# 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 systems work and how to use them on Magento
- Get started creating extensions for Launch

#### **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**

Adobe Experience Platform Launch 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 suing Adobe's Tag Management system, 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.

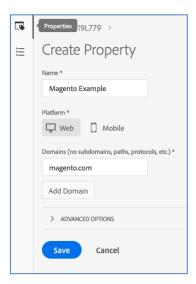
#### **Prerequisites**

In order to complete the next few lessons, you must have access to Adobe Experience Cloud and by 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

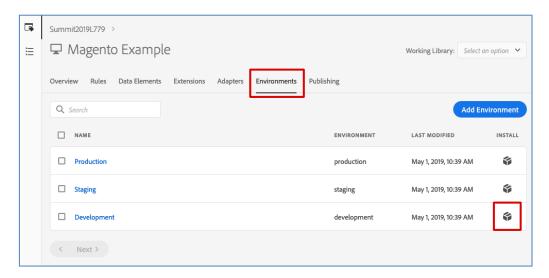
#### To get to Launch

- 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

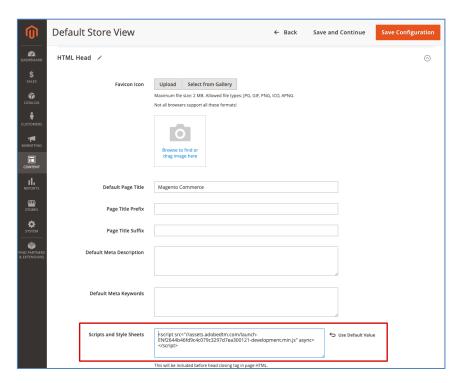


- 7. Click the "Install Icon to show the JavaScript Embed Code
- 8. Copy the code snippet

#### **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

12. Paste the code snippet into the "Scripts and Sheets" field



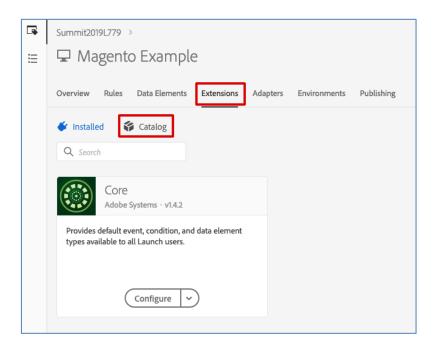
13. Clear or flush your Magento cache if necessary and confirm the Storefront now has the new code snippet.

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: <a href="https://launch.adobe.com/">https://launch.adobe.com/</a>)
- 2. Navigate to the "Extensions" tab
- 3. Click on the "Catalog" button

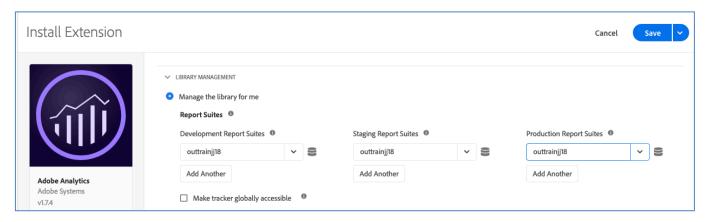


4. Search or locate the "Adobe Analytics Extension"



5. Click "Install"

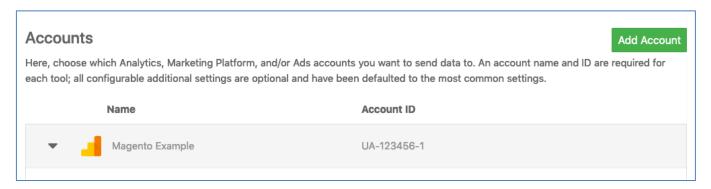
6. In the "Report Suite" sections enter the following string for all 3 development, staging, and production: **outrainjj18** 



- 7. Click 'Save"
- 8. Navigate back to the "Catalog" and this time search for "Google" You will notice there are multiple Google Extensions
- 9. Click "Install" on the one labeled "Google Global Site Tag"



10. Click "Add Account" to add your Google Analytics Account

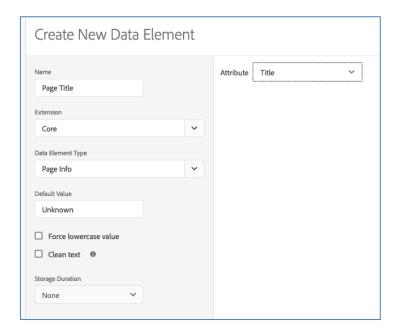


11. Click Save

#### **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"



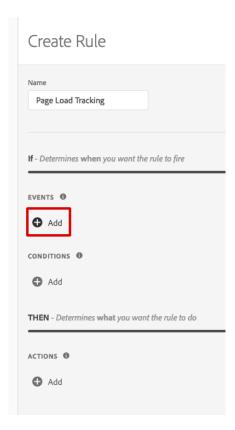
10. Click "Save"

[SEE APPENDIX ABOUT DATA LAYERS & BEST PRACTICES]

#### **Exercise 4: Create a Rule to Fire Beacons**

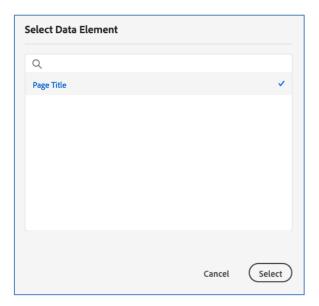
#### **Go Back to Launch**

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

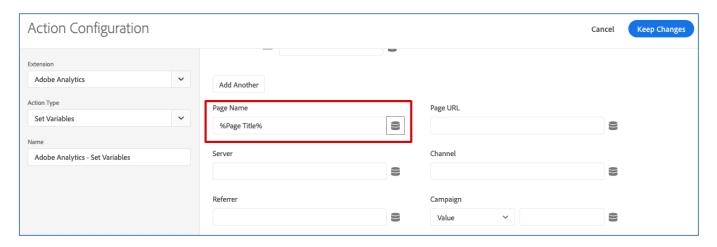


- Leave the "Extension" as Core but for the "Event Type" on the left select "Library Loaded (Page Top)" 5.
- Click "Keep Changes" 6.
- 7. Click to add an "Action" under the 'Then' section
- From the Extension drop-down choose "Adobe Analytics" 8.
- 9. In the Action Type choose "Set Variable"
- 10. Scroll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

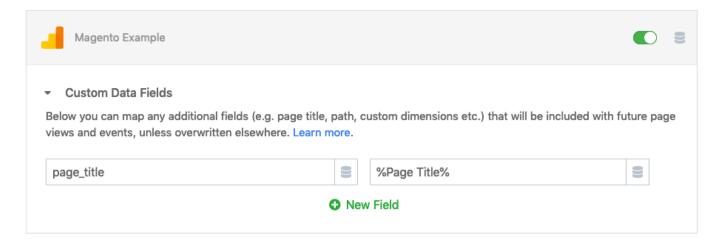
11. Choose the Data Element you created in the previous exercise



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.

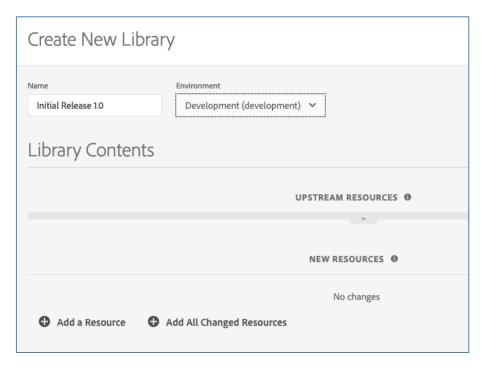


- 19. Click "Keep Changes"
- 20. Click "Save" to save this new rule.

# **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"



- 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.

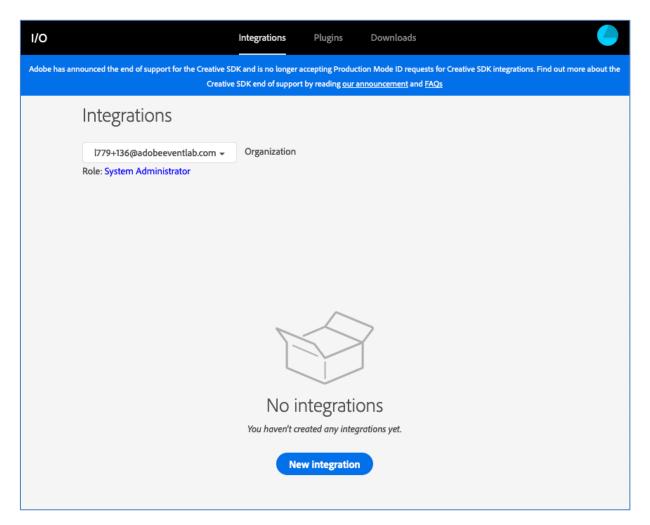
#### **Go Back to Magento Store**

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**

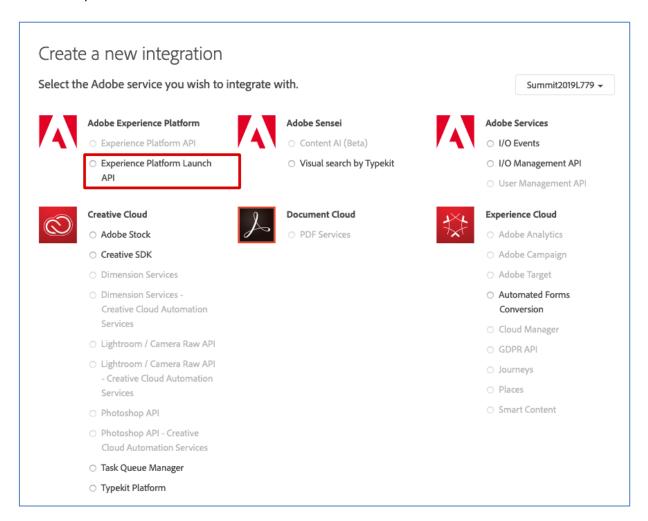
#### **Go Back to Launch**

- 1. Navigate to <a href="https://www.adobe.io/">https://www.adobe.io/</a>
- 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"

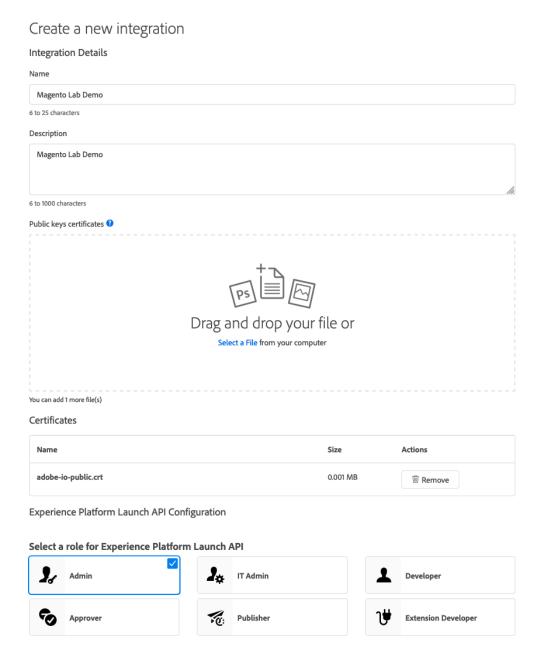
5. Choose "Experience Platform Launch API" and click "Continue"



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

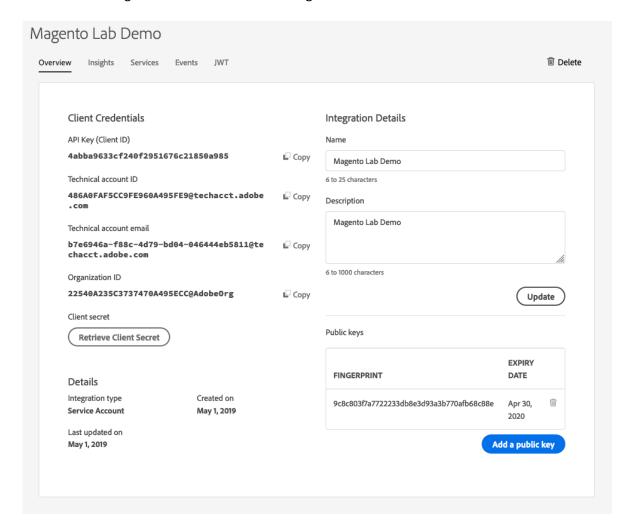
  openssl req -x509 -sha256 -nodes -days 365 -newkey rsa:2048 -keyout private.key -out
  adobe-io-public.crt
- 8. Complete all of the terminal prompts

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



- 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"

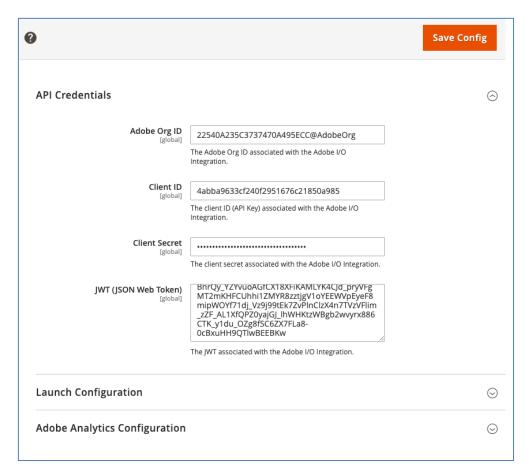


#### **Go Back to Magento Admin**

- 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

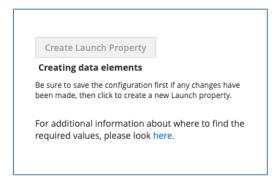


- 20. Click "Generate JWT" button
- 21. Paste the token back in the Magento Admin Console

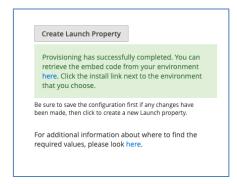


22. Click "Save Config"

- 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



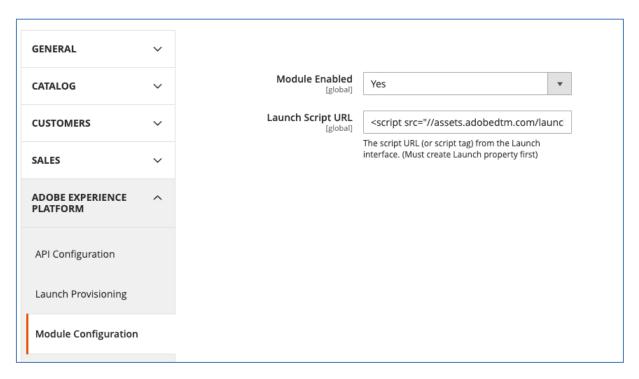
#### **Go Back to Launch**

- 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.



- 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

# Get started with extension development

## **Exercise 1: Set up for local development**

#### Create your project folder

- 1. Create a folder on your computer from your Terminal or file manager
- 2. From your Terminal (command line prompt) change directories to the project folder (i.e.: cd /my-project)

#### Run the scaffolding tool

- 3. From your Terminal, run npx @adobe/reactor-scaffold
- 4. Follow the prompts and answer the questions as-needed for your extension project. For details on each part of an extension project, please see the <u>extension developer documentation</u> and the sample extensions in the *Developer Resources and Links* under <u>Resources and Links</u>
- 5. Add any code to your views or library modules required for your extension to function

#### Run the sandbox tool

- 6. To test your extension views or library modules locally, we provide the sandbox utility. To run the sandbox, run npx @adobe/reactor-sandbox
- 7. For help running and configuring the sandbox, see Developer Resources and Links or the <u>sandbox page</u> on npm

#### Run the packager tool

8. After your extension is functioning as-expected in your local sandbox, you can prepare your extension package for uploading to our system. Using the packager tool, simply run npx @adobe/reactor-packager from the root of your project folder

#### Run the uploader tool

- NOTE: there are some permission settings in your Experience Cloud account, and an integration through
  Adobe I/O that are required before uploading to our system. You can learn more about those steps in the
  developer docs <a href="here">here</a>.
- 10. After those permissions and your integration are set up, use the uploader tool with npx @adobe/reactor-uploader. For more detail on usage and options, see the uploader page on npm.

### **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 Laver-->
    <!--jQuery or other helper libraries-->
    <script src="https://code.jquery.com/jquery-3.3.1.min.js"></script>
    <!--/i0uerv-->
    <!--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</pre>
.js" async></script>
    <!--/Launch Header Embed Code-->
</head>
<body>
    <h1>Launch by Adobe: Basic Demo</h1>
    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	https://experiencecloud.adobe.com/
Adobe Launch Login	https://launch.adobe.com/
Adobe Launch User Documentation	https://docs.adobelaunch.com/
Adobe Launch Developer Docs	https://developer.adobelaunch.com/
Adobe Launch User Forums	https://forums.adobe.com/community/experience- cloud/platform/launch
Adobe Debugger	http://bit.ly/AdobeDebugger
Magento Extension Project	https://github.com/magento/aep-launch
Online Version of this Guide	https://github.com/Adobe-Marketing-Cloud-
	Activation/ImagineLab2019/blob/master/Manual/LabManual.pdf
Developer Links and Resources	https://github.com/Adobe-Marketing-Cloud-
	Activation/ImagineLab2019/tree/master/Gist/developer-links.md