

IMAGE RECOGNITION WITH IBM CLOUD VISUAL RECOGNITION

Instructions on how to deploy the image recognition system using IBM Cloud and the web interface.

Step 1: Create an IBM Watson Visual Recognition Service

1. Log in to your IBM Cloud account.
2. In the IBM Cloud Dashboard, click on "Create Resource."
3. Search for "Visual Recognition" and select it.
4. Follow the wizard to create the service. You can select the Lite plan for a free tier with limited capacity.
5. Once the service is created, make note of the API key and URL. You will need these credentials to interact with the service.

Step 2: Train the Visual Recognition Model

1. Prepare your image dataset. Make sure you have labelled images for different categories/classes you want to recognize.
2. Log in to your IBM Cloud account.
3. In the IBM Cloud Dashboard, go to your Visual Recognition service.
4. Under "Manage," click on "Launch Tool." This will open the Watson Visual Recognition tool.
5. Create a new model and upload your training images. Train the model based on your dataset.
6. Once the training is complete, the model will be ready for use. You can test it using the tool and make sure it recognizes your classes accurately.

Step 3: Create a Web Interface

1. Create a basic web interface for image recognition. You can use HTML, CSS, and JavaScript for this purpose. You may also use web development frameworks like Node.js and Express.js to create a more complex web app.
2. In your web interface, create an input element for users to upload images.
3. Use the IBM Watson Visual Recognition API to send the uploaded image to the service for recognition. You can use the API key and URL you noted earlier.

4. Display the results from the Visual Recognition service on your web interface, showing the recognized classes and confidence scores.

Step 4: Deploy the Web Interface on IBM Cloud Foundry

1. In the IBM Cloud Dashboard, click on "Create Resource."
2. Search for "Cloud Foundry" and select it.
3. Follow the wizard to create a Cloud Foundry app. You can choose a region and specify a unique name for your app.
4. In your local development environment, use the IBM Cloud CLI to push your web interface code to the Cloud Foundry app. You'll need to install the IBM Cloud CLI if you haven't already.
5. Bind your Cloud Foundry app to the Visual Recognition service you created earlier. This allows your app to access the Visual Recognition service.
6. Deploy your web interface to IBM Cloud Foundry by running the `ibm cloud foundry push`` command.
7. Once the deployment is complete, you can access your web interface using the provided URL.

Step 5: Test and Use

1. Open your web interface in a web browser.
2. Upload an image, and the web interface will send it to the IBM Watson Visual Recognition service for recognition.
3. Display the recognition results on your web interface.

Now, you have a functional image recognition system deployed on IBM Cloud with a web interface. Users can upload images, and the system will recognize and display the results.