

# IMAGE RECOGNITION SYSTEM USING IBM CLOUD VISUAL RECOGNITION

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## Create a Visual Recognition Service Instance:

- Log in to your IBM Cloud account.
- In the IBM Cloud dashboard, click on "Create Resource."
- Search for "Visual Recognition" and select it from the list of services.
- Follow the prompts to create a Visual Recognition service instance.

## Get API Credentials :

Once you have created the Visual Recognition service instance, you will need the API credentials to authenticate your requests.

- In the IBM Cloud dashboard, navigate to your Visual Recognition service instance.
- Click on "Service credentials" in the left menu.
- Create a new credential if one is not already available.
- Note the **apikey** and **url** from your service credentials. You will need these for making API requests.

## Train Your Custom Model:

IBM Cloud Visual Recognition allows you to create custom image recognition models for your specific use case. You can train your model by providing labeled images and training data.

- Prepare your training data. You should have a set of images with labels, and these labels will be used for classification.
- Log in to your IBM Cloud account and access the Visual Recognition service instance you created.
- Click on "Create model."
- Follow the prompts to upload your training data and train your custom model.

## Use the API:

You can now use the IBM Cloud Visual Recognition API to integrate image recognition into your application. You can use various SDKs or make direct API calls to classify images.

## Here's a simple example using Python:

```
from ibm_watson import VisualRecognitionV4
from ibm_cloud_sdk_core.authenticators import IAMAuthenticator

authenticator = IAMAuthenticator('YOUR_API_KEY')
visual_recognition = VisualRecognitionV4(
    version='2018-03-19',
    authenticator=authenticator
)
```

```
# Set the endpoint URL

visual_recognition.set_service_url('YOUR_SERVICE_URL')


# Classify an image

with open('image.jpg', 'rb') as image_file:

    classes = visual_recognition.classify(

        images_file=image_file,

        threshold='0.6', # Adjust the confidence threshold as
needed

    ).get_result()

print(classes)
```

## Highlights:

- **Integration of the AR engine with a scalable Drupal CMS, to ensure updated product availability for virtual try-ons**
- **Generates image captions automatically judiciously using Artificial Intelligence and Neural Networks**
- **Tags will enable users to identify the objects in the images and index them for any future use**
- **Saves significant time and effort, reducing manual intervention**

## The Solution:

To overcome this problem, we at Srijan Technologies have come up with an image-captioning tool based on cloud computing and Convolutional Neural Networks to simplify and automate the caption generation.

The tool has been trained effectively with more than ten thousand images.

With increasing awareness on accessibility and providing better user experience, the tool can be used for both image captioning and generating alt text. Designed to deliver accurate and reliable image captioning, the results can be used to provide