Web Technology

THEORY:

WEB SITE BASICS AND HTML5

Web Essentials: Clients, Servers, and Communication-The Internet – Basic Internet protocols – WWW – HTTP Request Message –HTTP Response Message – Web Clients- Web Servers-Web development strategies- Introduction to HTML5: Basic Elements, Form Elements, Media Elements, HTML5 Graphics (Canvas, SVG)-XHTML: Syntax and Semantics-Case Study: Create a static Website.

FRONT END DESIGN USING CSS3 AND BOOTSTRAP FRAMEWORK

CSS : Types of CSS, CSS Properties -CSS3: Selector String, Box Model, Text Properties, CSS 3D Transformation, CSS Animation-Bootstrap Framework: BS Grid, Tables, Images, Alerts, Form Elements. Representing Web Data: Basic XML- DTD- Namespaces-XML Schema, DOM, XSL and XSLT Transformation- Case study: Online Blog Creation

DYNAMIC WEB PAGE DESIGN USING JAVA SCRIPT AND JQUERY

Java Script: Data Types and Variables -Operators - Control Statements - Functions -Objects - Build in Objects - DOM - Java Script Event Handling - Form Handling and validations - AJAX & JQuery: Introduction- Ajax Client Server Architecture- Ajax Client Server Architecture-XML Http Request Object-Call Back Methods-JQuery Selectors - JQuery Animations - Effects - Event Handling - JQuery DOM Traversing-JSON - JQuery AJAX- Server-side programming using Servlet.

Introduction to Apache-Tomcat Server- deployment of web resources, Lifecycle of a Servlets, deploying a Servlets, The Servlets API, Reading Servlets parameters, Reading initialization parameters, Handling Http Request & Responses, Session management, connecting to a database using JDBC.
Case study: Todo list.

Server-side programming using JSP

Introduction to JSP: Basics of JSP-JSP vs Servlets-JSP Architecture, JSP Processing, Declarations, Directives, Expressions, Code Snippets, implicit objects, Session tracking, Java beans classes and JSP-Tag Libraries and Files-Support for the Model-View-Controller Paradigm-Databases and JSP ,Introduction to Java frameworks- Spring, Spring Boot, Spring MVC.

PRACTICAL: Implementation of HTML basic tags, Designing static web pages, Styling of web pages using Inline/Internal/External CSS, Implementing HTML iframes, Creating User Registration Form, Performing client side form validations using JavaScript, Event handling in JavaScript, Developing client side applications using HTML, CSS and JavaScript, Developing responsive and mobile-first websites using Bootstrap, Implementation of AJAX, Designing server side web pages using Servlet / Java server pages (JSP), Developing dynamic websites using Data base connectivity with Servlet/JSP; Session management using different techniques