

Servlet is a web technology given by developers of Java. Its popularity lies in its simplicity, safety, low cost, powerfulness, modernness, object-orientation, internet centric, high-performance. It was designed specifically for the purpose of developing web applications.

Program objectives

Some of the key skills you will gain upon completion of this program include:

- Basics of development of Web Applications
- Writing and deploying Servlet
- Using JSP elements to write dynamic web pages
- Using standard tags and writing custom tags
- Experiencing development of a web site using Servlet, JSP and JDBC.

Prerequisites

The participants need not have any prior exposure to web technology. But prior familiarity **Core Java is mandatory**. Practice on some other programming language (such as HTML, .Net, VB) would be useful, but it is not mandatory.

Audience

The course coverage and pace would vary slightly, depending on the composition of the batch. If the training is for participants who are already familiar with HTML programming, web programming using .Net, some conceptual part could be completed faster, and more time could be spent on some of the advanced aspects of the course.

If the training is for participants familiar with Core Java, the web concepts would need to be introduced and covered in more detail. However, the basic language constructs would not require very detailed coverage.

Day-wise Breakup

Day	Module	Topics
Day 1	Module 1	Getting Started
	Module 2	Servlet's Life Cycle
	Module 3	Form data, Context and Configuration parameters
	Module 4	Analyzing request header
Day 2	Module 5	Setting response header
	Module 6	Redirection
	Module 7	Request Dispatching
Day 3	Module 8	Cookies
	Module 9	Session Tracking
	Module 10	Servlet using JDBC
Day 4	Module 11	JSP Technology
	Module 12	Predefined Variables and Page Directives
	Module 13	Including Files
Day 5	Module 14	Java Bean Tags in JSP
	Module 15	Integrating Servlet and JSP, MVC architecture
	Module 16	Custom Tags

Course Contents

Module 1: Getting Started

- Introduction to Servlet Technology
- Setting up Servlet programming environment
- Writing and deploying first Servlet
- Roll of web server

Module 2: Servlet's Life Cycle

- Servlet Lifecycle
- init(), service() and destroy() methods
- The doGet and doPost methods
- The servlet packaging

Module 3: Form data, Context and Configuration parameters

- The Form Data
- Collecting form data for different HTML components
- Roll of XML descriptor
- The 'context' and 'config' parameters

Module 4: Analyzing request header

- The GET and POST requests
- HTTP Request Parameter
- Analyzing request header

Module 5: Setting response header

- HTTP Response Header
- Setting MIME types
- Status Code, Refreshing, Sending Error Page, Logging in
- Setting Encoding Type

Module 6: Redirection

- Redirection by setting response header
- Linking to another websites

Module 7: Request Dispatching

- The Request Dispatcher
- The forward and include requests
- Sending request between servlets

Module 8: Cookies

- Pros and Cons of using Cookies
- Session and Persistent Cookies
- Sending and Receiving Cookies

Module 9: Session Tracking

- Session Object
- Setting and getting attributes
- Session Tracking API
- Browser and Server sessions

Module 10: Servlet using JDBC

- Servlet for JDBC
- Connection Pool
- Creating DataSource
- Accessing Data base through DataSource

Module 11: JSP Technology

- Introduction to JSP Technology
- Writing and deploying first .jsp program
- Basic Syntax of JSP Elements
- JSP Life Cycle
- JSP scripting elements: Declarations, Scriptlets and Expressions

Module 12: Predefined Variables and Page Directives

- Using predefined variables
- Handling response using response variable
- Using Page directives

Module 13: Including Files

- The 'include' action and 'include' directive
- Forwarding request/including response

Module 14: Java Bean tags in JSP

- Building and accessing Beans
- Collecting Form Data using Beans
- Sharing Beans

Module 15: Integrating Servlet and JSP, MVC architecture

- The MVC Architecture
- Dispatching requests between Servlet and JSP
- Packaging elements of Application

Module 16: Custom Tags

- Simplifying JSP using Custom Tags.
- The TagSupport and BodyTagSupport classes.
- Designing Custom Tags and using them