AEM Servlets and Page Management

SampleServlet (Registered via resourceType)

- Developed a servlet using SlingAllMethodsServlet, registered through a specific resourceType.
- Configured to handle both **GET** and **POST** requests.
- Processed user inputs and generated appropriate responses based on the requested resource.
- Successfully deployed and verified its registration via the AEM Web Console.

CreatePageServlet (Registered via Path)

- Implemented a servlet using SlingSafeMethodsServlet, mapped to the path /bin/createPage.
- Enabled dynamic page creation in AEM by accepting user input.
- Received a page name, validated it to prevent duplicates, and used the **PageManager API** to create the page under a predefined structure.
- Deployment, testing, and validation were completed successfully.

User Input Handling for Page Creation

- The servlet accepted a page name from the user as input.
- Included logic to validate the uniqueness of the page name.
- Upon successful validation, the **PageManager API** was invoked to create the page.
- Provided a success confirmation through logs and user messages.

Page Management with PageManager API

- Utilized the **PageManager API** to perform CRUD (Create, Retrieve, Update, Delete) operations on AEM pages.
- Proper **permissions** were set to allow these operations within the servlet context.
- Conducted functional testing to verify all page management capabilities.

SearchServlet for Content Search

- Developed and registered a servlet at /bin/search to support **content search** functionality.
- Integrated **Query Builder API** with PredicateMap to build and execute structured queries.
- Configured search parameters including:
 - Path filter (limited to /content/my-site)
 - o Page type filter (restricted to cq:Page nodes)
 - o Full-text search to retrieve relevant content based on user queries.
- Successfully deployed and validated the servlet for accurate search results.