

Java Servlets – L1: Trend NXT Hands-on Assignments

Estimated Efforts: 2 PDs

For detailed ToC and other Details: [Trend.Nxt URL](#)

Author: saigeetha.danda@wipro.com

Date: 19th May 2018

ToC :

Topic No	Topic Name	Sub Topics	Min No of Assignments
1	Servlets – Overview & Life Cycle	<ol style="list-style-type: none">1. What are Servlets, Servlets Architecture, Servlet Tasks, Servlets Packages2. Setting up JDK, Setting up Tomcat, Setting up CLASSPATH3. Creating Servlets in Packages, Packaged Servlet Deployment4. init method, service method, doGet method, doPost method, destroy method	1
2	Servlets - Form Data	<ol style="list-style-type: none">1. GET, POST method, Reading Form Data, GET method using URL, GET method using Form, POST method using Form, Passing - Reading Checkbox Data, Reading Form parameters	2
3	Servlets - Client Request, Server Response, HTTP Status Codes, Servlet Chaining	<ol style="list-style-type: none">1. HTTP Headers, Methods to read HTTP Header, HTTP Header Request Example2. HTTP Response Headers, Methods to set HTTP Response Header Example3. HTTP Status Codes, Methods to set HTTP status code, HTTP Status Code Example4. Request Dispatcher Example	1
4	Servlets - Cookies Handling, Session Tracking, Page Redirect, Exceptions	<ol style="list-style-type: none">1. Anatomy of a Cookie, Servlet Cookies Methods, Setting - Reading Cookies with Servlet, Delete Cookies with Servlet2. Cookies, Hidden Form Fields, URL Rewriting, HttpSession object Session Tracking example, Deleting Session Data	2

		3. Page Redirection 4. Exception Handling, Request Attributes - Errors/Exceptions, Error Handler Servlet example	
Total Min No of Assignments			6

Topic 1: Servlets - Overview

Assignment 1:

Create a servlet with lifecycle methods that uses a loop to output an HTML table with 25 rows and 3 columns. For instance, each row could contain “RowX, Col1”, “RowX Col2”, and “RowX Col3”, where X is the current row number.

Assignment 2:

Write a Servlet program with lifecycle methods to get a Welcome reply from the server.

Note:- Create a HTML page to submit Name. Once user Submit the Name, Server should respond “Good Morning/Good Afternoon/Good evening” based on the Current time.

Topic 2: Servlets – Form Data

Assignment 1:

Write a servlet program to validate username and password. if Login is successful redirect to appropriate home page else response with appropriate error Message.

Assumption: - Login Page and User Table exists

Assignment 2:

Write a Servlet program to validate a Login. Assume there are two types of users (Admin and Employee). Appropriate Home page should be displayed after successful Login. In addition to that, display the appropriate error page for the invalid Login.

Note:-

- i) Create a **Users** table with 3 Columns (username, password, Usertype). Usertype value is “A” for Admin and “E” for Employee.

- ii) Design a Login Page with the Client side validations.in addition to that design **Admin Homepage** and **Employee Home Page** with some static Message to indicate a homepage.

Assignment 3:

Modify the Admin Home page for Admin user (Assignment 2) with the following Options to Add Training program and Delete Training program.

Add Training

Delete Training

Add Training: - When user clicks the Add Training, appropriate page should be open to add Training details like TrainingID, TrainingName, Startdate, EndDate, TrainingMode, BusinessUnit, ContactpersonID.

Delete Training: - when user click this link, appropriate page should open to select the training program to be deleted.

Note:- Create a table to add Training Details like TrainingID, TrainingName, Start Date, EndDate, TrainingMode, BusinessUnit, ContactpersonID.

Topic 3: Servlets - Client Request, Server Response, HTTP Status Codes, Servlet Chaining

Assignment 1:

Create a servlet that forwards the request to one of three different servlet pages, depending on the value of the operation request parameter. Say if input is <10 then page 1 or greater than 10 and less than 99 then page 2 otherwise error page 3.

Assignment 2:

Write a servlet program to read Database connection information from web.xml File by using ServletConfig and ServletContext Methods.

Assumption :- Login Page and User Table exists

Topic 4: Servlets - Cookies Handling, Session Tracking, Page Redirect, Exceptions

Assignment 1:

Write a Servlet to do the following.

- Accept username & password from login.html file & set or create cookies for it.
- Retrieve these set of cookies to validate both the field from login table.

Assignment 2:

Create a Servlet that recognizes first time visitor to web application and responds by saying "Welcome to new user" otherwise "welcome back"

Assignment 3:

Create a Servlet that uses hidden form fields session tracking mechanism, to keep per-client access counts.

Assignment 4:

Write a servlet program to validate Login and store User information in Session. From the home page of the user click the link to get Employee Salary Details.

Assumption: Login Page, Home page, User table and salary table exists