

FLIP THAT APP!

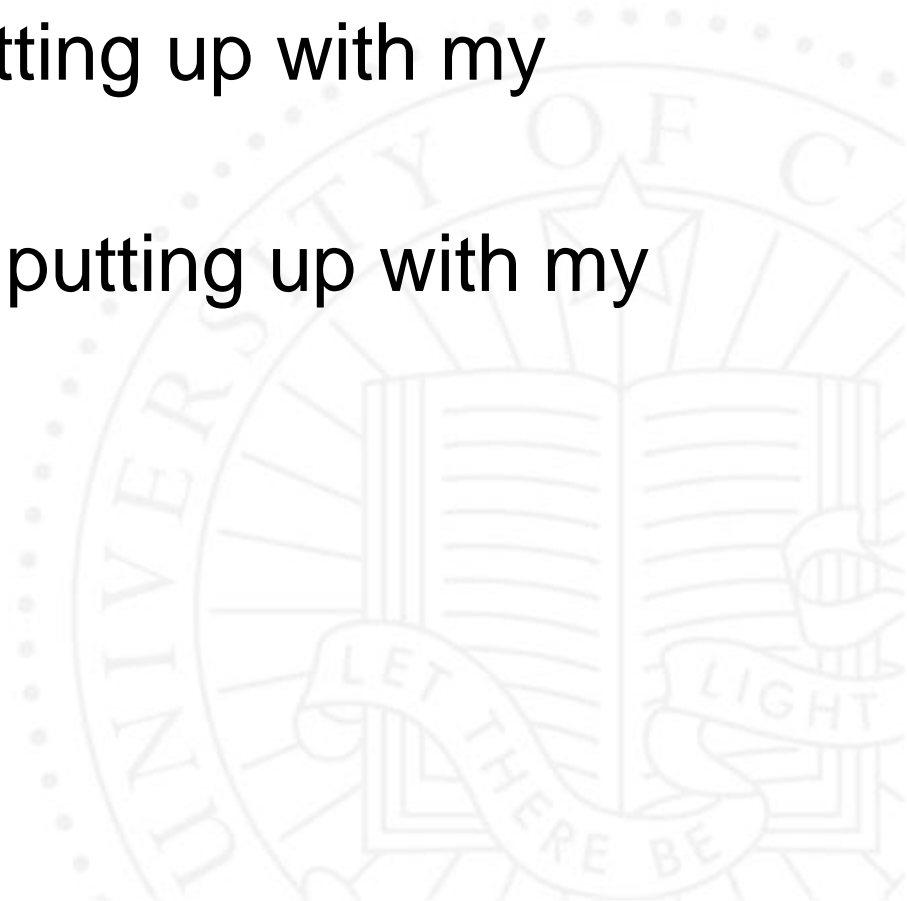
Converting JLinkUI apps to SiteMesh

Administrative
Computing &
Telecommunications



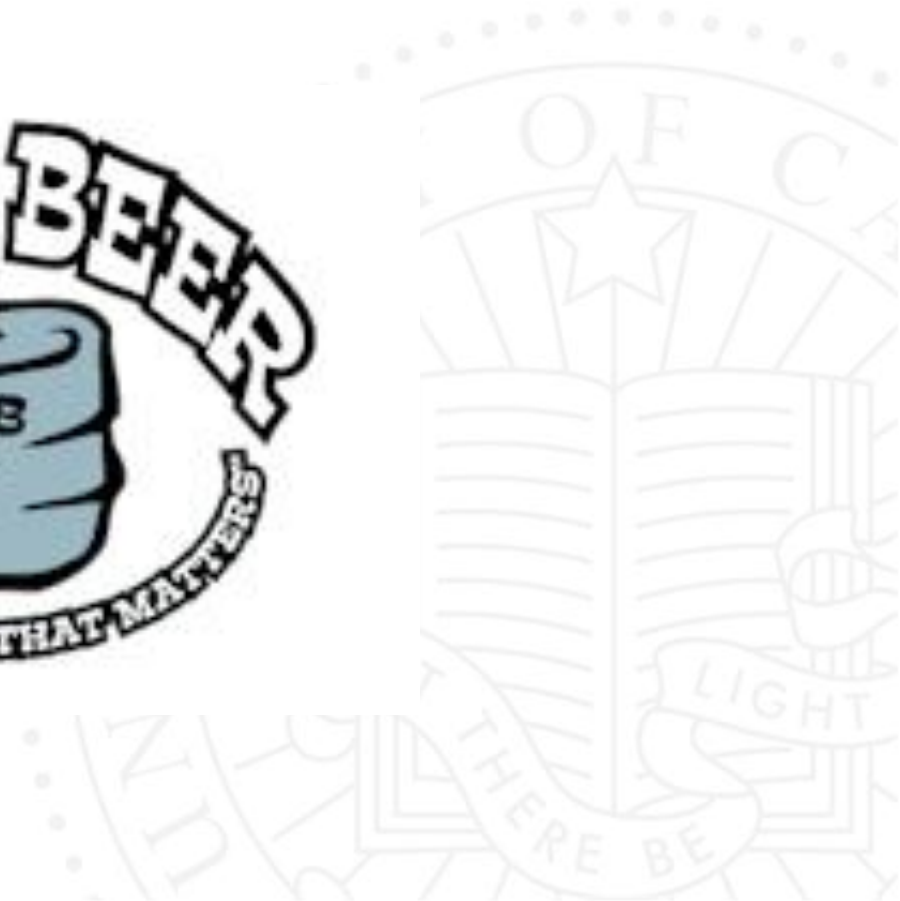
Acknowledgements

- › FinancialLink team, for contributing their techniques
- › Marina and Luis, for putting up with my experiments
- › Infrastructure team, for putting up with my questions



Other acknowledgements

- ▶ '80s S.F. punk band Free Beer, for inspiring the title of this presentation



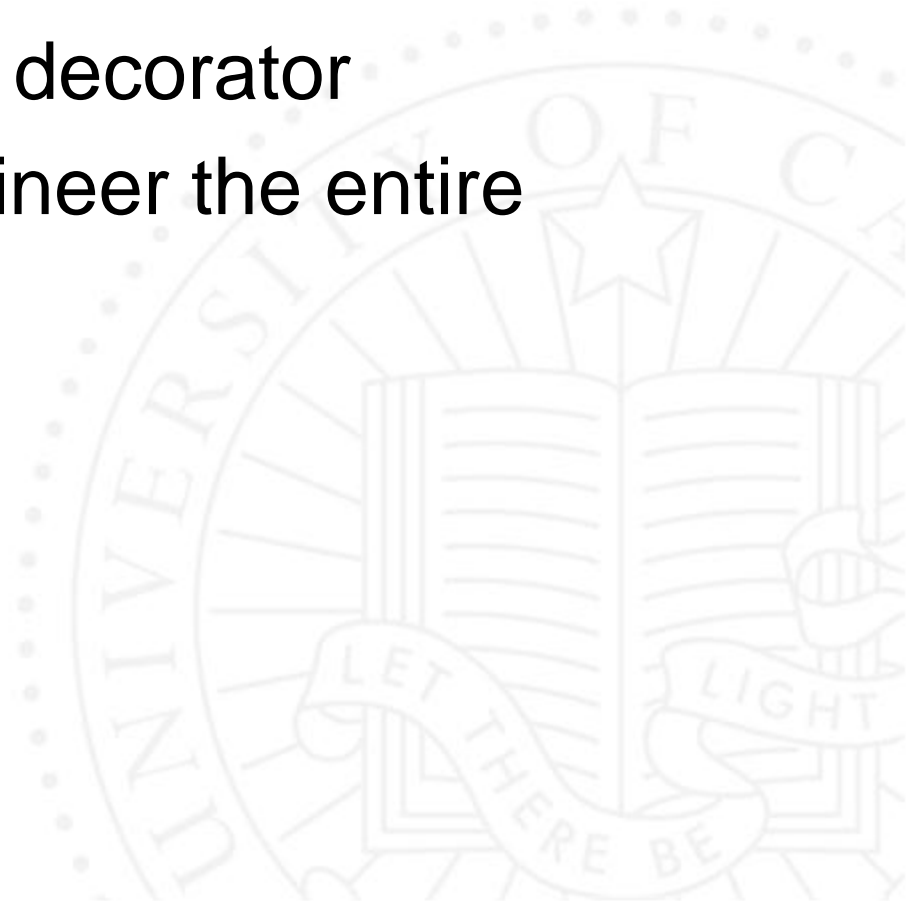
Objective

- › Present and demonstrate techniques for adapting JLink apps to SiteMesh



The problem ...

- › You have an existing JLink application
- › Everything still works
- › Using an existing JLink decorator
- › No resources to re-engineer the entire presentation layer



Your app when it launched ...



How users see your app today ...

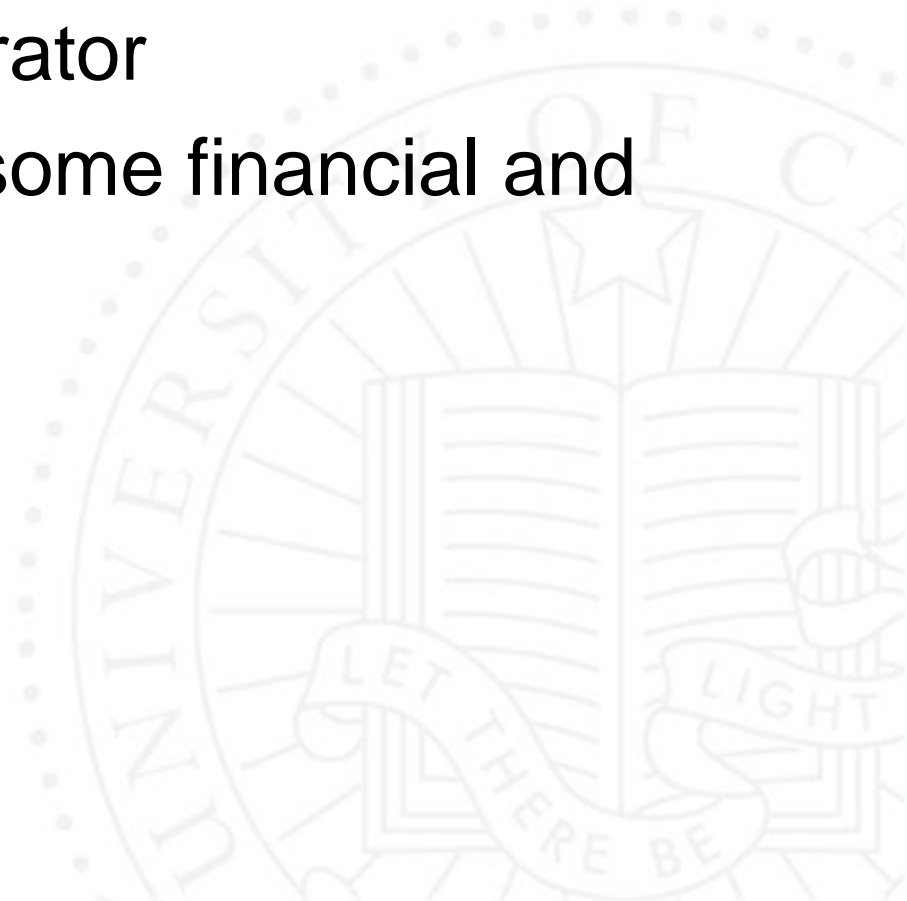


Solution:

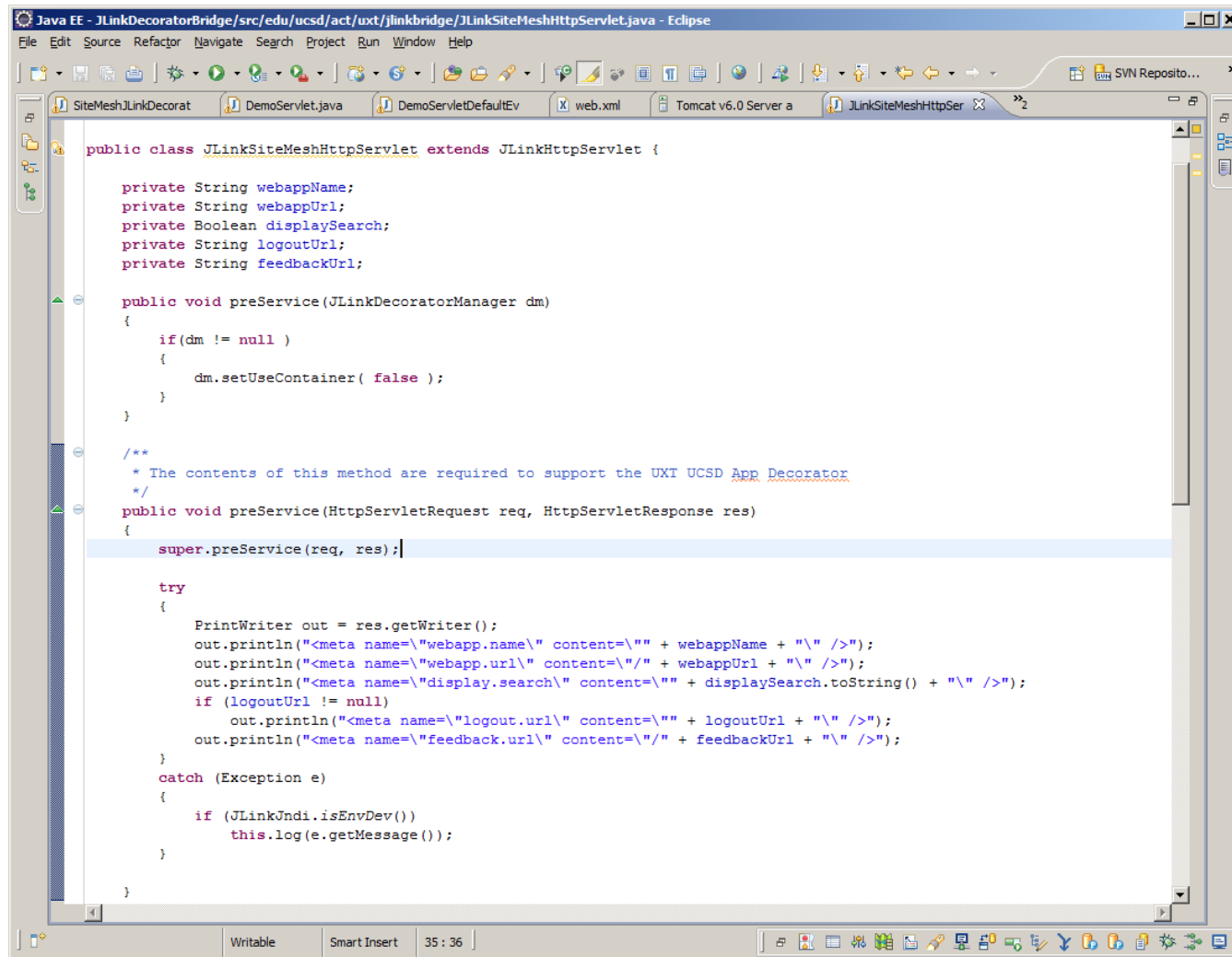
- ▶ Paint the trim, patch the drywall, throw down some cheap carpet, vacuum up the dead termites, and rip out a few load-bearing walls to open up the kitchen.
- ▶ Time: 30 minutes
- ▶ Projected profit: \$1,389,750

Approach #1: Hack the servlet

- Override `JLinkHttpServlet.preService()` method to output META tags and other HTML
- Don't use a JLink decorator
- Used in production by some financial and telecom apps



Sample base servlet



```
Java EE - JLinkDecoratorBridge/src/edu/ucsd/act/uxi/jlinkbridge/JLinkSiteMeshHttpServlet.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
[Icons] SiteMeshJLinkDecorat DemoServlet.java DemoServletDefaultEv web.xml Tomcat v6.0 Server a JLinkSiteMeshHttpSer >>

public class JLinkSiteMeshHttpServlet extends JLinkHttpServlet {

    private String webappName;
    private String webappUrl;
    private Boolean displaySearch;
    private String logoutUrl;
    private String feedbackUrl;

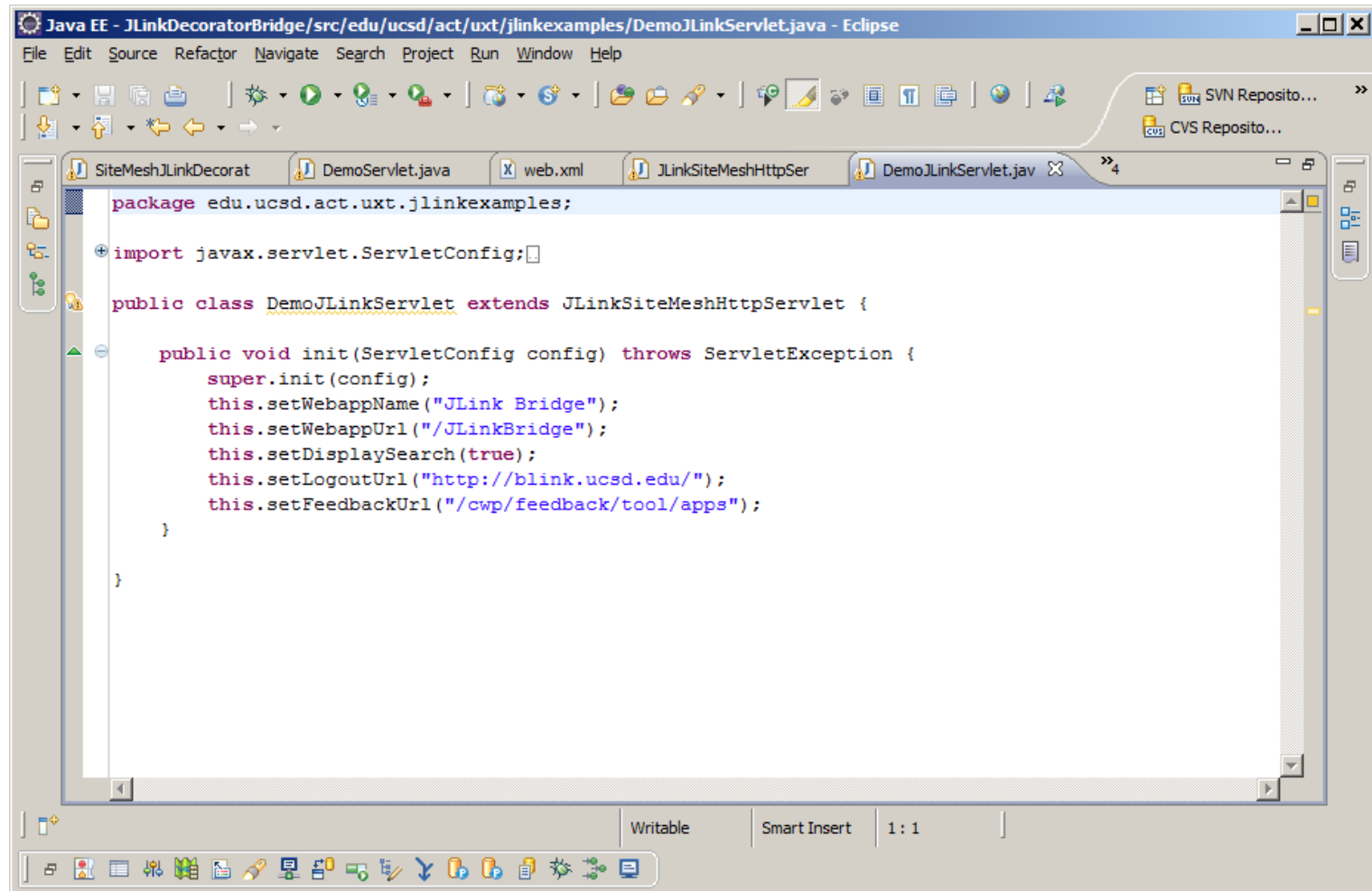
    public void preService(JLinkDecoratorManager dm)
    {
        if(dm != null )
        {
            dm.setUseContainer( false );
        }
    }

    /**
     * The contents of this method are required to support the UXT UCSD App Decorator
     */
    public void preService(HttpServletRequest req, HttpServletResponse res)
    {
        super.preService(req, res);

        try
        {
            PrintWriter out = res.getWriter();
            out.println("<meta name=\"webapp.name\" content=\"" + webappName + "\" />");
            out.println("<meta name=\"webapp.url\" content=\"" + webappUrl + "\" />");
            out.println("<meta name=\"display.search\" content=\"" + displaySearch.toString() + "\" />");
            if (logoutUrl != null)
                out.println("<meta name=\"logout.url\" content=\"" + logoutUrl + "\" />");
            out.println("<meta name=\"feedback.url\" content=\"" + feedbackUrl + "\" />");
        }
        catch (Exception e)
        {
            if (JLinkJndi.isEnvDev())
                this.log(e.getMessage());
        }
    }
}
```

Writable Smart Insert 35 : 36

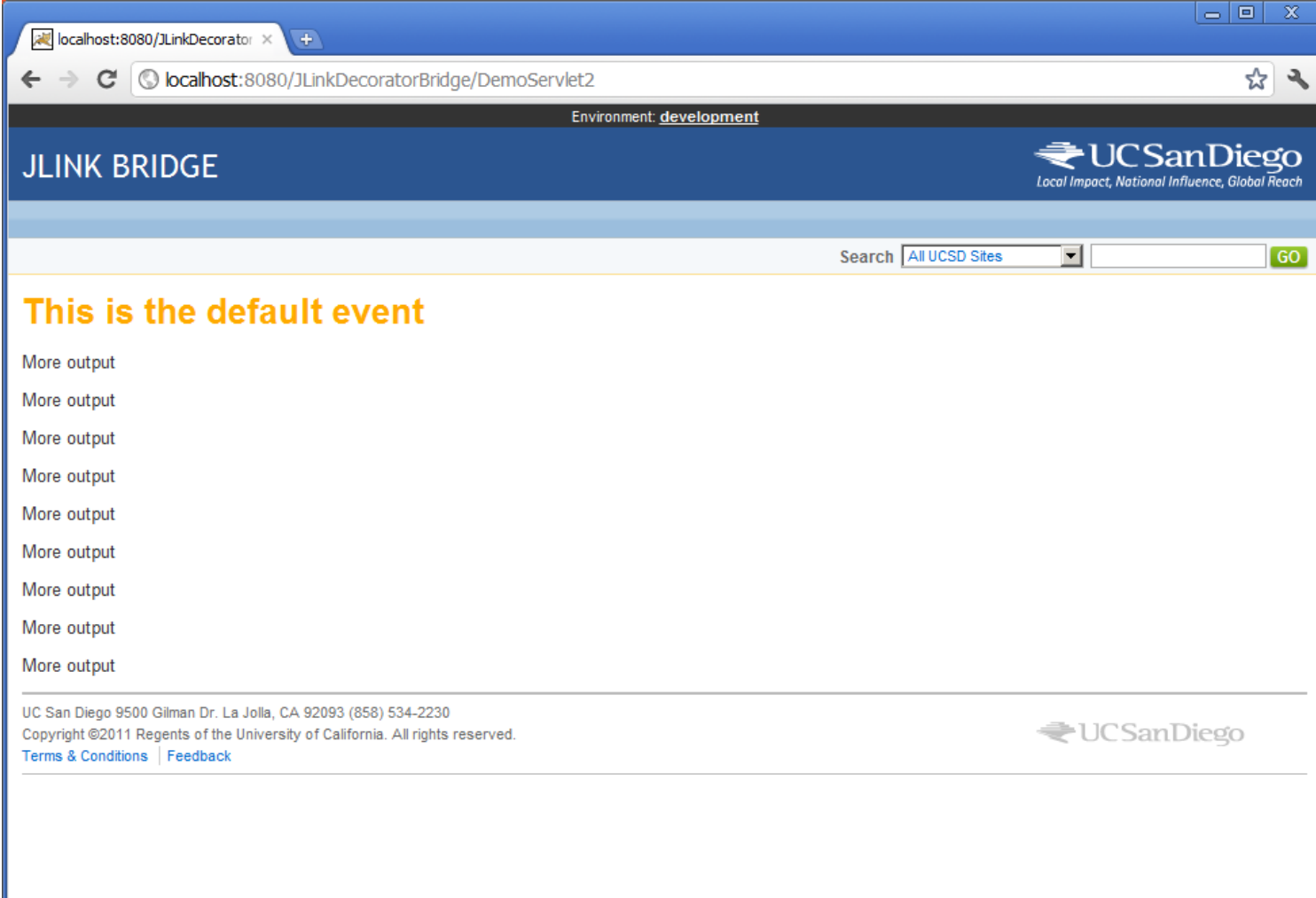
Sample implementation



```
Java EE - JLinkDecoratorBridge/src/edu/ucsd/act/uxt/jlinkexamples/DemoJLinkServlet.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
[Icons] SVN Reposito...
[Icons] CVS Reposito...
SiteMeshJLinkDecorat DemoServlet.java web.xml JLinkSiteMeshHttpSer DemoJLinkServlet.jav >>4
package edu.ucsd.act.uxt.jlinkexamples;
import javax.servlet.ServletConfig;
public class DemoJLinkServlet extends JLinkSiteMeshHttpServlet {
    public void init(ServletConfig config) throws ServletException {
        super.init(config);
        this.setWebappName("JLink Bridge");
        this.setWebappUrl("/JLinkBridge");
        this.setDisplaySearch(true);
        this.setLogoutUrl("http://blink.ucsd.edu/");
        this.setFeedbackUrl("/cwp/feedback/tool/apps");
    }
}
```

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Result



localhost:8080/JLinkDecoratorBridge/DemoServlet2

Environment: development

JLINK BRIDGE

UC San Diego
Local Impact, National Influence, Global Reach

Search

This is the default event

- More output
- More output
- More output
- More output
- More output
- More output
- More output
- More output
- More output
- More output

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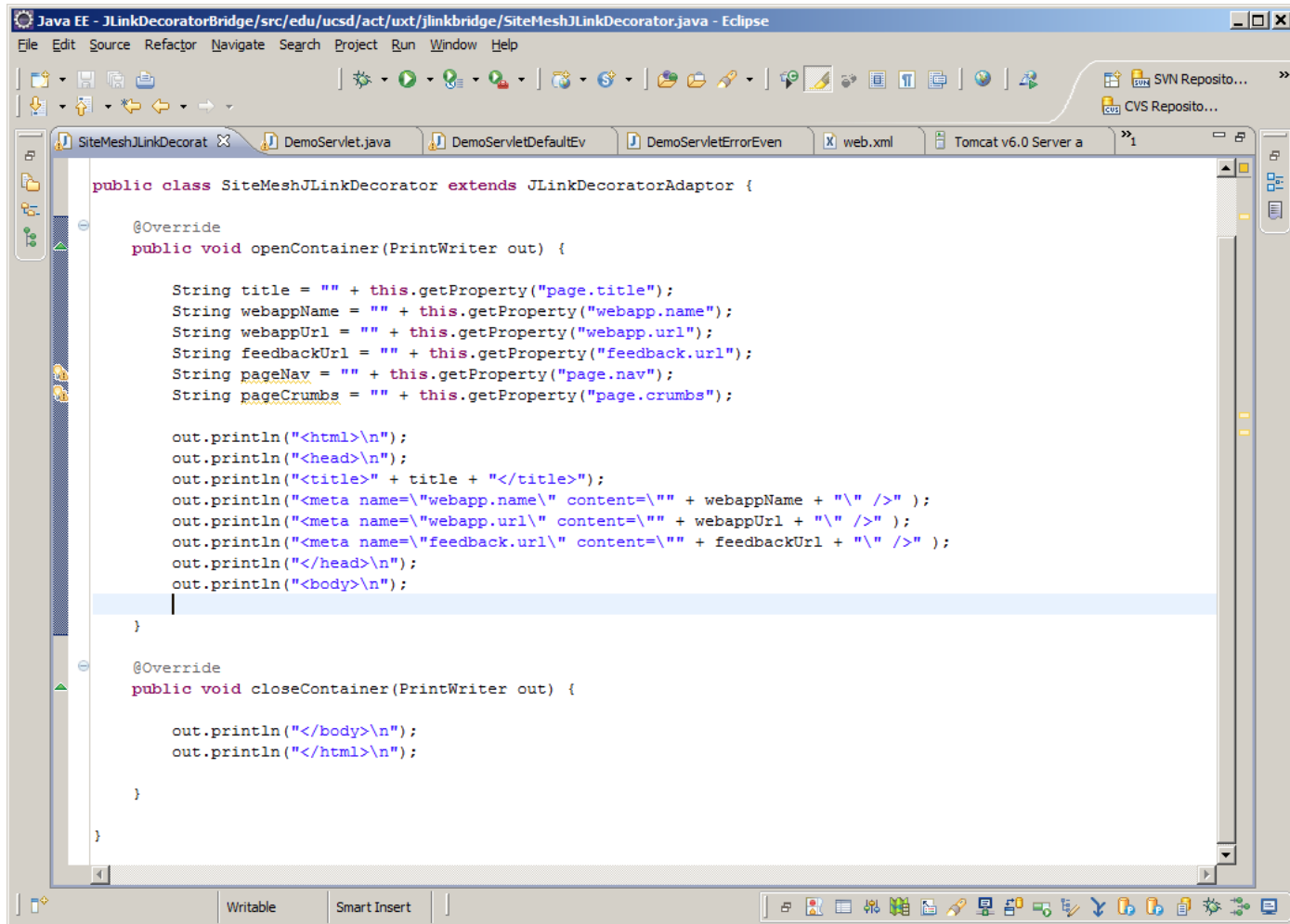
UC San Diego

Approach #2: Hack the decorator

- › Create a custom JLinkDecoratorAdaptor that outputs required META tags
- › Pass META tag values as JLink decorator properties



Example decorator



```
Java EE - JLinkDecoratorBridge/src/edu/ucsd/act/ux/jlinkbridge/SiteMeshJLinkDecorator.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help

SiteMeshJLinkDecorat x DemoServlet.java DemoServletDefaultEv DemoServletErrorEven web.xml Tomcat v6.0 Server a

public class SiteMeshJLinkDecorator extends JLinkDecoratorAdaptor {

    @Override
    public void openContainer(PrintWriter out) {

        String title = "" + this.getProperty("page.title");
        String webappName = "" + this.getProperty("webapp.name");
        String webappUrl = "" + this.getProperty("webapp.url");
        String feedbackUrl = "" + this.getProperty("feedback.url");
        String pageNav = "" + this.getProperty("page.nav");
        String pageCrumbs = "" + this.getProperty("page.crumbs");

        out.println("<html>\n");
        out.println("<head>\n");
        out.println("<title>" + title + "</title>");
        out.println("<meta name=\"webapp.name\" content=\"" + webappName + "\" />");
        out.println("<meta name=\"webapp.url\" content=\"" + webappUrl + "\" />");
        out.println("<meta name=\"feedback.url\" content=\"" + feedbackUrl + "\" />");
        out.println("</head>\n");
        out.println("<body>\n");

    }

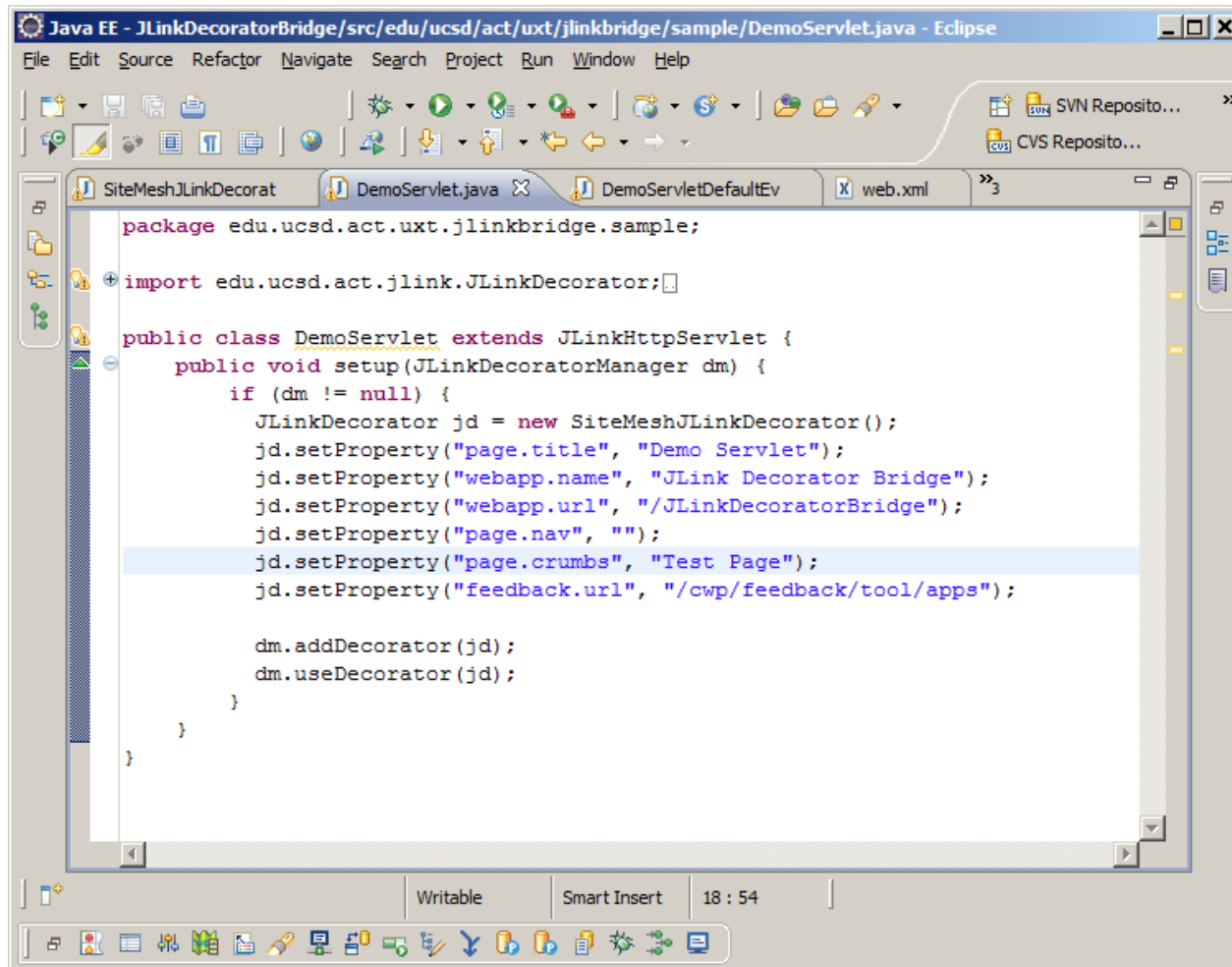
    @Override
    public void closeContainer(PrintWriter out) {

        out.println("</body>\n");
        out.println("</html>\n");

    }

}
```

Sample usage



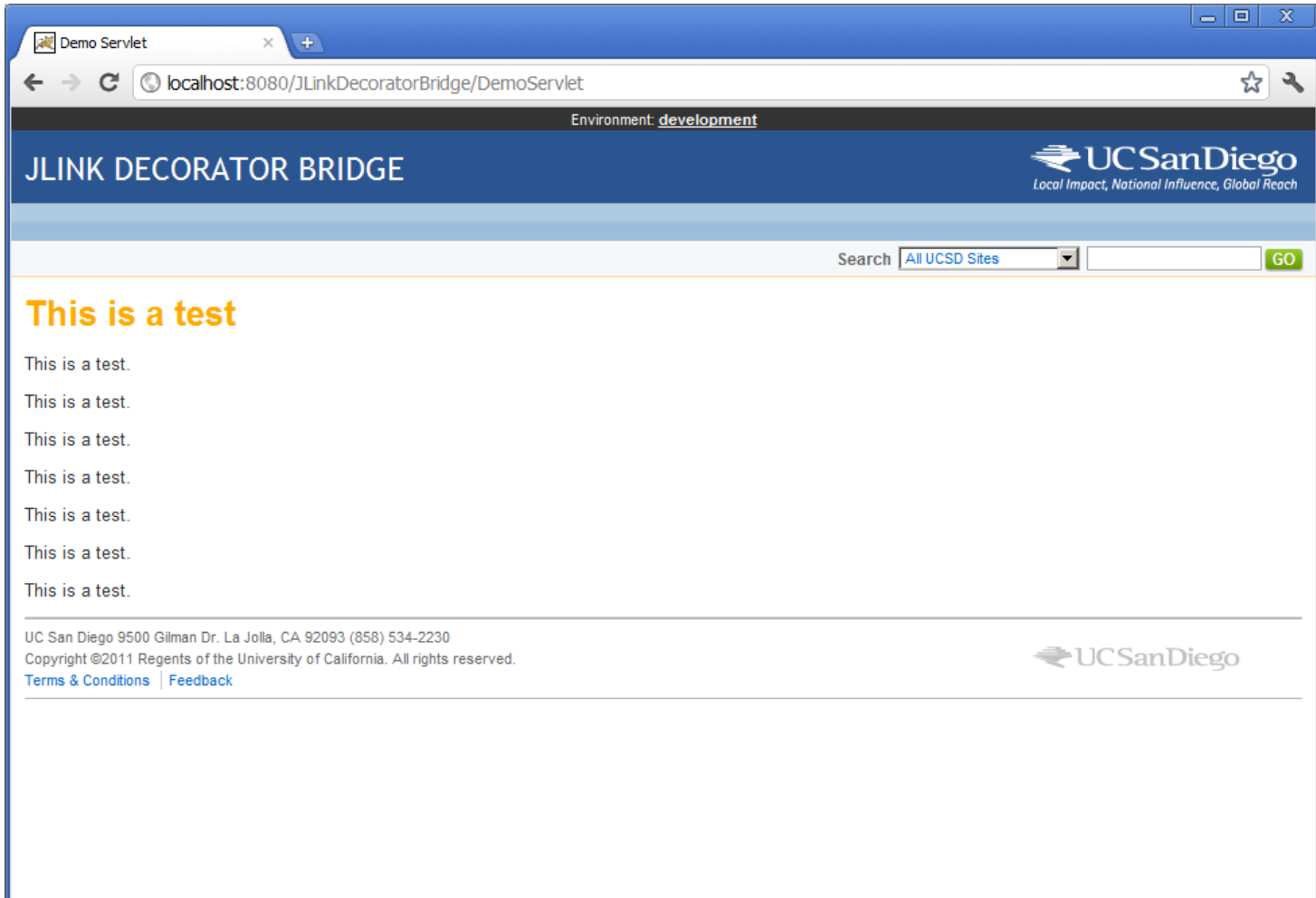
```
Java EE - JLinkDecoratorBridge/src/edu/ucsd/act/uxt/jlinkbridge/sample/DemoServlet.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
[Icons] SVN Reposito...
[Icons] CVS Reposito...
SiteMeshJLinkDecorat DemoServlet.java DemoServletDefaultEv web.xml
package edu.ucsd.act.uxt.jlinkbridge.sample;
import edu.ucsd.act.jlink.JLinkDecorator;

public class DemoServlet extends JLinkHttpServlet {
    public void setup(JLinkDecoratorManager dm) {
        if (dm != null) {
            JLinkDecorator jd = new SiteMeshJLinkDecorator();
            jd.setProperty("page.title", "Demo Servlet");
            jd.setProperty("webapp.name", "JLink Decorator Bridge");
            jd.setProperty("webapp.url", "/JLinkDecoratorBridge");
            jd.setProperty("page.nav", "");
            jd.setProperty("page.crumbs", "Test Page");
            jd.setProperty("feedback.url", "/cwp/feedback/tool/apps");

            dm.addDecorator(jd);
            dm.useDecorator(jd);
        }
    }
}
```

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Result



The screenshot shows a web browser window with the following content:

- Browser tab: Demo Servlet
- Address bar: localhost:8080/JLinkDecoratorBridge/DemoServlet
- Environment: development
- Page Title: JLINK DECORATOR BRIDGE
- UC San Diego logo and tagline: Local Impact, National Influence, Global Reach
- Search bar: Search All UCSD Sites GO
- Main content: **This is a test**
This is a test.
This is a test.
This is a test.
This is a test.
This is a test.
This is a test.
This is a test.
- Footer: UC San Diego 9500 Gilman Dr. La Jolla, CA 92093 (858) 534-2230
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Questions!

