ANNEXURE '2'
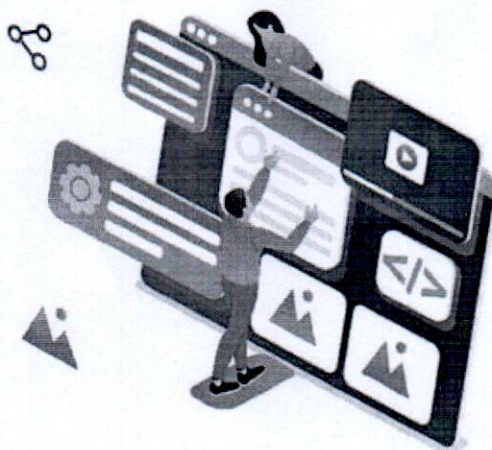
IFTM UNIVERSITY

School of Computer Science & Applications

Latest Web Application Development Techniques

Web applications are the way the world's top companies deliver value and substance to their customers. Web apps look and act like a web page on the customer-facing side.

Web Design and Applications involve the standards for building and Rendering Web pages, including HTML, CSS, SVG, device APIs, and other technologies for Web Applications ("WebApps").

HTML & CSS- HTML and CSS are the fundamental technologies for building Web pages: HTML (html and xhtml) for structure, CSS for style and layout, including WebFonts. Find resources for good Web page design as well as helpful tools.

JavaScript Web APIs- Standard APIs for client-side Web Application development include those for Geolocation, XMLHttpRequest, and mobile widgets.

Module Objectives: This module intends to:

- ✓ To give an understanding for students, how to apply, be able to evaluate various techniques for creating large and maintainable "static" websites including Templates and Static Site Generators.

- ✓ The student will learn Server side (back-end) fundamentals and apply them to the creation of dynamic websites and web apps.

- ✓ Procedural, object oriented, and functional programming techniques applied to the client and server in JavaScript.

- ✓ Software integration and debugging. Web development requires integration of potentially many different file types CSS, HTML, and JavaScript that may have interdependencies. This presents new challenges when debugging a website or app, i.e., which file or combination of files is leading to the bug.

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Focusing on the above-mentioned objectives, a teacher's ability to improve student's web development skills can promote a positive development, by focusing on their competence, their tolerance to mistakes and their ability to set goals. So, the module has been designed by breaking down big tasks into easy steps and emphasizing the importance of mistakes in achieving success which can help students to avoid being overwhelmed by work or fearing failure.

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[Module Facilitator]

Sanjeev Agrawal

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Module Structure

S.NO.	OBJECTIVES	COURSE CONTENT	HOURS
1	HTML & CSS	1.1 HTML Tags, elements of HTML 1.2 Lists, Hyperlinks, Images, Tables, Forms and Frames. 1.3 Concept of CSS, CSS Properties, 1.4 Generating Internal and External Style Sheets, 1.5 CSS Id and Class, Background images, colors and properties, manipulating texts.	9
2	Scripting Programming:	2.1 The principal of scripting language, 2.2 Difference between scripting languages and non- scripting languages, 2.3 Types of Scripting Languages.	8
3	JavaScript Programming	3.1 Utility and Evolution of the JavaScript Language, Data Types, 3.3 Statements and Operators, 3.4 Variable Declarations, 3.5 Conditional Statement, Function, Objects.	8
4	JDBC Programming	4.1 JDBC data access technology, 4.2 Database operations using JDBC, 4.3 JDBC Types, 4.4 ResultSetMetaData and Transaction Management.	8
5	Java Server Pages	5.1 JSP Overview: Servlets vs JSP, 5.2 MVC overview, 5.3 JSP: Life Cycle, Processing, JavaBean, 5.4 Application Design with MVC, Directives, Action, Implicit Objects, Form Processing, State	8

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		5.5 Management using JSP, Database access using JSP, JSTL, Custom Tag, JSP Expressionserver.	
8	Review & Feedback		1