- Web Server
- **Web Site**
- Web Page
    - Static Page
    - Dynamic Page
- **Web Application**
    - Web Site comprises of all static content.
    - Web Application comprises of both static and dynamic content.
- **Blog [Web-Log]**
    - Blogs are like journals on Internet.
    - Blog publishes everything into one page.
    - Usually published by individual users and updated periodically.
      Ex: blogger.com, wix.com etc.
- **Vlog [Video-Log]**
  Ex: YouTube channels
- **Micro Blog**
    - Multiple users can publish their personal information on to single page.
      Ex: Twitter
- **Wiki**
    - Wiki mean “Quick”. It is an hawain term.
    - Wiki allows any anonymous user to edit its content.
      Ex: WikiPedia [Quick reference for Encyclopaedia], Google Maps, IMDB
- **Podcasting**
    - Podcast allows developers and users to upload media content [audio/video] on to servers.

- So that the content can be broadcasted on to other devices.
  Ex: YouTube, iTunes, Windows Media Player

- **URL & URI**
  - Uniform Resource Locator
    - It is a virtual path generated by web server in order to access resources from a website or application.
      ex: http://localhost/amazon/products.html
  - Uniform Resource Identifier
    - It is a named location in the resource.
      Ex: http://localhost/amazon/**products.html#mobiles** **-> URI**

- **Browser**
  - Browser is a software tool uses to access the resource from any website or application.
    Ex: Chrome, Edge, FireFox, Safari etc.

- **Web Debugger**
  - It is a software tool used by developers in web development to track the performance and issues in web page.
  - Every browser will have a web debugger which you can invoke by using “F12” function key.
    Ex: Fiddler, Postman, etc.

Setup Environment of Designing Web Application

- **Download and Install any Package Manager**

- **Package Manager** is a software tool used by web developers to install various libraries required for their development.
- Some of the popular Package Manager tools
  - NPM
  - Yarn
  - RubyGems
  - NuGet etc.
- Install NPM (Node Package Manager) on your PC
  - Visit https://nodejs.org/en/download/
  - Download the ".msi" file if you are using Windows OS
  - Install from ".msi"
- After installing open your command prompt and test

  C:\> node -v [node version]

  C:\> npm -v [npm version]

Note: You must have Node.JS version 10x above

Ex: Installing Packages

- Open the physical path of your web application in command prompt.

  C:\Amazon>
- Install by using the following syntax

  C:\Amazon> npm install PackageName

C:\Amazon> npm install bootstrap/jquery/angular etc..

Note: If you are not sure about the package names and their versions then you can get help from official website.
https://www.npmjs.com/

- The packages library is maintained in a special folder called "**node_modules**"
- The packages and their versions related information is present in a special file "**package-lock.json**"

- **Download and Install any Code Editor**
  - Code Editor provides an IDE [Integrated Development Environment]
  - It provides an environment for developer, which allows to build, debug, test and deploy applications.
  - The popular Code Editors
    - Visual Studio Code
    - Sublime

        - Brackets
        - Web Strom
        - Eclipse etc.
    - Install “Visual Studio Code” Editor
        - Visit https://code.visualstudio.com/
        - Download and install for your OS.
    - Open Visual Studio Code
    - Go to “Extensions” and install the following extensions
        - Live Server [It starts a server to run & test your application] ***[ritwickdey.liveserver]***
        - Vscode-Icons

Create a new Project

- Open file explorer and create a new folder in your local drive **C:\Fullstack**
- Open Visual Studio Code
- Go to **File Menu** **Open Folder**
- Choose “Fullstack” folder and open

Designing Web Page

- Web Page is a Hyper Text Document that provides an UI for client to interact with the resources in our web site.
- The term **Hyper** is derived from Greek terminology, which means "**beyond".**
- The Hypertext documents are designed by using "**Markup**" language.
- **Markup** is derived from a computer terminology called "**Marking up**".
- Markup is a technique used to prepare our content to present exactly as per requirement.
- A markup language is used to prepare our content to present on **browser**.
- A markup language is used for presentation. It is a presentation language.
- The early markup languages used for internet were "**GML & SGML**".
- Generic Markup Language.
- Standard Generic Markup Language.
- These languages were used for presentation on a browser called "**Mosaic".**
- In early 1990's "**Time Berners Lee"** introduced **HTML.**

- **Hypertext Markup Language.**
- HTML is super set to GML and SGML.
- **1995** IETF [Internet Engineering Task Force] developed HTML version **HTML 2.0**
- **1997** W3C [World Wide Web Consortium] developed **HTML 3.2 [Jan-1997]**
- **Dec-1997** W3C developed **HTML 4.0**
- **2004** WHATWG [Web Hypertext Application Technology Workgroup] started contributing for HTML along with W3C.
- **2014** W3C developed **HTML 5**
- **HTML** is a markup language used to **design** both static and dynamic pages.
- **HTML** pages will have extension **“.html or .htm”**