

Building an API Endpoint to Handle AJAX Requests



Tyler Maynard

AEM SOLUTIONS ARCHITECT

@TylersDesk www.aembits.com



Overview



Building an API endpoint to handle AJAX requests

Building a query with QueryBuilder

Mapping an article resource to a Sling Model

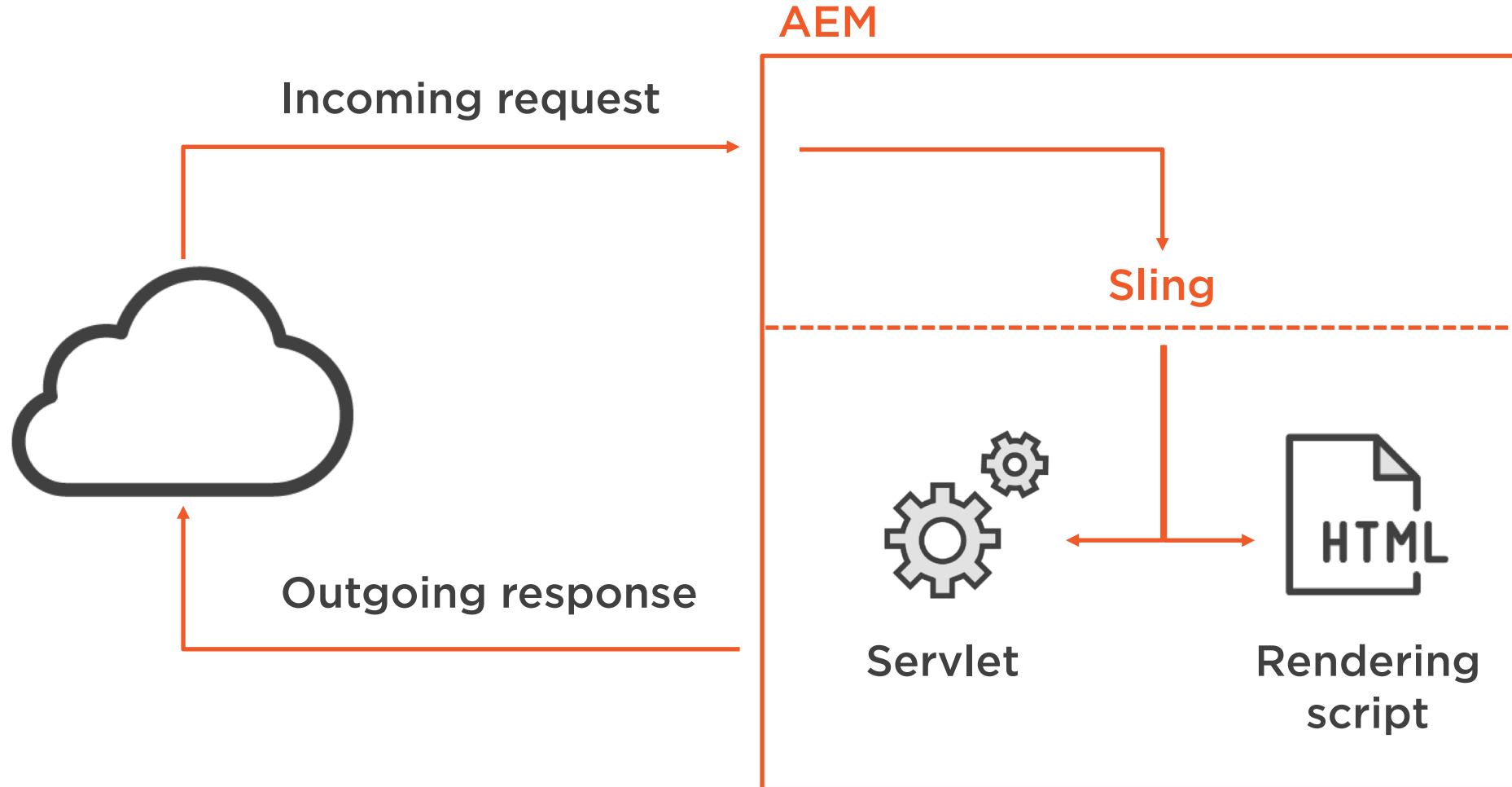
Returning JSON from a collection of Sling Models



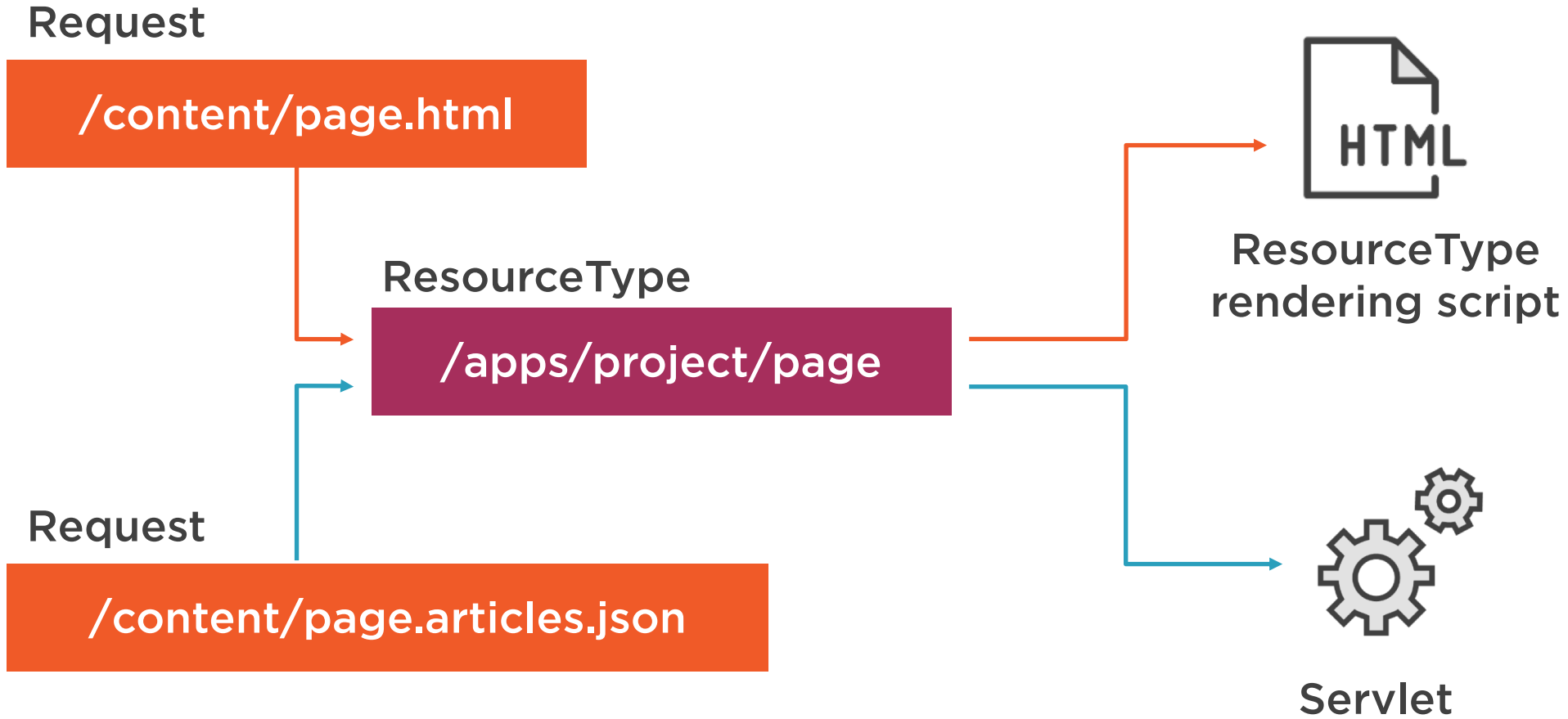
Building a Simple Servlet in AEM



Resolving Requests with Sling



Building Servlets with ResourceTypes



Servlets via Selectors and Extensions

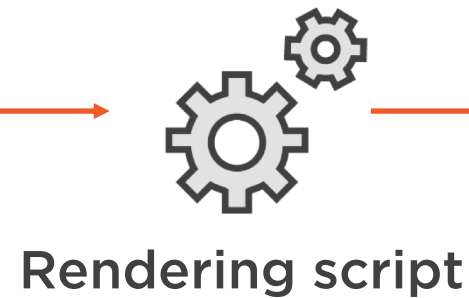
```
"sling.servlet.resourceTypes=.../components/structure/page",  
"sling.servlet.selectors=articles",  
"sling.servlet.extensions=json"
```



Configuring the Article Feed Servlet

Request

`/.../all-articles.html`



HTML
response



Request

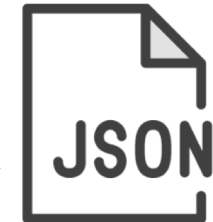
`/.../all-articles/_jcr_content.articles.json`

Selector

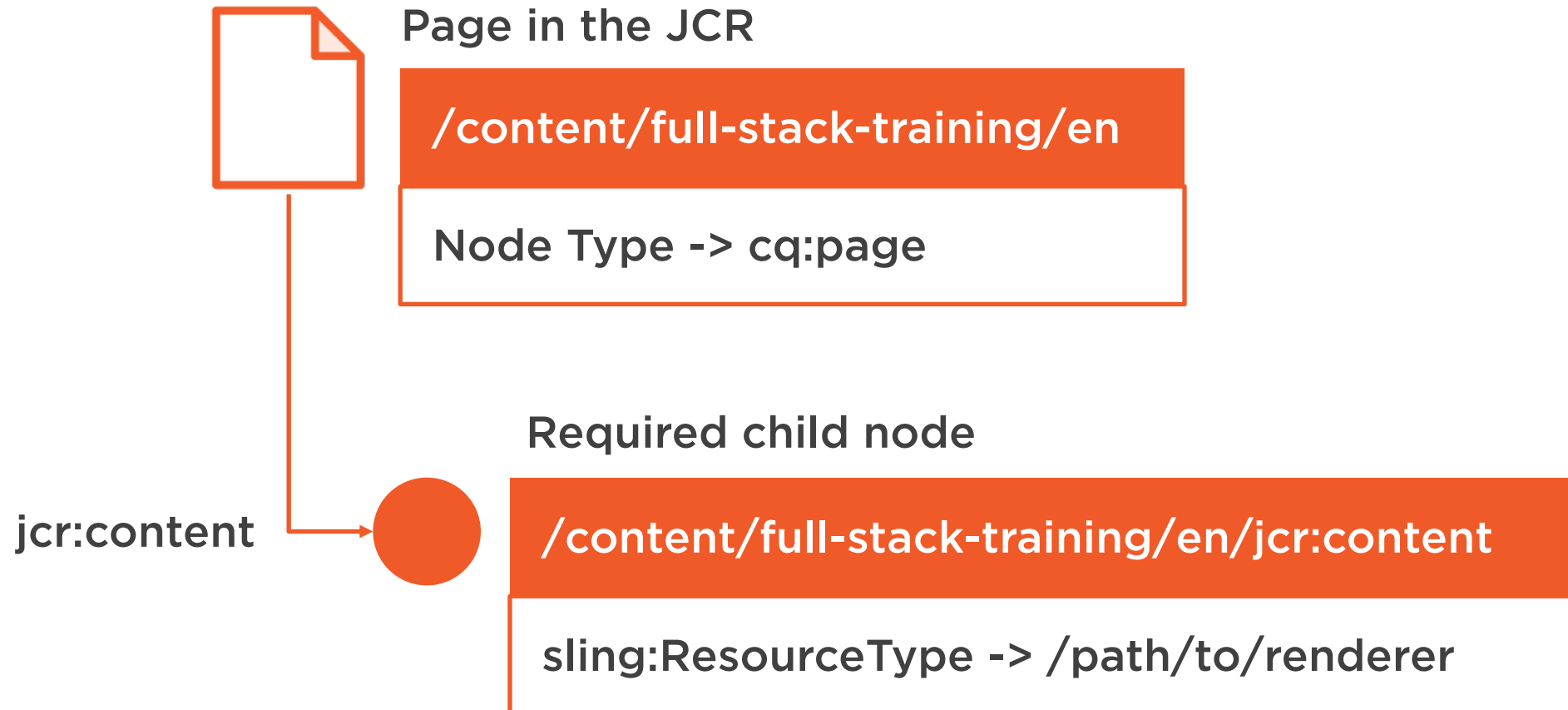
Extension



JSON
response



Understanding the JCR:Content Node



Demo



Add a simple servlet to the project

Configure the servlet for `resourceType`

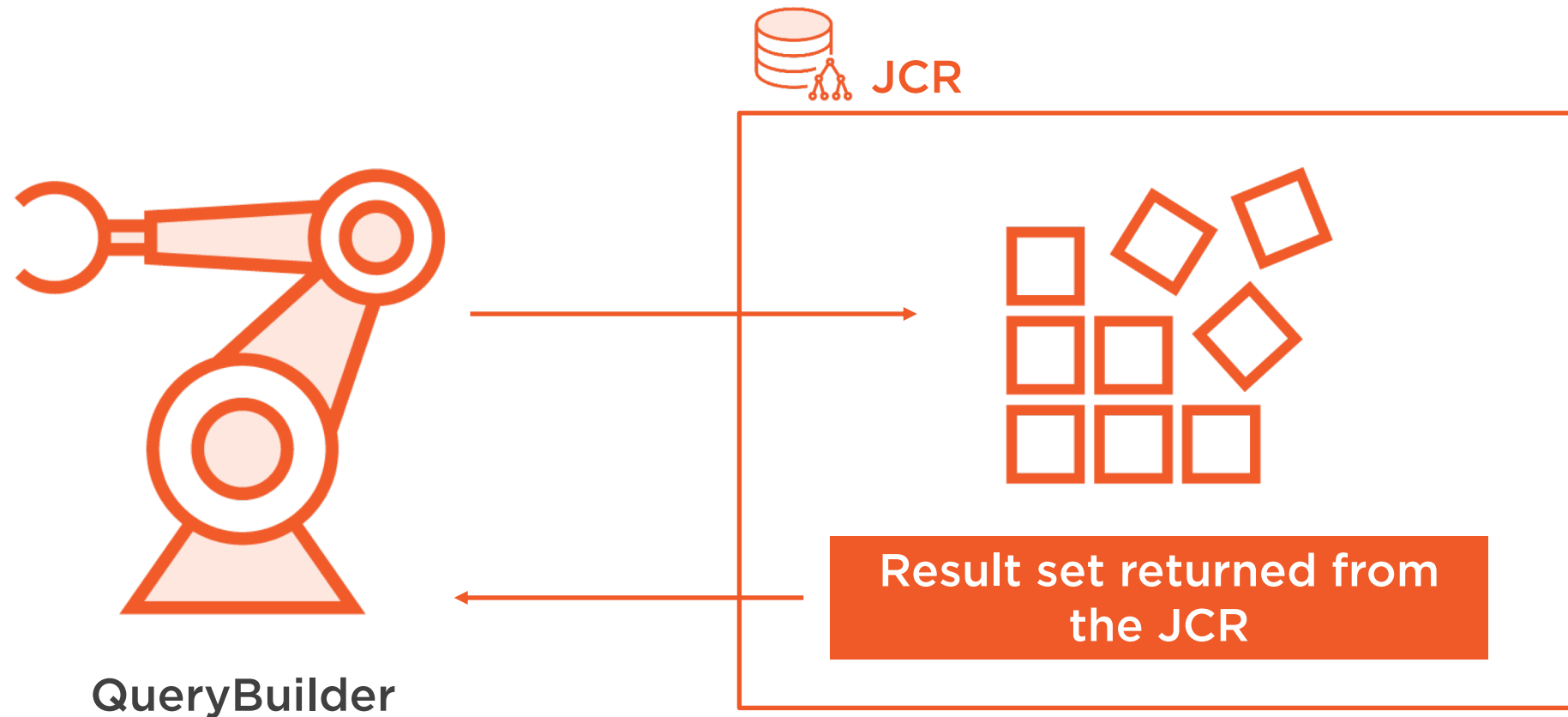
Test the servlet



Building a Query with QueryBuilder



QueryBuilder in AEM

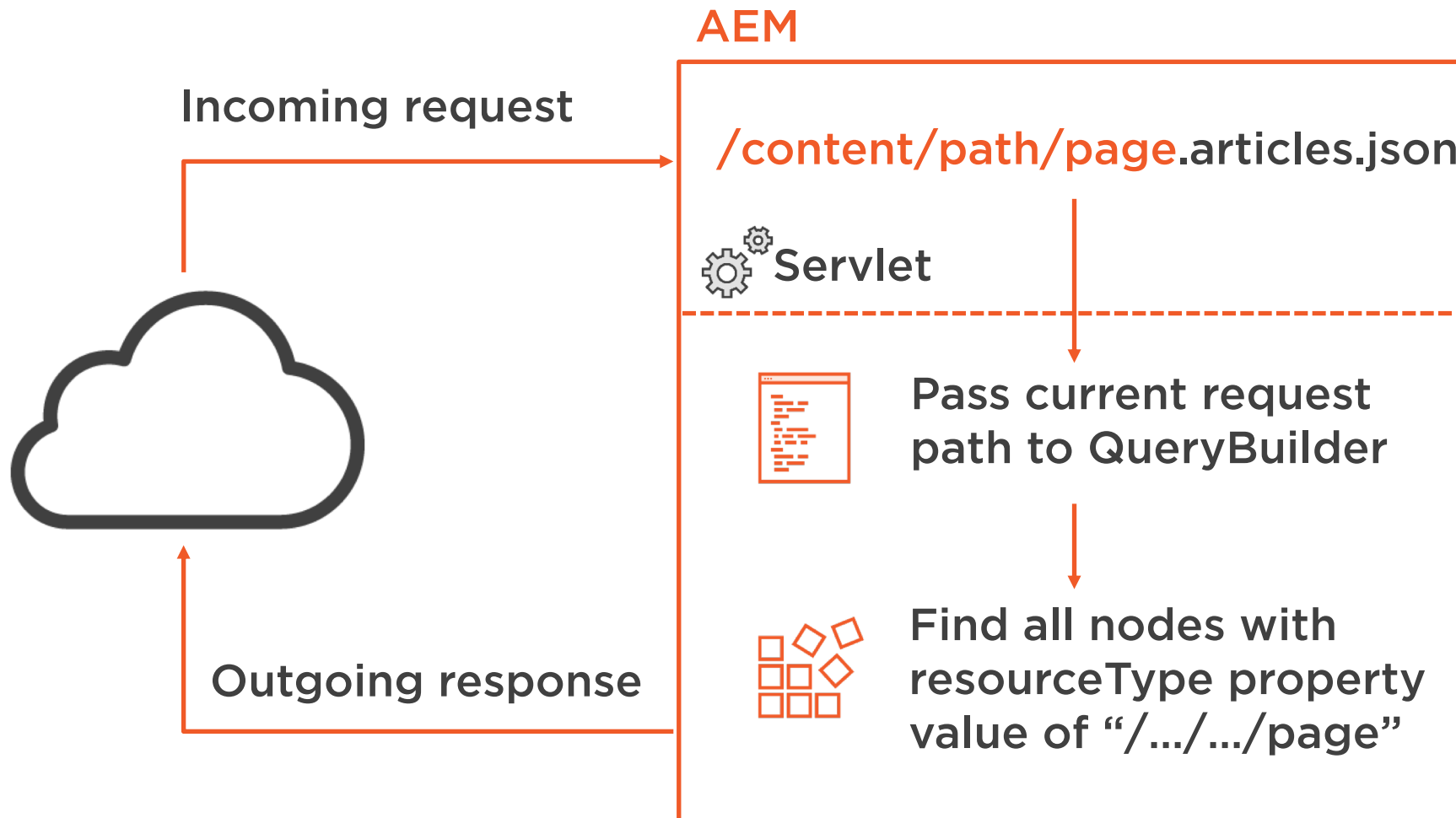


Configuring a QueryBuilder Options Map

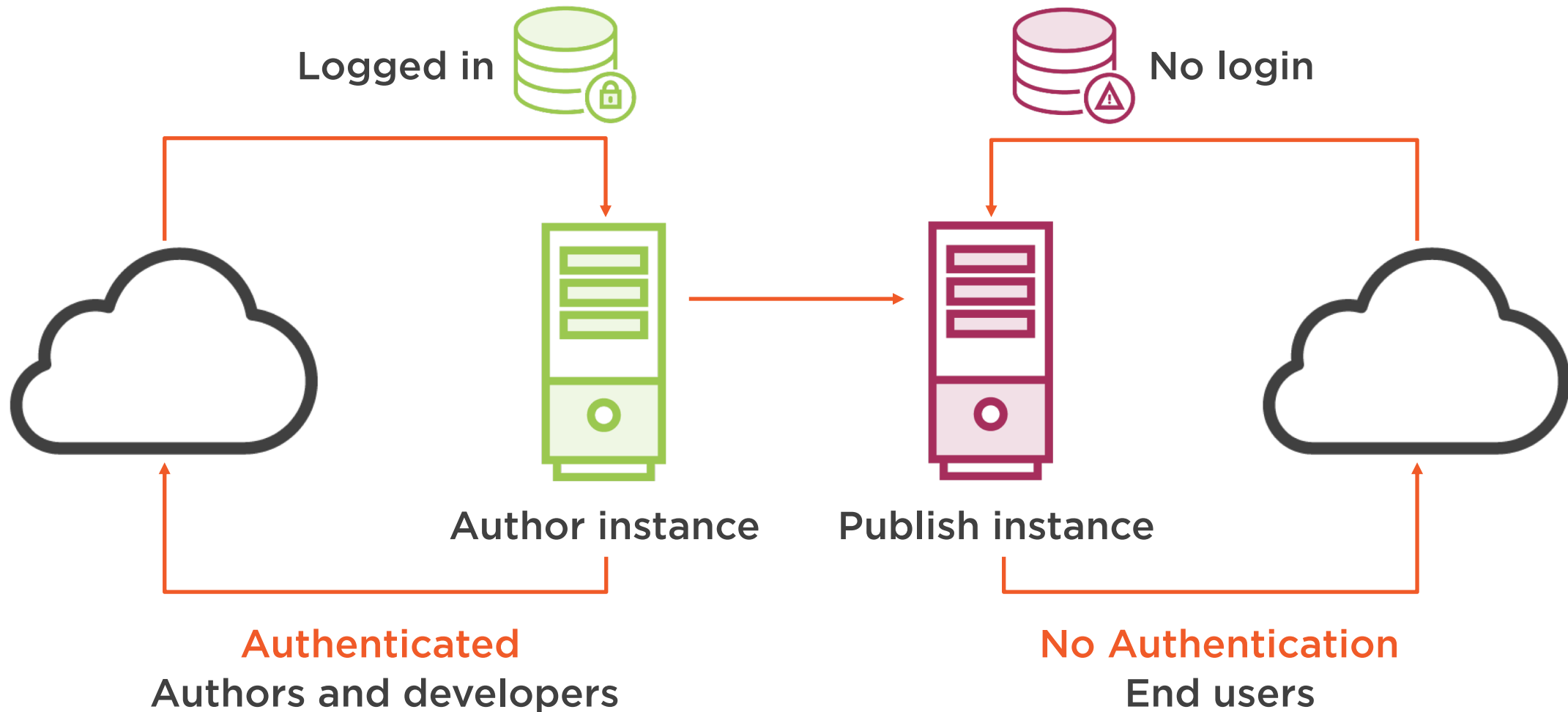
```
Map<String, String> map = new HashMap<String, String>();  
map.put("path", "/path/in/the/jcr");  
map.put("1_property", "sling:resourceType");  
map.put("1_property.value", ARTICLE_RESOURCE_TYPE);  
map.put("p.guessTotal", "true"); //Suggested always use  
map.put("p.limit", "-1"); //Don't limit to 10 results.
```



Visualizing the Article Query

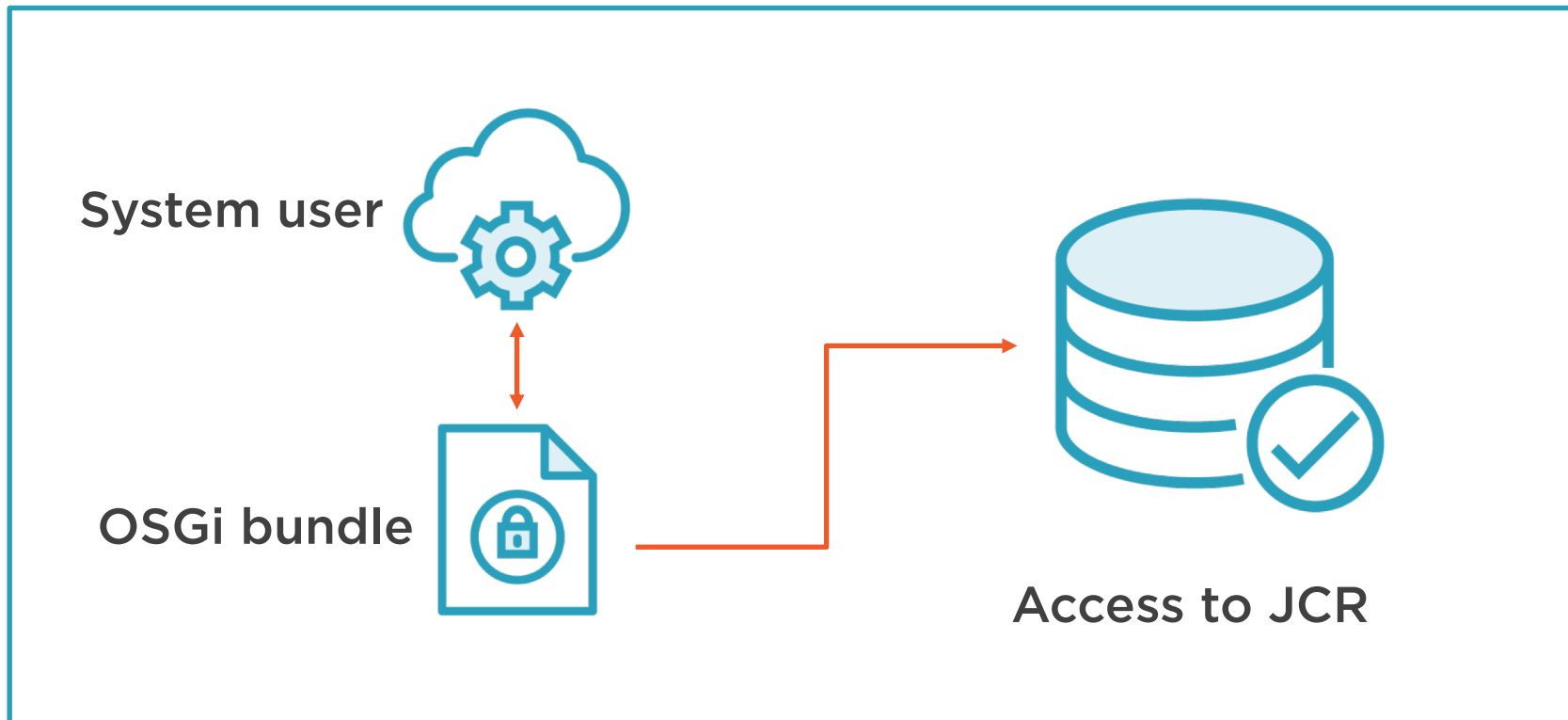


Resources and Authenticated Requests



System Users

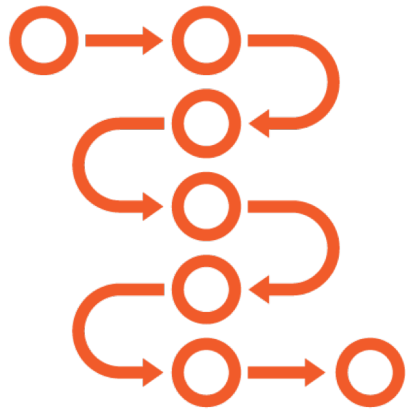
AEM



Bundle logic can act as system user



Diving Deeper in to System Users



Master branch on the GitHub repo



PLURALSIGHT

Extending Adobe Experience
Manager Advanced



Demo



Add QueryBuilder & define options map

Loop through query results

Display number of resources found



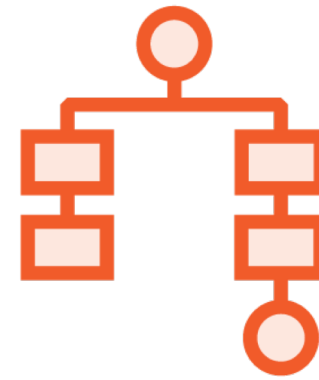
Mapping Resources to Sling Models



Mapping an Article Resource to a Sling Model

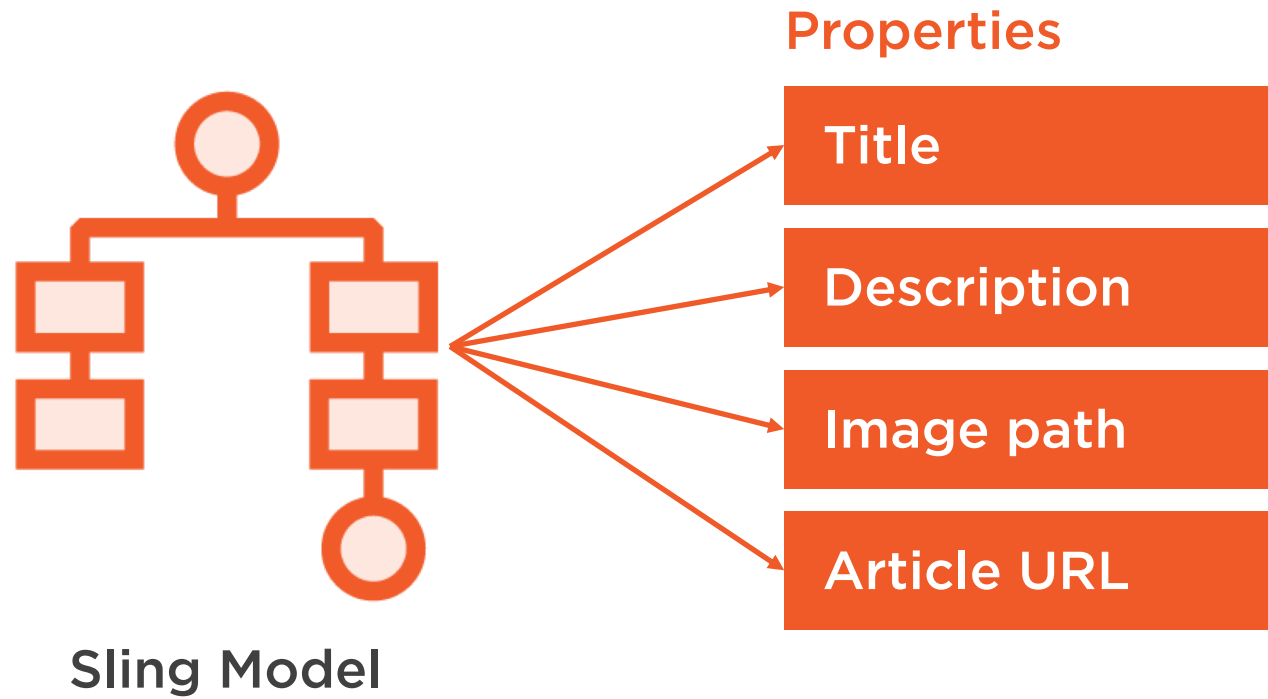


Article data structure



Sling Model

Article Sling Model



Adapting resources via adaptTo()



Demo



Add a Sling Model to the project

Map properties from the resource to the model

Adapt page resources to Sling Models



Building JSON from Article Sling Models



Converting Java Objects to JSON with GSON



Using GSON in an AEM Project

```
<dependency>
```

```
  <artifactId>gson</artifactId>
```

```
  <version>2.8.2</version>
```

```
  <groupId>com.google.code.gson</groupId>
```

```
  <scope>provided</scope>
```

```
</dependency>
```



Demo



Add GSON as a POM dependency

Jsonify the list of article models

Update and test the servlet response



Summary



Summary



Creating resourceType servlets

Building a query with QueryBuilder

Mapping an article resource to a Sling Model

Returning JSON from a collection of Sling Models

