

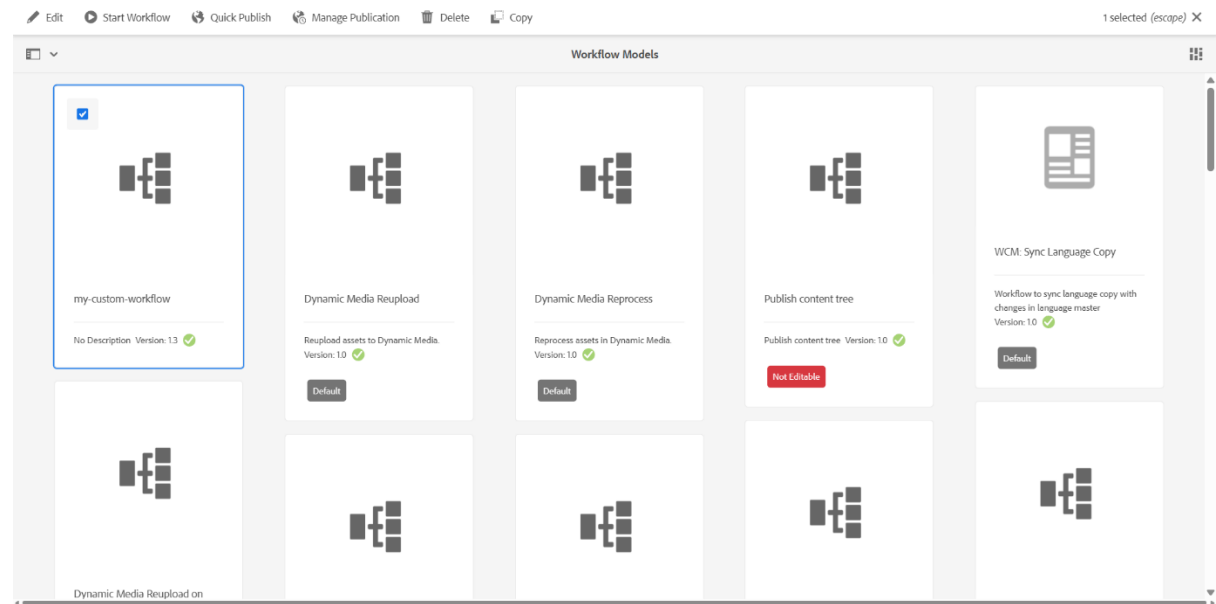
## 1. Create a Custom Workflow (myCustomWorkflow)

### Steps:

1. Navigate to **Tools > Workflow > Models** in AEM.
2. Click **Create** and name it **myCustomWorkflow**.
3. Add a **Process Step**, configure it, and save the model.

### Screenshot:

- AEM Workflow Model UI showing the custom workflow.



## 2. Create a Custom Workflow Process

### Steps:

1. Implement a Java class extending `WorkflowProcess`.
2. Print the page title in logs using `workflowSession.getMetaDataMap()`.
3. Deploy the bundle and configure the process step in `myCustomWorkflow`.
4. Apply the workflow to a page and observe logs in AEM.

### Java Code:

- Java code for `WorkflowProcess`.

*CustomWorkflowProcess.java:*

```
package com.myTraining.core.workflow;

import com.adobe.granite.workflow.WorkflowSession;
import com.adobe.granite.workflow.exec.WorkItem;
import com.adobe.granite.workflow.exec.WorkflowProcess;
import com.adobe.granite.workflow.metadata.MetaDataMap;
import com.day.cq.wcm.api.Page;
import com.day.cq.wcm.api.PageManager;
import org.apache.sling.api.resource.Resource;
```

```

import org.apache.sling.api.resource.ResourceResolver;

import org.osgi.service.component.annotations.Component;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

@Component(
    service = WorkflowProcess.class,
    property = {
        "process.label=Custom Workflow Process"
    }
)

public class CustomWorkflowProcess implements WorkflowProcess {

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

    @Override

    public void execute(WorkItem workItem, WorkflowSession workflowSession, MetaDataMap metaDataMap) {

        LOGGER.info("[Custom Workflow] Executing workflow process...");

        if (workItem == null || workItem.getWorkflowData() == null) {

            LOGGER.error("[Custom Workflow] WorkItem or WorkflowData is NULL!");

            return;

        }

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

        LOGGER.info("[Custom Workflow] Payload Path: {}", payloadPath);

        // Get the Resource Resolver

        ResourceResolver resolver = workflowSession.adaptTo(ResourceResolver.class);

        if (resolver != null) {

            Resource resource = resolver.getResource(payloadPath);

            if (resource != null) {

                PageManager pageManager = resolver.adaptTo(PageManager.class);

                Page page = pageManager.getContainingPage(resource);

                if (page != null) {

                    LOGGER.info("[Custom Workflow] Page Title: {}", page.getTitle());

                    LOGGER.info("[Custom Workflow] Page Path: {}", page.getPath());

                } else {

                    LOGGER.warn("[Custom Workflow] No Page found for the given resource.");

                }

            } else {

                LOGGER.warn("[Custom Workflow] No Resource found at the given path.");

            }

        } else {

            LOGGER.error("[Custom Workflow] Resource Resolver is NULL.");

        }

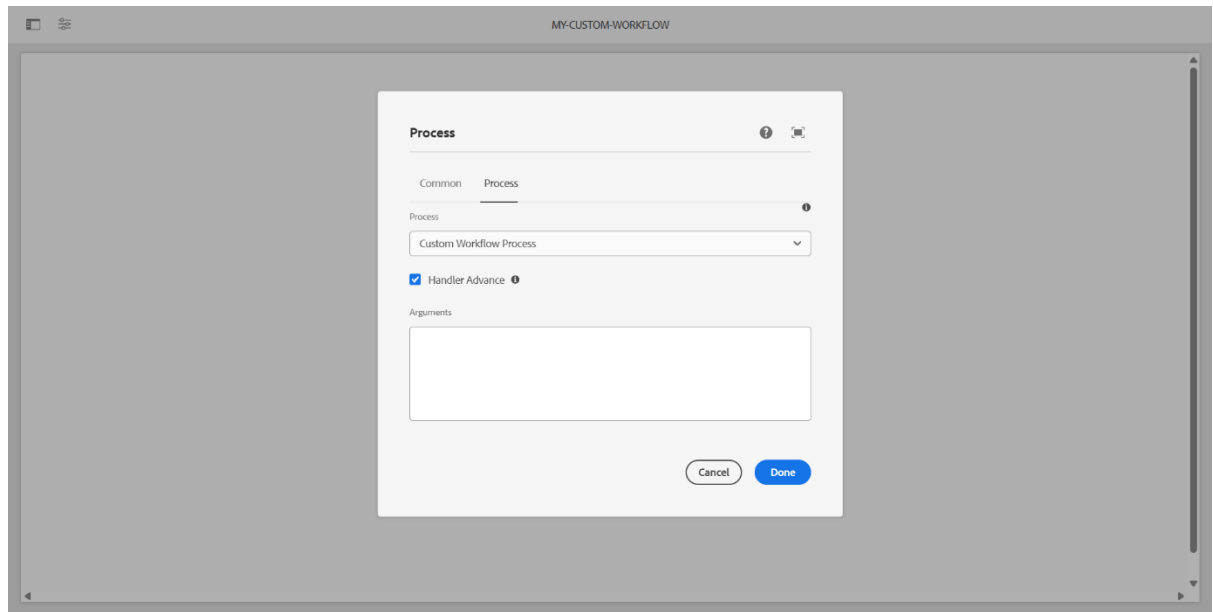
    }

}

```

## Screenshot:

- AEM Workflow Model UI with the custom process step configured.



- Log output showing the page title and metadata.

```
01.04.2025 22:43:48.955 *INFO* [sling-oak-observation-12] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:43:56.451 *INFO* [[0:0:0:0:0:0:1] [174352763448] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:45:00.015 *INFO* [sling-default-4-YellowWorldSchedulerJob] com.myTraining.core.schedulers.YellowWorldScheduler [Scheduler] Yellow World!
01.04.2025 22:45:55.453 *INFO* [sling-oak-observation-15] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:45:56.522 *INFO* [[0:0:0:0:0:0:1] [174352775612] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:46:56.788 *INFO* [sling-oak-observation-13] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:46:56.869 *INFO* [[0:0:0:0:0:0:1] [1743527816788] POST /var/workflow/instances HTTP/1.1] com.adobe.granite.workflow.core.advance.DynamicParticipantNodeHandler Activate
com.adobe.granite.workflow.core.advance.DynamicParticipantNodeHandler@35d9dc42
01.04.2025 22:46:56.954 *INFO* [sling-oak-observation-8] org.apache.sling.event.impl.jobs.queues.JobQueueImpl.Granite Workflow Queue Starting job queue Granite Workflow Queue
01.04.2025 22:46:56.957 *INFO* [ FelixLogListener] Events.Service.org.apache.sling.event Service [QueueMBean for queue Granite Workflow Queue,6532, [org.apache.sling.event.jobs.jmx.StatisticsMBean]] ServiceEvent REGISTERED
01.04.2025 22:46:56.978 *INFO* [JobHandler: /var/workflow/instances/server0/2025-04-01/my-custom-workflow_1/content/myTraining/us/en/sample-page] com.adobe.granite.workflow.core.job.JobHandler Start of Workflow Execution: Title=my-custom-workflow, Process=com.myTraining.core.workflow.CustomWorkflowProcess, Workfront-object-type=null
01.04.2025 22:46:56.978 *INFO* [JobHandler: /var/workflow/instances/server0/2025-04-01/my-custom-workflow_1/content/myTraining/us/en/sample-page] com.myTraining.core.workflow.CustomWorkflowProcess [Custom Workflow] Executing workflow process...
01.04.2025 22:46:56.978 *INFO* [JobHandler: /var/workflow/instances/server0/2025-04-01/my-custom-workflow_1/content/myTraining/us/en/sample-page] com.myTraining.core.workflow.CustomWorkflowProcess [Custom Workflow] Payload Path: /content/myTraining/us/en/sample-page
01.04.2025 22:46:56.979 *INFO* [[0:0:0:0:0:0:1] [1743527816970] GET /content/myTraining/us/en/sample-page.html HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:46:56.984 *INFO* [JobHandler: /var/workflow/instances/server0/2025-04-01/my-custom-workflow_1/content/myTraining/us/en/sample-page] com.myTraining.core.workflow.CustomWorkflowProcess [Custom Workflow] Page Title: Sample Page
01.04.2025 22:46:56.984 *INFO* [JobHandler: /var/workflow/instances/server0/2025-04-01/my-custom-workflow_1/content/myTraining/us/en/sample-page] com.myTraining.core.workflow.CustomWorkflowProcess [Custom Workflow] Page Path: /content/myTraining/us/en/sample-page
01.04.2025 22:46:56.985 *INFO* [JobHandler: /var/workflow/instances/server0/2025-04-01/my-custom-workflow_1/content/myTraining/us/en/sample-page] com.adobe.granite.workflow.core.job.JobHandler End of Workflow Execution - Title: my-custom-workflow, Process: com.myTraining.core.workflow.CustomWorkflowProcess
01.04.2025 22:46:57.298 *INFO* [sling-pageinfoproviders-processing-pool-4] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:46:57.402 *INFO* [[0:0:0:0:0:0:1] [1743527817382] GET /libs/wcm/core/content/components.1743526696981.json HTTP/1.1] com.day.cq.wcm.core.impl.components.ComponentServlet provided components.
01.04.2025 22:46:58.473 *INFO* [[0:0:0:0:0:0:1] [1743527818468] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:47:00.012 *INFO* [CommitStats] CommitStats 11 commits by 4 users [63% sling-event, 18% admin, 9% oak:unknown, 9% workflow-service] from 3 locations [63% HTTP-POST:/var/workflow/instances, 27% other:java.base/java.lang.Thread.run(Thread.java:834), 9% jobhandler:/var/workflow/instances/server0/2025-04-01/my...] [CommitStats overhead was 2ms = 182.0us / commit]
01.04.2025 22:47:35.245 *INFO* [sling-oak-observation-12] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:47:59.456 *INFO* [[0:0:0:0:0:0:1] [1743527879446] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:48:10.457 *INFO* [sling-oak-observation-7] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:49:56.459 *INFO* [sling-oak-observation-20] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:49:56.462 *INFO* [[0:0:0:0:0:0:1] [1743527996459] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:50:00.004 *INFO* [sling-default-0-YellowWorldSchedulerJob] com.myTraining.core.schedulers.YellowWorldScheduler [Scheduler] Yellow World!
01.04.2025 22:50:14.550 *ERROR* [[0:0:0:0:0:0:1] [1743528014519] GET /mnt/overlay/granite/ui/content/shell/globalnav.html HTTP/1.1] com.adobe.cq.dam.cfm.headless.ui.impl.models.CFHomeCardModelImpl Config Id must not be null
01.04.2025 22:50:14.550 *ERROR* [[0:0:0:0:0:0:1] [1743528014519] GET /mnt/overlay/granite/ui/content/shell/globalnav.html HTTP/1.1] com.adobe.cq.dam.cfm.headless.ui.impl.models.CFHomeCardModelImpl Config Id must not be null
01.04.2025 22:50:14.579 *INFO* [[0:0:0:0:0:0:1] [1743528014519] GET /mnt/overlay/granite/ui/content/shell/globalnav.html HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:50:18.958 *INFO* [[0:0:0:0:0:0:1] [1743528018783] GET /libs/cq/workflow/admin/console/content/models.html HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:50:19.063 *WARN* [[0:0:0:0:0:0:1] [1743528018783] GET /libs/cq/workflow/admin/console/content/models.html HTTP/1.1]
```

## 3. Create an Event Handler

### Steps:

1. Implement an **OSGi event listener** that listens to resource changes.
2. Print the resource path in logs using `event.getProperty("path")`.
3. Deploy the bundle and test by modifying a page or asset.

### Java Code:

- Java code for Event Handler.

[ResourceEventHandler.java](#):

```
package com.myTraining.core.listeners;
```

```

import org.apache.sling.api.resource.observation.ResourceChange;

import org.apache.sling.api.resource.observation.ResourceChangeListener;

import org.osgi.service.component.annotations.Component;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

import java.util.List;

@Component(

    service = ResourceChangeListener.class,

    property = {

        ResourceChangeListener.PATHS + "= /content/myTraining/us",

        ResourceChangeListener.CHANGES + "=ADDED",

        ResourceChangeListener.CHANGES + "=CHANGED",

        ResourceChangeListener.CHANGES + "=REMOVED"

    }

)

public class ResourceEventHandler implements ResourceChangeListener {

    private static final Logger LOGGER = LoggerFactory.getLogger(ResourceEventHandler.class);

    @Override

    public void onChange(List<ResourceChange> changes) {

        for (ResourceChange change : changes) {

            LOGGER.info("[Resource Event] Type: {} | Path: {}", change.getType(), change.getPath());

        }

    }

}

```

## Screenshot:

- Log output showing resource path printed.

```

day-cq-wcm-designimporter-impl-canvaspagedeletehandler-KeepAliveTime,6534, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.680 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-ExecutorMaximumPoolSize,6535, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.682 "INFO" [sling-pageinfoproviders-processing-pool-3] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and
searchPathThreshold: true.
01.04.2025 22:54:06.685 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-BlockPolicy,6536, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.691 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-Priority,6537, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.696 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-ExecutorLargestPoolSize,6538, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.699 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-MaxPoolSize,6539, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.704 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-ExecutorCorePoolSize,6540, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.706 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-Pid,6541, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.709 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-MinPoolSize,6542, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.712 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-ShutdownWaitTimeMs,6543, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.716 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-Name,6544, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.721 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-QueueSize,6545, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.724 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-ExecutorTaskCount,6546, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.728 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-Used,6547, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.731 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-ExecutorActiveCount,6548, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.734 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-ExecutorCompletedTaskCount,6549, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.736 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-ExecutorTaskCount,6550, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.740 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-ShutdownGraceful,6551, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.744 "INFO" [FelixLogListener] Events.Service.org.apache.sling.commons.threads.Service [Apache Sling Metrics Gauge - commons.threads.tp.threadpool-d04b9049-233b-49f4-8fc6-351f47166b18--com-
day-cq-wcm-designimporter-impl-canvaspagedeletehandler-ExecutorPoolSize,6552, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:54:06.771 "INFO" [[0:0:0:0:0:0:1] [1743528246762] GET /content/myTraining/us/en/sample-page/jcr:content/root/container/container/text.html HTTP/1.1]
com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:54:11.027 "INFO" [[0:0:0:0:0:0:1] [1743528251021] POST /content/myTraining/us/en/sample-page/jcr:content/root/container/container/text HTTP/1.1]
com.day.cq.wcm.foundation.impl.ColumnCmpPostProcessor logging out of localServiceSession in process()
01.04.2025 22:54:11.055 "INFO" [sling-oak-observation-3] com.myTraining.core.listeners.ResourceEventHandler [Resource Event] Type: REMOVED | Path: /content/myTraining/us/en/sample-
page/jcr:content/root/container/container/text
01.04.2025 22:54:11.066 "INFO" [sling-oak-observation-3] com.myTraining.core.listeners.ResourceEventHandler [Resource Event] Type: CHANGED | Path: /content/myTraining/us/en/sample-page/jcr:content
01.04.2025 22:54:11.062 "WARN" [sling-threadpool-7166ced-9a7c-4774-bf4a-418e57c316f-com.day.cq.wcm.work-impl-wcm-mkrt100servicecmpt1-5] com.day.cq.wcm.work-impl-wcm-mkrt100servicecmpt1-5 resource
found at the path : /content/myTraining/us/en/sample-page
01.04.2025 22:54:11.089 "INFO" [sling-pageinfoproviders-processing-pool-2] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and
searchPathThreshold: true.

```

## 4. Create a Sling Job

### Steps:

1. Implement an OSGi service extending JobConsumer.
2. Print "Hello World" in logs.
3. Deploy and trigger the job using jobManager.addJob().

### Java Code:

- Java code for the Sling Job.

#### HelloWorldJob.java:

```
package com.myTraining.core.schedulers;

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 = {
        JobConsumer.PROPERTY_TOPICS + "=myTraining/job/helloWorld"
    }
)

public class HelloWorldJob implements JobConsumer {

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

    @Override
    public JobResult process(Job job) {

        LOGGER.info("[Sling Job] Executing Hello World Job...");

        LOGGER.info("[Sling Job] Hello World!");

        return JobResult.OK;
    }
}
```

#### JobTrigger.java:

```
package com.myTraining.core.schedulers;

import org.apache.sling.event.jobs.JobManager;
import org.osgi.service.component.annotations.Activate;
import org.osgi.service.component.annotations.Component;
import org.osgi.service.component.annotations.Reference;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import java.util.HashMap;
import java.util.Map;

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

```

public class JobTrigger {

    private static final Logger LOGGER = LoggerFactory.getLogger(JobTrigger.class);

    @Reference

    private JobManager jobManager;

    @Activate

    protected void activate() {

        LOGGER.info("Activating JobTrigger - Automatically Triggering Sling Job...");

        triggerJob();

    }

    private void triggerJob() {

        if (jobManager != null) {

            Map<String, Object> jobProps = new HashMap<>();

            jobProps.put("message", "Triggered Hello World Job!");

            jobManager.addJob("myTraining/job/helloWorld", jobProps);

            LOGGER.info("Sling Job Triggered Successfully!");

        } else {

            LOGGER.error("JobManager is null. Cannot trigger the job!");

        }

    }

}

```

## Screenshot:

- Log output confirming "Hello World" execution.

```

01.04.2025 22:25:03.499 *INFO* [FelixLogListener] Events.Service.org.apache.sling.i18n Service [6469, [java.util.ResourceBundle]] ServiceEvent REGISTERED
01.04.2025 22:25:03.500 *INFO* [[0:0:0:0:0:0:1] [1743526503486] GET /libs/granite/core/content/login.html HTTP/1.1] org.apache.sling.i18n.impl.JcrResourceBundleProvider Currently loaded dictionaries across
all locales: [/apps/myTraining/i18n/fr.json, /libs/ucm/core/i18n/pt-br.json, /libs/granite/i18n/zh-cn.json, /apps/newslog/i18n/fr.json, /libs/ucm/core/i18n/de.json,
/libs/foundation/components/mobileFooter/i18n/en, /libs/foundation/components/search/i18n/en, /libs/ucm/core/i18n/zh-tw.json, /apps/servlet/i18n/fr.json, /libs/ucm/core/i18n/zh-cn.json,
/libs/granite/i18n/fr.json, /libs/granite/i18n/de.json, /libs/ucm/core/i18n/it.json, /libs/ucm/core/i18n/es.json, /libs/granite/i18n/es.json, /libs/ucm/core/i18n/ko-kr.json,
/libs/granite/i18n/ja.json, /libs/ucm/core/i18n/ja.json, /libs/granite/i18n/it.json, /libs/granite/i18n/pt-br.json, /apps/myApp/i18n/fr.json, /libs/ucm/core/i18n/es-my.json, /libs/granite/i18n/ko-kr.json,
/libs/granite/i18n/zh-tw.json, /libs/ucm/core/i18n/fr.json]
01.04.2025 22:25:03.501 *WARN* [[0:0:0:0:0:0:1] [1743526503486] GET /libs/granite/core/content/login.html HTTP/1.1] libs.granite.core.components.login.login_002e_jsp j_reason param value 'unknown' cannot be
mapped to a valid reason message: ignoring
01.04.2025 22:25:08.459 *INFO* [Timer-2] org.apache.sling.event.impl.jobs.queues.JobQueueImpl.main queue> Starting job queue <main queue>
01.04.2025 22:25:08.462 *INFO* [FelixLogListener] Events.Service.org.apache.sling.event Service [QueueBean for queue <main queue>,6470, [org.apache.sling.event.jobs.jmx.StatisticsBean]] ServiceEvent
REGISTERED
01.04.2025 22:25:08.485 *INFO* [sling-threadpool-189405ae-7177-43e3-913e-4e46b0bd006e- (apache-sling-job-thread-pool)-1-main queue>(myTraining/job/helloWorld)] com.myTraining.core.schedulers.HelloWorldJob
[Sling Job] Executing Hello World Job...
01.04.2025 22:25:08.485 *INFO* [sling-threadpool-189405ae-7177-43e3-913e-4e46b0bd006e- (apache-sling-job-thread-pool)-1-main queue>(myTraining/job/helloWorld)] com.myTraining.core.schedulers.HelloWorldJob
[Sling Job] Hello World!
01.04.2025 22:25:13.883 *INFO* [sling-oak-observation-18] com.adobe.cq.upds.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:25:13.883 *INFO* [sling-oak-observation-14] com.adobe.cq.upds.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:25:14.628 *ERROR* [[0:0:0:0:0:0:1] [1743526513930] GET /aem/start.html HTTP/1.1] com.adobe.cq.dam.cfm.headless.ui.impl.models.CFHomeCardModelImpl Config Id must not be null
01.04.2025 22:25:14.630 *ERROR* [[0:0:0:0:0:0:1] [1743526513930] GET /aem/start.html HTTP/1.1] com.adobe.cq.dam.cfm.headless.ui.impl.models.CFHomeCardModelImpl Config Id must not be null
01.04.2025 22:25:15.155 *INFO* [[0:0:0:0:0:0:1] [1743526513930] GET /aem/start.html HTTP/1.1] com.day.cq.wcm.core.impl.components.ComponentCacheImpl Loaded 877 components in 462ms
01.04.2025 22:25:15.167 *INFO* [[0:0:0:0:0:0:1] [1743526513930] GET /aem/start.html HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with
searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:25:15.543 *INFO* [[0:0:0:0:0:0:1] [1743526515513] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search
path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:25:15.608 *INFO* [[0:0:0:0:0:0:1] [1743526515513] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.adobe.granite.workflow.core.inboxshare.InboxSharingCache
Populated InboxSharingCache after processing user's preferences
01.04.2025 22:25:15.608 *INFO* [[0:0:0:0:0:0:1] [1743526515513] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.adobe.granite.workflow.core.inboxshare.InboxSharingCache
Time taken to populate InboxSharingCache (in ms): 8
01.04.2025 22:25:22.532 *INFO* [[0:0:0:0:0:0:1] [1743526520906] GET /sites.html/content HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with
searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:25:22.588 *INFO* [pool-14-thread-1] com.adobe.aem.collaborationapi.common.service.BundleVersionLoggerService bundle_version com.adobe.aem.collaborationapi=1.0.98
01.04.2025 22:25:22.588 *INFO* [pool-14-thread-1] [1743526520906] GET /sites.html/content HTTP/1.1] com.day.cq.wcm.core.impl.designer.SystemDesign Initialized system design at /libs/settings/wcm/designs/default
in 45ms
01.04.2025 22:25:22.942 *INFO* [pool-15-thread-1] com.adobe.aem.repoapi.impl.BundleVersionLoggerService bundle_version com.adobe.aem.repoapi=2.0.334
01.04.2025 22:25:27.499 *WARN* [[0:0:0:0:0:0:1] [1743526527493] GET /conf/servlet/settings/wcm/templates/page-content/thumbnail.png.thumb.48.48.png HTTP/1.1] com.day.cq.wcm.core.impl.page.PageImpl page at
/conf/servlet/settings/wcm/templates does not have a jcr:content childresource
01.04.2025 22:25:27.499 *INFO* [[0:0:0:0:0:0:1] [1743526527493] GET /conf/servlet/settings/wcm/templates/page-content/thumbnail.png.thumb.48.48.png HTTP/1.1]
com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:25:27.500 *WARN* [[0:0:0:0:0:0:1] [1743526527493] GET /conf/servlet/settings/wcm/templates/page-content/thumbnail.png.thumb.48.48.png HTTP/1.1] com.day.cq.wcm.core.impl.page.PageImpl page at
/conf/servlet/settings/wcm does not have a jcr:content childresource
01.04.2025 22:25:30.336 *INFO* [FelixLogListener] Events.Service.com.day.cq.replication Service [Replication agent [publish],6471, [org.apache.sling.commons.metrics.Gauge]] ServiceEvent REGISTERED
01.04.2025 22:25:32.088 *INFO* [FelixLogListener] Events.Service.com.adobe.granite.repository Service [6472, [org.apache.jackrabbit.oak.api.jmx.SessionBean]] ServiceEvent REGISTERED
01.04.2025 22:25:32.129 *INFO* [FelixLogListener] Events.Service.com.adobe.granite.repository Service [6473, [org.apache.jackrabbit.oak.api.jmx.SessionBean]] ServiceEvent REGISTERED
01.04.2025 22:25:32.162 *INFO* [FelixLogListener] Events.Service.com.adobe.granite.repository Service [6474, [org.apache.jackrabbit.oak.api.jmx.SessionBean]] ServiceEvent REGISTERED
01.04.2025 22:25:32.163 *INFO* [FelixLogListener] Events.Service.com.adobe.granite.repository Service [6475, [org.apache.jackrabbit.oak.api.jmx.SessionBean]] ServiceEvent REGISTERED
01.04.2025 22:25:32.192 *INFO* [FelixLogListener] Events.Service.com.adobe.granite.repository Service [6476, [org.apache.jackrabbit.oak.api.jmx.SessionBean]] ServiceEvent REGISTERED
01.04.2025 22:25:32.520 *INFO* [FelixLogListener] Events.Service.com.adobe.granite.repository Service [6477, [org.apache.jackrabbit.oak.api.jmx.SessionBean]] ServiceEvent REGISTERED
01.04.2025 22:25:32.550 *INFO* [FelixLogListener] Events.Service.com.adobe.granite.repository Service [6478, [org.apache.jackrabbit.oak.api.jmx.SessionBean]] ServiceEvent REGISTERED
01.04.2025 22:25:32.677 *INFO* [FelixLogListener] Events.Service.com.adobe.granite.repository Service [6479, [org.apache.jackrabbit.oak.api.jmx.SessionBean]] ServiceEvent REGISTERED
01.04.2025 22:25:32.691 *INFO* [FelixLogListener] Events.Service.com.adobe.granite.repository Service [6480, [org.apache.jackrabbit.oak.api.jmx.SessionBean]] ServiceEvent REGISTERED

```

## 5. Create a Scheduler (Yellow World Message Every 5 Minutes)

### Steps:

- Implement an OSGi scheduler using @Designate and cron expression (0 0/5 \*\*\* ?).
- Print "Yellow World" in logs every 5 minutes.



### 3. Deploy and observe logs.

#### Java Code:

- Java code for the scheduler.

[YellowWorldScheduler.java](#):

```
package com.myTraining.core.schedulers;

import org.apache.sling.commons.scheduler.ScheduleOptions;
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.Modified;
import org.osgi.service.component.annotations.Reference;
import org.osgi.service.metatype.annotations.AttributeDefinition;
import org.osgi.service.metatype.annotations.AttributeType;
import org.osgi.service.metatype.annotations.Designate;
import org.osgi.service.metatype.annotations.ObjectClassDefinition;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

@Component(service = Runnable.class, immediate = true)
@Designate(ocd = YellowWorldScheduler.Config.class)
public class YellowWorldScheduler implements Runnable {

    private static final Logger LOGGER = LoggerFactory.getLogger(YellowWorldScheduler.class);

    @Reference
    private Scheduler scheduler;

    private String cronExpression;

    @ObjectClassDefinition(name = "Yellow World Scheduler Configuration")
    public @interface Config {

        @AttributeDefinition(
            name = "Cron Expression",
            description = "Schedule the job to run every 5 minutes",
            type = AttributeType.STRING
        )

        String cron_expression() default "0*/5***?";
    }

    @Activate
    @Modified
    protected void activate(Config config) {

        cronExpression = config.cron_expression();

        scheduleJob();
    }

    private void scheduleJob() {

        ScheduleOptions scheduleOptions = scheduler.EXPR(cronExpression);
```

```

scheduleOptions.name("YellowWorldSchedulerJob");

scheduleOptions.canRunConcurrently(false);

scheduler.schedule(this, scheduleOptions);

LOGGER.info("Yellow World Scheduler Registered with Cron: {}", cronExpression);
}

@Override
public void run() {

    LOGGER.info("[Scheduler] Yellow World!");
}
}

```

## Screenshot:

- Log output showing "Yellow World" execution every 5 minutes.

```

01.04.2025 22:35:57.270 *INFO* [[0:0:0:0:0:0:1] [1743527161999] GET /mnt/overlay/granite/ui/content/shell/globalnav.html HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search
path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:35:57.270 *WARN* [[0:0:0:0:0:0:1] [1743527157267] GET /conf/myTraining/settings/wcm/templates/page-content/thumbnail.png.thumb.48.48.png HTTP/1.1] com.day.cq.wcm.core.impl.page.PageImpl page at
/conf/myTraining/settings/wcm/templates does not have a jcr:content childresource
01.04.2025 22:35:57.270 *INFO* [[0:0:0:0:0:0:1] [1743527157267] GET /conf/myTraining/settings/wcm/templates/page-content/thumbnail.png.thumb.48.48.png HTTP/1.1]
com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:35:57.270 *WARN* [[0:0:0:0:0:0:1] [1743527157267] GET /conf/myTraining/settings/wcm/templates/page-content/thumbnail.png.thumb.48.48.png HTTP/1.1] com.day.cq.wcm.core.impl.page.PageImpl page at
/conf/myTraining/settings/wcm does not have a jcr:content childresource
01.04.2025 22:36:02.040 *ERROR* [[0:0:0:0:0:0:1] [1743527161999] GET /mnt/overlay/granite/ui/content/shell/globalnav.html HTTP/1.1] com.adobe.cq.dam.cfm.headless.ui.impl.models.CFHomeCardModelImpl Config Id
must not be null
01.04.2025 22:36:02.041 *ERROR* [[0:0:0:0:0:0:1] [1743527161999] GET /mnt/overlay/granite/ui/content/shell/globalnav.html HTTP/1.1] com.adobe.cq.dam.cfm.headless.ui.impl.models.CFHomeCardModelImpl Config Id
must not be null
01.04.2025 22:36:02.074 *INFO* [[0:0:0:0:0:0:1] [1743527161999] GET /mnt/overlay/granite/ui/content/shell/globalnav.html HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter
configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:36:13.798 *INFO* [[0:0:0:0:0:0:1] [1743527173782] GET /mnt/overlay/granite/ui/content/shell/globalnav/cq/items/tabs/items/tools/content.0.40.html/mnt/overlay/cq/core/content/nav/tools/general
HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:36:25.450 *INFO* [[slings-oak-observation-18] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:36:25.456 *INFO* [[0:0:0:0:0:0:1] [1743527185450] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search
path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:37:07.173 *INFO* [[slings-oak-observation-15] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:37:27.079 *WARN* [[tp1928591392-280] com.day.crx.sling.server.impl.jmx.SecureContentRepositoryAccess Denied reference from bundle 'org.apache.felix.framework'.
01.04.2025 22:37:27.084 *WARN* [[tp1928591392-280] com.day.crx.sling.server.impl.jmx.SecureContentRepositoryAccess Denied reference from bundle 'org.apache.felix.framework'.
01.04.2025 22:37:37.839 *INFO* [[slings-oak-observation-19] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:37:56.449 *INFO* [[0:0:0:0:0:0:1] [1743527276446] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search
path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:38:09.784 *INFO* [[slings-oak-observation-12] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:38:56.489 *INFO* [[slings-oak-observation-5] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:38:56.495 *INFO* [[0:0:0:0:0:0:1] [1743527336489] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search
path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:39:58.476 *INFO* [[slings-oak-observation-3] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:39:58.476 *INFO* [[slings-oak-observation-3] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:39:58.476 *INFO* [[slings-oak-observation-3] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:40:00.011 *INFO* [[slings-oak-observation-4] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:40:55.463 *INFO* [[slings-oak-observation-4] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:41:00.468 *INFO* [[0:0:0:0:0:0:1] [1743527460466] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search
path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:42:01.465 *INFO* [[slings-oak-observation-7] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:42:01.469 *INFO* [[0:0:0:0:0:0:1] [1743527521465] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search
path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:43:10.459 *INFO* [[slings-oak-observation-3] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:43:48.955 *INFO* [[slings-oak-observation-12] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:43:56.451 *INFO* [[slings-oak-observation-12] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:45:55.453 *INFO* [[slings-oak-observation-15] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:45:56.522 *INFO* [[0:0:0:0:0:0:1] [1743527756512] GET /mnt/overlay/granite/ui/content/shell/header/actions/pulse.data.json HTTP/1.1] com.day.cq.wcm.core.impl.designer.SearchPathLimiter Search
path limiter configured with searchPathLimiterFeatureToggleOn: true and searchPathThreshold: true.
01.04.2025 22:46:56.788 *INFO* [[slings-oak-observation-13] com.adobe.cq.ups.user.utils.UserCreationListener UPS Feature is disabled.
01.04.2025 22:46:56.869 *INFO* [[0:0:0:0:0:0:1] [1743527816788] POST /var/workflow/instances HTTP/1.1] com.adobe.granite.workflow.core.advance.DynamicParticipantNodeHandler Activate
com.adobe.granite.workflow.core.advance.DynamicParticipantNodeHandler@935d9dc42
01.04.2025 22:46:56.954 *INFO* [[slings-oak-observation-8] org.apache.sling.event.impl.jobs.queues.JobQueueImpl.Granite Workflow Queue Starting job queue Granite Workflow Queue

```

## 6. User Management and Permissions

### Steps:

1. Create **three** users in **Tools > Security > Users**.
2. Create a group **Dev Author** and add users.
3. Assign **Read-only** permission to **/content** and **/dam**.
4. Grant **Replication** access in **Tools > Security > Permissions**.



**Screenshot:**

- User creation UI.

Adobe Experience Manager

User Management

Select All Create

	NAME	LOGIN NAME	STATUS	JOB TITLE	PUBLISHED
<input type="checkbox"/>	User-1	User-1	Enabled	N/A	Not Published
<input type="checkbox"/>	User-2	User-2	Enabled	N/A	Not Published
<input type="checkbox"/>	User-3	User-3	Enabled	N/A	Not Published
<input type="checkbox"/>	account-manager	account-manager	Enabled	N/A	Not Published
<input type="checkbox"/>	activity-service	activity-service	Enabled	N/A	Not Published
<input type="checkbox"/>	activitypursesrv	activitypursesrv	Enabled	N/A	Not Published
<input type="checkbox"/>	Administrator	admin	Enabled	N/A	Not Published
<input type="checkbox"/>	ajo-imsconfig-service	ajo-imsconfig-service	Enabled	N/A	Not Published
<input type="checkbox"/>	analytics-content-updater-service	analytics-content-updater-service	Enabled	N/A	Not Published
<input type="checkbox"/>	analytics-imsconfig-service	analytics-imsconfig-service	Enabled	N/A	Not Published
<input type="checkbox"/>	analyticsservice	analyticsservice	Enabled	N/A	Not Published
<input type="checkbox"/>	anonymous	anonymous	Enabled	N/A	Not Published
<input type="checkbox"/>	archive-storage-service	archive-storage-service	Enabled	N/A	Not Published

- Group creation UI.

Adobe Experience Manager

Group Management

Select All Create

NAME	DESCRIPTION	MEMBERS	PUBLISHED	MODIFIED
<input type="checkbox"/> Dev Author		3	Not Published	3/25/25, 9:31 PM Administrator
<input type="checkbox"/> administrators		1	Not Published	Not Modified
<input type="checkbox"/> Analytics Administrators	Analytics Administrators group	1	Not Published	Not Modified
<input type="checkbox"/> connectedassets-assets-techaccts		0	Not Published	Not Modified
<input type="checkbox"/> connectedassets-sites-techaccts		0	Not Published	Not Modified
<input type="checkbox"/> Authors	The group responsible for content editing.	0	Not Published	Not Modified
<input type="checkbox"/> Contributors	Base group for all user and groups that must be able to access the authoring environment.	12	Not Published	Not Modified
<input type="checkbox"/> DAM Users	Users of the DAM system	0	Not Published	Not Modified
<input type="checkbox"/> everyone	Built-in group automatically containing all existing users and groups. The list of members cannot be edited.	148	Not Published	Not Modified
<input type="checkbox"/> Experience Fragments Editors	The members of this group are allowed to create, updated and delete Experience Fragments and variations.	0	Not Published	Not Modified
<input type="checkbox"/> operators		0	Not Published	Not Modified
<input type="checkbox"/> projects-administrators		0	Not Published	Not Modified
<input type="checkbox"/> French Localization Observers		1	Not Published	Not Modified

- Permissions UI showing read-only access and replication privileges.

The screenshot displays the AEM Security console interface. On the left, a sidebar lists users under the 'DAM Users' group. The main content area is titled 'Permissions' and shows a file tree structure. The 'permissions' tab is selected, displaying a table of permissions for each path. The table columns are: Path, Read, Modify, Create, Delete, Read ACL, Edit ACL, and Replicate. The paths listed include 'apps', 'core', 'dam', 'mcm', 'myApp', 'myApp-packages', 'myApp-vendor-packages', 'myTraining', 'myTraining-packages', 'myTraining-vendor-packages', 'newsBlog', 'newsBlog-packages', 'newsBlog-vendor-packages', 'servlet', 'servlet-packages', 'servlet-vendor-packages', 'settings', 'sling', 'system', 'wcm', 'bin', 'conf', 'content', 'etc', and 'home'. The 'permissions' tab is active, showing a table of permissions for each path. The table columns are: Path, Read, Modify, Create, Delete, Read ACL, Edit ACL, and Replicate. The paths listed include 'apps', 'core', 'dam', 'mcm', 'myApp', 'myApp-packages', 'myApp-vendor-packages', 'myTraining', 'myTraining-packages', 'myTraining-vendor-packages', 'newsBlog', 'newsBlog-packages', 'newsBlog-vendor-packages', 'servlet', 'servlet-packages', 'servlet-vendor-packages', 'settings', 'sling', 'system', 'wcm', 'bin', 'conf', 'content', 'etc', and 'home'. The 'permissions' tab is active, showing a table of permissions for each path. The table columns are: Path, Read, Modify, Create, Delete, Read ACL, Edit ACL, and Replicate. The paths listed include 'apps', 'core', 'dam', 'mcm', 'myApp', 'myApp-packages', 'myApp-vendor-packages', 'myTraining', 'myTraining-packages', 'myTraining-vendor-packages', 'newsBlog', 'newsBlog-packages', 'newsBlog-vendor-packages', 'servlet', 'servlet-packages', 'servlet-vendor-packages', 'settings', 'sling', 'system', 'wcm', 'bin', 'conf', 'content', 'etc', and 'home'.