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Creating a Custom Workflow in AEM

A custom workflow will be developed in Adobe Experience Manager (AEM) to handle specific tasks efficiently.

Steps to Create the Workflow Model:

1. Navigate to **Tools > Workflow > Models** in AEM.
2. Create a new workflow model and name it "**My Custom Workflow.**"
3. Add workflow steps to define the processing logic.
4. Save and activate the workflow to enable its execution.

Implementing a Custom Workflow Process to Log Page Titles

A workflow process step will be created to extract and log page titles along with metadata.

Steps to Create the Workflow Process:

1. Develop a custom workflow process class.
2. Extract the page title from the resource.
3. Log the page title and relevant metadata in AEM logs.
4. Assign the workflow to a page and execute it

CustomWorkflowProcss.java

```
@Component(service = WorkflowProcess.class, immediate = true)

public class CustomWorkflowProcess implements WorkflowProcess {

    private static final Logger LOG = LoggerFactory.getLogger(CustomWorkflowProcess.class);

    @Override

    public void execute(WorkItem workItem, WorkflowSession workflowSession,
        MetadataMap metaDataMap)

        throws WorkflowException {

        String pageTitle = workItem.getWorkflowData().getPayload().toString();

        LOG.info("Processing page: " + pageTitle);

    }

}
```

Creating an Event Handler to Log Resource Path in AEM

An event listener will be set up to detect changes in resources and log their paths.

Steps:

1. Develop an OSGi-based event listener.
2. Listen for events related to resource modifications, additions, or deletions.
3. Log the resource path in AEM logs.

EventHandler.java

```
@Component(service = EventHandler.class)

public class CustomEventHandler implements EventHandler {

    private static final Logger LOG = LoggerFactory.getLogger(CustomEventHandler.class);

    @Override

    public void handleEvent(Event event) {

        LOG.info("Resource changed: " + event.getProperty("path"));

    }

}
```

Scheduling a Sling Job to Log "Hello World"

A Sling Job will be created to log a simple message when triggered.

Steps:

1. Develop a Sling Job class.
2. Log the "Hello World" message when executed.
3. Trigger the job manually or programmatically.

SlingJob.java

```
@Component(service = JobConsumer.class, immediate = true,

    property = {JobConsumer.PROPERTY_TOPICS + "=com/example/hello"})

public class HelloWorldJob implements JobConsumer {

    private static final Logger LOG = LoggerFactory.getLogger(HelloWorldJob.class);

    @Override

    public JobResult process(Job job) {

        LOG.info("Hello World from Sling Job");

    }

}
```

```

        return JobResult.OK;
    }
}

```

Setting Up a Scheduler to Log "Hello World" Every 5 Minutes

An AEM scheduler will be configured to run at regular intervals.

Steps:

1. Develop an OSGi-based scheduler.
2. Set up a cron expression to run every 5 minutes.
3. Log the "Hello World" message upon execution.

Scheduler.java

```

@Component(service = Runnable.class, immediate = true,
    property = {"scheduler.expression=0 */5 * * * ?"})
public class HelloWorldScheduler implements Runnable {

    private static final Logger LOG = LoggerFactory.getLogger(HelloWorldScheduler.class);

    @Override
    public void run() {
        LOG.info("Hello World");
    }
}

```

Creating Users and Assigning Permissions in AEM

Three users will be created and added to a group with specific access rights.

Steps:

1. Go to **Tools > Security > Users** in AEM.
2. Create three new users: **user1**, **user2**, **user3**.
3. Navigate to **Groups** and create a new group named **Dev Author**.
4. Add all three users to the **Dev Author** group.
5. Grant **read-only** access to **/content** and **/dam**.
6. Provide **replication access** to the group.

localhost4502/security/users.html

Adobe Experience Manager

User Management

Select All

Create

	NAME	LOGIN NAME	STATUS	JOB TITLE	PUBLISHED
<input type="checkbox"/> ⚙	ups-imsconfig-service	ups-imsconfig-service	Enabled	N/A	Not Published
<input type="checkbox"/> ⚙	user-administration-service	user-administration-service	Enabled	N/A	Not Published
<input type="checkbox"/> ⚙	user-reader-service	user-reader-service	Enabled	N/A	Not Published
<input type="checkbox"/> 👤	user1	user1	Enabled	N/A	Not Published
<input type="checkbox"/> ⚙	version-manager-service	version-manager-service	Enabled	N/A	Not Published
<input type="checkbox"/> ⚙	version-purge-service	version-purge-service	Enabled	N/A	Not Published
<input type="checkbox"/> ⚙	versions-preview-service-user	versions-preview-service-user	Enabled	N/A	Not Published
<input type="checkbox"/> ⚙	wcm-workflow-service	wcm-workflow-service	Enabled	N/A	Not Published
<input type="checkbox"/> ⚙	webdavbkpservice	webdavbkpservice	Enabled	N/A	Not Published

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localhost4502/libs/cq/workflow/admin/console/content/models.html

Edit Start Workflow Quick Publish Manage Publication Delete Copy

Workflow Models

New

✓

My Custom Workflow

No Description Version: 1.1 ✓

Dynamic Media Reupload

Reupload assets to Dynamic Media. Version: 1.0 ✓

Default

Dynamic Media Reprocess

Reprocess assets in Dynamic Media. Version: 1.0 ✓

Default

Publish content tree

Publish content tree Version: ✓

Not Editable

Flow Start

Step 1

Workflow Process

Process Step

Drag components here

Flow End