AEM Assignment

1. Create a New Component with News Title, Details, Date, and Source Using Sling Model

Step 1: Create the Component

- Open CRXDE Lite (http://localhost:4502/crx/de).
- Navigate to /apps/myTraining/components/ and create a new component named newsComponent.
- Inside newsComponent, create a newsComponent.html file and cq:dialog.

Step 2: Create Sling Model

- Create a Java class under com.myTraining.core.models.

Java Code

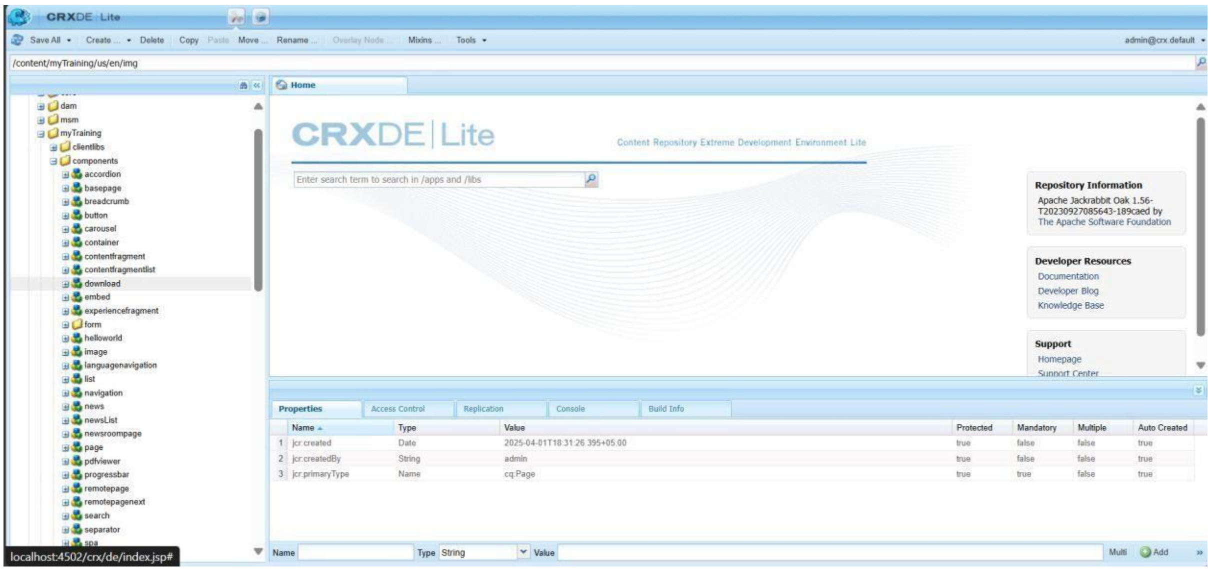
```
package com.myTraining.core.models;


import               org.apache.sling.api.resource.Resource;              import
org.apache.sling.models.annotations.DefaultInjectionStrategy;       import
org.apache.sling.models.annotations.Model;                          import
org.apache.sling.models.annotations.injectorspecific.ChildResource;
import java.util.ArrayList;
import java.util.List;


@Model(adaptables = Resource.class, defaultInjectionStrategy =
DefaultInjectionStrategy.OPTIONAL)
public class MultiNewsModel {
   @ChildResource
```

```
  private List<NewsItem> newsList = new ArrayList<>();
  public    List<NewsItem>    getNewsList()    {    return
  newsList;
  }
  public static class NewsItem {
    @ValueMapValue
    private String newsTitle;

    @ValueMapValue
    private String newsSource;

    public String getNewsTitle() { return newsTitle; } public
    String getNewsSource() { return newsSource; }
  } }
```

Step 3: Update newsComponent.html

Html code

```
<div class="cop-news-component">
  <h2>${news.newsTitle}</h2>
  <p>${news.newsDetail}</p>
  <p class="date">Published Date: ${news.publishedDate}</p>
  <p>Source: ${news.newsSource}</p>
</div>
```


CRXDE Lite
Save All
Create ...
Delete
Copy
Paste
Move ...
Rename ...
Overlay Node ...
Mixins ...
Tools
admin@crx.default
Home
Content Repository Extreme Development Environment Lite
Enter search term to search in /apps and /libs
localhost:4502/crx/de/index.jsp#

/content/myTraining/us/en/img

- dam
- msm
- myTraining
  - clientlibs
  - components
    - accordion
    - basepage
    - breadcrumb
    - button
    - carousel
    - container
    - contentfragment
    - contentfragmentlist
    - download
    - embed
    - experiencefragment
    - form
    - helloworld
    - image
    - languagenavigation
    - list
    - navigation
    - news
    - newsList
    - newsroompage
    - page
    - pdfviewer
    - progressbar
    - remotepage
    - remotepagenext
    - search
    - separator
    - spa

Repository Information
Apache Jackrabbit Oak 1.56-T20230927085643-189caed by The Apache Software Foundation

Developer Resources
Documentation
Developer Blog
Knowledge Base

Support
Homepage
Support Center

Properties | Access Control | Replication | Console | Build Info

	Name	Type	Value	Protected	Mandatory	Multiple	Auto Created
1	jcr:created	Date	2025-04-01T18:31:26.395+05:00	true	false	false	true
2	jcr:createdBy	String	admin	true	false	false	true
3	jcr:primaryType	Name	cq:Page	true	true	false	true

Name | Type String | Value | Multi | Add

2. Create a Multi-Field Component (Multiple News) Using Sling Model

Step 1: Create Multi-Field Component

- Create a component named multiNewsComponent under /apps/myTraining/components/.
- Inside cq:dialog, define a multi-field. **Xml code**

```
<content                                    jcr:primaryType="nt:unstructured"
sling:resourceType="granite/ui/components/coral/foundation/form/multifield
" fieldLabel="News List" name="./newsList">
<field jcr:primaryType="nt:unstructured"
sling:resourceType="granite/ui/components/coral/foundation/form/fieldset">
     <items jcr:primaryType="nt:unstructured">
      <newsTitle                                    jcr:primaryType="nt:unstructured"
        sling:resourceType="granite/ui/components/coral/foundation/form/textfield
        " fieldLabel="News Title" name="./newsTitle"/>

        <newsSource jcr:primaryType="nt:unstructured"
                sling:resourceType="granite/ui/components/coral/foundation/form/t
                extfield"
                fieldLabel="News Source"
                name="./newsSource"/>
                </items>
              </field>
            </content>
```

Step 2: Create Sling Model for Multi-Field Component

Java Code

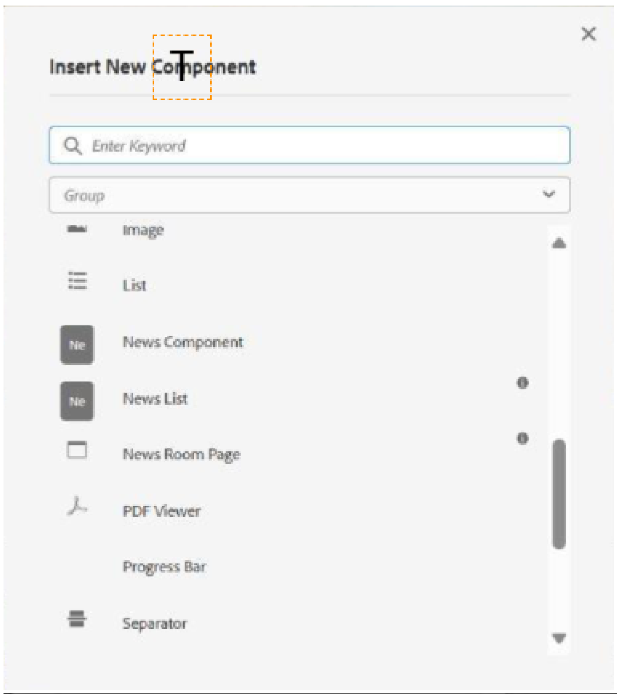
```
package com.myTraining.core.models;

import            com.myTraining.core.services.HelloWorldService;
import org.apache.sling.api.resource.Resource;
import
org.apache.sling.models.annotations.DefaultInjectionStrategy;
import        org.apache.sling.models.annotations.Model;        import
org.apache.sling.models.annotations.Default;
import
org.apache.sling.models.annotations.injectorspecific.ValueMapValue;
import javax.inject.Inject; import org.slf4j.Logger; import
org.slf4j.LoggerFactory;
import org.apache.sling.models.annotations.injectorspecific.OSGiService;


@Model(adaptables   =   org.apache.sling.api.resource.Resource.class)   public
class     NewsModel     {     private     static     final     Logger     LOG     =
LoggerFactory.getLogger(NewsModel.class);

  @Inject
  @Default(values = "No Title") private
  String title;

  @Inject
  @Default(values = "No Details Available")
  private String detail;

  @Inject
  @Default(values = "Unknown Date") private
  String publishedDate;

  @Inject
  @Default(values = "Unknown Source")
```

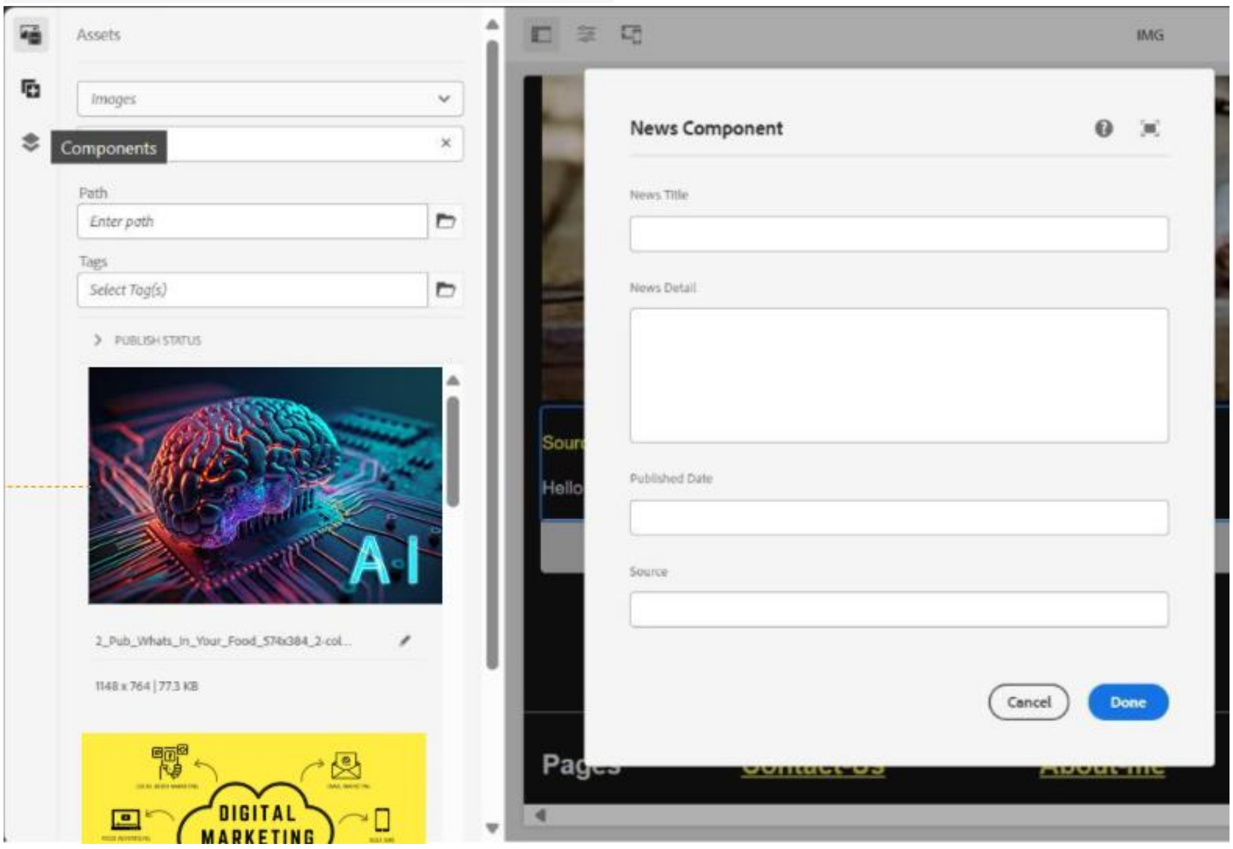
```
    private String source;


    @OSGiService
    private HelloWorldService myTrainingService;

    public String getTitle() {
        return title;
    }

    public String getDetail() {
        return detail;
    }

    public String getPublishedDate() {
        return publishedDate;
    }

    public String getSource() {
        return source;
    }
    public String getServiceMessage() {
        String message = myTrainingService.getMessage();
        LOG.info("NewsModel - Received message from service: {}", message); return
        message;
    }
}
```

Step 3: Update NewsComponent.html

Html code

```
<div>

    <h2>News List</h2>

    <ul>

        <sly data-sly-use.multiNews="com.myTraining.core.models.MultiNewsModel">

            <sly data-sly-list.newsItem="${multiNews.newsList}">

                <li>

                    <h3>${newsItem.newsTitle}</h3>

                    <p>Source: ${newsItem.newsSource}</p>

                </li>

            </sly>
        </sly>
    </ul>
</div>
```





3,4. Create Clientlibs for News Component

- Navigate to /apps/myTraining/clientlibs/ and create a new folder newsClientLib.

- Add the following properties in newsClientLib:
    - jcr:primaryType: cq:ClientLibraryFolder
    - categories: [newsComponent]
- Inside newsClientLib, create css.txt and news.css.
- Add styles in news.css.

Css Code

```
.cop-news-component h2 {
   color: green;
}

.cop-news-component p {
   color: yellow;
}

.cop-news-component .date {
   color: black;
}
```

- Link clientlibs in newsComponent.html.

code

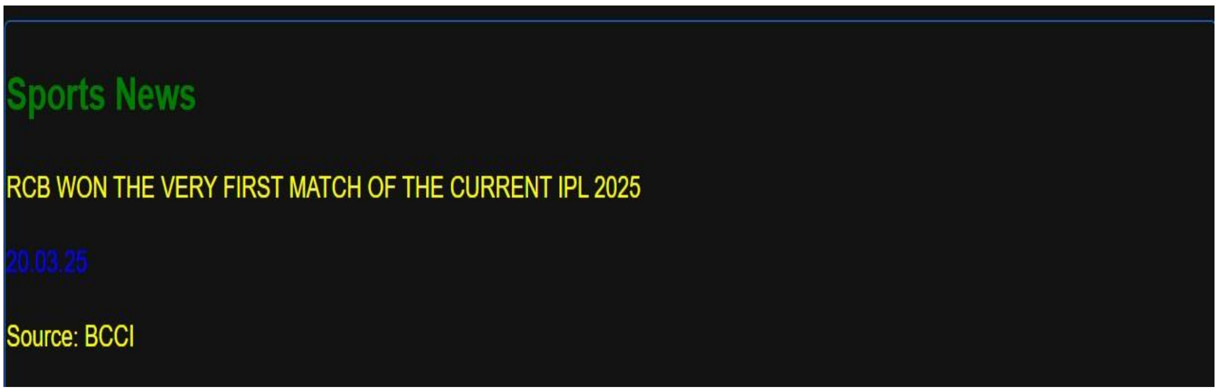
```
<sly data-sly-use.clientlib="/libs/granite/sightly/templates/clientlib.html"/>
<sly data-sly-call="${clientlib.css @ categories='newsComponent'}"/>
```

5. Add Custom Style Name to News Component

- Navigate to newsComponent → cq:editConfig.
- Add the following property.

code

```
<cq:styleGroups
  jcr:primaryType="nt:unstructured">
  <newsStyle
    jcr:primaryType="nt:unstructured"
    cq:styleGroupLabel="News Styles">
    <cop-news-component
      jcr:primaryType="nt:unstructured"
      cq:styleLabel="News Component Style"/>
  </newsStyle>
</cq:styleGroups>
```



Sports News

RCB WON THE VERY FIRST MATCH OF THE CURRENT IPL 2025

20.03.25

Source: BCCI

6. Create Base Page Component and Add Metadata

- Create basePage under /apps/myTraining/components/.
- Create metadata.html.

code

```
<meta property="og:title" content="${properties.ogTitle}"/>
<meta property="og:description" content="${properties.ogDescription}"/>
<meta property="og:image" content="${properties.ogImage}"/>
```

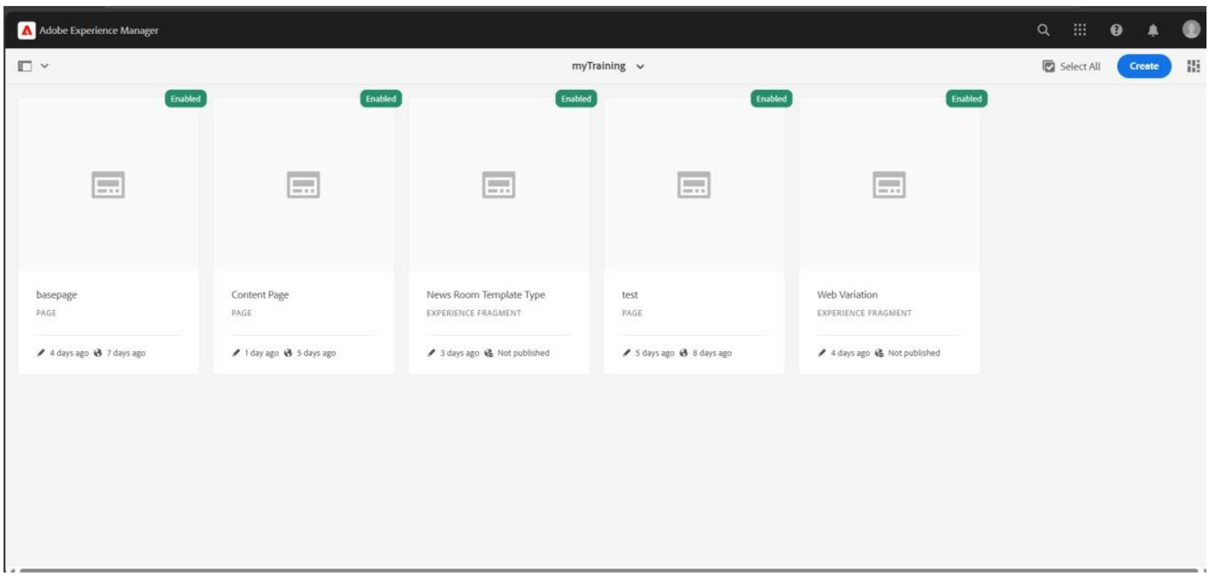
- Link this in basePage.html.

```
<sly data-sly-include="metadata.html"></sly>
```

7. Create Custom Page Properties (Global Properties with og:title, og:description, and og:image path)

- Navigate to basePage → cq:dialog.
- Add the following fields inside cq:dialog **code**

```
<ogTitle
  jcr:primaryType="nt:unstructured"
       sling:resourceType="granite/ui/components/coral/foundation/form/textfield
  " fieldLabel="OG Title" name="./ogTitle"/>
<ogDescription
   jcr:primaryType="nt:unstructured"
   sling:resourceType="granite/ui/components/coral/foundation/form/textfield"
  fieldLabel="OG Description"
  name="./ogDescription"/>


  <ogImage
  jcr:primaryType="nt:unstructured"
      sling:resourceType="granite/ui/components/coral/foundation/form/pathfield
       "
  fieldLabel="OG                         Image"
  name="./ogImage"/>
```



8. What is extraClientLib and How to Add It to Multi-Field Component?

- extraClientLib is used to include additional client-side libraries dynamically.
- To add it in multiNewsComponent, update cq:editConfig.

code

```
<cq:editConfig jcr:primaryType="cq:EditConfig"
    extraClientLibs="[myTraining.extraClientLib]"/
    >
```