LAB 1

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Image

It is a visual representation of anything.

Example : drawing , photo , painting etc

In terms of graphics image is defined as the collection of pixels / vectors to represent something.

Types of Images

There are diffrent types of images , some of them are :

- png Portable Netwok Graphics
- JPG Joint Photographic Group Image
- JPEG Joint Photographic Expert Group Image
- WebP Web Picture Format
- SVG Scalable Vector Graphics
- GIF Graphics Interchange Format

Difference between Raster and Vector Image

Color Model

Color models are a way of specifying the visible spectrum of of color using numeric values or using color components. They're a way of conceptualizing, discussing, viewing, and creating color in art, design, advertising, and more

PIxel and Resolution

- **PIxel :** A pixel is the smallest unit of a digital image or graphic that can be displayed and represented on a digital display device.

  A pixel is the basic logical unit in digital graphics. Pixels are combined

- **Resolution :** Resolution is a measurement of the number of pixels - picture elements or individual points of color-that can be contained on a display screen or n a camera sensor.

  In practical terms, resolution describes the sharpness, or clarity, of an image or picture. It is expressed in terms of the number of pixels that can be displayed both horizontally and vertically.

DPI

DPI stands for Dots per Inch, referring to the number of ink droplets a printer will produce per inch while printing an image. The more dots of ink per inch the picture has, the more detail you will see when printed.

Videos

Video is an electronic medium for the recording, copying, playback, broadcasting, and display of moving visual media. It is a continuous representation of images without a pause .

Video was first developed for mechanical television systems, which were quickly replaced by cathode-ray tube (CRT) systems which, in turn, were replaced by flat panel displays of several types.

Types

- MP4
- MOV
- WMV
- FLV
- AVI
- WebM

HTML and Hypertext

The HyperText Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It defines the meaning and structure of web content. It is often assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

"Hypertext" refers to links that connect web pages to one another, either within a single website or between websites. Links are a fundamental aspect of the Web. By uploading content to the Internet and linking it to pages created by other people, you become an active participant in the World Wide Web.

Website

A website is a collection of publicly accessible, interlinked Web pages that share a single domain name. Websites can be created and maintained by an individual, group, business or organization to serve a variety of purposes.

Together, all publicly accessible websites constitute the World Wide Web

Although it is sometimes called “web page,” this definition is wrong, since a website consists of several webpages. A website is also known as a “web presence” or simply “site”.

Hosting

Hosting is a service through which storage and computing resources are providing to an individual or organization for the accommodation and maintenance of one or more websites and related services. While hosting doesn’t need to be IP-based, the vast majority of instances are web-based services that allow a website or web service to be globally accessible from the Internet.

VR/AR/MR

Virtual reality or VR is a 3D, computer-generated environment that replaces a user's field of vision with total immersion. Headsets that block out views and sound of the physical world are the hardware of choice to enter VR.

High-end VR experiences can fabricate a level of realism that engages a user's senses and provide true-to-life interactions

Augmented reality or AR overlays computer-generated visuals onto our perception of the real world, typically through a camera and screen. As the name suggests, it doesn't create a "new reality" but alters our view of the physical world.

AR applications are commonly adopted in smartphones; think camera filters that change your appearance and surroundings in real-time. More advanced AR applications are embedded in location-based services.

Mixed reality or MR is a relatively recent innovation. It takes VR and AR and produces environments in which real-world and computer-generated elements interact. Characters and objects, whether they're from real or virtual worlds , can cross reality boundaries to create more complex and exciting experiences

MR is often called AR 2.0 for a reason. It provides a more visually rich and interactive experience that blurs the line between the real and virtual worlds .