

## Implementing Custom Workflow, Event Handler, Sling Job, Scheduler, and User Permissions in AEM

### Step 1: Create a Custom Workflow ("My Custom Workflow")

- Navigate to **Tools** → **Workflow** → **Models** in AEM.
- Click **Create** → **Create Workflow Model** and name it **My Custom Workflow**.
- Open the workflow model, drag a **Process Step**, and configure it to invoke the custom workflow process.
- Save and activate the workflow.

### Step 2: Develop a Custom Workflow Process to Log the Page Title

- In the **Core Module (ui.apps.core)**, create the following Java class:

```
@Component(service = WorkflowProcess.class, property = {
    "process.label=Custom Workflow Process" })
public class CustomWorkflowProcess implements WorkflowProcess {
    private static final Logger LOG =
        LoggerFactory.getLogger(CustomWorkflowProcess.class);

    @Override
    public void execute(WorkItem workItem, WorkflowSession
        workflowSession, MetadataMap metaDataMap) {
        String pagePath =
            workItem.getWorkflowData().getPayload().toString();
        LOG.info("Executing Workflow for Page: " + pagePath);
    }
}
```

- Deploy the code and apply the workflow to a page for testing.

### Step 3: Create an Event Handler to Log the Resource Path

- Create a Java class for the event handler:

```

@Component(service = EventHandler.class, immediate = true, property
= { EventConstants.EVENT_TOPIC + "=" + PageEvent.EVENT_TOPIC })
public class CustomEventHandler implements EventHandler {
    private static final Logger LOG =
LoggerFactory.getLogger(CustomEventHandler.class);

    @Override
    public void handleEvent(Event event) {
        PageModification modification =
PageEvent.fromEvent(event).getModifications().iterator().next();
        LOG.info("Page Event Detected: " + modification.getPath());
    }
}

```

- Deploy the code and modify a page to verify the event logs.

#### Step 4: Create a Sling Job to Log "Hello World"

- Create a Java class for a Sling Job:

```

@Component(service = JobConsumer.class, property = {
JobConsumer.PROPERTY_TOPICS + "=custom/slingjob" })
public class HelloWorldSlingJob implements JobConsumer {
    private static final Logger LOG =
LoggerFactory.getLogger(HelloWorldSlingJob.class);

    @Override
    public JobResult process(Job job) {
        LOG.info("Hello World from Sling Job!");
        return JobResult.OK;
    }
}

```

- Deploy the code and trigger the job using:

```

@Reference
private JobManager jobManager;

```

```
public void triggerJob() {
    jobManager.addJob("custom/slingjob", null);
}
```

### Step 5: Create a Scheduler to Log "Yellow World" Every 5 Minutes

- Create a Java class for the scheduler:

```
@Component(service = Runnable.class, immediate = true, property = {
    "scheduler.expression=*/5 * * * * ?", // Runs every 5 minutes
    "scheduler.concurrent=false"
})
public class YellowWorldScheduler implements Runnable {
    private static final Logger LOG =
        LoggerFactory.getLogger(YellowWorldScheduler.class);

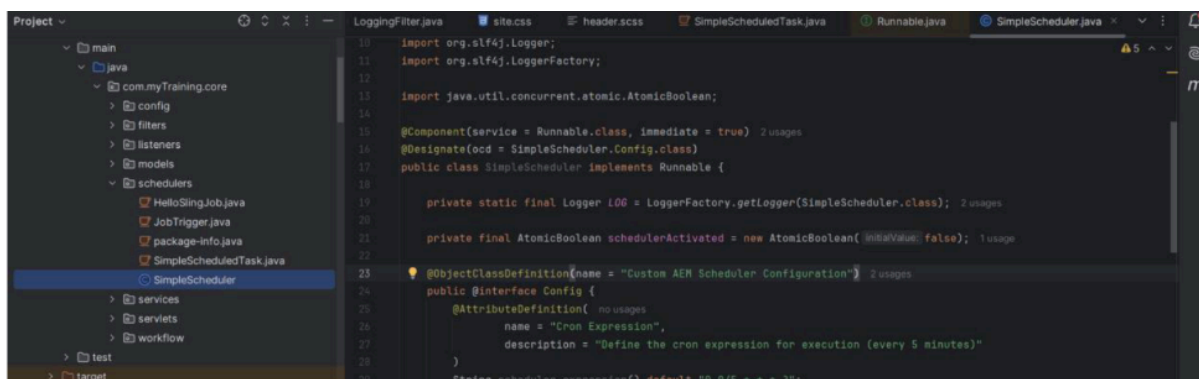
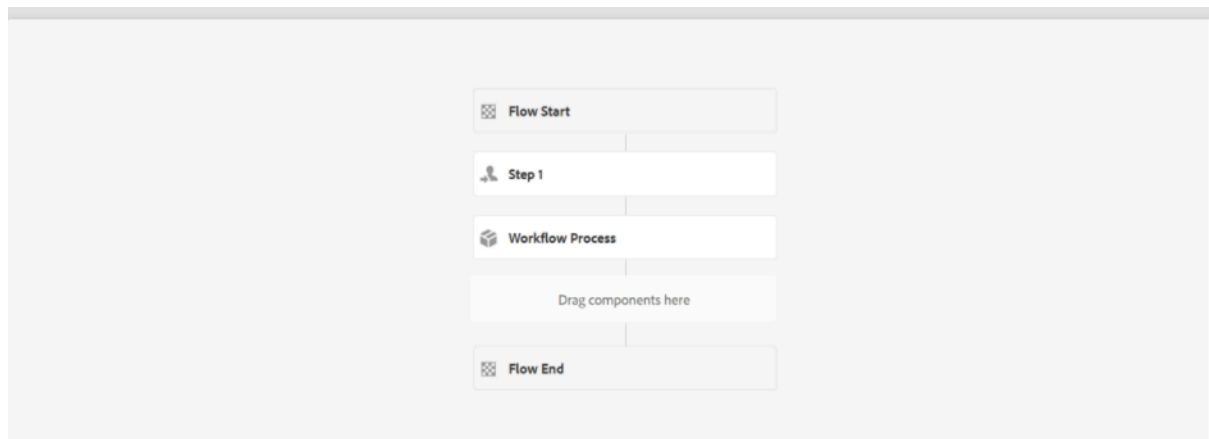
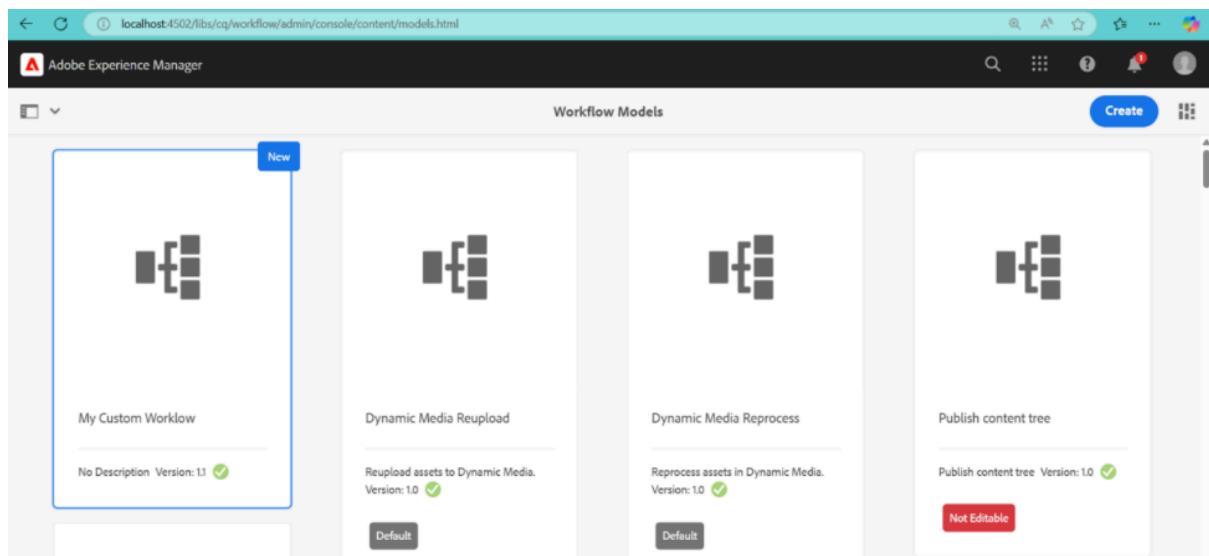
    @Override
    public void run() {
        LOG.info("Yellow World from Scheduler!");
    }
}
```

- Deploy the code and check logs for the message every five minutes.

### Step 6: Create Users, Group, and Set Permissions

- Navigate to **Tools** → **Security** → **Users** and create three users: **user1**, **user2**, **user3**.
- Navigate to **Groups** → **Create a new group Dev Author**.
- Add the three users to the group.
- Set permissions for the **Dev Author** group:
  - Read-only access to **/content** and **/dam**
  - Replication access under **Permissions** → **Replication Rights**

## ScreenShots



localhost:4502/security/users.html

Adobe Experience Manager

User Management

Select AllCreate

	NAME	LOGIN NAME	STATUS	JOB TITLE	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"/> 👤	user2	user2	Enabled	N/A	Not Published
<input type="checkbox"/> 👤	user3	user3	Enabled	N/A	Not Published

Edit Group Settings For Dev Authors

CancelSave & Close

ActivateDeactivate

DetailsMembers

Add Members to this Group

Select User or Group

Type User or Group Name

Group Members

👤

user1

👤

user2

👤

user3

Adobe Experience Manager

Permissions

Enter text

Groups

👤 Dev Authors

3 members

👤 administrators

1 member

👤 Analytics Administrators

1 member

👤 connectedasset ... sets-techacct

0 members

Dev Authors

Add ACE

Access Control List

Access Control Entries (ACEs)

PATH	PERMISSION	PRIVILEGES	RESTRICTIONS
/content/dam	allow	jcr:read	
/home/groups/y/yZZ5XUIQ-jtQfj9_ORFe	allow	jcr:read	