### LAB 1: INTRODUCTION TO LAB CONTENTS IMAGE

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An image is a visual representation or graphic representation of an object, scene, or concept. In the context of UI/UX, images are often used to enhance the visual appeal of websites, applications, or digital interfaces.

# **TYPES OF IMAGES:**

There are various types of images, including photographs, illustrations, icons, logos, and graphics. These images serve different purposes and are used in different ways within user interfaces.

#### DIFFERENCE BETWEEN RASTER IMAGE AND VECTOR IMAGE:

Raster images are made up of pixels and are resolution-dependent. They are suitable for photographs and complex images. Vector images, on the other hand, are made up of mathematical paths and are resolution-independent, making them ideal for logos, icons, and illustrations.

#### **PIXEL:**

A pixel (short for "picture element") is the smallest unit of a digital image. It represents a single point in an image and contains information about color and position.

#### **VIDEO:**

A video is a sequence of images (frames) played in rapid succession to create the illusion of motion. Videos are often used in user interfaces for demonstrations, tutorials, or entertainment.

#### **DIFFERENT FORMATS OF VIDEOS:**

Videos can be stored in various formats, including MP4, AVI, MOV, and more. Each format has its own compression and encoding methods, affecting factors like file size and quality.

#### **AR-VR-MR**:

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AR (Augmented Reality), VR (Virtual Reality), and MR (Mixed Reality) are immersive technologies that blend digital elements with the real world. They have different levels of immersion and interaction with the user.

### **DPI (Dots Per Inch):**

DPI is a measure of image or print resolution. It indicates the number of dots (or pixels) that can fit in one inch. Higher DPI values result in sharper images.

# **COLOR MODELS:**

Color models define how colors are represented in digital systems. Common color models include RGB (Red, Green, Blue) for digital screens and CMYK (Cyan, Magenta, Yellow, Key/Black) for print.

### **RESOLUTION:**

Resolution refers to the number of pixels in an image or screen, typically expressed as width x height (e.g., 1920x1080). Higher resolutions provide more detail but may require more processing power.

# **HTML/Hypertext:**

HTML (Hypertext Markup Language) is a standard language for creating web pages. It uses hypertext to structure and link content on the World Wide Web.

#### **HOSTING:**

Hosting refers to the process of storing and serving websites or web applications on servers connected to the internet. It makes websites accessible to users.

# **MULTIMEDIA:**

Multimedia involves the integration of various media types, such as text, images, audio, video, and animations, to create engaging and interactive user experiences.

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