

# ABES Institute of Technology, Ghaziabad

## A CRC Training Program - EVEN Sem (Session - 2023-24)

Training Name - Web Development and Design Using HTML, CSS, JS

### 4th SEM ( 2022 - 2026 Batch)

Prerequisite : HTML , CSS

Table of Contents	Detailed Contents	Lecture
HTML(Revision)	Basic, Elements, Attributes, Paragraph, Formating,Table, Form, Lists, Image, Links	1
HTML 5	HTML 5 Form and Its attributes, <div>, <span>, HTML Media, HTML Layout, HTM APIs	1
PROJECT - 1	- SignUp Form - SignIn Form	
CSS	Basic, CSS Selectors, CSS Colors, CSS Background, CSS Borders, CSS Text, CSS Fonts, Icon, Link, CSS Lists, CSS Margins, CSS Padding	1
CSS Advanced	CSS Rounded Corners, CSS Border Image, CSS Web Fonts, CSS NAV, CSS Button, Introduction to Bootstrap Framework	3
PROJECT - 2	- SignUp Form( Apply CSS ) - SignIn Form (Apply CSS)	
JavaScript		
Introduction to JavaScript	- Client-Side Scripting and Server-Side Scripting - What is JavaScript? - JavaScript Program to Print Hello World - How to include a JavaScript file in another JavaScript file?	2
Variables and Datatypes	var, let, const, Data Types, Type Conversion, Null and Undefined	
Operator	- Arithmetic Operators - Difference Between == and === in Javascript - Logical operators in JavaScript - Comparison Operators in JavaScript	
Conditional Flow in JavaScript	- if, else, and else if Statement - Switch Case - WAP to find whether a number is even or odd - WAP to find largest number among three numbers - WAP to check a triangle is a equilateral, isosceles or scalene - Write a Java program that reads a floating-point number and prints "zero" if the number is zero. Otherwise, print "positive" or "negative". - Write a program that accepts three numbers from the user and prints "increasing" if the numbers are in increasing order, "decreasing" if the numbers are in decreasing order, and "Neither increasing or decreasing order" otherwise - WAP to print day name of a week (day number starting sunday as day 1).	2
	- Loops in JavaScript ( for, while, break, continue) - WAP to print a table of given number n onto console. - WAP to print sum and multiplication of digit of given number. - WAP to reverse the digit of a given integer	2

<b>Function</b>	<ul style="list-style-type: none"> <li>- Function Definition</li> <li>- Function Parameters</li> <li>- Function Call</li> <li>- Function Expressions</li> <li>- Self-Invoking Functions</li> <li>- JS - Math (Random , floor , sqrt , round , ceil , trunc , pow)</li> </ul>	<b>2</b>
<b>PROJECT 3</b>	OTP Generator Rock Paper Scissor Dice	<b>2</b>
<b>String</b>	String, String Methods <ul style="list-style-type: none"> <li>- WAP to get the character at the given index within the String</li> <li>- WAP to find substring starting from given index upto given index</li> <li>- WAP to count a number of vowels in a given string.</li> <li>- WAP to find total number of alphabets, digits or special character in a string.</li> <li>- WAP to test if a given string contains the specified sequence of char values.</li> <li>- WAP to concatenate a given string to the end of another string.</li> <li>- WAP to compare two strings lexicographically. Two strings are lexicographically equal if they are the same length and contain the same characters in the same positions.</li> <li>- WAP to check a given string is palindrome or not.</li> </ul>	<b>2</b>
<b>Array</b>	Array, Array Methods, Array Search, Array Sort	<b>2</b>
	Array iteration	<b>2</b>
<b>PROJECT 4</b>	Random Menu Picker Suffle the UNO card	<b>1</b>
<b>Objects</b>	Creating a JavaScript Object <ul style="list-style-type: none"> <li>- Using Object Literal Syntax</li> <li>- Using Object Constructor</li> <li>- Using the Object.create Method</li> <li>- Using Object.assign Method</li> <li>- access object using notation and [ ] notation</li> <li>- Nested Objects</li> <li>- access nested objects using the dot notation</li> <li>- JavaScript Object Methods</li> <li>- Loop over Object</li> <li>- Destructuring object</li> </ul>	<b>2</b>
<b>DOM and Events</b>	Introduction, Finding HTML Elements, Changing HTML Elements, Adding and Deleting Elements	<b>2</b>
	Introduction to Events, Mouse Events and its methods, Window Events	
<b>JS(ES6)</b>	Arrow Function, The ...Operator, let keyword, const keyword,	<b>2</b>
	Map Objects - Introduction and its method	<b>2</b>
<b>API</b>	Introduction to API, Web Storage API - The localStorage Object, setItem() , getItem()	<b>2</b>
	--sessionStorage Object, setItem(), getItem()	<b>2</b>
<b>PROJECT- 5</b>	Fetch API	<b>2</b>
	Weather Application	

JavaScript OOPs	<ul style="list-style-type: none"> <li>- JavaScript Classes</li> <li>- Class expressions</li> <li>- Creating Objects</li> <li>- JavaScript Prototype Object</li> </ul>	2
	<ul style="list-style-type: none"> <li>- JavaScript Constructor Method</li> <li>- JavaScript static Method</li> <li>- JavaScript Encapsulation</li> <li>- JavaScript Inheritance</li> </ul>	2
	<ul style="list-style-type: none"> <li>- JavaScript Polymorphism</li> <li>- JavaScript Abstraction</li> </ul>	1
Final Project		
	Total	40