**ASSIGNMENT NO. 8**

**TITLE**

Design and develop any web application using Struts framework.

**OBJECTIVES**

1. To impart the efficient and available client side and server side technologies.

2. To implement the communication between computing nodes using client side and server side technologies.

3. To design and implement the web services with content management.

**PROBLEM STATEMENT**

Create a login module for the web application using struts framework.

**OUTCOMES**

*Students should be able to,*

1. Implement the effective client side and server side technologies using struts framework.

2. Solve the complex problem of development using MVC framework.

**SOFTWARE & HARDWARE REQUIREMENTS**

Software: Java 1.7 or Higher, Apache Tomcat 7 or higher, Struts API’s, Eclipse IDE.

**THEORY**

The frameworks plays a vital role in industries for manageable and well-designed application development as well as enterprise application development. The core of the Struts framework is a flexible control layer based on standard technologies like Java Servlets, JavaBeans, Resource Bundles, and XML, as well as various Jakarta Commons packages. Struts encourages application architectures based on the Model 2 approach, a variation of the classic Model-View-Controller (MVC)

Struts gives its own particular Controller segment and incorporates with different advancements to give the Model and the View. For the Model, Struts can collaborate with standard information get to advances, as JDBC and EJB, and also most any outsider bundles, as Hibernate, iBATIS, or Object Relational Bridge. For the View, Struts functions admirably with Java Server Pages, including JSTL and JSF, and in addition Velocity Templates, XSLT, and other introduction frameworks.

**What is Struts?**

Struts is a framework that advances the utilization of the Model-View-Controller engineering for planning substantial scale applications. The structure incorporates an arrangement of custom label libraries and their related Java classes, alongside different utility classes. The most intense part of the Struts system is its help for making and preparing electronic structures.

**Struts Tags:**

**Common Attributes -** Almost all tags provided by the Struts framework use the following attributes:

|  |  |
| --- | --- |
| **Attribute** | **Used for** |
| Id | the name of a bean for temporary use by the tag |
| name | the name of a pre-existing bean for use with the tag |
| property | the property of the bean named in the name attribute for use with the tag |
| scope | the scope to search for the bean named in the name attribute |

**TECHNOLOGY/TOOL:**

1) Eclipse IDE

2) Apache Tomcat 7.0 or higher

**CONCLUSION/ANALYSIS:**

Hence we have successfully tested the Struts framework and tested the results.

**ORAL QUESTIONS**

1) What are the components of Struts Framework?

2) What’s the role of a handler in MVC based applications?

3) What’s the flow of requests in Struts based applications?

4) Which file is used by controller to get mapping information for request routing?

5) What’s the role of Action Class in Struts?

6) How an actionForm bean is created? And its uses.

7) How validation is performed in struts application?

8) What’s the purpose of Execute method of action class?

9) How can we display all validation errors to user on JSP page?

10) What are the benefits of Struts framework?