



PES UNIVERSITY

PES University, Electronic City Campus, Hosur Road, Bangalore- 560 100

Department of Computer Science & Engineering

Curriculum of CSE

Course Title: UE23CS242A: Web Technologies

Semester: III

Credits: 4

Course Type: Core / Elective / Special Topic: Core

Experiential Learning (2025-26):

(Orange Problem) Level -2

Problem Statement:

Design and develop a single, responsive web page that demonstrates the integration of key modern web technologies. The page should showcase the use of **HTML5 multimedia elements** (audio and video), implement the **Geolocation API** to retrieve and display user location, utilize **Flexbox** for layout design, simulate **asynchronous data fetching** using **Promises** and **async/await**, and demonstrate the conversion of **XML to JSON** for structured data representation. This project aims to provide an interactive learning interface that combines functionality, responsiveness, and dynamic data handling.

HTML5 Multimedia API – Embed and control video/audio

Geolocation API – Get and display user's current location

Asynchronous Data Simulation – Using **Promises** and **async/await**

XML to JSON Conversion – Demonstrate parsing XML and converting to JSON

The screenshot shows a web-based application titled "Web Technology Showcase". It is divided into four main sections: 1. "HTML5 Multimedia": Displays a video player showing a butterfly in flight, with controls for play/pause, volume, and seek bar. 2. "Geolocation API": Shows a button to "Get My Location" and a message indicating an error in fetching the location. 3. "Simulated Async Fetch": Shows a button to "Fetch Data" and a message stating "Name: WebTech Demo, Message: Data loaded successfully!". 4. "XML to JSON Conversion": Shows a "Convert" button and a code editor containing XML code that is converted into JSON format below it.

Web Technology Showcase

HTML5 Multimedia

Geolocation API Get My Location
Error fetching location.

Simulated Async Fetch

Fetch Data
Name: WebTech Demo, Message: Data loaded successfully!

XML to JSON Conversion

Convert

```
{ "name": "John Doe", "course": "Web Technologies", "university": "PESU" }
```

Rubrics:

HTML5 Media	2 marks
Geolocation	2 marks
Axios	2 marks
JSON	2 marks

ReactJS	2 marks
Total	10 marks