PRASAD V. POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY

(Autonomous)
Kanuru, Vijayawada-520007

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (DATA SCIENCE)

II B. Tech – II Semester CSE (DATA SCIENCE)

Full Stack Web Development –I

Course Code	23SA8453	**Year**	II	**Semester**	II
Course Category	SOC	**Branch**	CSE (Data Science)	**Course Type**	Practical
Credits	2	**L-T-P**	0-1-2	**Prerequisites**	Java Programming
Continuous Internal Evaluation	30	**Semester End Examination**	70	**Total Marks**	100

Course Outcomes		
Upon successful completion of the course, the student will be able to		
CO1	Demonstrate experimental procedures through oral communication and submit comprehensive documentation reports.	**L2**
CO2	Apply Full Stack Web Development (HTML, CSS, JavaScript) technologies for developing Web Applications.	**L3**
CO3	Analyze different Full Stack Web Development technologies by implementing them in different Web Applications using different tools.	**L4**
CO4	Design and evaluate a Web Application to analyze the outputs of different web Applications.	**L5**

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlation
(3: High,2: Moderate,1: Low)

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO1	2									2				
CO2	3				3							2		
CO3		3										2		
CO4				3								2		

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Syllabus		
Expt No.	**Contents**	**Mapped CO**
1	**Lists, Links and Images** **a.** Write a HTML program, to explain the working of lists. **Note:** It should have an ordered list, unordered list, nested lists and ordered list in an unordered list and definition lists.	CO1 to CO4
	b. Write a HTML program, to explain the working of hyperlinks using <a> tag nd href, target Attributes.	
	c. Write a HTML program, that has your image and your friend's image with specific height and width. Also, when clicked on the images it should navigate to their respective profiles.	
	d. Write a HTML program, in such a way that, rather than placing large images on a page, the preferred technique is to use thumbnails by setting the height and width parameters to something like to 100*100 pixels Each thumbnail image is also a link to a full-sized version of the image. Create an image gallery using this technique	
2	**HTML Tables, Forms and Frames**Write a HTML program, to explain the working of tables. (Use tags: <table>, <tr>, <th>, <td> and attributes: border, rowspan, colspan).	CO1 to CO4
	a. Write a HTML program, to explain the working of tables by preparing a timetable. (Note: Use <caption> tag to set the caption to the table & also use cell spacing, cell padding, border, rowspan, colspan etc.).	
	b. Write a HTML program, to explain in the working of forms by designing Registration form. (Note: Include text field, password field, number field, date of birth field, checkboxes, radio buttons, list boxes using <select> & <option> tags, <text area> and two buttons i.e.: submit and reset. Use tables to provide a better view).	
	c. Write a HTML program, to explain the working of frames, such that page is to be divided into 3 parts on either direction. (Note: first frame image, second frame paragraph, third frame hyperlink. And also make sure of of using "no frame" attribute such that frames to be fixed).	
3	**HTML 5 and Cascading Style Sheets, Types of CSS** **a.** Write a HTML program, that makes use of <article>, <aside>,<figure>, <fig caption>, <footer>, <header>, <main>, <nav>, <section>, , tags.	CO1 to CO4

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	b. Write a HTML program, to embed audio and video into HTML web page.	
	c. Write a program to apply different types (or levels of styles or style specification formats) – inline, internal, external styles to HTML elements. (Identify selector, property and value).	
4	**Selector forms** Write a program to apply different types of selector forms **a.** Simple selector (element, id, class, group, universal) **b.** Combinator selector (descendant, child, adjacent sibling, general sibling) **c.** Pseudo-class selector **d.** Pseudo-element selector **e.** Attribute selector	CO1 to CO4
5	**CSS with Color, Background, Font, Text and CSS Box Model** **a.** Write a program to demonstrate the various ways you can reference a color in CSS.	CO1 to CO4
	b. Write a CSS rule that places a background image halfway down the page, tilting it horizontally. The image should remain in place when the user scrolls up or down.	
	c. Write a program using the following terms related to CSS font and text: font size, font-weight, font-style, text-decoration, text-transformation, text-alignment.	
	d. Write a program, to explain the importance of CSS Box model using: Content, Border, Margin, Padding.	
6	**Applying JavaScript – Internal and External, I/O, Type Conversions** **a.** Create a web page with navigation bar with different menus.	CO1 to CO4
	b. Add Login menu to the navigation bar where the Login page have to opened as Modal.	
	c. Create a carousel with slides, controls, indicators and captions.	
7	**JavaScript Pre-defined and User-defined Objects** i. Create a webpage which uses prompt dialogue box to ask a voter for his name and age. Display the information in table format along with either the voter can vote or not ii. Write a program using document object properties and methods. iii. Write a program using window object properties and methods. iv. Write a program using array object properties and methods.	CO1 to CO4

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	v. Write a program using math object properties and methods. vi. Write a program using string object properties and methods. vii. Write a program using regex object properties and methods. viii. Write a program using date object properties and methods. ix. Write a program to explain user-defined object by using properties, methods, accessors, constructors and display.	
8	**JavaScript Conditional Statements and Loops** Write a program which asks numbers from the user and outputs HTML text that displays the larger number followed by the words "LARGER NUMBER" in an information message dialog. If the numbers are equal, output HTML text as "EQUAL NUMBERS". ii. Write a program to display week days using switch case. iii. Write a program to print 1 to 10 numbers using for, while and do loops. iv. Write a program to print data in object using for loops v. Develop a program to determine whether a 'ARMSTRONG NUMBER' or not. [E.g.: 153 is an Armstrong number, since sum of the cube of the digits is equal to the number i.e.,13 + 53+ 33 = 153] **vi.** f. Write a program to display the denomination of the amount deposited in the bank in terms of 100's, 50's, 20's, 10's, 5's, 2's & 1's. (Eg: If deposited amount is Rs.163, the output should be 1-100's, 1-50's, 1- 10's, 1-2's & 1-1's)	CO1 to CO4
9	**JavaScript Functions and Events** **a.** Design an appropriate function should be called to display i. Factorial of that number ii. Fibonacci series up to that number iii. Prime numbers up to that number iv. Is it palindrome or not	CO1 to CO4
	b. Design a HTML having a text box and four buttons named Factorial, Fibonacci, Prime, and Palindrome. When a button is pressed an appropriate function should be called to display i. Factorial of that number ii. Fibonacci series up to that number iii. Prime numbers up iv. Is it palindrome or not	
	c. Write a program to validate the following fields in a registration page i. Name (start with alphabet and followed by alphanumeric and the ii. length should not be less than 6 characters) iii. Mobile (only numbers and length 10 digits) iv. E-mail (should contain format like xxxxxxx@xxxxxx.xXX	

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10	**Capstone Project:** Design an E-Commerce Website.	CO1 to CO4

Learning Resources
Text Books
1. Programming the World Wide Web, Robert W. Sebesta, Eighth Edition, 2020, Pearson. 2. Web Programming with HTML5, CSS and JavaScript, John Dean, Jones & Bartlett Learning, 2019 (Chapters 1-11).
e- Resources & other digital material
1. **HTML:** https://www.w3schools.com/html 2. **CSS:** https://www.w3schools.com/css 3. **JavaScript:** https://www.w3schools.com/js/