Project Design Phase-I
Solution Architecture

Date	30 October 2023
Team ID	Team ID – 592449
Project Name	Fake/Real Logo Detection using Deep Learning
Maximum Marks	5 Marks

Solution Architecture:

Objective:

- Develop an automated system to validate the authenticity of logos uploaded by users through various devices to a website.

Features:

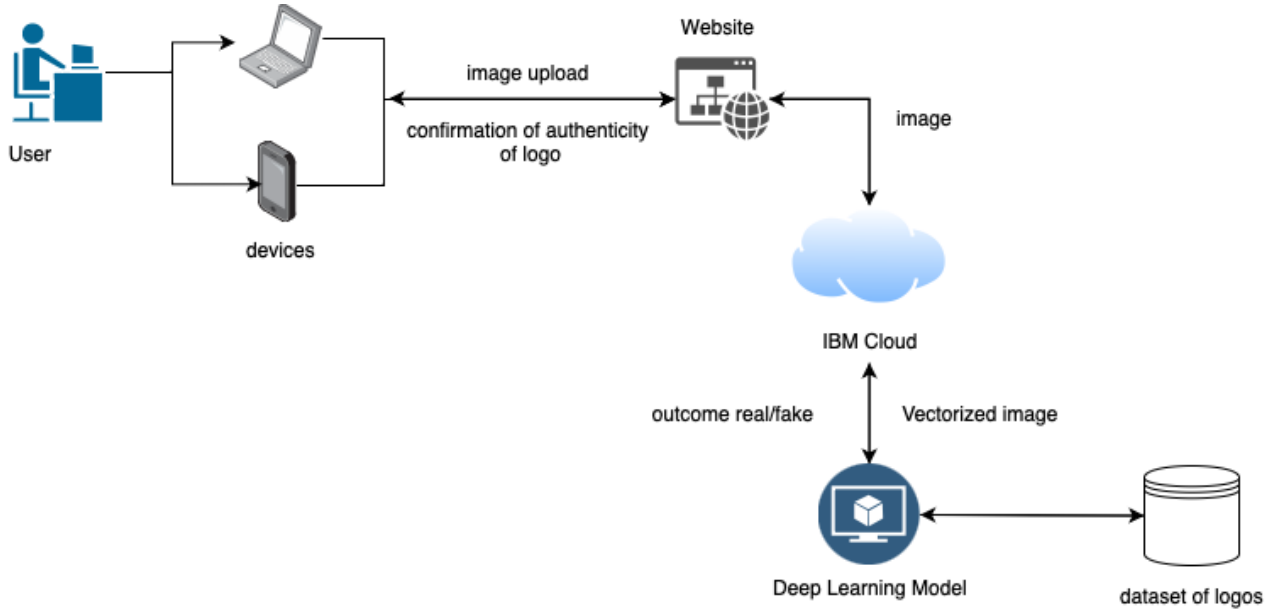
- User Interaction: Allows users to upload images of logos through multiple devices like laptops and smartphones.
- Website Interface: Provides an interface for image upload and returns confirmation of logo's authenticity.
- Cloud Integration: Utilizes IBM Cloud for processing and determining the authenticity of the uploaded logo.
- Deep Learning Model: Employs a deep learning model to discern whether the logo is real or fake based on trained datasets.
- Vectorization: Converts the uploaded image into a vectorized format suitable for comparison and processing.
- Database of Logos: Maintains a dataset of genuine logos to cross-reference and validate against the user's uploaded image.

Development Phases:

- Image Upload Phase: User uploads the image through the website.
- Cloud Processing Phase: Image is sent to the IBM Cloud, where it's vectorized and analyzed by the deep learning model.
- Validation Phase: The model checks the vectorized image against the dataset of logos to determine its authenticity.
- Outcome Phase: The result, whether the logo is real or fake, is then relayed back to the user through the website.

Solution Requirements:

- A user-friendly website interface for easy image uploads.
- Integration capability with IBM Cloud services.
- A robust deep learning model trained with a comprehensive dataset of logos.
- A mechanism to vectorize images efficiently.
- A reliable and up-to-date database of genuine logos for reference.


User
devices
image upload
confirmation of authenticity
of logo
Website
image
IBM Cloud
outcome real/fake
Vectorized image
Deep Learning Model
dataset of logos