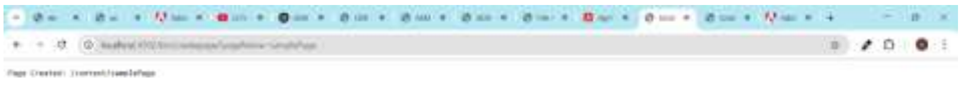
26.03.2025

1. **Create SampleServlet extend the SlingAllMethod Servlet and register it using resourceType --->{http://localhost:4502/content/samplePage.html}**

```
@Component(service = Servlet.class)
@SlingServletResourceTypes(
        resourceTypes = "myTraining/components/page",
         methods = "GET"
)
public class SampleServlet extends SlingAllMethodsServlet {

    @Override
    protected void doGet(SlingHttpServletRequest request, 
SlingHttpServletResponse response)
            throws ServletException, IOException {
        response.getWriter().write("SampleServlet Accessed!");
    }
}
```



```
Page Created: /content/samplePage
```

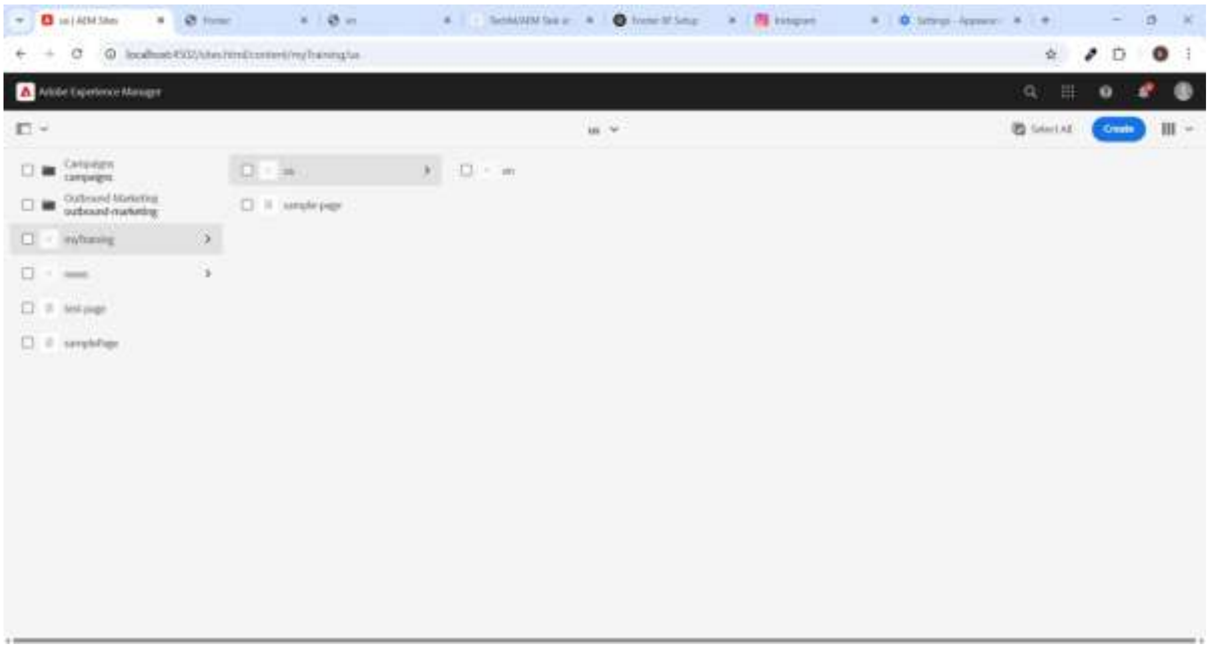
Page created successfully and displayed in aem .

2. **Create CreatePageServlet extend the SlingSafeMethod Servlet and register it using path and 4.Use page Manager Apis for above task.**

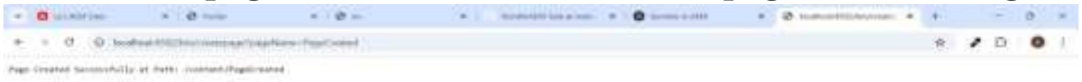
```
@Component(service = Servlet.class)
@SlingServletPaths("/bin/createpage")
public class CreatePageServlet extends SlingSafeMethodsServlet {

    @Override
    protected void doGet(SlingHttpServletRequest request,
SlingHttpServletResponse response)
            throws ServletException, IOException {
        String pageName = request.getParameter("pageName");
        if (pageName == null || pageName.isEmpty()) {
            response.getWriter().write("Page Name is required!");
            return;
        }
        ResourceResolver resourceResolver = request.getResourceResolver();
        PageManager pageManager =
resourceResolver.adaptTo(PageManager.class);

        if (pageManager != null) {
            try {
                Page newPage = pageManager.create("/content", pageName,
"myTraining/components/page", pageName);
                response.getWriter().write("Page Created Successfully at Path: " +
newPage.getPath());
            } catch (Exception e) {
                response.getWriter().write("Error creating page: " + e.getMessage());
            }
        } else {
            response.getWriter().write("Failed to Adapt to PageManager!");
        }
    }
}
```

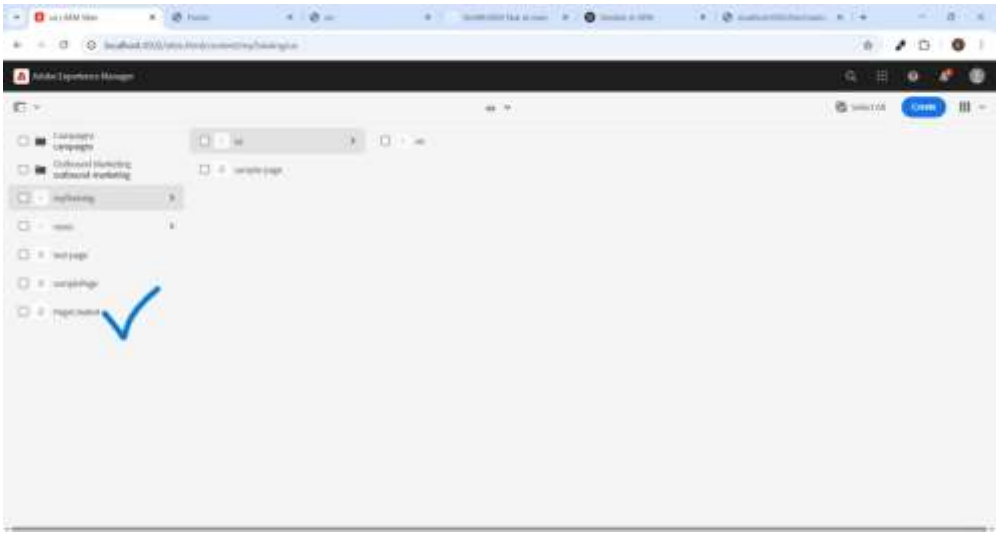


3. **Take page name from user and create pages in aem using above**



```
Page Created Successfully at Path: /content/PageCreated
```

servlet



Page created successfully and displayed in aem .

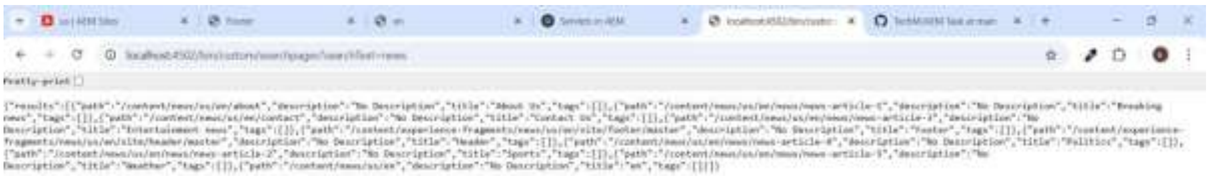
4. **Create one SearchServlet to search the content using PredicateMap to search the content from pages**

```
@Component(
        service = Servlet.class,
        property = {
                "sling.servlet.paths=/bin/custom/searchpages",
                "sling.servlet.methods=GET"
        }
)
public class SearchServlet extends SlingAllMethodsServlet {
    @Reference
    private QueryBuilder queryBuilder;
    @Override
    protected void doGet(SlingHttpServletRequest request,
SlingHttpServletResponse response) throws ServletException, IOException {
        response.setContentType("application/json");
        response.setCharacterEncoding("UTF-8");
        String searchText = request.getParameter("searchText");
        String searchPath = request.getParameter("searchPath");
        JSONObject jsonResponse = new JSONObject();
        JSONArray resultsArray = new JSONArray();
        if (StringUtils.isBlank(searchText)) {
            try {
                jsonResponse.put("error", "Missing searchText parameter");
                response.getWriter().write(jsonResponse.toString());
            } catch (JSONException e) {
                throw new RuntimeException(e);
            }
            return;
        }
        if (StringUtils.isBlank(searchPath)) {
            searchPath = "/content"; // Default to AEM content root
        }
        Session session = request.getResourceResolver().adaptTo(Session.class);
        if (session == null) {
            try {
                jsonResponse.put("error", "JCR Session is null");
                response.getWriter().write(jsonResponse.toString());
            } catch (JSONException e) {
                throw new RuntimeException(e);
            }
            return;
        }
        try {
            Map<String, String> predicateMap = new HashMap<>();
            predicateMap.put("path", searchPath);  predicateMap.put("type",
            "cq:Page"); // Search AEM pages only predicateMap.put("fulltext",
            searchText);
            predicateMap.put("fulltext.relPath", "jcr:content"); // Search inside
jcr:content
            predicateMap.put("p.limit", "10"); // Limit to 10 results
            predicateMap.put("orderby", "@jcr:content/jcr:title"); // Sort by title

            Query query =
queryBuilder.createQuery(PredicateGroup.create(predicateMap), session);
            SearchResult searchResult = query.getResult();

            List<Hit> hits = searchResult.getHits();
            for (Hit hit : hits) {
                JSONObject pageObject = new JSONObject();
                pageObject.put("path", hit.getPath());
                pageObject.put("title", hit.getProperties().get("jcr:title", "Untitled"));
                pageObject.put("description", hit.getProperties().get("jcr:description",
"No Description"));
                pageObject.put("tags", hit.getProperties().get("cq:tags", new
String[]{}));
                resultsArray.put(pageObject);
            }
            jsonResponse.put("results", resultsArray);
        } catch (Exception e) {
            try {
                jsonResponse.put("error", "Search failed: " + e.getMessage());
            } catch (JSONException ex) {
                throw new RuntimeException(ex);
            }
        }
```

```
        response.getWriter().write(jsonResponse.toString());
    }
}
```



```
{"results":[{"path":"/content/news/us/en/about","description":"No Description","title":"About Us","tags":[]},{"path":"/content/news/us/en/news/news-article-1","description":"No Description","title":"Breaking
news","tags":[]},{"path":"/content/news/us/en/contact","description":"No Description","title":"Contact Us","tags":[]},{"path":"/content/news/us/en/news/news-article-3","description":"No
Description","title":"Entertainment news","tags":[]},{"path":"/content/experience-fragments/news/us/en/site/footer/master","description":"No Description","title":"Footer","tags":[]},{"path":"/content/experience-
fragments/news/us/en/site/header/master","description":"No Description","title":"Header","tags":[]},{"path":"/content/news/us/en/news/news-article-4","description":"No Description","title":"Politics","tags":[]},
{"path":"/content/news/us/en/news/news-article-2","description":"No Description","title":"Sports","tags":[]},{"path":"/content/news/us/en/news/news-article-5","description":"No
Description","title":"Weather","tags":[]},{"path":"/content/news/us/en","description":"No Description","title":"en","tags":[]}]}
```