

Prepared By:

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MCS, M.Sc (Math), B.Ed

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PROGRAMING FUNDAMENTALS

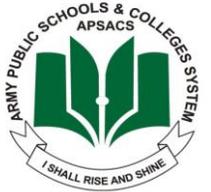
Topics:

INTRODUCTION

HYPER TEXT MARKUP LANGUAGE (HTML)

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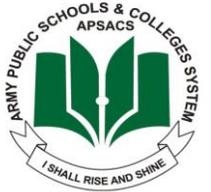


SLOs:

At the end of the lesson Students will be able to:

- Describe different types of websites
- Explain Hyper Text Markup Language (**HTML**)

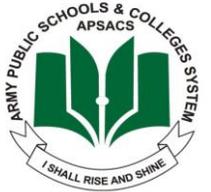
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Introduction:

- ✓ The World Wide Web (WWW) development has made easier to share information and data using websites
- ✓ Documents, Pictures, Audio, Video are the main types of information
- ✓ Hyper-Text Markup Language (HTML) is the primary language that is used for the basic website development
- ✓ The basic knowledge of HTML is necessary to customize it according to your desire

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Web and Website:

“A document which exists and is accessible through internet is a webpage, while a set of webpages is term as website”

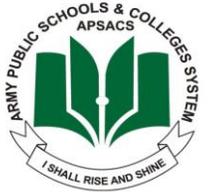
For Example:

Webpage:- <https://kambohkidsfashion.com/product/pampers-size-4-l-large-56-pcs/>

Website:- <https://kambohkidsfashion.com/>

“Every website has ‘**Homepage**’. As soon as a webpage opens up, its homepage is displayed.”

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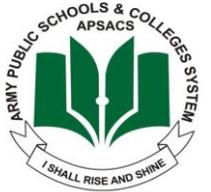


Web Application:

“A **web application**, often shortened to **web app**, is a software application that runs in a web browser and is accessed over the internet from a remote server. Unlike traditional desktop applications that require installation on your computer, web apps function without needing to be downloaded or installed by the user.”

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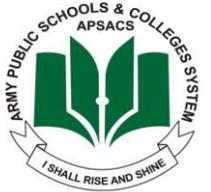
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Website Development:

“Website development refers to the process of creating and maintaining websites. website development involves coding, markup, and scripting languages such as HTML (Hypertext Markup Language) for structuring content, CSS (Cascading Style Sheets) for styling, and JavaScript for interactive functionalities. Developers also utilize various frameworks, libraries, and content management systems (CMS) to streamline the development process and enhance website capabilities.”

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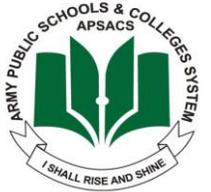


Static Website:

“A **static website** is a website composed of fixed files (like HTML, CSS, JavaScript, and images) that are delivered to a user's web browser exactly as they are stored on the web server. Unlike dynamic websites or web applications, the content of a static website **does not change** based on user interaction, database queries, or server-side processing at the time of the request.”

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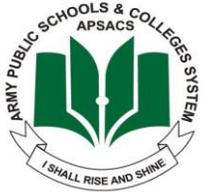
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Dynamic Website:

“A **dynamic website** is a website whose content and layout can change or be customized in real-time based on various factors. Unlike a **static website**, which serves the exact same pre-built HTML page to every user, a dynamic website generates its content "on the fly" when a user requests it.”

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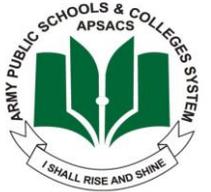


Front-End Developer:

A front-end of a website provides the interface which is graphical nowadays and termed as Graphical User Interface (GUI). The person visiting your website views and interacts with GUI. The front-end of a website is developed using Html, CSS and Javascript, etc. A person, who develops such front-end websites and GUIs, is termed as 'Front-end Developer'.

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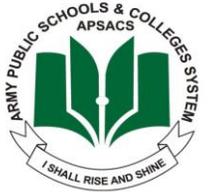
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Front-End Developer:

Front-end developed websites and GUIs need to communicate with the server for every event which the user generates and corresponding result is to be displayed on the front-end. This bridging between the front-end and the server is taken care by back-end development. A person who writes code about such services that are provided by the website is called a 'Back-end Developer'. Back-end development requires more knowledge and skill level in hand than front-end development, like knowledge of JavaScript, Python, PHP, ASP, Net, etc.

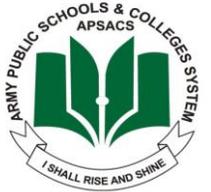
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Hyper Text Markup Language (HTML):

“HTML stands for **Hyper Text Markup Language**. It is the standard markup language used for creating web pages and web applications. Think of it as the fundamental "skeleton" or "structure" of any webpage you see on the internet.”

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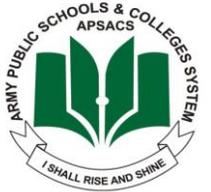


Installing Visual Studio:

[“https://visualstudio.microsoft.com/vs/”](https://visualstudio.microsoft.com/vs/)

- Download and install Visual Studio

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HTML Document Object Model:

The Document Object Model (DOM) is a standard which provides mutual interpretation where grammar of a language can be associated with and can coexist on various operating systems. In HTML, every file is interpreted as a DOM-tree where hierarchy of the said file is defined. As discussed in last chapter, a tree consists of nodes and links, so is the case here where every object and component of HTML is treated as node.

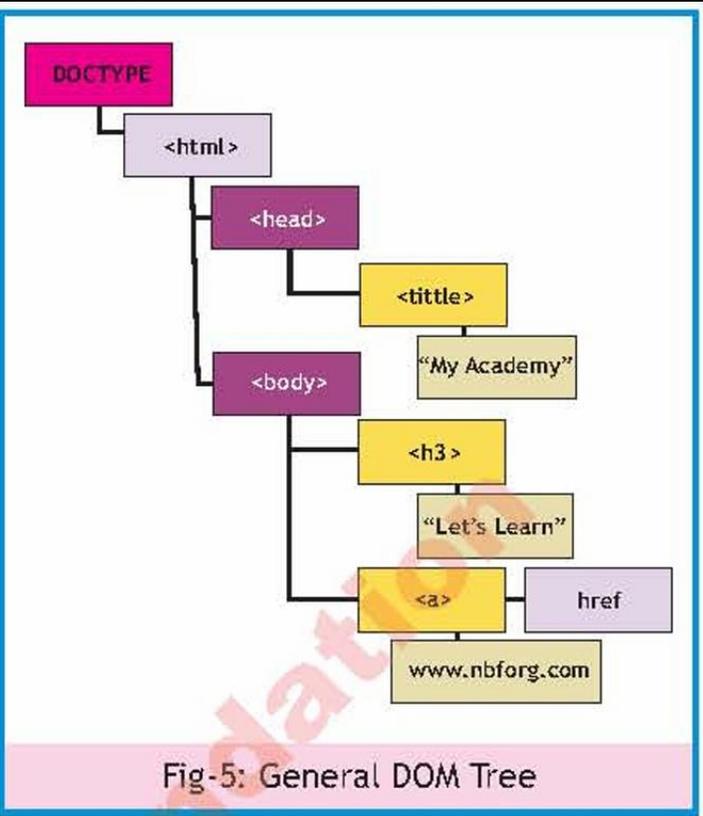
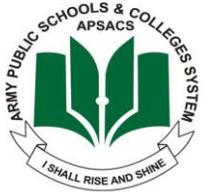


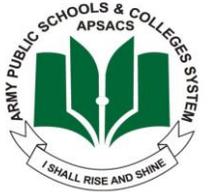
Fig-5: General DOM Tree

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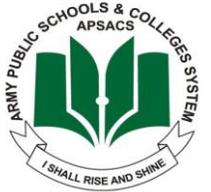
HTML Tags	Purpose
<html>	Root element
<head>	Contains metadata
<title>	Title of the page
<body>	Main content of the page
<h1>-<h6>	Headings (largest to smallest)
<p>	Paragraph
<a>	Link (anchor)
	Image
, , 	Lists
 	Line break

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Q&A
QUESTIONS &
ANSWERS

ACTIVITY



Verbal Questions:

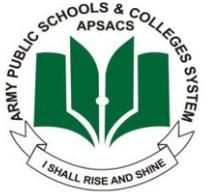
- Q. What are the tags used to create Table in the webpage?
- Q. Name the types of lists used in webpage?

<table>

Order List and Un-Ordered List

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AFL STRATEGIES



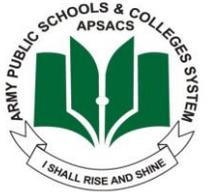
Class Discussion,

Brainstorming,

Feedback and Reflection

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ASSIGNMENT

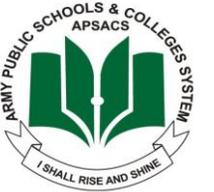


Write down answers of following questions on your computer notebooks:

1. What is Document Object Model? Explain with help of an example.

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HOME WORK



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**THANK
YOU**