

# Experiment - 08.

- **Aim:** Design a login page with entries for name, email, mobile number, and login button. Use struts and perform following validations-
  - a. Validation for correct names.
  - b. Validation for mobile numbers.
  - c. Validation for email id.
  - d. Validation if not entered any value.
  - e. Redisplay for wrongly entered values with message
  - f. Congratulations and welcome page upon successful entries.

- **Theory:** 1] STRUTS.

- Apache STRUTS is a java based open source framework used for building web applications.
- It follows the MVC (Model-view-controller) architecture, helping developers separate concerns in web applications making them easier to manage and scale.

STRUTS - provides -

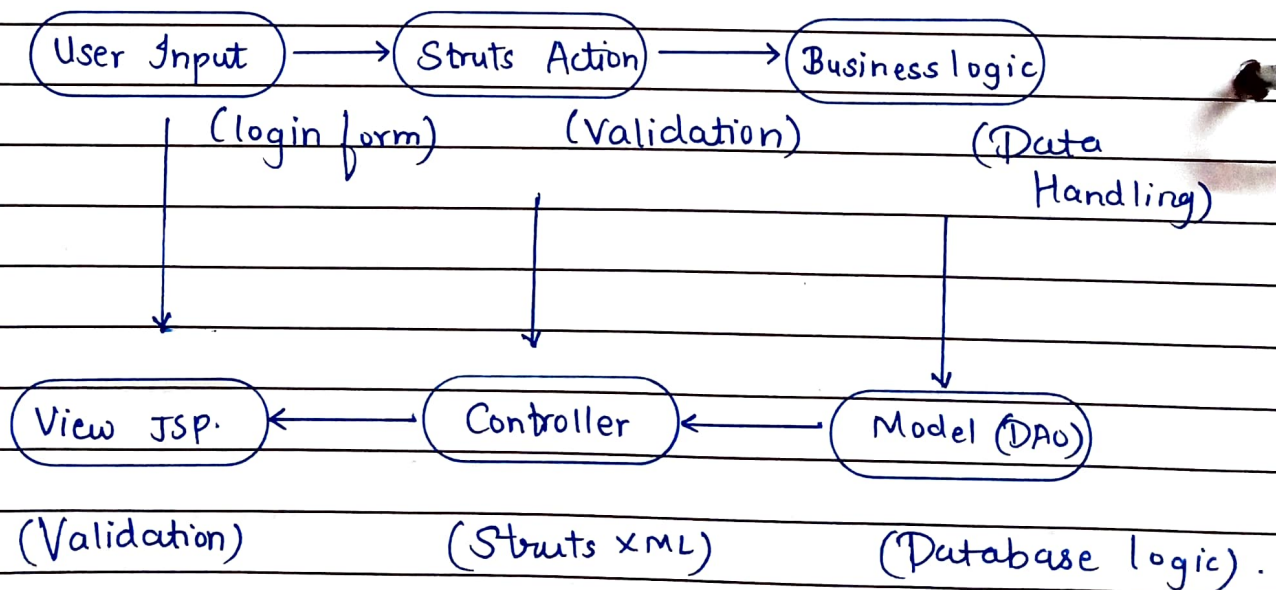
- ✓ A structured way to handle user input.
- ✓ Automatic form validation using built in rules.
- ✓ Easy database interaction with javabeans and JDBC.
- ✓ Navigation control via XML configuration.

2] For this login system we need:

1. JSP View - Displays the login form and error messages.
2. Action class (Controller): Processes user input, validates data, and directs navigation.
3. struts.xml - Defines form actions, page navigation, validation settings.
4. ActionForm (Model) - Holds user input (name, mobile, email) and provides getter, setter methods.

3] Struts MVC architecture for login page -

Flow diagram -





## \* Components -

1. Model - Defines business logic (Validation, database interaction)
2. View - JSP pages to display login form and messages.
3. Controller - Struts framework manages request processing via Action classes.

## 4] Steps to design a login page using struts.

### STEP 1: Set up struts framework.

1. Install Apache struts in your project.
2. Configure web.xml for struts support.
3. Define struts.xml for routing actions.

### STEP 2: Create JSP form for login form.

- HTML form with fields for Name, Mobile number, Email ID and login button.
- Action: Form submits data to struts action class for validation.
- JSP includes placeholders for displaying error messages dynamically.

### STEP 3: Define struts action class for form processing.

- Retrieves user input using getter, setter methods.
- Implements validation logic.
- Redirects the user to an appropriate page based on validation results.

## 5] Implementing validations -

### (1) Validation for correct names.

- Should contain only alphabets and spaces.
- Minimum 2 characters required.

Regex  $\rightarrow$   $^{[A-Za-z] \{2, \} \$}$ .

### (2) Validation for mobile numbers -

- Should be exactly 10 digits.
- Must start with a digit from 6-9

Regex  $\rightarrow$   $^{[6-9] \{1, \} \$}$ .

### (3) Validation for email id -

- Should have @ symbol and a valid domain.
- Must start with alphabet or number.

Regex -

$^{[A-Za-z0-9.\_ \{1, \} + @ [A-Za-z0-9.\_ \{1, \} + \{1, \} \$}$ .

### (4) Validation for empty fields -

- Check if any input field is empty.
- Display custom error messages when a field is missing.

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## Conclusion:

Thus we implemented validation in the login form using stunts.