# HTML5 & Its New Features

Lesson 1:
Introduction to
HTML5

# Lesson Objectives

**In this lesson you will learn about:**
- HTML5- An Overview
- Offerings of HTML5
- HTML5 – Page Layout

# Overview

The web is constantly getting evolved

New and innovative Web Sites are being created everyday

HTML is a language used for rendering and presenting contents for the World Wide Web

HTML was first introduced in 1990 and its constantly being redeveloped

The HTML5 represents the latest revision of HTML standard

HTML5 introduces a wide range of new features to develop more interacting and exciting web sites

It also standardizes many features of the web platform

The HTML5 is the first attempt to formally document many of the 'de facto' standards that web browsers supported for years

# How did we get here?

In 1991, HTML, the brainchild of Sir Tim Berners-Lee got introduced to Web Designers

The 1$^{st}$ standardized release of HTML published by IETF (Internet Engineering Task Force) in 1995 with HTML 2.0

Lack of wide support for different standards led to the development of HTML 4.0 in 1999

The XHTML 1.0 standard in the year 2000 introduced in the market to combine the systematic approach of XML & HTML

In the year 2004, W3C created XHTML 2.0

Issues such as a lack of backward compatibility made XHTML 2.0 slow to be adopted

It has become apparent that HTML4 just does not cut it for modern Web users & we needed a new web standard

This led to development of HTML5 in 2007

# A broad history of HTML5

The first "working draft" of HTML5 was published in January of 2008

The W3C & the WHATWG (Web Hypertext Application Technology Working Group) are in charge of developing HTML5

Initially, the bulk of the work at the WHATWG was split into two specifications: Web Forms 2.0 and Web Apps 1.0

Both specifications were intended to extend HTML

Over time, they were merged into a single specification called simply HTML5

Ian Hickson – Founder of WHATWG mentioned 2022 as the year he expected HTML5 to become a proposed recommendation

# What is HTML5?

**HTML5 is the next generation of HTML**

**It's a single markup language that can be written in either HTML or XHTML syntax**

**HTML5 is designed to be cross-platform**

**Its features requires modern web browsers**

**The mobile web browsers on iPhones, iPads & Android, all have excellent support for HTML5 features**

**It provides backward compatibility too**

# What's new in HTML5?

**HTML5 offers new enhanced set of tags**

- New Content Tags
  - <nav>,<section>,<header>,<article>,<aside>,<summary>
- New Media Tags
  - [<video>,<audio>,<figure>]
- New Dynamic drawing
  - <canvas>graphic tag

**Support for JavaScript APIs**
- Canvas element for 2D drawing API
- Video and audio APIs
- APIs to support offline storages
- The Drag & Drop APIs
- The Geolocation API

**Offers new Native Features like Geolocation, File System, Call, SMS & Email**

# HTML5 – The Good News !!!

**Good support on modern mobile devices (iOS, Android)**

**Simpler, more intuitive syntax**

**Video and Audio without requiring a plug-in**

**Incremental improvements to previous HTML challenges**

**Much needed next step in HTML evolution**

**Creative enhancements: Rounded corners, gradients, text layout**

**Promising Mobile JS Frameworks (Sencha, jQTouch)**

# Laying out a page with HTML5

➢ **The Doctype**

<!DOCTYPE html>

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">

# Laying out a page with HTML5

➢ **The HTML Header – It contains metadata, information about the page**

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

<meta charset="UTF-8“>

<script type="text/javascript" src="jquery.js"></script>

<script src="jquery.js"></script>

<link rel="stylesheet" type="text/css“ href="html-my.css">

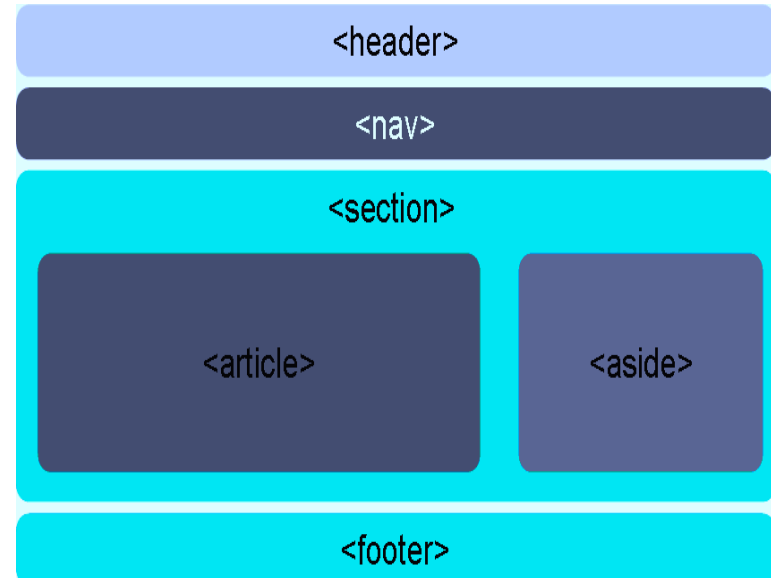<link rel="stylesheet" href="html-my.css">

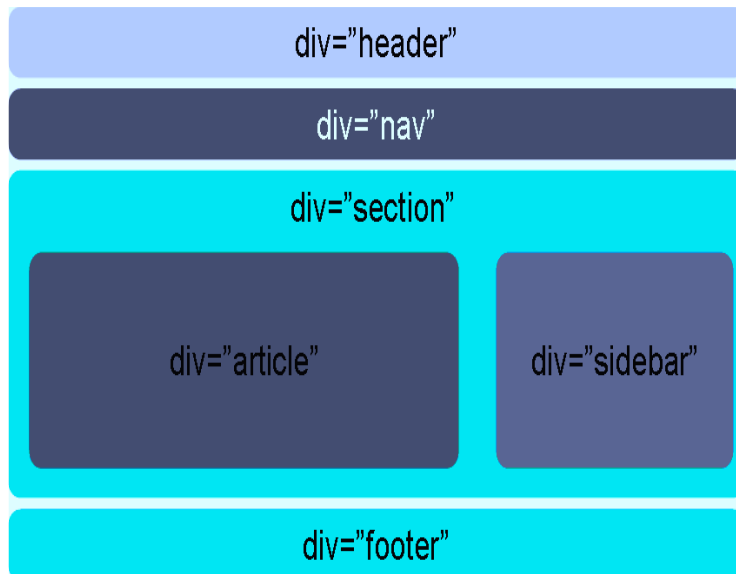<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">

<html lang="en">

# Laying out a page with HTML5

- **Most HTML 4 pages include a variety of common structures, such as headers, footers and columns**
- **It's common to mark them up using div elements, giving each a descriptive id or class**

- **HTML 5 addresses this issue by introducing new elements for representing each of these different sections**
- **Elements that make it much easier to structure pages**

| div="header" |
| :-: |
| div="nav" |

| div="section" |  |
| :-: | :-: |
| div="article" | div="sidebar" |

| div="footer" |
| :-: |

| <header> |
| :-: |
| <nav> |

| <section> |  |
| :-: | :-: |
| <article> | <aside> |

| <footer> |
| :-: |

# Summary

**In this module, you have learnt:**

- HTML5 could well be the update to HTML that everyo~~~ waiting for
- It provides useful additions to the language that will ~~ web based applications far more easier and efficient
- Work on HTML5 started way back in 2004, and now it's starting to get more interesting
- HTML5 offers new & enhanced set of tags categorized into Media Tags, Content Tags
- HTML5 also provides new JavaScript APIs like Gelolocation, Offline Storage, Drag & Drop etc
- HTML5 with its new elements like article, section, nav has also achieved Page Simplification as far as its layout is concerned

# Review Question

➢ **Which of the following are newly added content tags in HTML5?**

  – Option1: article

  – Option2: div

  – Option3: section

  – Option4: video

  – Option5: geolocation

➢ **State whether True/False**

  – HTML5 provides new JavaScript APIs to provide support for Offline Storage as well as Offline Web Applications