

Task-14 CODE

Question: 1) Create a scheduler When I give any **CornExpression** for 3min after the 3min whatever the page has **Expirydate** property with **Currentdate** and **Time** it should have **Published** and with **Previous Date** and **Times** should have been **Unpublished**.

Answer:

BY USING SCHEDULER PUBLISHING AND UNPUBLISHING THE PAGE

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

import org.osgi.service.metatype.annotations.AttributeDefinition;
import org.osgi.service.metatype.annotations.AttributeType;
import org.osgi.service.metatype.annotations.ObjectClassDefinition;

@ObjectClassDefinition(name = "PreviousDatePublish",description = "scheduler is
created for publish")
public @interface PresentDatePublish {

    @AttributeDefinition(
        name="service name",
        type = AttributeType.STRING,
        description = "enter the service name"
    )
    public String getservice_name() default "practise";

    @AttributeDefinition
    (
        name="can run concurrently",
        type=AttributeType.BOOLEAN,
        description="can run concurrently"
    )
    public boolean canrunconcurrently() default false;
```

```

@AttributeDefinition
(
    name="Enabled scheduler",
    type=AttributeType.BOOLEAN,
    description="Enable the scheduler"
)
public boolean Enabledscheduler() default true;

@AttributeDefinition(
    name="Expression",
    type = AttributeType.STRING,
    description = "enter the Expression"
)
public String getExpressi();
}

```

SECONDSCHEDULER

```

package com.adobe.aem.guides.demo.core.schedulers;

import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.HashMap;
import java.util.Map;

import javax.jcr.Node;
import javax.jcr.RepositoryException;
import javax.jcr.Session;
import javax.jcr.query.Query;
import javax.jcr.query.QueryManager;
import javax.jcr.query.QueryResult;

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

```

```
import org.apache.sling.api.resource.ResourceResolver;
import org.apache.sling.api.resource.ResourceResolverFactory;
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.Deactivate;
import org.osgi.service.component.annotations.Modified;
import org.osgi.service.component.annotations.Reference;
import org.osgi.service.metatype.annotations.Designate;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
```

```
import com.day.cq.replication.ReplicationActionType;
import com.day.cq.replication.ReplicationException;
import com.day.cq.replication.Replicator;
import com.day.cq.wcm.api.Page;
import com.day.cq.wcm.api.PageManager;
```

```
@Designate(ocd = PresentDatePublish.class)
@Component(service = Runnable.class, immediate = true)
public class PresentDatePublishsecond implements Runnable {
    private static final Logger log =
        LoggerFactory.getLogger(PresentDatePublishsecond.class);
```

```
@Reference
private Scheduler scheduler;
```

```
@Reference
private ResourceResolverFactory resourceResolverFactory;
```

```
@Reference
private Replicator replicator;
```

```
private static final String SERVICE_USER = "hemanth";
```

```
private String cronExpression;
```

@Modified

```
public void modify(PresentDatePublish sch) {  
    this.cronExpression = sch.getExpressi();  
    addscheduler(sch); // Re-schedule with the new cron expression  
}
```

@Activate

```
public void activation(PresentDatePublish sch) {  
    this.cronExpression = sch.getExpressi();  
    addscheduler(sch);  
}
```

```
public void addscheduler(PresentDatePublish sch) {  
    log.info("Scheduler is created");  
    if (sch.Enabledscheduler()) {  
        ScheduleOptions scheduleOptions = scheduler.EXPR(cronExpression);  
        scheduleOptions.canRunConcurrently(sch.canrunconcurrently());  
        scheduleOptions.name(sch.getservice_name());  
        scheduler.schedule(this, scheduleOptions);  
    }  
}
```

@Deactivate

```
public void deactivate(PresentDatePublish sch) {  
    removescheduler(sch);  
}
```

```
public void removescheduler(PresentDatePublish sch) {  
    log.info("Job is unscheduled");  
    scheduler.unschedule(sch.getservice_name());  
}
```

@Override

```
public void run() {  
    log.info("Scheduler is running in present date");  
    log.info("My cron expression in present date: " + cronExpression);  
}
```

```

ResourceResolver resourceResolver = null;
try {
    resourceResolver = getServiceResourceResolver();
    if (resourceResolver != null) {
        handlePageReplication(resourceResolver);
    }
} catch (LoginException e) {
    log.error("Failed to get service resource resolver", e);
} catch (ReplicationException e) {
    log.error("ReplicationException occurred", e);
} finally {
    if (resourceResolver != null) {
        resourceResolver.close();
    }
}
}

```

```

private ResourceResolver getServiceResourceResolver() throws LoginException
{
    Map<String, Object> param = new HashMap<>();
    param.put(ResourceResolverFactory.SUBSERVICE, SERVICE_USER);
    return resourceResolverFactory.getServiceResourceResolver(param);
}

```

```

private void handlePageReplication(ResourceResolver resourceResolver)
throws ReplicationException {
    try {
        Session session = resourceResolver.adaptTo(Session.class);
        if (session == null) {
            log.error("Could not obtain a JCR session.");
            return;
        }
    }
}

```

```

String queryString = "SELECT * FROM [cq:PageContent] AS content WHERE
ISDESCENDANTNODE(content, '/content/Demo/us/en') AND content.[expirydate]
IS NOT NULL";

```

```

    QueryManager queryManager =
session.getWorkspace().getQueryManager();
    Query query = queryManager.createQuery(queryString, Query.JCR_SQL2);
    QueryResult result = query.execute();

    javax.jcr.NodeIterator nodes = result.getNodes();
    SimpleDateFormat sdf = new SimpleDateFormat("yyyy-MM-
dd'T'HH:mm:ss.SSSXXX");
    String currentDateStr = sdf.format(new Date());

    while (nodes.hasNext()) {
        Node node = nodes.nextNode();
        if (node.hasProperty("expirydate")) {
            String expiryDate = node.getProperty("expirydate").getString();
            PageManager pageManager =
resourceResolver.adaptTo(PageManager.class);
            Page page = pageManager.getContainingPage(node.getPath());

            if (page != null) {
                if (expiryDate.startsWith(currentDateStr.substring(0, 10))) {
                    // Publish the page
                    replicator.replicate(session, ReplicationActionType.ACTIVATE,
page.getPath());
                    log.info("Published page: " + page.getPath());
                } else if (expiryDate.compareTo(currentDateStr) < 0) {
                    // Unpublish the page
                    replicator.replicate(session, ReplicationActionType.DEACTIVATE,
page.getPath());
                    log.info("Unpublished page: " + page.getPath());
                }
            }
        }
    }
} catch (RepositoryException e) {
    log.error("Error while querying and replicating pages", e);
}
}

```

}

localhost:4502/system/console/configMgr

✓ org.apache.sling.hc.support.DefaultLoginsHealthCheck~1
✓ org.apache.sling.hc.support.SlingRequestStatusHealthCheck~1
✓ org.apache.sling.i18n.impl.I18NFilter
✓ org.apache.sling.servlets.resolver.internal.defaults.DefaultErrorHandlerServlet

PreviousDatePublish

scheduler is created for publish

service name
enter the service name (getservice.name)

can run concurrently ☐
can run concurrently (canrunconcurrently)

Enabled scheduler ☒
Enable the scheduler (Enabledscheduler)

Expression
enter the Expression (getExpressi)

Configuration Information

Persistent Identity (PID) com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond
Configuration Binding Unbound or new configuration

Cancel Reset Delete Unbind Save

Reporting Services API proxy servlet
Reporting Services settings provider
Routing Config
RTE Filter Servlet Amendment

C:\Users\Devl\Desktop\AEM\Author\crx-quickstart\logs\June.log - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

wknd3.log new 17 new 18 new 19 new 20 June.log error.log workflow.log new 21

```
237 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Scheduler is running in present date
238 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond My cron expression in present date: 0 0/2 * 1/1 * ? *
239 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Unpublished page: /content/Demo/us/en/article3/lohitanna
240 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/workflowpage/hemu
241 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/hemujuylauncher/shiva
242 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/hemujuylauncher/shiva
243 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/siddaih
244 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Scheduler is running in present date
245 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond My cron expression in present date: 0 0/2 * 1/1 * ? *
246 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Unpublished page: /content/Demo/us/en/article3/lohitanna
247 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/workflowpage/hemu
248 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/workflowpage/shiva
249 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/hemujuylauncher/shiva
250 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/siddaih
251 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Scheduler is running in present date
252 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond My cron expression in present date: 0 0/2 * 1/1 * ? *
253 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Unpublished page: /content/Demo/us/en/article3/lohitanna
254 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/workflowpage/hemu
255 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/workflowpage/shiva
256 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/hemujuylauncher/shiva
257 [ractise] com.adobe.aem.guides.demo.core.schedulers.PresentDatePublishsecond Published page: /content/Demo/us/en/siddaih
258
```

