Task-13 CODE

Question: 1)When you create any page in project you should have trigger the **Eventlistener** after that you have to trigger the workflow and it should add the **Expirydate property** to that page **jcr:content** and the value should be current date and time.

2) **Continuation:** And when you create any page in other project.it should add the expirydate property to that page jcr:content and the value should be **Previous date and time.**

Answer:

EVENT LISTENER FOR CREATING PAGE WORKFLOW STARTED

```
package com.adobe.aem.guides.demo.core.listeners;

import java.util.HashMap;
import java.util.Map;

import javax.jcr.Session;
import javax.jcr.observation.Event;
import javax.jcr.observation.EventIterator;
import javax.jcr.observation.EventListener;

import org.apache.sling.api.resource.LoginException;
import org.apache.sling.api.resource.Resource;
import org.apache.sling.api.resource.ResourceResolver;
import org.apache.sling.api.resource.ResourceResolverFactory;
import org.apache.sling.jcr.api.SlingRepository;
import org.osgi.service.component.annotations.Activate;
import org.osgi.service.component.annotations.Component;
import org.osgi.service.component.annotations.Deactivate;
import org.osgi.service.component.annotations.Reference;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

import com.day.cq.workflow.WorkflowException;
import com.day.cq.workflow.WorkflowService;
```

```
import com.day.cq.workflow.WorkflowSession;
import com.day.cq.workflow.exec.WorkflowData;
import com.day.cq.workflow.model.WorkflowModel;

@Component(immediate = true)
public class PageCreatedTask implements EventListener {
   private static final Logger log =
LoggerFactory.getLogger(PageCreatedTask.class);

   @Reference
   private WorkflowService workflowService;

   @Reference
   private ResourceResolverFactory resolverFactory;

   @Reference
   private SlingRepository repository;

   private Session observationSession;

   @Activate
   protected void activate() {
      try {
         observationSession = repository.loginService("hemanth", null);

observationSession.getWorkspace().getObservationManager().addEventListener(
               this,
               Event.NODE_ADDED,
               "/content", // or any specific path you want to observe
               true,
               null,
               null,
               false
            );
         log.info("PageCreationEventListener activated");
      } catch (Exception e) {
         log.error("Error activating PageCreationEventListener", e);
```

```
    }
  }

  @Deactivate
  protected void deactivate() {
    if (observationSession != null) {
      try {

observationSession.getWorkspace().getObservationManager().removeEventListen
er(this);
        observationSession.logout();
      } catch (Exception e) {
        log.error("Error deactivating PageCreationEventListener", e);
      }
    }
  }

  @Override
  public void onEvent(EventIterator events) {
    while (events.hasNext()) {
      Event event = events.nextEvent();
      try {
        String path = event.getPath();
        handleResourceAddedEvent(path);
      } catch (Exception e) {
        log.error("Error handling event", e);
      }
    }
  }

  private void handleResourceAddedEvent(String path) {
    ResourceResolver resourceResolver = null;
    try {
      Map<String, Object> param = new HashMap<>();
      param.put(ResourceResolverFactory.SUBSERVICE, "hemanth");
      resourceResolver = resolverFactory.getServiceResourceResolver(param);
      Resource resource = resourceResolver.getResource(path);
```

```
            if (resource != null && resource.isResourceType("cq:Page")) {
                log.info("Page created at path: {}", path);
                startWorkflow(path);
            }
        } catch (LoginException e) {
            log.error("Error obtaining resource resolver", e);
        } finally {
            if (resourceResolver != null) {
                resourceResolver.close();
            }
        }
    }

    private void startWorkflow(String payloadPath) {
        Map<String, Object> param = new HashMap<>();
        param.put(ResourceResolverFactory.SUBSERVICE, "hemanth");
        try (ResourceResolver resolver =
resolverFactory.getServiceResourceResolver(param)) {
            Session session = resolver.adaptTo(Session.class);
            WorkflowSession workflowSession =
workflowService.getWorkflowSession(session);

            String workflowModelPath = "/var/workflow/models/HemanthModel";
            WorkflowModel workflowModel =
workflowSession.getModel(workflowModelPath);
            WorkflowData workflowData =
workflowSession.newWorkflowData("JCR_PATH", payloadPath);

            workflowSession.startWorkflow(workflowModel, workflowData);
            log.info("Workflow started for payload: {}", payloadPath);

        } catch (LoginException e) {
            log.error("LoginException while starting workflow", e);
        } catch (WorkflowException e) {
            log.error("WorkflowException while starting workflow", e);
        } catch (Exception e) {
```

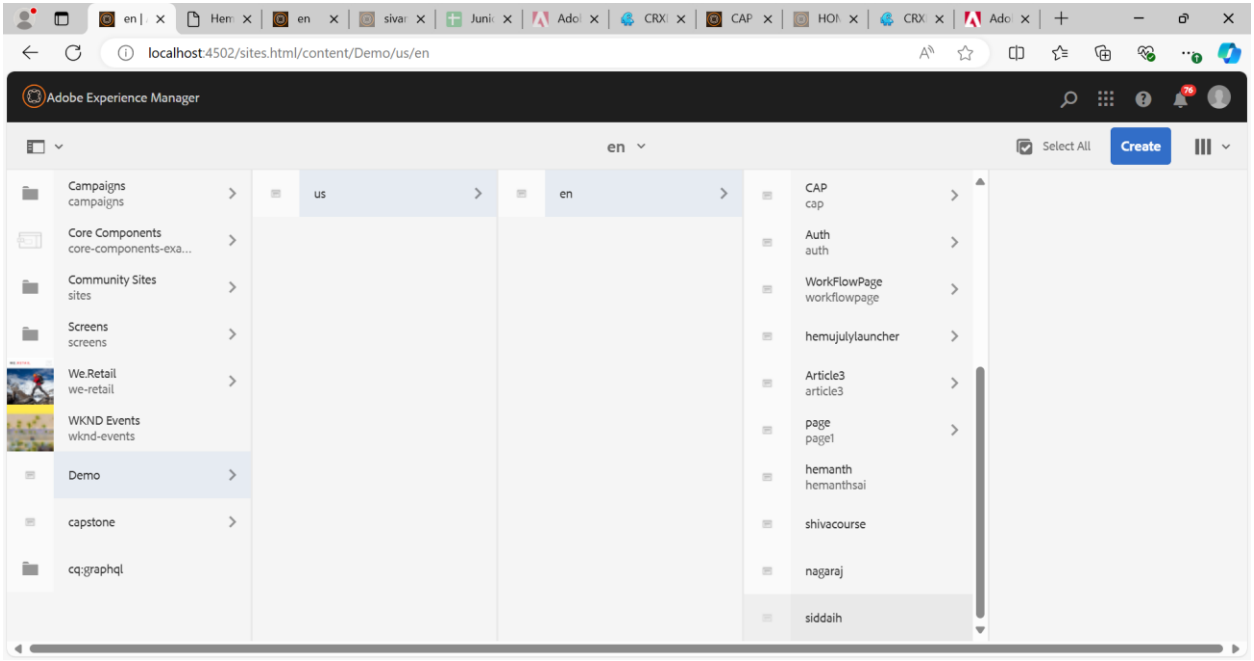
```
            log.error("Exception while starting workflow", e);
        }
    }
}
```

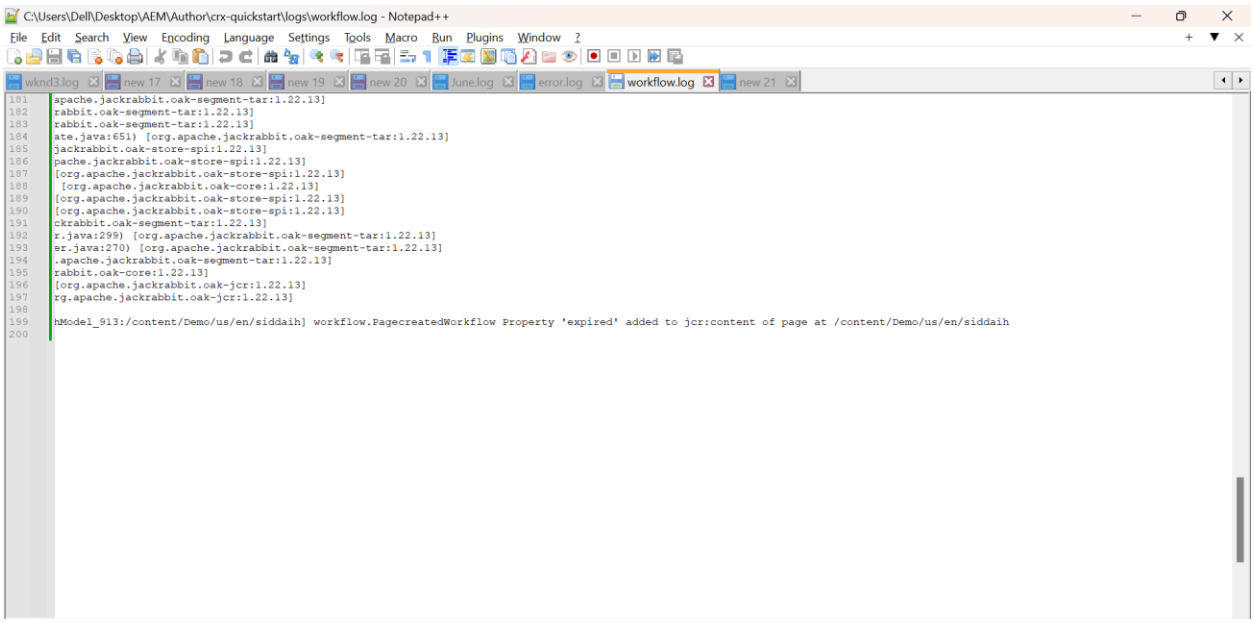
ADD PROPERTY THROUGH WORKFLOW

```
package workflow;

import java.util.Calendar;
import java.util.HashMap;
import java.util.Map;

import javax.jcr.Node;
import javax.jcr.Session;

import org.apache.sling.api.resource.ResourceResolver;
import org.apache.sling.api.resource.ResourceResolverFactory;
import org.osgi.service.component.annotations.Component;
import org.osgi.service.component.annotations.Reference;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;

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;

@Component(service = WorkflowProcess.class, property = {"process.label=Page
Created"})
public class PagecreatedWorkflow implements WorkflowProcess {
    private static final Logger log =
LoggerFactory.getLogger(PagecreatedWorkflow.class);

    @Reference
    private ResourceResolverFactory resolverFactory;

    @Override
```

```
   public void execute(WorkItem workItem, WorkflowSession workflowSession,
MetaDataMap metaDataMap) {
      String payloadPath = workItem.getWorkflowData().getPayload().toString();
      ResourceResolver resourceResolver = null;

      try {
         // Using service user to obtain resource resolver
         Map<String, Object> param = new HashMap<>();
         param.put(ResourceResolverFactory.SUBSERVICE, "hemanth");
         resourceResolver = resolverFactory.getServiceResourceResolver(param);

         Session session = resourceResolver.adaptTo(Session.class);
         Node pageNode = session.getNode(payloadPath);

         if (pageNode != null && pageNode.hasNode("jcr:content")) {
            Node contentNode = pageNode.getNode("jcr:content");
            String templatePath =
contentNode.getProperty("cq:template").getString();

            Calendar currentDate = Calendar.getInstance();

            if (!"/conf/Demo/settings/wcm/templates/page-
content".equals(templatePath)) {
               currentDate.add(Calendar.DATE, -1);
            }

            contentNode.setProperty("expirydate", currentDate);
            session.save();
            log.info("Property 'expired' added to jcr:content of page at {}",
payloadPath);
         } else {
            log.warn("jcr:content node not found for page at {}", payloadPath);
         }
      } catch (Exception e) {
         log.error("Error adding property to jcr:content of page at {}", payloadPath,
e);
         throw new RuntimeException(e);
```

```
        } finally {
            if (resourceResolver != null) {
                resourceResolver.close();
            }
        }
    }
}
```

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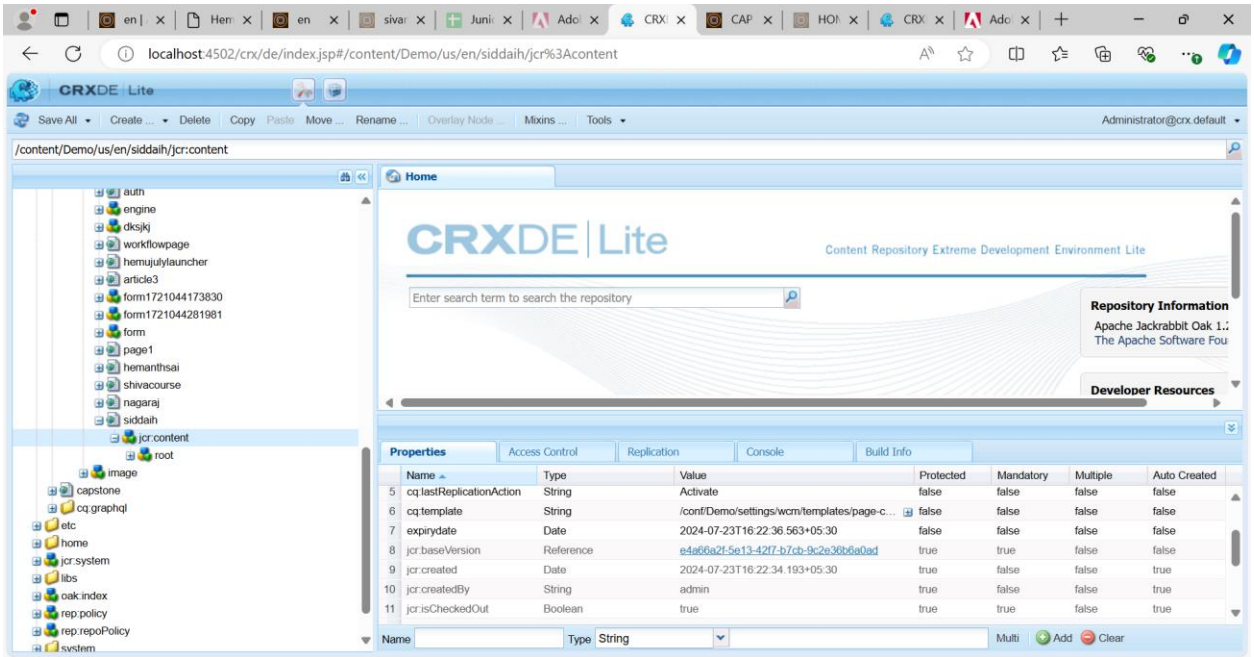
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form1721044173830
form1721044281981
form
page1
hemanthsai
shivacourse
nagaraj
siddaih
jcr:content
root
image
capstone
cq:graphql
etc
home
jcr:system
libs
oak:index
rep:policy
rep:repoPolicy
system
Home
CRXDE Lite
Content Repository Extreme Development Environment Lite
Enter search term to search the repository
Repository Information
Apache Jackrabbit Oak 1.
The Apache Software Fou
Developer Resources
Properties Access Control Replication Console Build Info
Name Type Value Protected Mandatory Multiple Auto Created
5 cq:lastReplicationAction String Activate false false false false
6 cq:template String /conf/Demo/settings/wcm/templates/page-c... false false false false
7 expirydate Date 2024-07-23T16:22:36.563+05:30 false false false false
8 jcr:baseVersion Reference e4a66a2f-5e13-42f7-b7cb-9c2e36b6a0ad true true false false
9 jcr:created Date 2024-07-23T16:22:34.193+05:30 true false false true
10 jcr:createdBy String admin true false false true
11 jcr:isCheckedOut Boolean true true true false false
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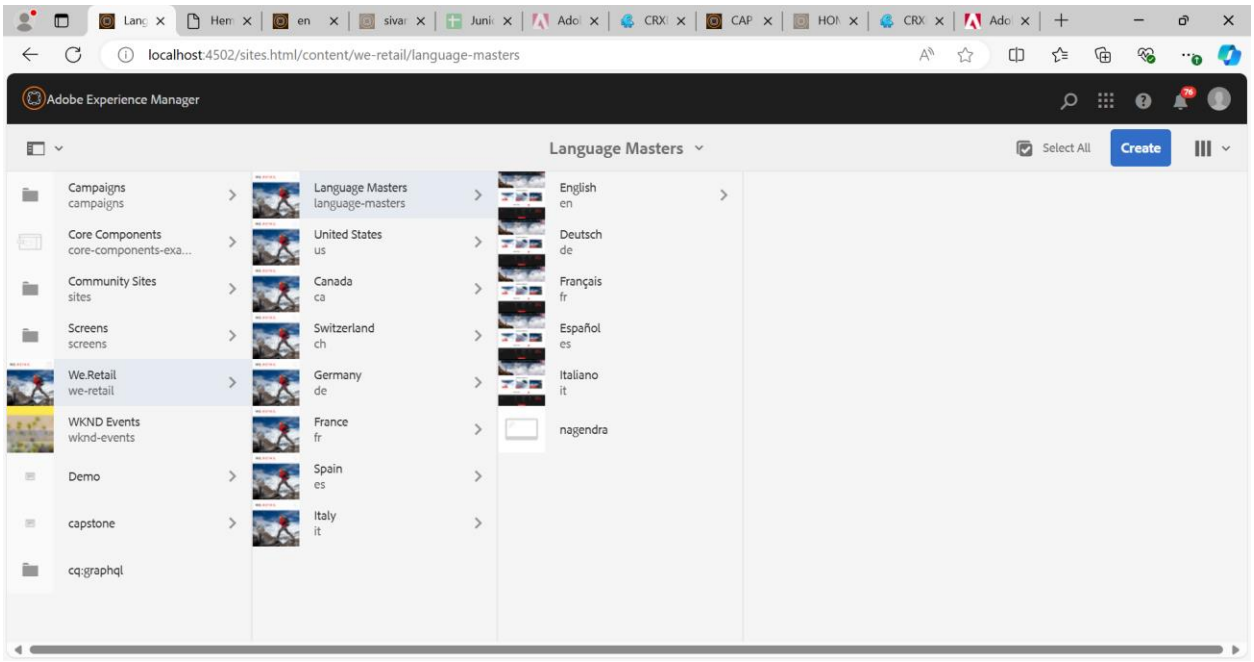
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WKND Events
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Demo
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cq:graphql
Language Masters
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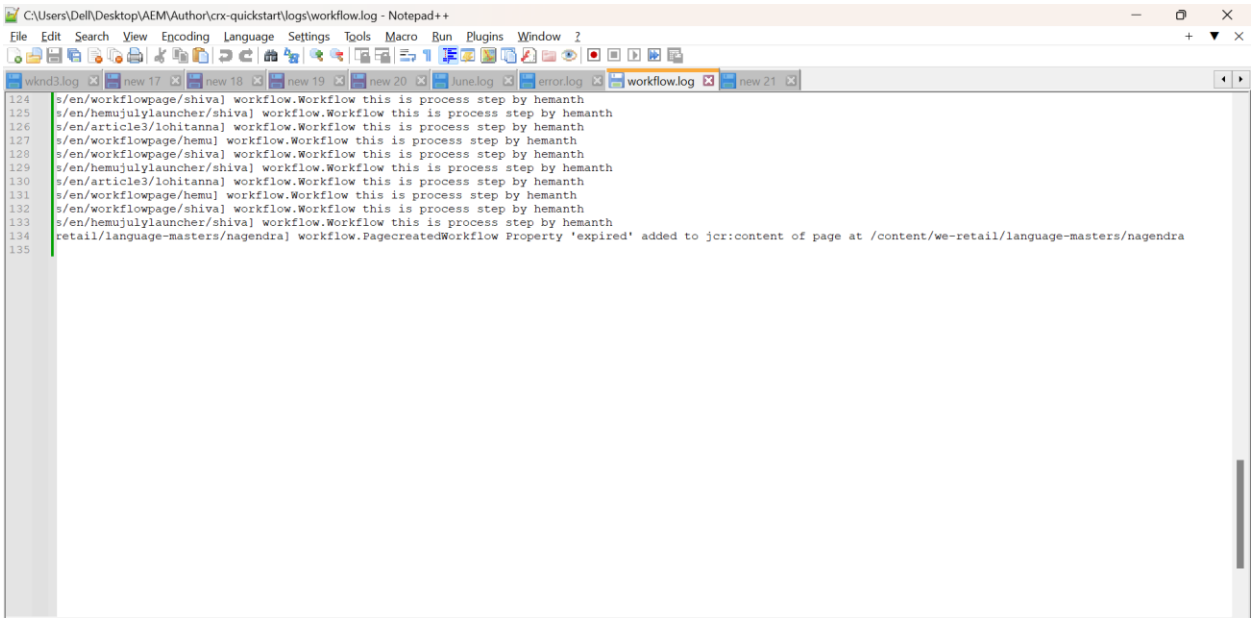
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s/en/workflowpage/hemu] workflow.Workflow this is process step by hemanth
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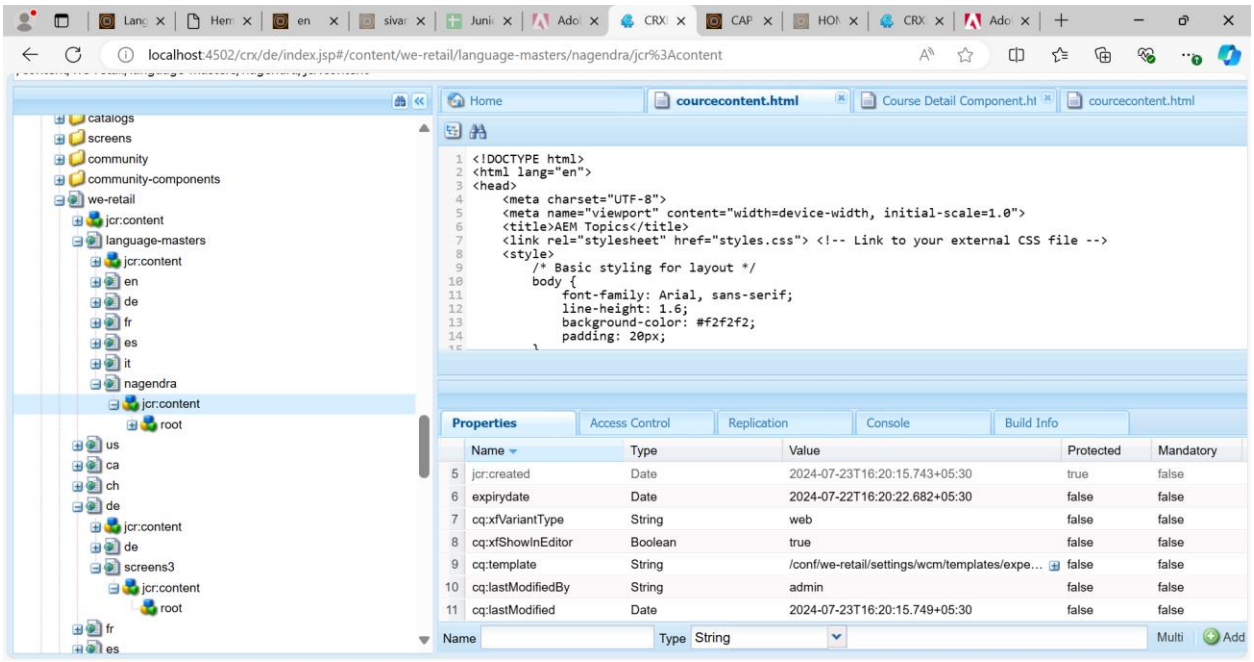
s/en/hemujulylauncher/shiva] workflow.Workflow this is process step by hemanth
retail/language-masters/nagendra] workflow.PagecreatedWorkflow Property 'expired' added to jcr:content of page at /content/we-retail/language-masters/nagendra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de
jcr:content
de
screens3
jcr:content
root
fr
es
Home
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Course Detail Component.ht
courcecontent.html
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8">
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <title>AEM Topics</title>
7 <link rel="stylesheet" href="styles.css"> <!-- Link to your external CSS file -->
8 <style>
9 /* Basic styling for layout */
10 body {
11 font-family: Arial, sans-serif;
12 line-height: 1.6;
13 background-color: #f2f2f2;
14 padding: 20px;
Properties
Access Control
Replication
Console
Build Info
Name
Type
Value
Protected
Mandatory
5 jcr:created Date 2024-07-23T16:20:15.743+05:30 true false
6 expirydate Date 2024-07-22T16:20:22.682+05:30 false false
7 cq:xfVariantType String web false false
8 cq:xfShowInEditor Boolean true false false
9 cq:template String /conf/we-retail/settings/wcm/templates/expe... false false
10 cq:lastModifiedBy String admin false false
11 cq:lastModified Date 2024-07-23T16:20:15.749+05:30 false false
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