Image Recognition with IBM Cloud Visual Recognition

PHASE 2 :INNOVATION

OVERVIEW:

In this document, we will outline the comprehensive steps to transform the idea of developing an image recognition system using IBM Cloud Visual Recognition into reality. The goal is to share the passion for photography, allowing users to upload images and receive accurate classification and AI-generated captions to create compelling visual stories. This system will help connect with the audience through attractive visuals and engaging storytelling.

IMPLEMENTATION STEPS:

- Step 1: Register with IBM Cloud
    a. If you don't already have one, visit the IBM Cloud website (https://www.ibm.com/cloud) and create an account.
    b. Complete the registration procedure by providing the needed data.
- Step 2: Create a Visual Recognition Service
    a. Enter your IBM Cloud login information. Click "Create Resource" or "Create Service" (depending on your area) from the IBM Cloud Dashboard.
    b. Type "Visual Recognition" into the search box and click on it.
    c. Select the "Lite" plan (which is free) and give your service a special name.
- Step 3: Collect and Prepare Your Images
    a. Build a gallery of pictures that demonstrate your love for photography.
    b. Make sure the pictures are properly sorted or labelled.
    c. Create folders for your photographs, with each one reflecting a different genre or subject.
- Step 4: Train Your Custom Model
    a. Go to the Visual Recognition service on the IBM Cloud.
    b. Then, select "Get Started." Click "Create Model" under "Custom Models."

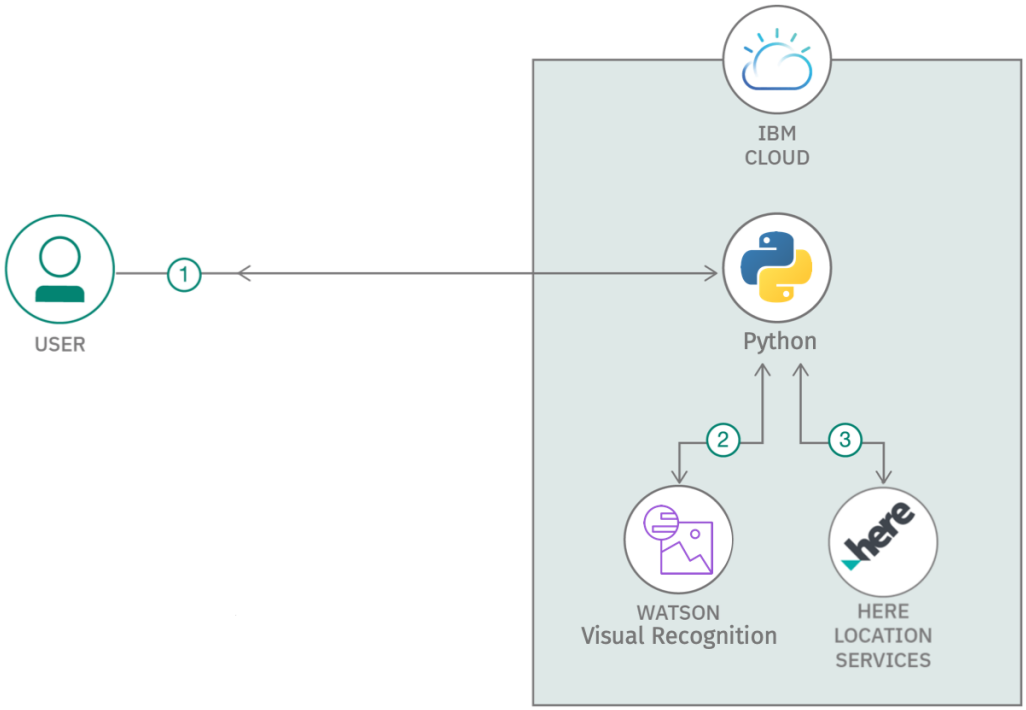
    c. Choose the dataset you produced in Step 3 and give your model a name.
    d. For preliminary testing, you can also use the default "food" dataset.
    e. Add your photographs to the dataset and give them the appropriate labels based on what they contain.
- Step 5: Train Your Model
    a. Click on the name of your unique model.
    b. When the training process is finished, click the "Train Model" button .Depending on the amount of your dataset, this can take some time.
- Step 6: Test Your Model
    a. Test your model after training by submitting photographs to the platform. Analyse the classification and description of the image's contents' correctness.
- Step 7: Generate AI-Powered Captions
    a. Put in place a program or script that works with the IBM Cloud Visual Recognition API.
    b. Utilise the program to upload photographs and to get recognition results. Use the outcomes to create captions for your photographs using AI.
    c. For this task, you can use Natural Language Processing (NLP) methods.
- Step 8: Craft Engaging Visual Stories
    a. Combine your images with the AI-generated text to create visually engaging stories that reflect your photography passion.
    b. Experiment with different styles and layouts to make your visual stories engaging.
- Step 9: Connect with Your Audience
    a. Share your visual stories on social media, personal blogs, or other favourite channels to engage with your audience.

b. Encourage involvement and comments from your audience to modify your content and increase your picture recognition system's accuracy.

- Step 10: Continuous Improvement
    a. Regularly update and retrain your custom model with new images to increase its accuracy and widen its recognition skills.
    b. Continuously refine your AI-generated captions to make them more engaging and personalised to your photography style.

Platform Features:

1. Image Upload: Users have the option of uploading photos to the platform.
2. Image Recognition: IBM Cloud Visual Recognition is used by the platform to automatically classify and characterize the contents of uploaded photos.
3. AI-Generated Captions: Based on the outcomes of the recognition process, an AI-based caption generation system generates intriguing captions for each image.
4. User profiles: Users can make profiles to share their love of photography with others and to display their photography portfolios.
5. Image Gallery: Users can browse and view posted photographs in an image gallery along with subtitles created by AI.
6. Social sharing: Users have the option of posting their photos and captions to social media websites.
7. Engagement Metrics: Track user interaction with each image, including likes, comments, and shares, to give photographers feedback.



Sitemap of our Platform

Here is a sitemap that outlines the structure of our image recognition of our platform:

- Home
    - Featured Images
    - Trending Stories
    - Explore Categories
- Upload
    - Upload Image
    - View Upload History
- Recognition
    - My Recognition Models
    - Train Custom Model
    - Recognition Results
- Caption

    - AI-Generated Captions
    - Customize Captions
- Profile
    - User Profile
    - Portfolio
    - Image Analytics
    - Followers and Following
- Community
    - Latest Comments
    - Popular Images
    - Connect with Photographers
- Settings
    - Account Settings
    - Privacy Settings
- Help and Support
    - FAQs
    - Contact Support
- Log In / Sign Up