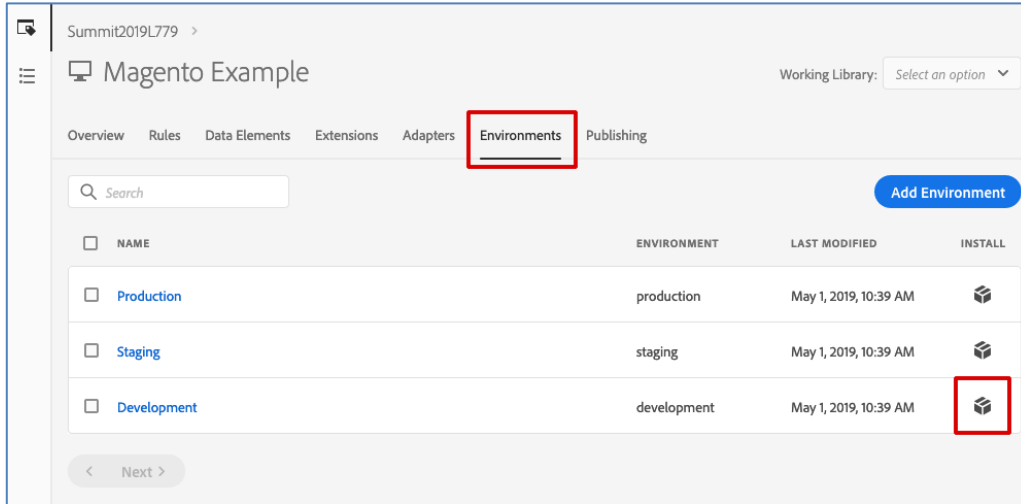
#### To get to Launch

1. Log into the [Adobe Experience Cloud](#)
2. Click the  icon to open the solution switcher and choose “Activation”
3. Click on the icon to go to “Launch”
4. Give the Property a Name and your domain and hit “Save”



5. Search or click on the newly Created property

6. Navigate to the “Environments” tab

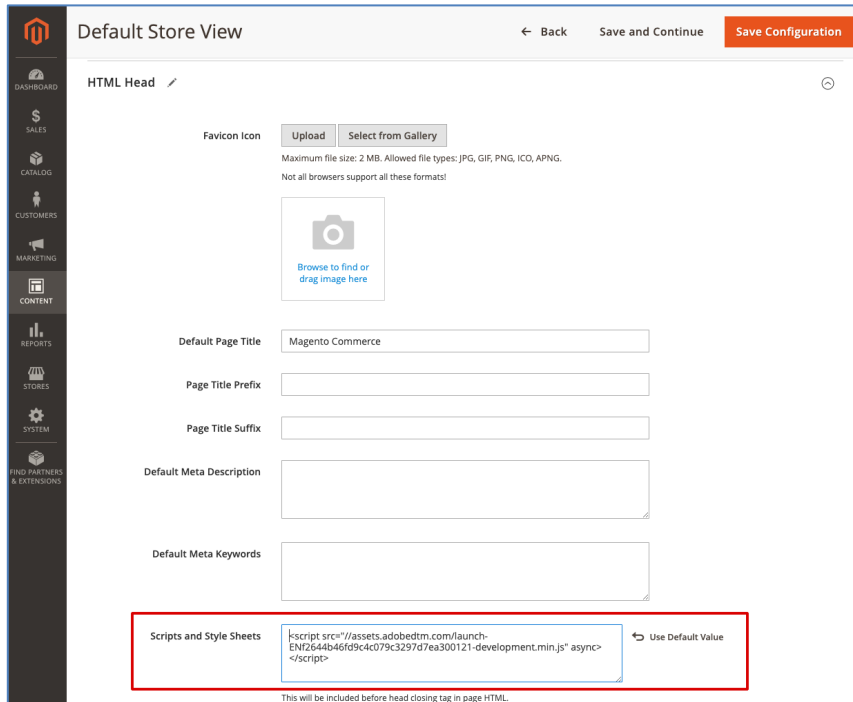


7. Click the “Install Icon to show the JavaScript Embed Code
8. Copy the code snippet

## Go to Magento

9. Login to your Magento Admin Console
10. Navigate to “Content” => Design, “Configuration” => Select your Store View and click “Edit”
11. With your correct Theme applied, expand the “HTML Head” section

- Paste the code snippet into the “Scripts and Sheets” field

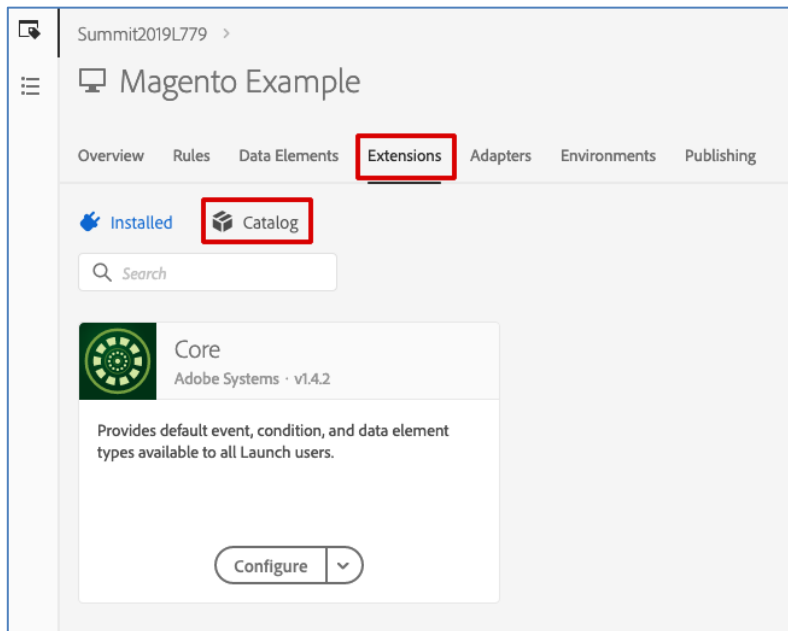


- Clear or flush your Magento cache if necessary and confirm the Storefront now has the new code snippet.  
**NOTE: the URL in the embed code does not yet have a file to be downloaded. This will be covered later in the lab.**

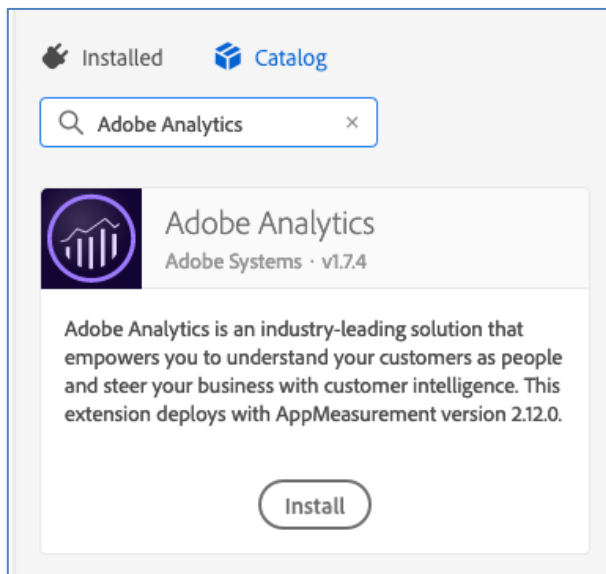
## Exercise 2: Install Analytics

### Go Back to Launch

1. Navigate back to Launch (shortcut: <https://launch.adobe.com/>)
2. Navigate to the “Extensions” tab
3. Click on the “Catalog” button

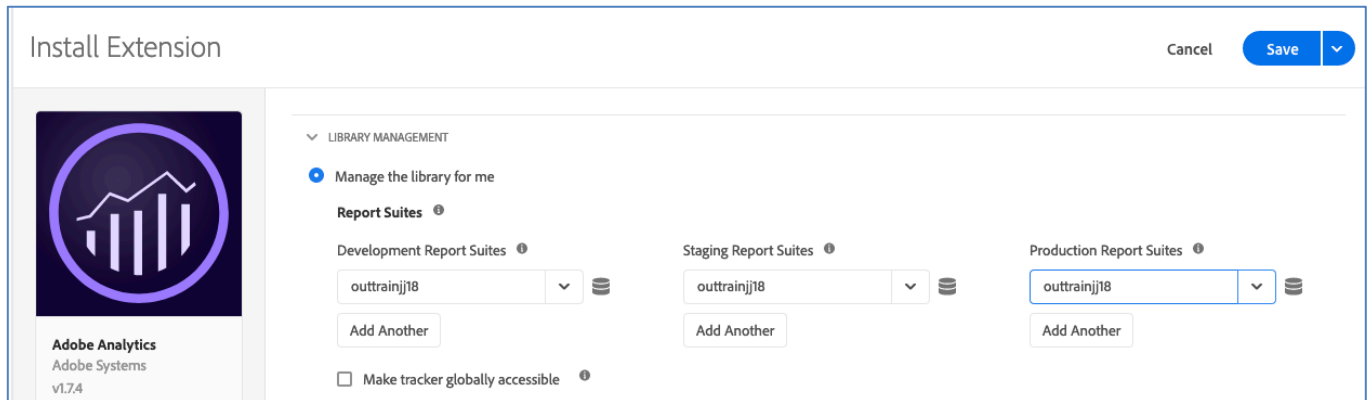


4. Search or locate the “Adobe Analytics Extension”

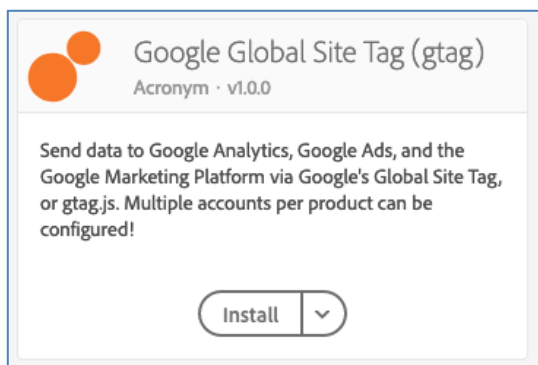


5. Click “Install”

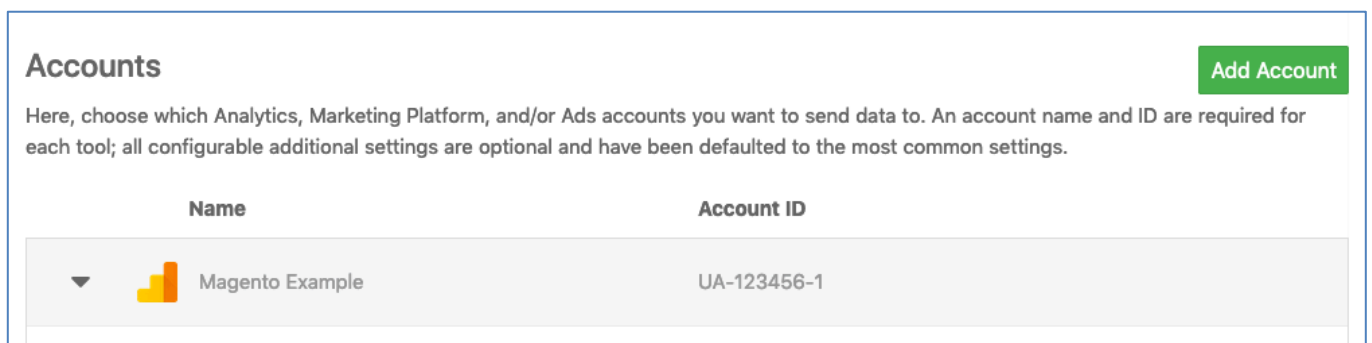
- In the “Report Suite” sections enter the following string for all 3 development, staging, and production:  
**outrainjj18**



- Click ‘Save’
- Navigate back to the “Catalog” and this time search for “Google” You will notice there are multiple Google Extensions
- Click “Install” on the one labeled “Google Global Site Tag”



- Click “Add Account” to add your Google Analytics Account



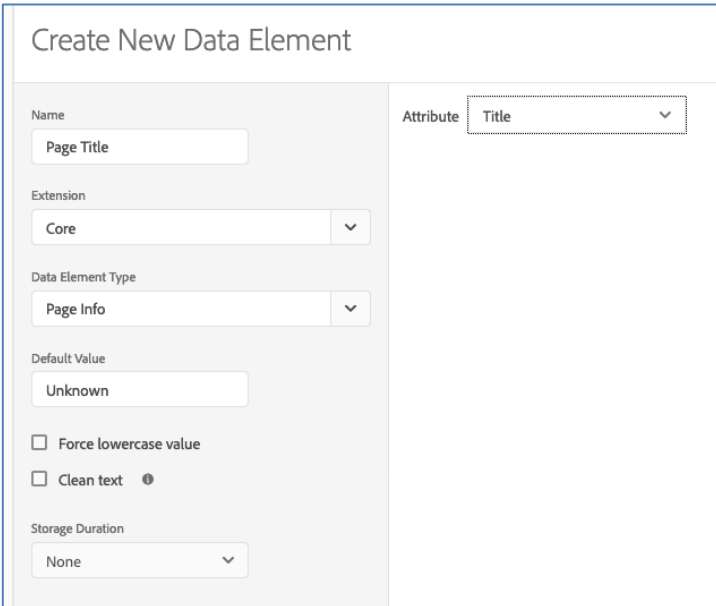
- Click Save



## Exercise 3: Create a Data Element

### Go Back to Launch

1. Navigate back to Launch and select the “Data Elements”
2. Create a New Data Element
3. Give it a name like “Page Title”
4. Leave the Extension as “Core”
5. From the drop-down labeled “Data Element Type” Select “Page Info
6. Enter a default value of “Unknown”
7. From the drop-down labeled ‘Attribute” select the option “Title”
8. Click the “Rules” tab and then click the button to “Create New Rule”
9. Give the Rule a name like “Page Load Tracking”



The screenshot shows a form titled "Create New Data Element". The form is divided into two main sections. The left section contains the following fields and options:

- Name:** A text input field containing "Page Title".
- Extension:** A dropdown menu with "Core" selected.
- Data Element Type:** A dropdown menu with "Page Info" selected.
- Default Value:** A text input field containing "Unknown".
- Force lowercase value:** An unchecked checkbox.
- Clean text:** An unchecked checkbox with a small circular icon to its right.
- Storage Duration:** A dropdown menu with "None" selected.

The right section contains:

- Attribute:** A dropdown menu with "Title" selected.

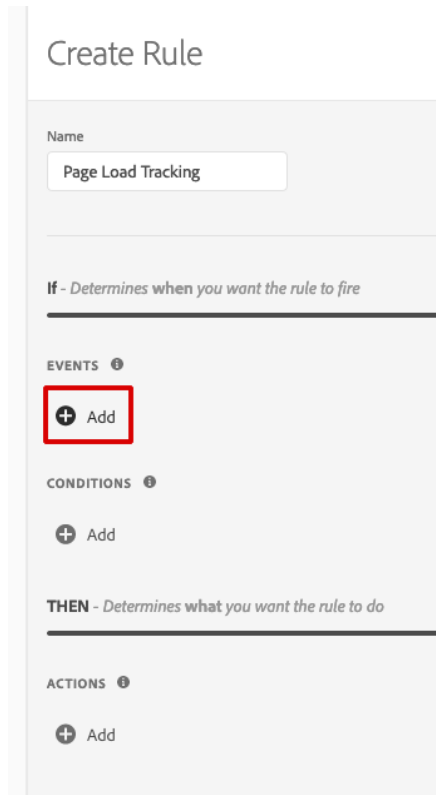
10. Click “Save”

***[SEE APPENDIX ABOUT DATA LAYERS & BEST PRACTICES]***

## Exercise 4: Create a Rule to Fire Beacons

### Go Back to Launch

1. Navigate back to Launch (shortcut: <https://launch.adobe.com/>)
2. Click the “Rules” tab and then click the button to “Create New Rule”
3. Give the Rule a name like “Page Load Tracking”
4. Under the “IF” section add a new Event to trigger this rule



Create Rule

Name

Page Load Tracking

If - Determines when you want the rule to fire

EVENTS ⓘ

+ Add


CONDITIONS ⓘ

+ Add

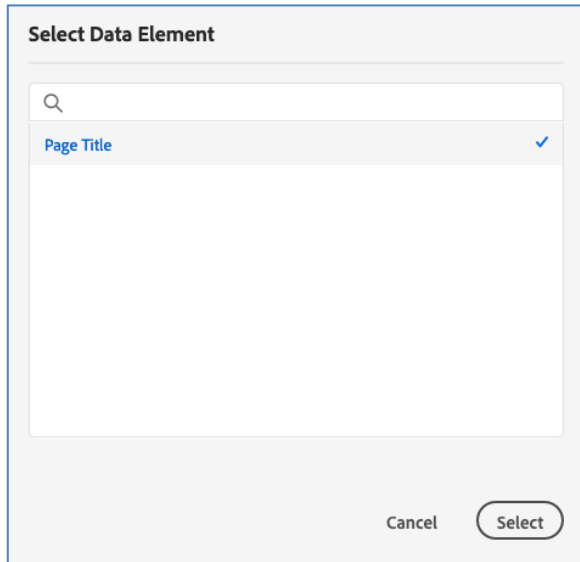
THEN - Determines what you want the rule to do

ACTIONS ⓘ

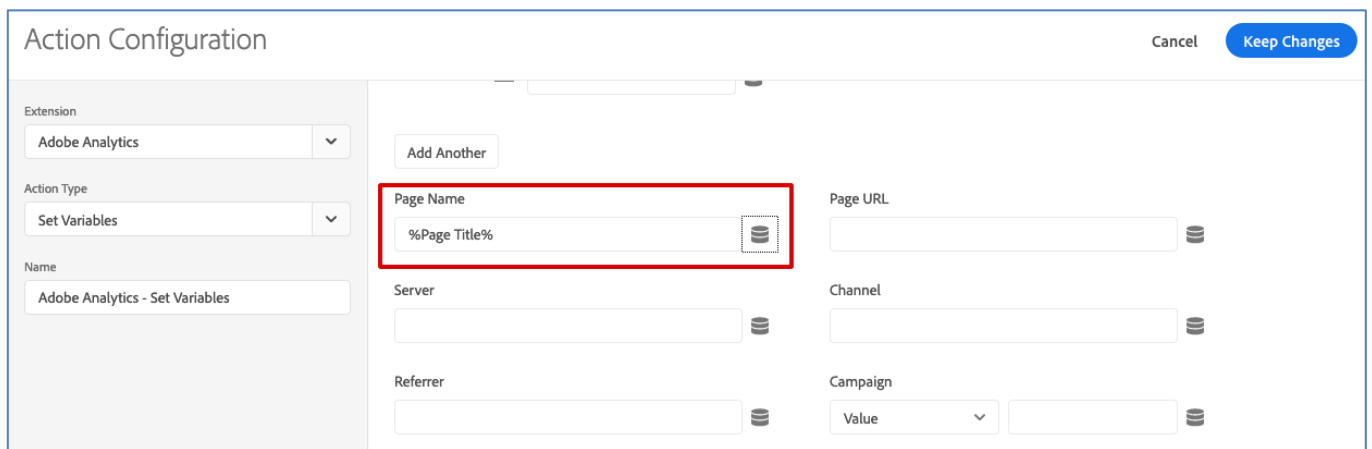
+ Add


5. Leave the “Extension” as Core but for the “Event Type” on the left select “Library Loaded (Page Top)”
6. Click “Keep Changes”
7. Click to add an “Action” under the ‘Then’ section
8. From the Extension drop-down choose “Adobe Analytics”
9. In the Action Type choose “Set Variable”
10. Scroll down to the field labeled “Page Name” and click the DB icon  to set the value



11. Choose the Data Element you created in the previous exercise



12. Click "Select" and then "Keep Changes"





13. Now add a new action to send the beacon. Click the  to add an additional action to the rule.
14. Again Select "Adobe Analytics" as the Extension
15. Choose "Send Beacon" as the action type and leave the default settings and click save.
16. Add yet another action to the rule by again clicking the plus sign.
17. This time choose "Google Global Site Tag" as the Extension and choose "Send a page view"
18. Enter the variable name of "page\_title" and once again click the Data Element Viewer to set the value to the Data Element we created.

 Magenta Example  

▼ **Custom Data Fields**

Below you can map any additional fields (e.g. page title, path, custom dimensions etc.) that will be included with future page views and events, unless overwritten elsewhere. [Learn more.](#)

page_title 	%Page Title% 
--	--

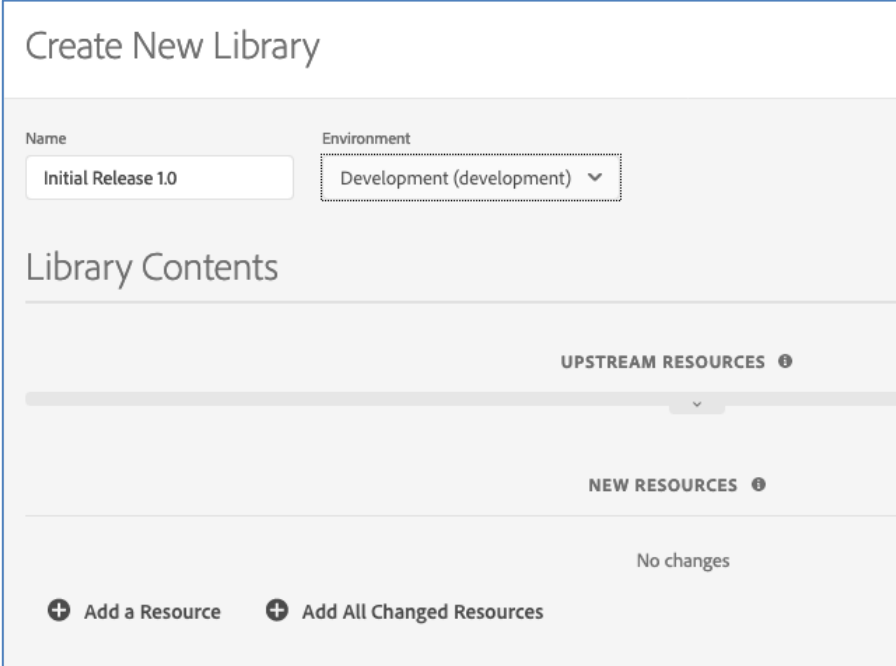
[+ New Field](#)

19. Click “Keep Changes”
20. Click “Save” to save this new rule.

## Exercise 5: Publish Your Changes

### Go Back to Launch

1. Navigate back to Launch and click on the “Publishing” tab
2. Click “Add New Library” button
3. Give the library a name similar to what you might put for a GitHub release tag like “Initial Release 1.0”
4. Select the “Development” environment
5. Click the button at the bottom called: “Add All Changed Resources”



The screenshot shows the 'Create New Library' form. At the top, the title 'Create New Library' is displayed. Below the title, there are two input fields: 'Name' and 'Environment'. The 'Name' field contains the text 'Initial Release 1.0'. The 'Environment' field is a dropdown menu with 'Development (development)' selected. Below the form, the section 'Library Contents' is visible. It contains two sections: 'UPSTREAM RESOURCES' and 'NEW RESOURCES'. The 'NEW RESOURCES' section shows 'No changes'. At the bottom of the form, there are two buttons: '+ Add a Resource' and '+ Add All Changed Resources'.

6. Click the blue button called “Save and Build for Development”
7. When the icon turns “Green” the Library has been built and deployed to Akamai’s global CDN in your development environment.

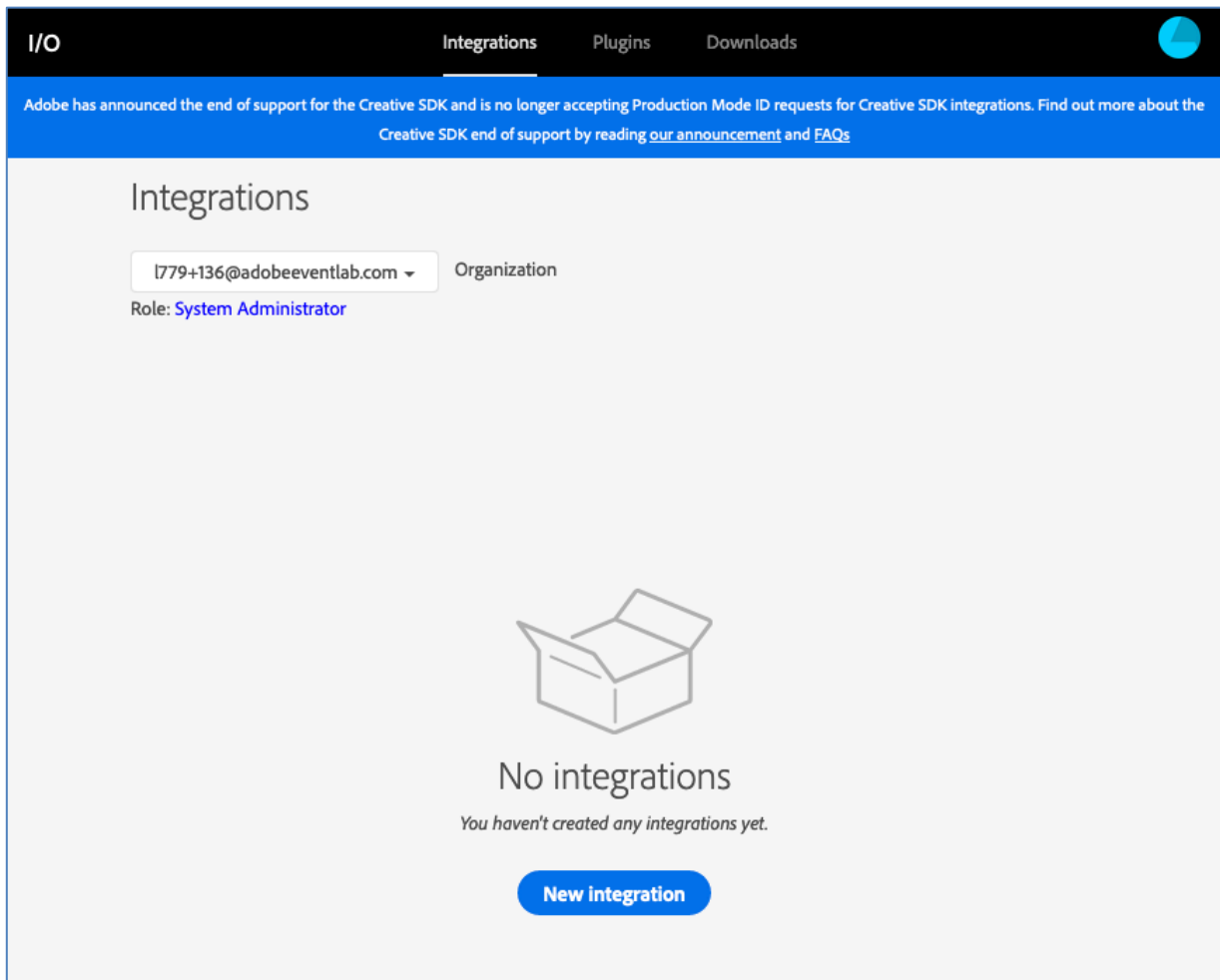
### Go Back to Magento Store

8. Navigate to the Magento Store Front and use the Browser Developer Tools/Console to confirm the beacon calls being sent.

## Exercise 6: Publish Your Changes

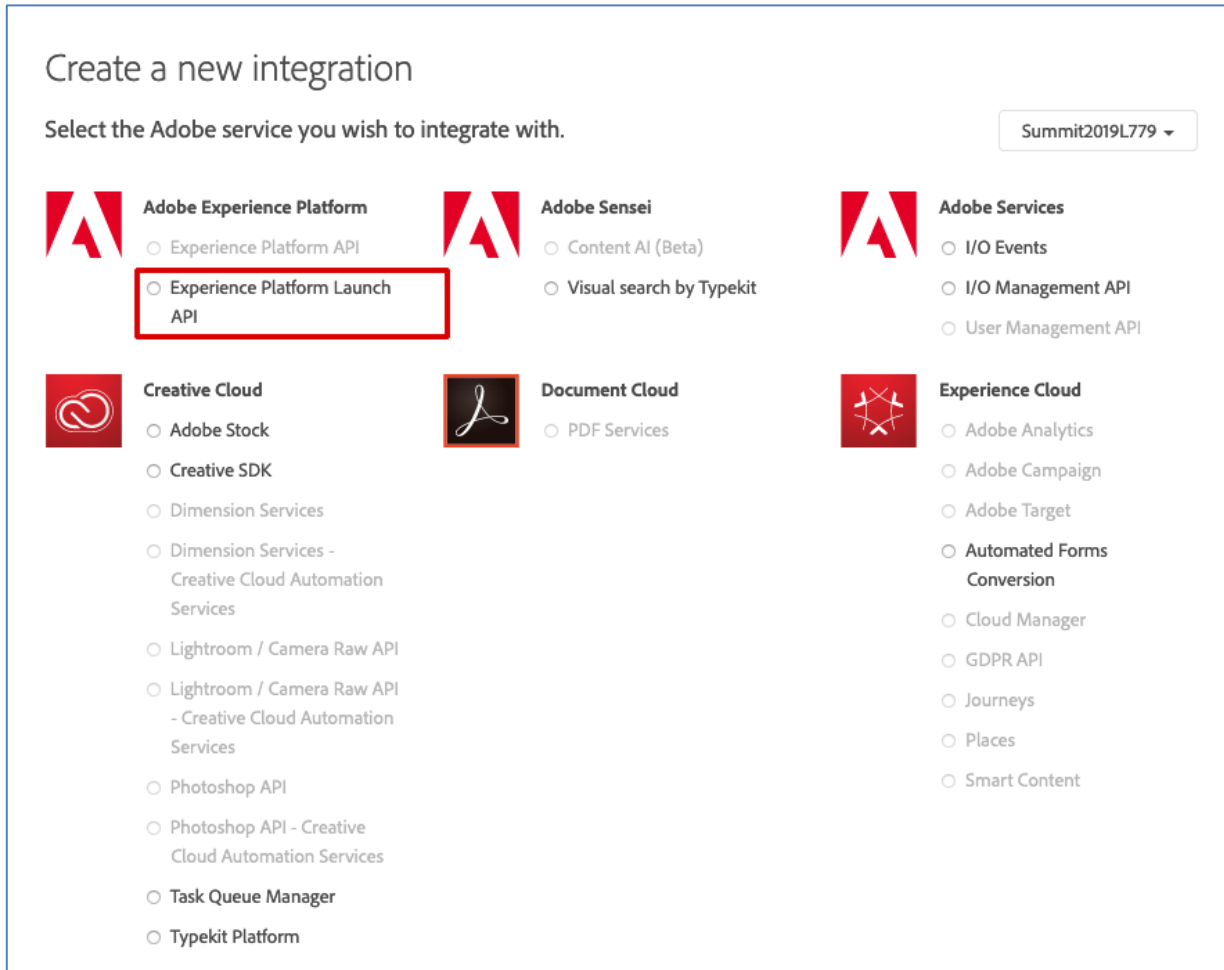
### Go Back to Launch

1. Navigate to <https://www.adobe.io/>
2. Click the button to the Developer Console
3. Click the link to go to the “Integrations” and then the button to create a new integration



4. Choose “Access an API”

5. Choose “Experience Platform Launch API” and click “Continue”



6. Open a Terminal Window
7. Navigate to where you want to store your key and execute the following command:  

```
openssl req -x509 -sha256 -nodes -days 365 -newkey rsa:2048 -keyout private.key -out adobe-io-public.crt
```
8. Complete all of the terminal prompts

9. Upload your CRT file to the Adobe.io console

## Create a new integration

### Integration Details

Name

Magento Lab Demo


6 to 25 characters

Description

Magento Lab Demo

6 to 1000 characters

Public keys certificates [?](#)



Drag and drop your file or  
[Select a File](#) from your computer


You can add 1 more file(s)


### Certificates


Name	Size	Actions
adobe-io-public.crt	0.001 MB	<a href="#">Remove</a>


### Experience Platform Launch API Configuration


#### Select a role for Experience Platform Launch API


 Admin

 IT Admin

 Developer

 Approver

 Publisher

 Extension Developer

10. Select “Admin” as the permission group or role to assign to this integration

11. Select the “Launch Lab User” user product profile to give this integration access to.



12. Click “Create Integration” and “Continue to Integration”

The screenshot shows the 'Magento Lab Demo' integration page in the Adobe IO Console. The page is divided into several sections:

- Client Credentials:** Contains fields for API Key (Client ID), Technical account ID, Technical account email, and Organization ID, each with a 'Copy' button. There is also a 'Retrieve Client Secret' button.
- Integration Details:** Contains a 'Name' field (Magento Lab Demo), a 'Description' field (Magento Lab Demo), and an 'Update' button.
- Public keys:** A table with columns 'FINGERPRINT' and 'EXPIRY DATE'. It lists a public key with a fingerprint of '9c8c803f7a7722233db8e3d93a3b770afb68c88e' and an expiry date of 'Apr 30, 2020'. There is a trash icon next to the expiry date and an 'Add a public key' button.
- Details:** A summary section showing 'Integration type: Service Account', 'Created on: May 1, 2019', and 'Last updated on: May 1, 2019'.

## Go Back to Magento Admin

13. Leave this window open and launch a new browser tab
14. Navigate the new tab to the Magento Admin and login
15. Navigate to “Stores” => “Configuration”
16. See that the “Adobe Experience Platform” Extension for Magento is installed. Select it to show the configuration
17. Paste the details from the Adobe.io Console Window into the configuration fields in Magento
18. For the JWT Token field, navigate in Adobe.IO to the tab labeled “JWT”
19. In the bottom field, you need to paste in the contents of your PRIVATE key that we generated in terminal in the previous steps

### Generate your JWT

JWT payload

```

1 {
2   "exp": 1556828191,
3   "iss": "22540A235C3737470A495ECC@AdobeOrg",
4   "sub": "486A0FAF5CC9FE960A495FE9@techacct.adobe.com",
5   "https://ims-na1.adobelogin.com/s/ent_reactor_admin_sdk": true,
6   "aud": "https://ims-na1.adobelogin.com/c/4abba9633cf240f2951676c21850a985"
7 }

```

Paste private key [?](#)

```

NNF1yS7C/Z325qFa3vHRRK48R1zudyL68UPw5QuhUTK+OCNBWvW388NtX+LHa4FY
vYr9pwaXDtlmfjxZsfCDBHijMvmGxglHZSsRbri9ExM2MAatT6MUND722OWIfOi9
fhNHYO7sYCE=
-----END CERTIFICATE-----

```

**Generate JWT**

20. Click "Generate JWT" button
21. Paste the token back in the Magento Admin Console

**Save Config**

### API Credentials ⌵

**Adobe Org ID** [global]   
 The Adobe Org ID associated with the Adobe I/O Integration.

**Client ID** [global]   
 The client ID (API Key) associated with the Adobe I/O Integration.

**Client Secret** [global]   
 The client secret associated with the Adobe I/O Integration.

**JWT (JSON Web Token)** [global]   
 The JWT associated with the Adobe I/O Integration.

---

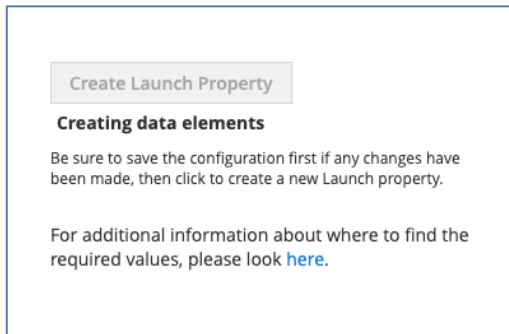
**Launch Configuration** ⌵

---

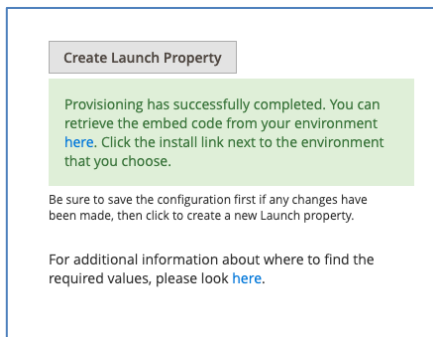
**Adobe Analytics Configuration** ⌵

22. Click "Save Config"


23. Expand the “Launch Configuration” and the Analytics Configuration Sections
24. Give the Property a Name like “Luma Store”
25. Enter the same Analytics report suite ID we used in the previous exercise: ***outrainjj18***
26. Click “Save Config”
27. Click on the left side to go to “Launch Provisioning”
28. Click the “Create Launch Property” button. You will see it is using the APIs to setup and provision an installation of Adobe tools



29. If everything worked, you should get a success message



## Go Back to Launch

30. Navigate back to the Launch UI and search for the new property you just provisioned
31. Click through and see all the entries that were setup and created for you.
32. Click on the “Environment” tab and click the install icon  for the “Development” environment.
33. Copy the code snippet from this new property

## Go Back to Magento Admin

34. Click on the “Module Configuration” option in the left-hand navigation

35. Paste the code snippet in the field labeled “Launch Script URL” and enable the module.

The screenshot shows a configuration interface for the Adobe Experience Platform. On the left is a sidebar menu with the following items: GENERAL (with a downward arrow), CATALOG (with a downward arrow), CUSTOMERS (with a downward arrow), SALES (with a downward arrow), ADOBE EXPERIENCE PLATFORM (with an upward arrow), API Configuration, Launch Provisioning, and Module Configuration (highlighted with an orange vertical bar). The main content area is titled 'Module Configuration' and contains two fields: 'Module Enabled' with a dropdown menu set to 'Yes' and a '[global]' label below it; and 'Launch Script URL' with a text input field containing the code '<script src="//assets.adobedtm.com/launc'. Below the text input field is a descriptive note: 'The script URL (or script tag) from the Launch interface. (Must create Launch property first)'.

36. Navigate back to “Content” => “Design Configuration” and edit your store front theme

37. Delete the embed code we placed previously in an earlier exercise. (We do not want two installations on the same site)

38. Clear the Magento Cache

### Go Back to Magento Storefront

39. Refresh the page and confirm you are seeing network calls to Adobe Analytics

# Appendix

## Implementation Best Practices

Let's take a moment to review some of the Launch implementation best practices which are demonstrated in the sample page:

- **Data Layer:**
  - We *strongly* recommend creating a digital data layer on your site containing all of the attributes needed to populate variables in Analytics, Target, and other marketing solutions. This sample page only contains a very simple data layer, but a real data layer might contain many more details about the page, the visitor, their shopping cart details, etc. For more info on data layers, please see [Customer Experience Digital Data Layer 1.0](#)
  - Define your data layer before the Launch embed code, in order to maximize what you can do in Target, Customer Attributes, and Analytics.
- **JavaScript helper libraries:** If you already have a library like JQuery implemented in the <head> of your pages, load it before Launch in order to leverage its syntax in Launch and Target
- **HTML5 doctype:** The HTML5 doctype is required by Target
- **preconnect and dns-prefetch:** Use preconnect and dns-prefetch to improve the page load time. See also: <https://w3c.github.io/resource-hints/>
- **pre-hiding snippet for asynchronous Target implementations:** You will learn more about this in the Target lesson, but when Target is deployed via asynchronous Launch embed codes, you should hardcode a pre-hiding snippet on your pages before the Launch embed codes in order to manage content flicker

Here is a summary what these best practices look like in the suggested order. Note that there are some placeholders for account specific details:

```
<!doctype html>
<html lang="en">
<head>
  <title>Basic Demo</title>
  <!--Preconnect and DNS-Prefetch to improve page load time. REPLACE "techmarketin
gdemos" WITH YOUR OWN AAM PARTNER ID, TARGET CLIENT CODE, AND ANALYTICS TRACKING SER
VER-->
  <link rel="preconnect" href="//dpm.demdex.net">
  <link rel="preconnect" href="//fast.techmarketingdemos.demdex.net">
  <link rel="preconnect" href="//techmarketingdemos.demdex.net">
  <link rel="preconnect" href="//cm.everesttech.net">
  <link rel="preconnect" href="//techmarketingdemos.tt.omtrdc.net">
  <link rel="preconnect" href="//techmarketingdemos.sc.omtrdc.net">
  <link rel="dns-prefetch" href="//dpm.demdex.net">
  <link rel="dns-prefetch" href="//fast.techmarketingdemos.demdex.net">
  <link rel="dns-prefetch" href="//techmarketingdemos.demdex.net">
  <link rel="dns-prefetch" href="//cm.everesttech.net">
  <link rel="dns-prefetch" href="//techmarketingdemos.tt.omtrdc.net">
```

```

<link rel="dns-prefetch" href="//techmarketingdemos.sc.omtrdc.net">
<!--/Preconnect and DNS-Prefetch-->
<!--Data Layer to enable rich data collection and targeting-->
<script>
var digitalData = {
  "page": {
    "pageInfo" : {
      "pageName": "Home"
    }
  }
};
</script>
<!--/Data Layer-->
<!--jQuery or other helper Libraries-->
<script src="https://code.jquery.com/jquery-3.3.1.min.js"></script>
<!--/jQuery-->
<!--prehiding snippet for Adobe Target with asynchronous Launch deployment-->
<script>
  (function(g,b,d,f){(function(a,c,d){if(a){var e=b.createElement("style");e.i
d=c;e.innerHTML=d;a.appendChild(e)}})(b.getElementsByTagName("head")[0], "at-body-sty
le",d);setTimeout(function(){var a=b.getElementsByTagName("head")[0];if(a){var c=b.g
etElementById("at-body-style");c&&a.removeChild(c)},f)})(window,document,"body {opa
city: 0 !important}",3E3);
</script>
<!--/prehiding snippet for Adobe Target with asynchronous Launch deployment-->
<!--Launch Header Embed Code: REPLACE LINE 39 WITH THE INSTALL CODE FROM YOUR OW
N DEVELOPMENT ENVIRONMENT-->
<script src="//assets.adobedtm.com/launch-EN93497c30fdf0424eb678d5f4ffac66dc.min
.js" async></script>
<!--/Launch Header Embed Code-->
</head>
<body>
  <h1>Launch by Adobe: Basic Demo</h1>
  <p>This is a very simple page to demonstrate basic concepts of Launch by Adobe</
p>
</body>
</html>

```

## Resources and Links

Resource	URL
Adobe Experience Cloud Login	<a href="https://experiencecloud.adobe.com/">https://experiencecloud.adobe.com/</a>
Adobe Launch Login	<a href="https://launch.adobe.com/">https://launch.adobe.com/</a>
Adobe Launch User Documentation	<a href="https://docs.adobelaunch.com/">https://docs.adobelaunch.com/</a>
Adobe Launch Developer Docs	<a href="https://developer.adobelaunch.com/">https://developer.adobelaunch.com/</a>
Adobe Launch User Forums	<a href="https://forums.adobe.com/community/experience-cloud/platform/launch">https://forums.adobe.com/community/experience-cloud/platform/launch</a>
Adobe Debugger	<a href="http://bit.ly/AdobeDebugger">http://bit.ly/AdobeDebugger</a>
Magento Extension Project	<a href="https://github.com/magento/aep-launch">https://github.com/magento/aep-launch</a>
Online Version of this Guide	