IMAGE RECOGNITION SYSTEM USING IBM CLOUD VISUAL RECOGNITION

Development part 2

INTRODECTION :

The Authentication system we'll be using is a simple API key. You can use a GET request using the URL of a photo, or a POST request to send the document to analyze to the server. the API key often acts as both a unique identifier and a secret token for authentication, and is assigned a set of access that is specific to the identity that is associated with it.

To view your API keys, go to Manage > Access (IAM) > API keys in the IBM Cloud console.

Managing user API keys:

To manage the IBM Cloud API keys that are associated with your user identity or the ones that you have access to manage for other users in the account, go to Manage **>** Access (IAM) **>** API keys **in the IBM Cloud console.**

Creating an API key:

As an IBM Cloud user you might want to use an API key when you enable a program or script without distributing your password to the script. A benefit of using an API key can be that a user or organization can create several API keys for different programs and the API keys can be deleted independently if compromised without interfering with other API keys or even the user. You can create up to 20 API keys.

To create an API key for your user identity in the UI, complete the following steps:

1. **In the IBM Cloud console, go to** Manage **>** Access (IAM) **>** API keys**.**
2. **Click** Create an IBM Cloud API key**.**
3. **Enter a name and description for your API key.**
4. **Click** Create**.**
5. **Then, click** Show **to display the API key. Or, click** Copy **to copy and save it for later, or click** Download**.**

Updating an API key:

If you want to change the name or the description of an API key, complete the following steps in the UI or CLI.

To edit an API key, complete the following steps:

1. **In the IBM Cloud console, go to** Manage > Access (IAM) > API keys**.**
2. **Identify the row of the API key that you want to update, and click the** Actions **icon** > Edit**.**
3. **Update the information for your API key.**
4. **Click** Apply**.**

Generating an IAM token:

You can generate an IAM token by using either your IBM Cloud API key or a service ID's API key. The API key is a permanent credential that can be reused if you don't lose the API key value or delete the API key in the account.

This process is also used if you are developing an application that needs to work with other IBM Cloud services. You must use a service ID API key to get an access token to be passed to each of the IBM Cloud services.

To programmatically generate an IAM token by using an API key, call the IAM Identity Services API or SDKs as shown in the following sample request.

```
curl -X POST 'https://iam.cloud.ibm.com/identity/token' -H
'Content-Type: application/x-www-form-urlencoded' -d
'grant_type=urn:ibm:params:oauth:grant-
type:apikey&apikey=MY_APIKEY'
```

Expected response


```
{
   "access_token": "eyJhbGciOiJIUz.....sgrKIi8hdFs",
   "refresh_token": "SPrXw5tBE3.....KBQ+luWQVY=",
   "token_type": "Bearer",
   "expires_in": 3600,
   "expiration": 1473188353
}
```


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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

Key Takeaways:

This image captioning tool will automate the task of deciphering the image to describe them in natural sentences, improving workflow and efficiency.

Artificial Intelligence has the ability to learn continuously from past experiences and adapt to changes- making it the most suitable for generating meaningful captions eventually.

The Solution:

To overcome this problem, we at Srijan Technologies have come up with an image-captioning tool based on Artificial Intelligence 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