

1. Do the following with only JSPs (and no servlets) and using JSP scripting elements:
  - a. Create a method that take two int numbers and return their sum as int.
  - b. Invoke the method from within template text using JSP elements (example o/p - Sum of 3 and 4 is 7.)
  - c. Print above line to console as well using JSP elements.Deploy the project into tomcat, restart server and compare the source jsp with the generated servlet.
2. Write a program in JSP that prints the current date and time using JSP expressions.
3. Write a program in JSP that prints n numbers and their factorials in a tabular form. Also, get the value of n from the user using the GET method.
4. Write a JSP that takes the user's name and age from a form.
  - a. Echo back the name and age along with a message stating the price of movie tickets.
  - b. The price is determined by the age passed to the JSP.
  - c. If the age is greater than 62, the movie ticket price is \$7.00.
  - d. If the user is less than 10 years old, the price is \$5.00.
  - e. For everyone else, the price is \$9.50.
5. Create an HTML form that takes a number from the user. Also, create a servlet that forwards the control to a JSP page according to the user input. When user enters 1 it should display AboutUs.jsp. When user enters 2, ContactUs.jsp should display. Otherwise, error.jsp should display.

## JSP – Day 2

6. Create a form to accept product details and store in a Collection. If the product is already inserted, display the appropriate message to insert another product. If the product is inserted, show all the products available in the JSP page using:
  - a. Scriptlets
  - b. Java Bean
  - c. Expression Language
  - d. JSTL tags➔ Document the difference between all 4 mechanisms.
7. The Loan Application created on Servlet – Day 3, implement MVC architecture in the same and add the below mentioned functionalities.
  - a. Implement Validations as mentioned below:

Field	Validation
Applicant Name	Required field with only alphabets
Applicant email id	Required field with email Validation
Loan Tenure	Required field and value must not be negative or 0.
Organization Name	Contains only alphabets

Designation	Contains only alphabets
Monthly Salary	value must not be negative or 0.

If the validations are not correct, the control is redirected to Error Page.

- b. Provide a functionality to check Loan Status by entering the LoanApplicationNumber. The application will check the loan status for the given LoanApplicationNumber and return the corresponding status as either 'Approved', 'Rejected' or 'Pending'.
- c. In the above application, if the LoanApplicationNumber entered doesn't exist, it throws a ApplicationNumberIncorrectException. The exception is handled by the Mapped ErrorServlet.

