**PROJECT : IMAGE RECOGNITION WITH IBM CLOUD VISUAL RECOGNITION.**

**Problem Definition:**

The project involves creating an image recognition system using IBM Cloud Visual Recognition. The goal is to develop a platform where users can upload images, and the system accurately classifies and describes the image contents. This will enable users to craft engaging visual stories with the help of AI-generated captions, enhancing their connection with the audience through captivating visuals and compelling narratives.

**Design Thinking:**

**Image Recognition Setup:**

Image Recognition Setup refers to the process of configuring and preparing a system or software to perform image recognition tasks. Image recognition, also known as computer vision or image classification, is a field of artificial intelligence (AI) and machine learning that focuses on teaching computers to interpret and understand visual data, such as images and videos. The key components of an image recognition setup includes: Hardware, Software, Data, Model Architecture, Training, Preprocessing, Validation and Testing, Deployment, Continuous Learning, Monitoring and Maintenance.

**User Interface:**

A user interface (UI), often referred to simply as an interface, is a means through which a user interacts with a computer, software application, website, or electronic device. The primary purpose of a user interface is to facilitate communication between the user and the system, enabling the user to perform tasks, provide input, and receive feedback or information from the system. User interfaces come in various forms, including graphical user interfaces(GUI), Command-line interfaces(CLI), voice interfaces, and more.

**Image Classification:**

Image Classification is a computer vision task in the field of artificial intelligence (AI) and machine learning. It involves the process of categorizing or labeling an image into one of several predefined classes or categories based on its visual content. The goal of image classification is to teach a computer or an AI system to recognize and differentiate objects, patterns, or features within images, similar to how humans classify objects by sight. The key components include: Dataset, Preprocessing, Model Selection, Training, Validation, Testing, Inference, Fine-tuning.

**AI Generated Captions:**

AI generated captions refer to text descriptions or labels that are automatically created by artificial intelligence(AI) systems for various types of content, such as images, audio or videos. These captions are generated based on the analysis of the content by AI algorithms, which can recognize and interpret visual or auditory information to produce descriptive text. Some common examples of AI generated captions are: Image Captions, Video Summaries, Audio Transcriptions, Content Recommendations, Data Labeling, Accessibility, Social Media.

**User Engagement:**

User engagement refers to the level of interaction, involvement, and connection that the users have with the product, service, application, website, or platform. It measures how invested active users are when interacting with a digital or physical entity. High user engagement is often considered a positive indicator because it indicates that users find value in the product or service and are more likely to continue using it, sharing it with others, and ultimately achieving the desired outcomes. Some common elements and metrics associated with user engagement are Time Spent, Frequency of use, Interactions, retention, social sharing, feedback and comments, conversation rates, gamification and rewards and personalization.