

Task-10 CODE

OSGI CONFIGURATION

```
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 = "my scheduler",description = "scheduler is ccreated")
```

```
public @interface schedulerpractisemrng {
```

```
    @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(); }
```

SCHEDULERS CODE FOR CORN EXPRESSION

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

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

import javax.jcr.Session;

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.Replicator;
import com.day.cq.wcm.api.Page;
import com.day.cq.wcm.api.PageManager;

@Designate(ocd = schedulerpractisemrng.class)
@Component(service = Runnable.class, immediate = true)
public class schedulermrng implements Runnable {
    private static final Logger log = LoggerFactory.getLogger(schedulermrng.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(schedulerpractisemrng sch) {  
    this.cronExpression = sch.getExpressi();  
    addscheduler(sch); // Re-schedule with the new cron expression  
}
```

```
@Activate
```

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

```
public void addscheduler(schedulerpractisemrng 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 dectivate(schedulerpractisemrng sch) {  
    removescheduler(sch);  
}
```

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

```
@Override
```

```
public void run() {  
    log.info("Scheduler is running");  
    log.info("My cron expression: " + cronExpression);  
    publishPages("/content/Demo/us/en");  
}
```

PUBLISH PAGES AUTOMATICALLY BY CORN EXP

```
private void publishPages(String path) {  
    try (ResourceResolver resourceResolver = getServiceResourceResolver()) {
```

```

PageManager pageManager = resourceResolver.adaptTo(PageManager.class);
if (pageManager != null) {
    Page page = pageManager.getPage(path);
    if (page != null) {
        page.listChildren().forEachRemaining(childPage -> {
            try {
                log.info("Publishing page: {}", childPage.getPath());
                Session session = resourceResolver.adaptTo(Session.class);
                replicator.replicate(session, ReplicationActionType.ACTIVATE,
childPage.getPath());
            } catch (Exception e) {
                log.error("Error while publishing page: {}", childPage.getPath(), e);
            }
        });
    } else {
        log.warn("No page found at path: {}", path);
    }
}
} catch (LoginException e) {
    log.error("Error obtaining service resource resolver", e);
}
}

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

```

OSGI CONFIGURATION

my scheduler

scheduler is ccreated

service name

practise

enter the service name (getservice.name)

can run concurrently

☐

can run concurrently (canrunconcurrently)

Enabled scheduler

☒

Enable the scheduler (Enabledscheduler)

Expression

0 0/2 * 1/1 * ? *

enter the Expression (getExpressi)

Configuration Information

Persistent Identity (PID)

com.adobe.aem.guides.demo.core.schedulers.schedulermrng

Configuration Binding

Unbound or new configuration

Cancel

Reset

Delete

Unbind

Save

LOG MESSAGE FOR PAGE PUBLISHED

```
19.07.2024 11:14:50.275 *INFO* [CM Event Dispatcher (Fire ConfigurationEvent: pid=com.adobe.aem.guides.demo.core.schedulers.schedulermrng)]
com.adobe.aem.guides.demo.core.schedulers.schedulermrng Scheduler is created
19.07.2024 11:16:00.007 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Scheduler is running
19.07.2024 11:16:00.007 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng My cron expression: 0 0/2 * 1/1 * ? *
19.07.2024 11:16:00.022 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Publishing page:
/content/Demo/us/en/AboutUs
19.07.2024 11:16:00.207 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Publishing page:
/content/Demo/us/en/Privacy
19.07.2024 11:16:00.352 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Publishing page:
/content/Demo/us/en/Terms
19.07.2024 11:16:00.542 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Publishing page:
/content/Demo/us/en/contactus
19.07.2024 11:16:00.732 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Publishing page: /content/Demo/us/en/
19.07.2024 11:16:01.033 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Publishing page:
/content/Demo/us/en/article
19.07.2024 11:16:01.240 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Publishing page:
/content/Demo/us/en/capstone
19.07.2024 11:16:01.509 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Publishing page: /content/Demo/us/en/
19.07.2024 11:16:01.714 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Publishing page: /content/Demo/us/en/
19.07.2024 11:16:02.081 *INFO* [slings-default-1-practise] com.adobe.aem.guides.demo.core.schedulers.schedulermrng Publishing page:
```