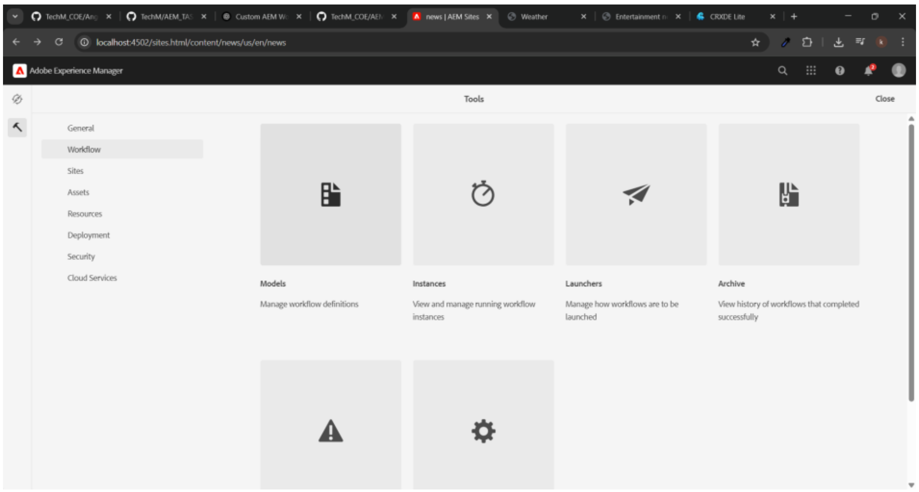
1.Create Custom Workflow (my custom workflow)

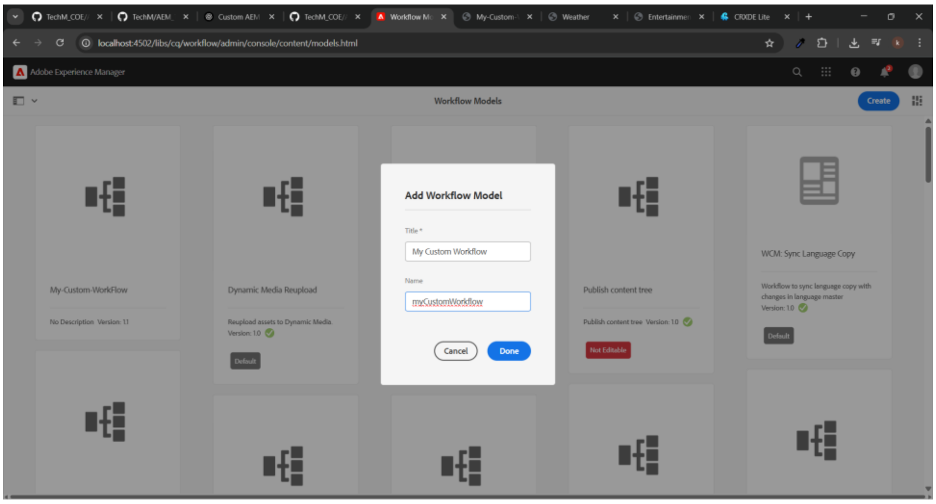
Go to Tools → Workflow → Models

Click on Create → Create Model.

Enter the name as my-custom-workflow and a title like "My Custom Workflow".

Click Done.


localhost:4502/sites.html/content/news/us/en/news
Adobe Experience Manager
Tools
Close
General
Workflow
Sites
Assets
Resources
Deployment
Security
Cloud Services
Models
Manage workflow definitions
Instances
View and manage running workflow instances
Launchers
Manage how workflows are to be launched
Archive
View history of workflows that completed successfully

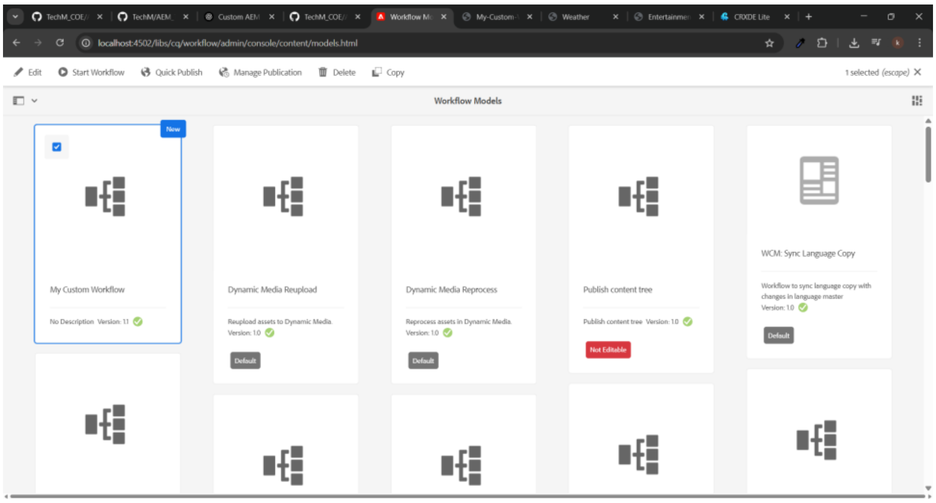

localhost:4502/libs/cq/workflow/admin/console/content/models.html
Adobe Experience Manager
Workflow Models
Create
My-Custom-WorkFlow
No Description Version: 1.1
Dynamic Media Reupload
Reupload assets to Dynamic Media. Version: 1.0
Default
Publish content tree
Publish content tree Version: 1.0
Not Editable
WCM: Sync Language Copy
Workflow to sync language copy with changes in language master Version: 1.0
Default

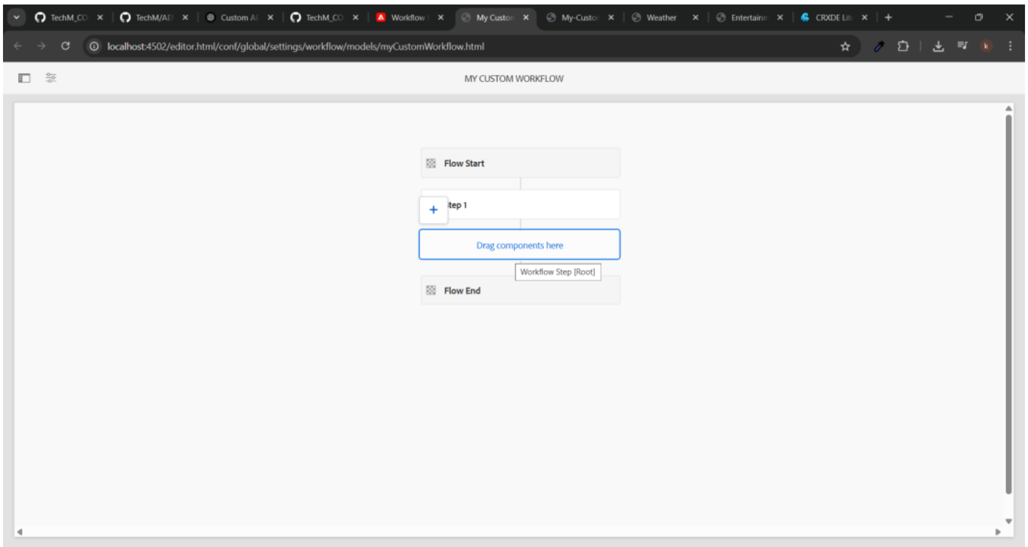
Add Workflow Model

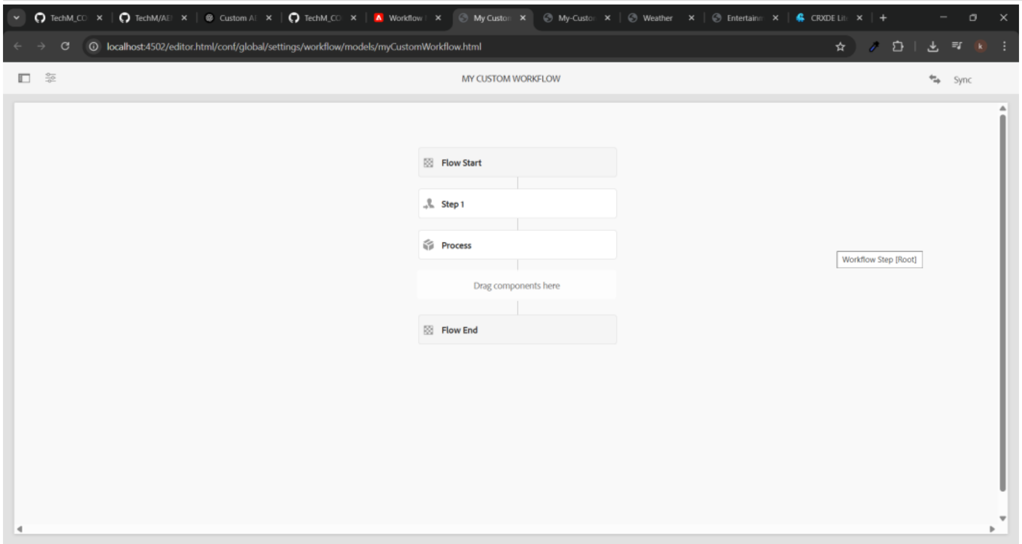
Title * My Custom Workflow

Name myCustomWorkflow

Cancel Done


localhost:4502/libs/cq/workflow/admin/console/content/models.html
Edit
Start Workflow
Quick Publish
Manage Publication
Delete
Copy
1 selected (escape)
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: 1.0
Not Editable
WCM: Sync Language Copy
Workflow to sync language copy with changes in language master Version: 1.0
Default

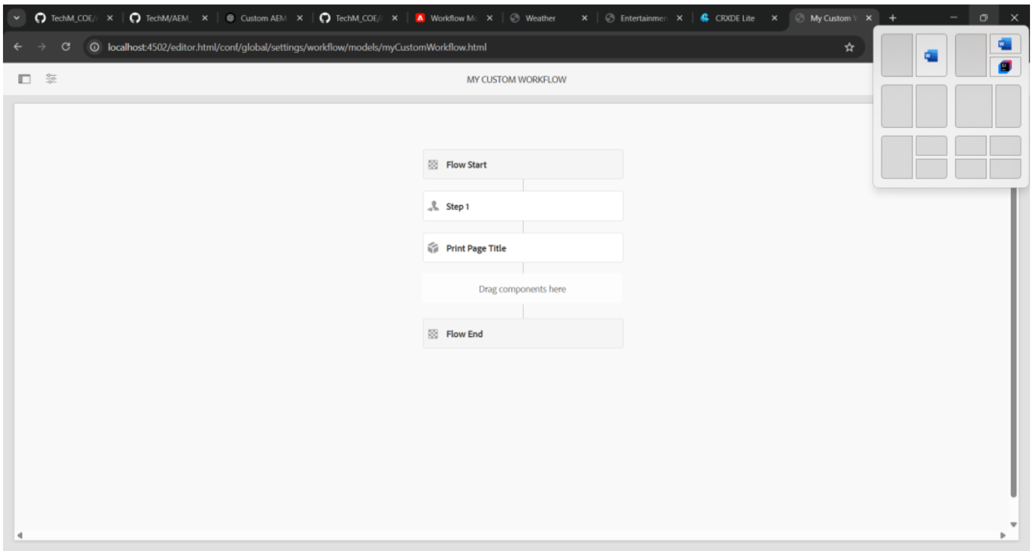

localhost:4502/editor.html/conf/global/settings/workflow/models/myCustomWorkflow.html
MY CUSTOM WORKFLOW
Flow Start
tep 1
Drag components here
Workflow Step [Root]
Flow End



2.Create custom workflow process and print the page title in logs and run this workflow in page so that it can give some metadata in logs

Configure the Process Step : In Process Tab : Provide a custom class name like com.example.core.workflows.PrintPageTitleProcess

Title: "Print Page Title Step"


localhost:4502/editor.html/conf/global/settings/workflow/models/myCustomWorkflow.html
MY CUSTOM WORKFLOW
Flow Start
Step 1
Print Page Title
Drag components here
Flow End

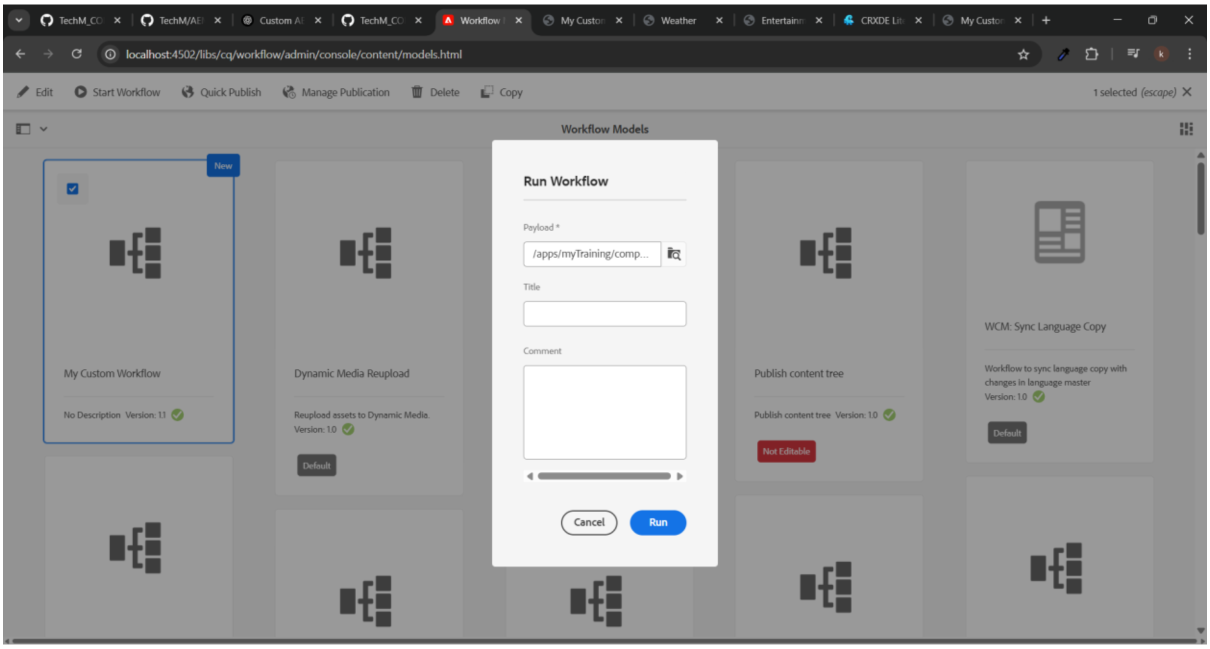
Create a Workflow Process Java Class

Go to AEM project:

/core/src/main/java/com/example/core/workflows/PrintPageTitleProcess.java

```
@Component(service = WorkflowProcess.class, property = {"process.label=Print Page
Title"})
public class PrintPageTitleProcess implements WorkflowProcess {
   private static final Logger LOG = LoggerFactory.getLogger(PrintPageTitleProcess.class);
   @Override
   public void execute(WorkItem workItem, WorkflowSession workflowSession,
MetaDataMap metaDataMap) {
         try {
            String path = workItem.getWorkflowData().getPayload().toString();
            ResourceResolver resolver = workflowSession.adaptTo(ResourceResolver.class);
            if (resolver != null) {
               Resource resource = resolver.getResource(path + "/jcr:content");
               if (resource != null) {
                  String title = resource.getValueMap().get("jcr:title", String.class);
                  LOG.info("Page Title: {}", title);
               } else {
                  LOG.warn("Resource not found at: {}", path);
               }
            }
         } catch (Exception e) {
            LOG.error("Error executing workflow process: ", e);
         }
   }
}
```

Run the workflow:



localhost:4502/libs/cq/workflow/admin/console/content/models.html

Run Workflow

Payload *: /apps/myTraining/comp...

Title:

Comment:

My Custom Workflow

No Description Version: 1.1

Dynamic Media Reupload

Reupload assets to Dynamic Media. Version: 1.0

Publish content tree

Publish content tree Version: 1.0

WCM: Sync Language Copy

Workflow to sync language copy with changes in language master Version: 1.0

3.Create Event handler in aem and print the resource path in logs.

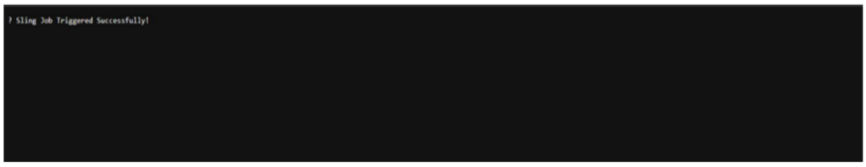
Create a java file named CustomeventHandler.java C:\Users\krish\training\aem\codebase\myTraining\core\src\main\java\com\myTraining\core\listeners\CustomeventHandler.java

```
@Component(
service = EventHandler.class,
immediate = true,
property = {
EventConstants.EVENT_TOPIC + "=" + SlingConstants.TOPIC_RESOURCE_ADDED } )
public class ResourceEventHandler implements EventHandler {
private static final Logger LOG = LoggerFactory.getLogger(ResourceEventHandler.class);
@Override
public void handleEvent(Event event) {
String resourcePath = (String) event.getProperty(SlingConstants.PROPERTY_PATH);
LOG.info("Resource added at path: {}", resourcePath);
} }
```

4.create sling job to print hello world message in logs:

Create HelloWorldSlingJob.java file inside the following path core/src/main/java/myTraining /jobs/HelloWorldSlingJob.java

```
Package com.muTraining.jobs
import org.apache.sling.event.jobs.Job;
import org.apache.sling.event.jobs.consumer.JobConsumer;
import org.osgi.service.component.annotations.Component;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
@Component(service = JobConsumer.class, property =
{"job.topics=custom/job/helloworld"})
public class CustomSlingJob implements JobConsumer {
private static final Logger LOG = LoggerFactory.getLogger(CustomSlingJob.class);
@Override
public JobResult process (Job job) {
LOG.info("Hello World from Sling Job!");
return JobResult.OK;
} }
```



```
? Sling Job Triggered Successfully!
```

5. Create one schedular to print the yellow world in logs in every 5 mins through custom configuration using cron expression.

```
package com.myTraining .core.jobs;
import org.apache.sling.commons.scheduler.Scheduler;
import org.osgi.service.component.annotations.Activate;
import org.osgi.service.component.annotations.Component;
import org.osgi.service.component.annotations.Reference;
import org.osgi.service.metatype.annotations.Designate;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
@Component(service = Runnable.class, immediate = true, property = {
"scheduler.expression=0 */5 * * * ?","scheduler.concurrent=false"})
@Designate(ocd = YellowWorldScheduler.Config.class)
public class YellowWorldScheduler implements Runnable {
private static final Logger LOG = LoggerFactory.getLogger(YellowWorldScheduler.class);
@Reference
private Scheduler scheduler;
@Activate
protected void activate() {
LOG.info("Yellow World Scheduler Activated");
}
@Override
public void run() {
LOG.info("Yellow World from Scheduler!"); }}
```

6. Create 3 users and add them in a group(Dev author create this new group) and give permission to read only for /content and /dam folder only and they should have replication access as well.

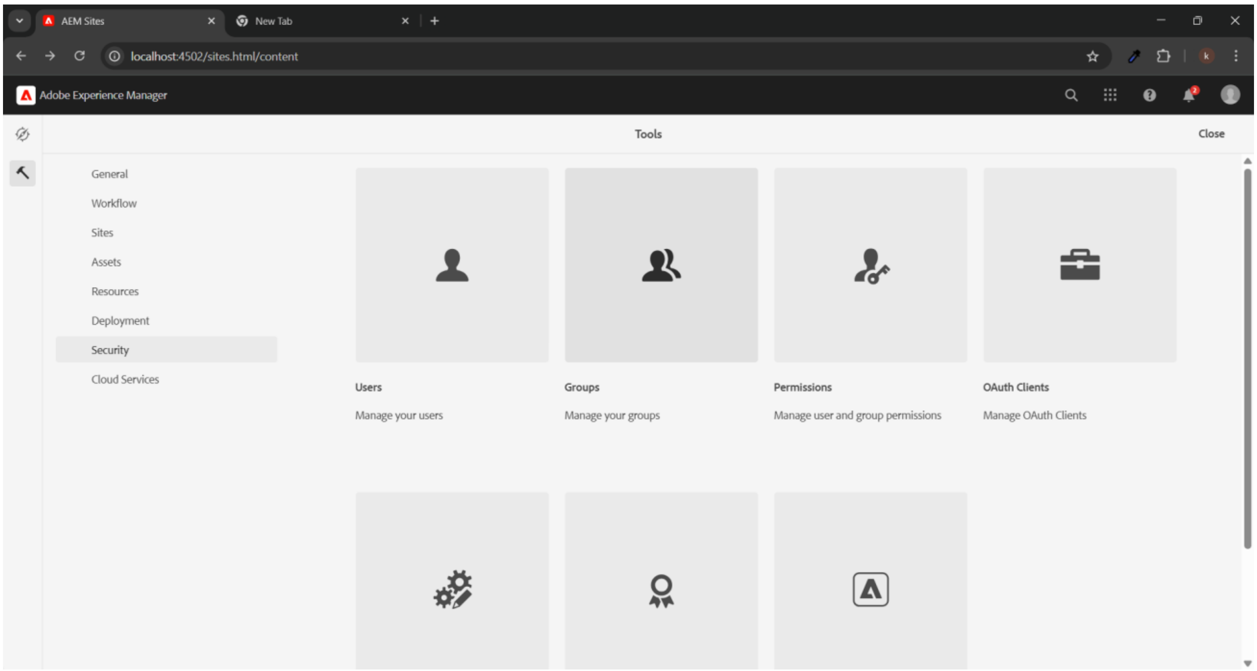
Go to AEM as an Administrator (http://localhost:4502).

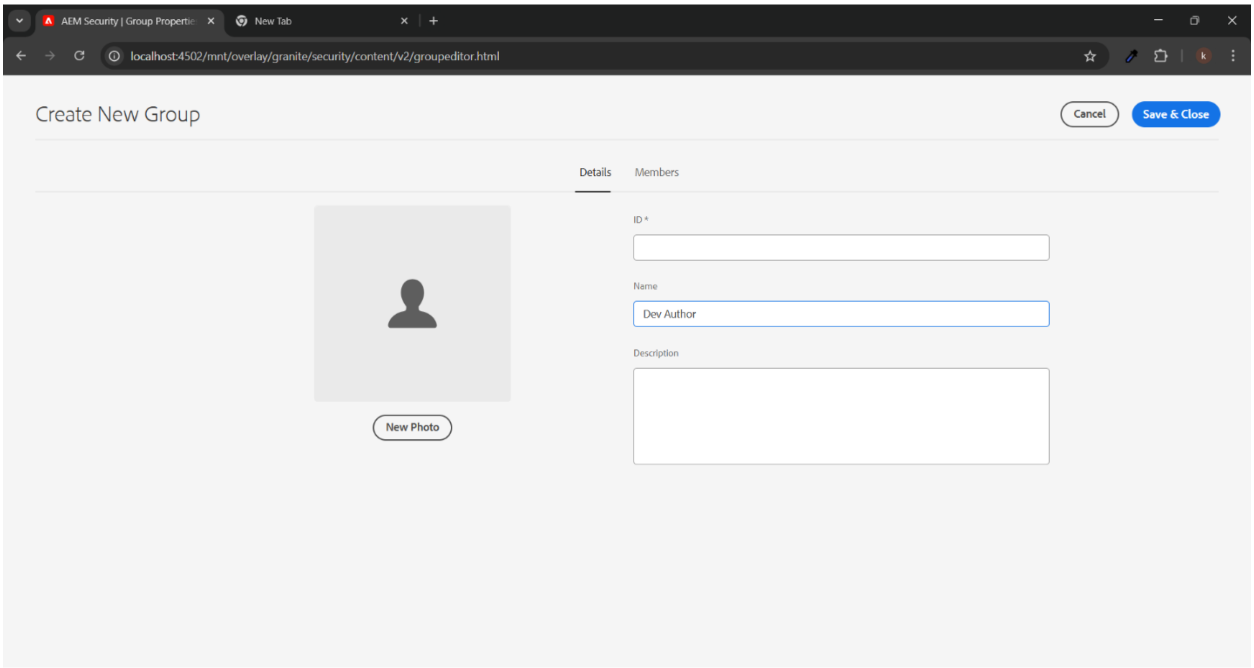
Navigate to Tools → Security → Groups

Click Create → Create Group.

Enter Group Name: eg:dev-authors

Click Save.

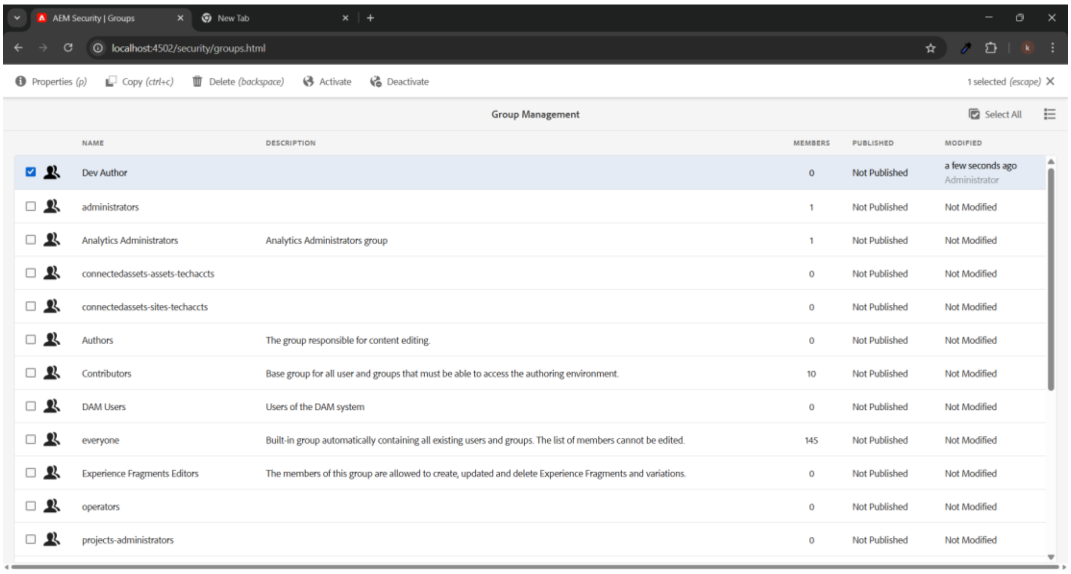



AEM Security | Group Properti
New Tab
localhost:4502/mnt/overlay/granite/security/content/v2/groupeditor.html
Create New Group
Cancel
Save & Close
Details
Members
New Photo

ID *

Name: Dev Author

Description



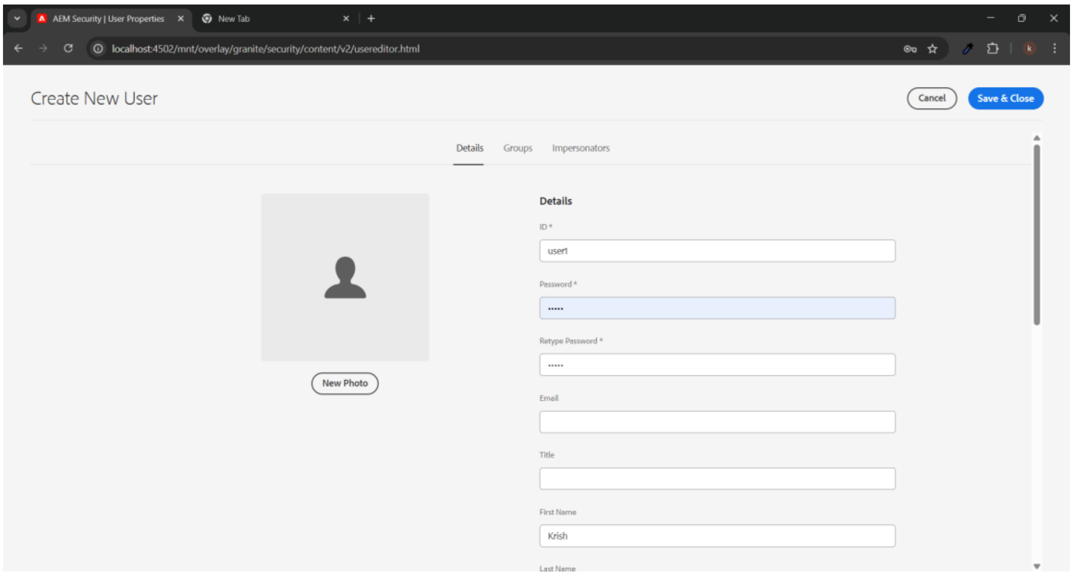
Group Management

	NAME	DESCRIPTION	MEMBERS	PUBLISHED	MODIFIED
☑	Dev Author		0	Not Published	a few seconds ago Administrator
□	administrators		1	Not Published	Not Modified
□	Analytics Administrators	Analytics Administrators group	1	Not Published	Not Modified
□	connectedassets-assets-techaccts		0	Not Published	Not Modified
□	connectedassets-sites-techaccts		0	Not Published	Not Modified
□	Authors	The group responsible for content editing.	0	Not Published	Not Modified
□	Contributors	Base group for all user and groups that must be able to access the authoring environment.	10	Not Published	Not Modified
□	DAM Users	Users of the DAM system	0	Not Published	Not Modified
□	everyone	Built-in group automatically containing all existing users and groups. The list of members cannot be edited.	145	Not Published	Not Modified
□	Experience Fragments Editors	The members of this group are allowed to create, updated and delete Experience Fragments and variations.	0	Not Published	Not Modified
□	operators		0	Not Published	Not Modified
□	projects-administrators		0	Not Published	Not Modified

Group created successfully.

Create 3 New Users and Add Them to the Group

Navigate to Tools → Security → Users . Click Create → Create User.


AEM Security | User Properties
New Tab
localhost:4502/mnt/overlay/granite/security/content/v2/usereditor.html
Cancel
Save & Close
Details
Groups
Impersonators
New Photo

Create New User

Details

ID *: user1

Password *: •••••

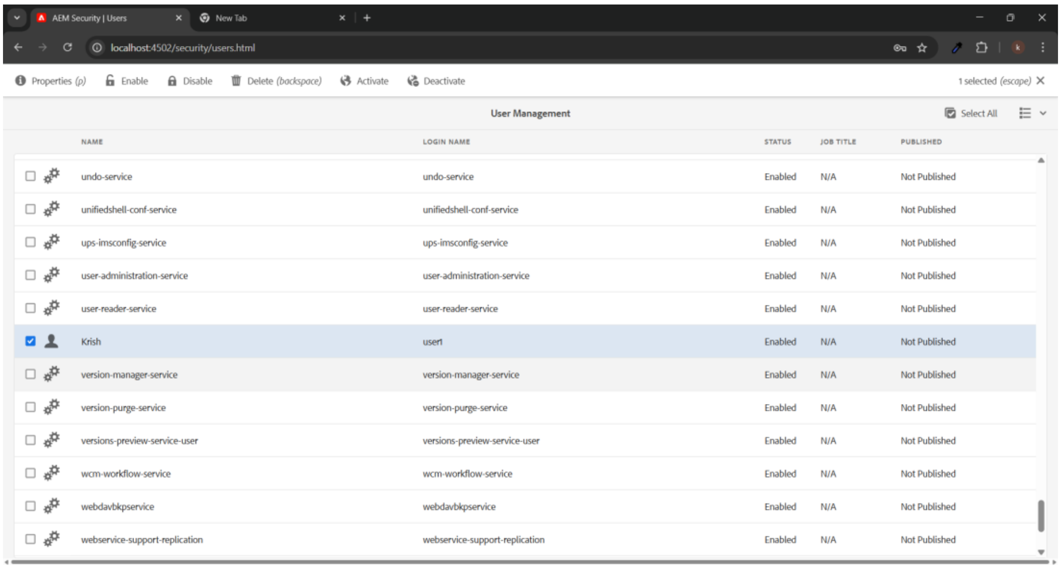
Retype Password *: •••••

Email:

Title:

First Name: Krish

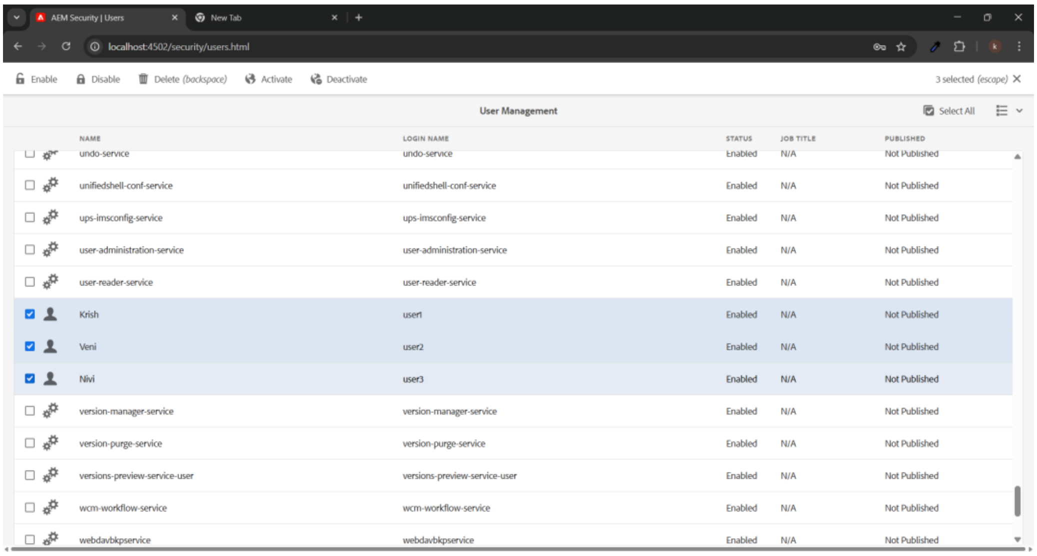
Last Name



User Management

	NAME	LOGIN NAME	STATUS	JOB TITLE	PUBLISHED
□	undo-service	undo-service	Enabled	N/A	Not Published
□	unifiedshell-conf-service	unifiedshell-conf-service	Enabled	N/A	Not Published
□	ups-imsconfig-service	ups-imsconfig-service	Enabled	N/A	Not Published
□	user-administration-service	user-administration-service	Enabled	N/A	Not Published
□	user-reader-service	user-reader-service	Enabled	N/A	Not Published
☑	Krish	user1	Enabled	N/A	Not Published
□	version-manager-service	version-manager-service	Enabled	N/A	Not Published
□	version-purge-service	version-purge-service	Enabled	N/A	Not Published
□	versions-preview-service-user	versions-preview-service-user	Enabled	N/A	Not Published
□	wcm-workflow-service	wcm-workflow-service	Enabled	N/A	Not Published
□	webdavbkpservice	webdavbkpservice	Enabled	N/A	Not Published
□	webservice-support-replication	webservice-support-replication	Enabled	N/A	Not Published

User 1 created successfully



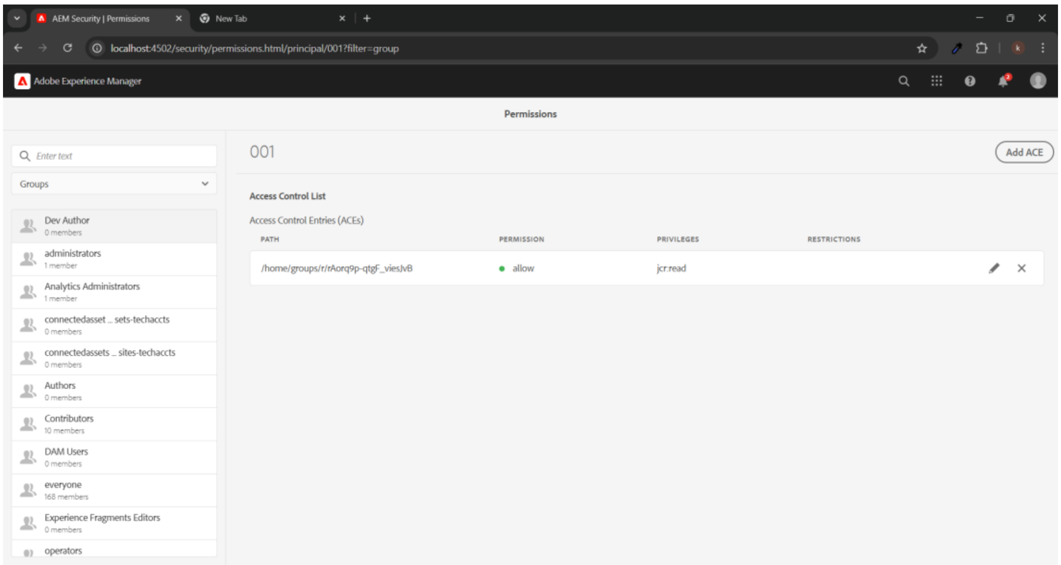
User Management

	NAME	LOGIN NAME	STATUS	JOB TITLE	PUBLISHED
□	undo-service	undo-service	Enabled	N/A	Not Published
□	unifiedshell-conf-service	unifiedshell-conf-service	Enabled	N/A	Not Published
□	ups-imsconfig-service	ups-imsconfig-service	Enabled	N/A	Not Published
□	user-administration-service	user-administration-service	Enabled	N/A	Not Published
□	user-reader-service	user-reader-service	Enabled	N/A	Not Published
☑	Krish	user1	Enabled	N/A	Not Published
☑	Veni	user2	Enabled	N/A	Not Published
☑	Nivi	user3	Enabled	N/A	Not Published
□	version-manager-service	version-manager-service	Enabled	N/A	Not Published
□	version-purge-service	version-purge-service	Enabled	N/A	Not Published
□	versions-preview-service-user	versions-preview-service-user	Enabled	N/A	Not Published
□	wcm-workflow-service	wcm-workflow-service	Enabled	N/A	Not Published
□	webdavbkpservice	webdavbkpservice	Enabled	N/A	Not Published

Assign Permissions to the Group:

Navigate to Tools → Security → Permissions.

Click on the group and set **Read-Only Access.**


AEM Security | Permissions
New Tab
localhost:4502/security/permissions.html/principal/001?filter=group
Adobe Experience Manager
Enter text
Groups
Add ACE

Permissions

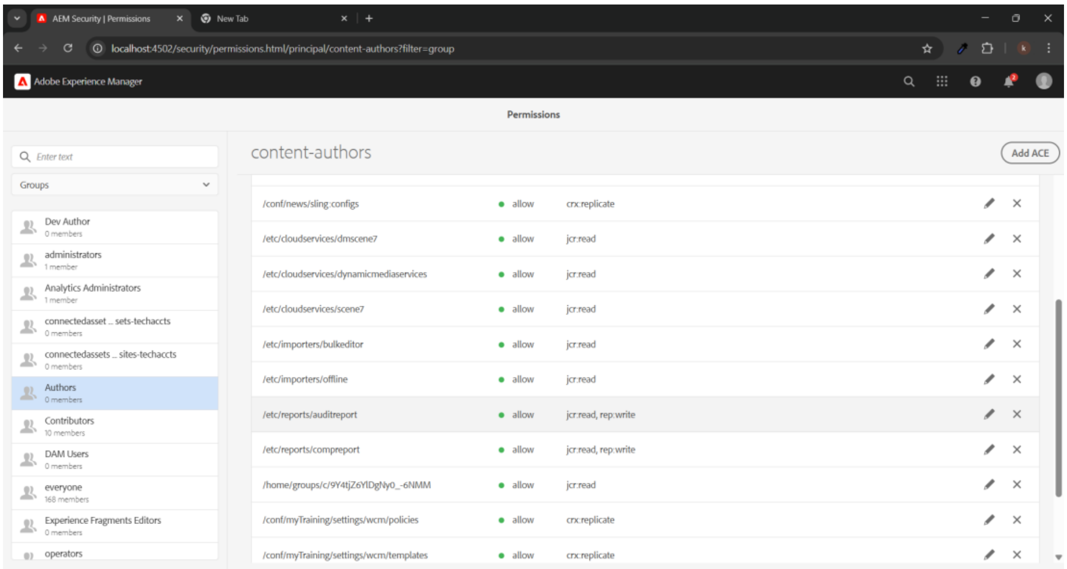
Dev Author
0 members
administrators
1 member
Analytics Administrators
1 member
connectedasset ... sets-techaccts
0 members
connectedassets ... sites-techaccts
0 members
Authors
0 members
Contributors
10 members
DAM Users
0 members
everyone
168 members
Experience Fragments Editors
0 members
operators

001

Access Control List

Access Control Entries (ACEs)

PATH	PERMISSION	PRIVILEGES	RESTRICTIONS
/home/groups/r/rAorq9p-qtgF_viesJvB	● allow	jcr:read	


AEM Security | Permissions
New Tab
localhost:4502/security/permissions.html/principal/content-authors?filter=group
Adobe Experience Manager
Enter text
Groups
Add ACE

Permissions

Dev Author
0 members
administrators
1 member
Analytics Administrators
1 member
connectedasset ... sets-techaccts
0 members
connectedassets ... sites-techaccts
0 members
Authors
0 members
Contributors
10 members
DAM Users
0 members
everyone
168 members
Experience Fragments Editors
0 members
operators

content-authors

/conf/news/sling:configs	● allow	crx:replicate
/etc/cloudservices/dmscene7	● allow	jcr:read
/etc/cloudservices/dynamicmediaservices	● allow	jcr:read
/etc/cloudservices/scene7	● allow	jcr:read
/etc/importers/bulkeditor	● allow	jcr:read
/etc/importers/offline	● allow	jcr:read
/etc/reports/auditreport	● allow	jcr:read, rep:write
/etc/reports/compreport	● allow	jcr:read, rep:write
/home/groups/c/9Y4tjZ6YlDgNy0_-6NMM	● allow	jcr:read
/conf/myTraining/settings/wcm/policies	● allow	crx:replicate
/conf/myTraining/settings/wcm/templates	● allow	crx:replicate