AEM Training - Day 7 Assignment (26-03-2025)

1. Create SampleServlet Extending SlingAllMethodsServlet

Description:

AEM Servlet registered using resourceType.

Code Snippet (SampleServlet.java):

```
@Component(service = Servlet.class, property = {
    "sling.servlet.resourceTypes=myapp/components/page",
    "sling.servlet.methods=GET"
})
public class SampleServlet extends SlingAllMethodsServlet {
    private static final Logger LOG =
    LoggerFactory.getLogger(SampleServlet.class);

    @Override
    protected void doGet(SlingHttpServletRequest request, SlingHttpServletResponse response) throws ServletException, IOException {
        response.getWriter().write("Sample Servlet Executed");
        LOG.info("Sample Servlet Executed");
    }
}
```

Screenshots

1. SlingAllMethodsServlet

```
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```

2. Create CreatePageServlet Extending SlingSafeMethodsServlet

Description:

A Servlet registered using **path** that creates pages based on user input.

```
Code Snippet (CreatePageServlet.java):
   @Component(service = Servlet.class, property = {
       "sling.servlet.paths=/bin/createPage",
   "sling.servlet.methods=POST"
   }) public class CreatePageServlet extends
   SlingSafeMethodsServlet {
                   private ResourceResolverFactory resolverFactory;
      @Reference
      @Override
      protected void doPost(SlingHttpServletRequest request,
   SlingHttpServletResponse response) throws ServletException, IOException {
   String pageName = request.getParameter("pageName");
   (ResourceResolver resolver = resolverFactory.getServiceResourceResolver(null))
   {
               PageManager pageManager = resolver.adaptTo(PageManager.class);
   if (pageManager != null) {
                   Page newPage = pageManager.create("/content/mysite", pageName,
   "/apps/myapp/templates/page", pageName);
                                      response.getWriter().write("Page
   resolver.commit();
   created successfully: " + newPage.getPath());
                                                             } else {
   response.getWriter().write("PageManager is null");
                                                                     }
           } catch (PersistenceException e) {
               response.getWriter().write("Page creation failed: " + e.getMessage());
       }
   }
```

1. SlingSafeMethodsServlet

```
Project
                                                                                                                                                  SimpleServletByPath.java × @ SimpleServlet.java
                                                                                            import org.apache.sling.api.servlets.HttpConstants;
    sudharsun [myTraining]
                                                                                                                                                                                                                            04 A4 A2 ×2 ^
                                                                                                                                                                                                                                                           ම
       Core
                                                                                           import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
                    com.myTraining.core
                                                                                                                 Constants.SERVICE_DESCRIPTION + "=Simple Demo Servlet by path",
"sling.servlet.methods=" + HttpConstants.METHOD_GET,
"sling.servlet.paths="+ "/bin/customServletByPath"
                            PageSQLindexSearchServle
                           SimpleServletByPath
                                                                                                 private static final long serialVersionUIO = 11; no usages private final Logger logger = LoggerFactory.getLogger(SimpleServlet8yPath.class); 3 usage
         > 🗀 target
       is dispatcher [myTraining.dispatcher.ams]
       ul.apps
       ul.config
     > Dul.content
       Rui.frontend
           ul.tests [com.adobe.cq.cloud.testing.ul.cypress.tests]
```

3. Use PageManager API to Create Pages

Description:

The above servlet uses the **PageManager API** to create pages dynamically.

Steps:

- 1. Get the PageManager instance from ResourceResolver.
- 2. Call the create() method with parameters: parent path, page name, template path, and title.
- 3. Commit the changes using resolver.commit().

Code Snippet:

```
PageManager pageManager = resolver.adaptTo(PageManager.class);
if (pageManager != null) {
    Page newPage = pageManager.create("/content/mysite", pageName,
    "/apps/myapp/templates/page", pageName);
    resolver.commit();
}
```

4. Create SearchServlet Using PredicateMap

Description:

AEM Servlet to search content using QueryBuilder API.

Code Snippet (SearchServlet.java):

```
@Component(service = Servlet.class, property = {
    "sling.servlet.paths=/bin/searchContent",
    "sling.servlet.methods=GET"
})
public class SearchServlet extends SlingSafeMethodsServlet {
    @Reference
    private QueryBuilder queryBuilder;
    @Override
    protected void doGet(SlingHttpServletRequest request, SlingHttpServletResponse
response) throws ServletException, IOException {
        Map<String, String> map = new HashMap<>();
        map.put("path", "/content/mysite");
        map.put("type", "cq:Page");
        map.put("p.limit", "-1");
        Query query = queryBuilder.createQuery(PredicateGroup.create(map),
request.getResourceResolver().adaptTo(Session.class));
        SearchResult result = query.getResult();
        for (Hit hit : result.getHits()) {
            response.getWriter().write(hit.getPath() + "\n");
    }
}
```