

ASSIGNMENT-1 (UNIT-3)

Paper: Advanced Java Programming

Paper Code: FSD-318T/CIE-306T

Maximum Marks-10 marks

Instructions-

1. Submit a well-documented report including source code, explanations, and output screenshots.
2. Provide well-commented code to demonstrate your understanding and submit the assignment in a well-formatted document on A4 sheets by 06/04/2025.
3. Each question carries 2 marks.

Case Study: E-Commerce Platform

Scenario:

An online shopping platform wants to develop a web application using JSP. The system should allow users to browse products, add items to the cart, and proceed to checkout. The platform should manage user sessions, include reusable components, and integrate custom JSP tags for formatting.

Tasks:

Task 1: User Authentication (Login & Session Management) CO3

- Create a JSP-based login page where users enter their credentials.
- Validate the credentials using a backend Java class (hardcoded for simplicity).
- Use JSP session management to maintain login state.
- Display a personalized greeting message upon successful login.

Task 2: Product Catalog (Using JSP Implicit Objects & Directives) CO3

- Develop a JSP page that fetches and displays a list of products with details such as name, price, and description.
- Use JSP implicit objects (session, application, request) to manage and display data dynamically.
- Implement the `<%@ include %>` directive to include a common header and footer.

Task 3: Shopping Cart System (JSP Forms & Data Handling) CO3

- Create a JSP page where users can add products to the shopping cart.
- Use session tracking to store selected products and display the cart contents.
- Provide an option to remove items from the cart and update the total price dynamically.

Task 4: Order Processing & Checkout (JSP Standard Actions) CO3

- Implement `<jsp:include>` to load a navigation menu dynamically.
- Use `<jsp:forward>` to redirect users to an order confirmation page after checkout.
- Apply `<jsp:useBean>` to manage order details and display them in a summary.

Task 5: Custom JSP Tag for Discounts & Offers CO3

- Develop a custom JSP tag that applies a discount percentage to a product's price.
- Implement and use this tag on the product catalog page to highlight discounted products.