IMAGE RECOGNITION WITH IBM CLOUD VISUAL RECOGNITION

INTRODUCTION:

In this part we will begin building our project. Start building the image recognition system using IBM cloud visual recognition. Create an IBM cloud account set up the visual recognition service and obtain API keys. Design a simple web interface where user can upload images and view the AI-generated captions.

BUILD AN IMAGE RECOGNITION SYSTEM:

1) Sign up for IBM cloud: https://cloud.ibm.com/.
2) Create an instance of IBM visual recognition.
3) Collect and prepare your data.
4) Train a custom model.
5) Test and evaluate.
6) Integration.
7) Continuous improvement.
8) Cost and deployment.
9) Documentation and support.

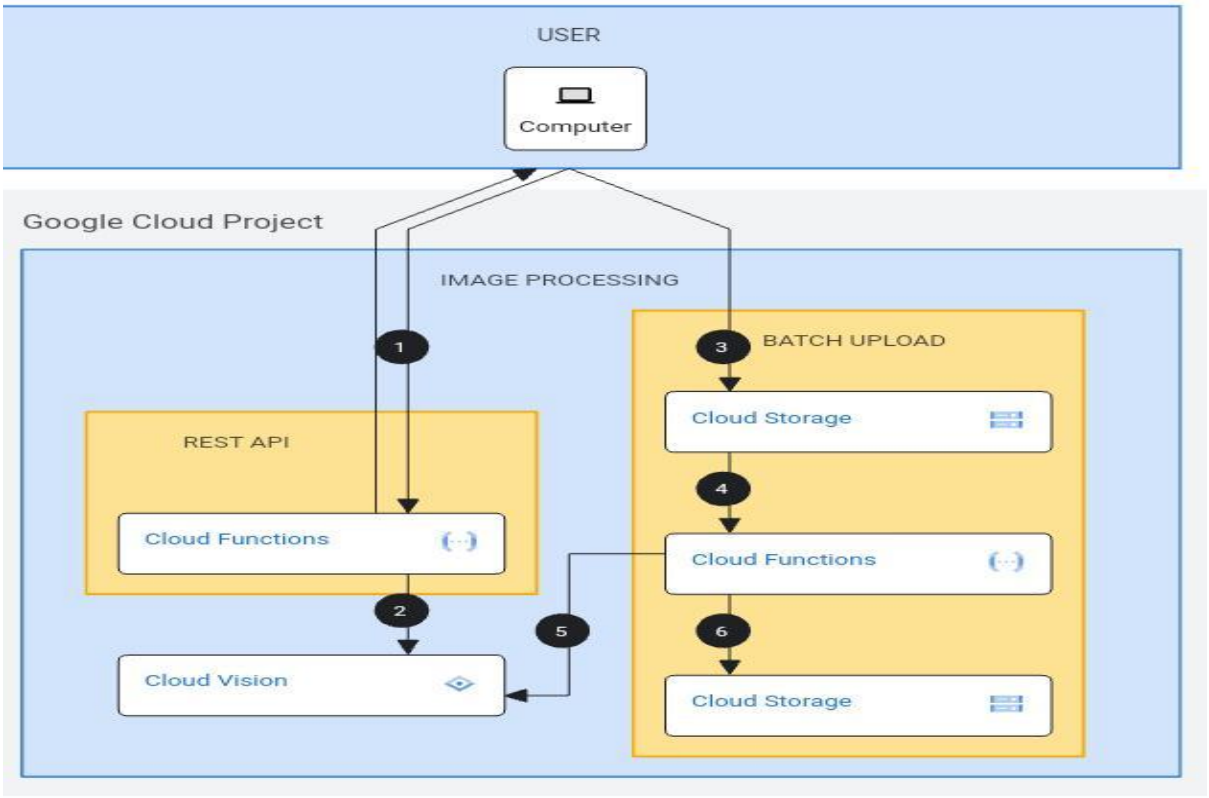


Fig: image processing

DEVELOPMENT OF IMAGE RECOGNITION WITH CLOUD APPLICATION:

1. **Choose a Cloud Service Provider:** Select a cloud service provider (e.g., Amazon Web Services, Microsoft Azure, Google Cloud) and create an account if you don't have one.
2. **Access the Sign-In Page:** Go to the cloud service provider's website and locate the sign-in or login page.
3. **Enter Credentials:** Enter your username (often an email address) and password associated with your cloud account.
4. **Access Your Account:** After successful authentication, you'll gain access to your cloud dashboard or console, where you can manage your cloud resources.

BUILDING THE IMAGE RECOGNITION SYSTEM USING IBM CLOUD VISUAL RECOGNITION:

1.CREATE AN IBM CLOUD ACCOUNT:

for creating, an IBM cloud account,

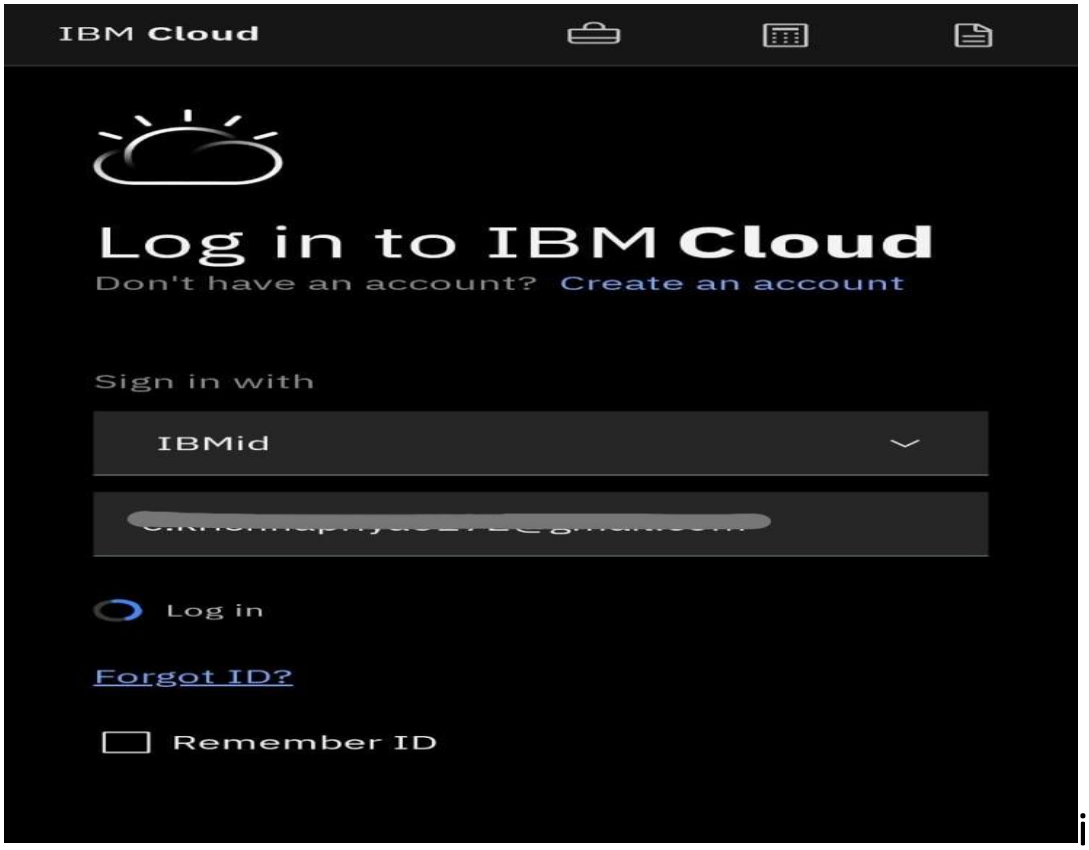
Open your web browser and go to the IBM cloud login page:

https://cloud.ibm.com.

Create an account with IBM cloud computing with its proper username and password security.

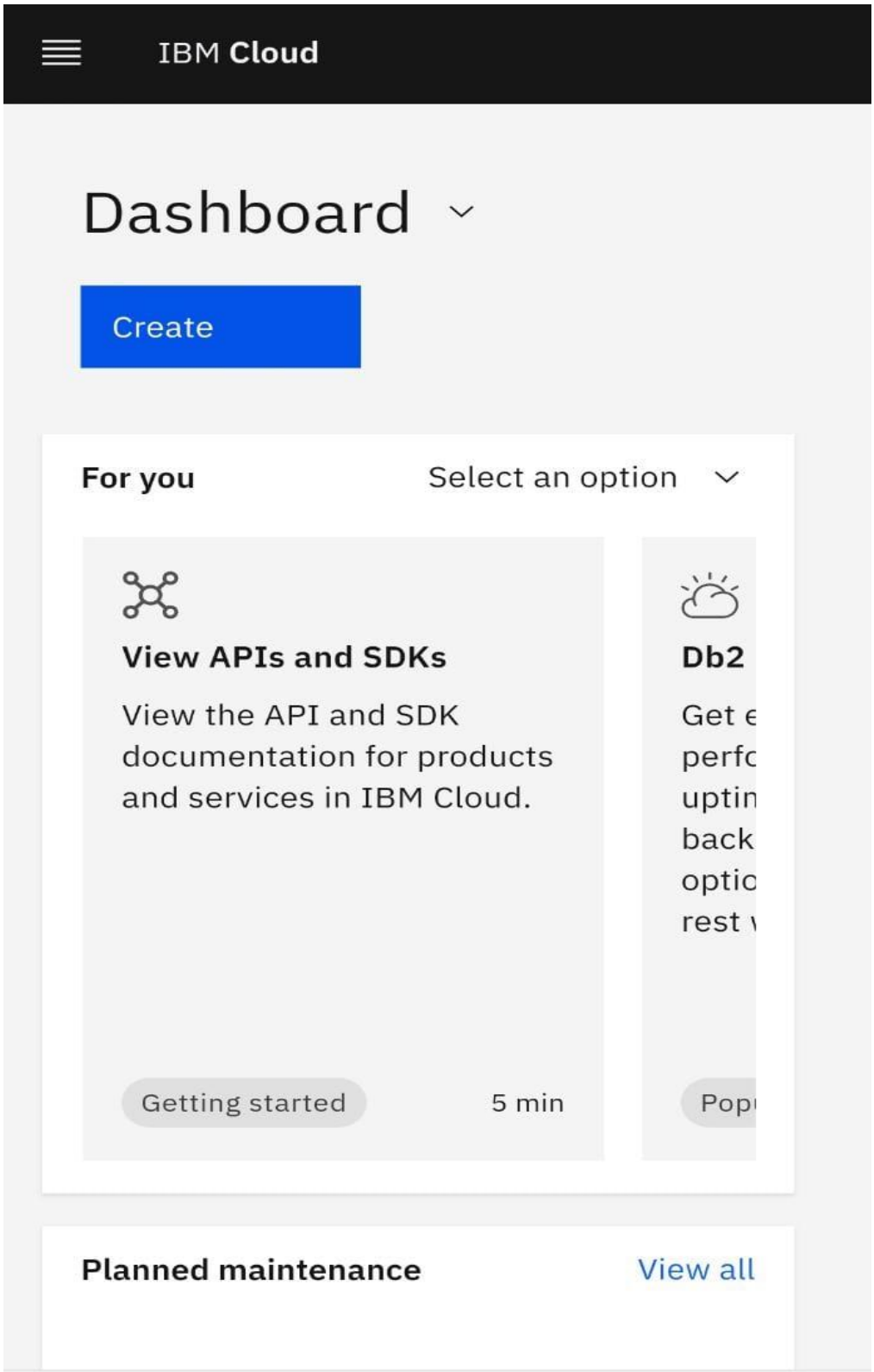
Once you successfully entered your credentials and, if necessary, the 2FA cloud login account.

Create your account and create your dashboard with IBM account.



ib

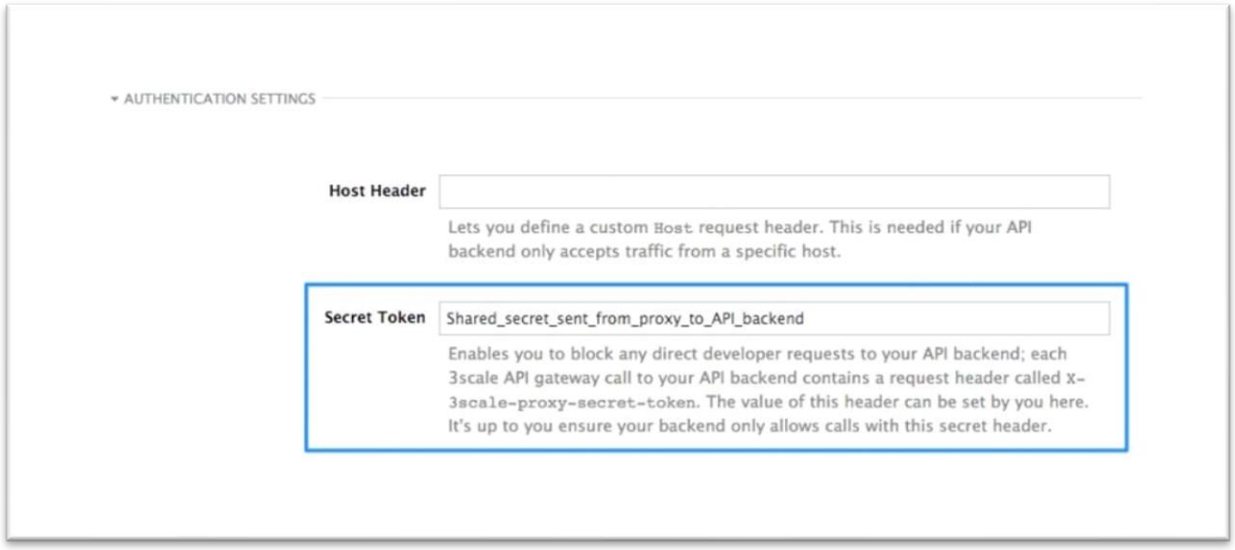
DASHBOARD IN IBM CLOUD COMPUTING:



API KEYS FOR VISUAL RECOGNITION SERVICE IN IBM CLOUD COMPUTING:

An creating an IBM cloud and dashboard creating API keys:

For security reasons, any request from the 3scale gateway to your API backend contains a header called X-3scale-proxy-secret-token. You can set value of this header in Authentication settings on the integration page.

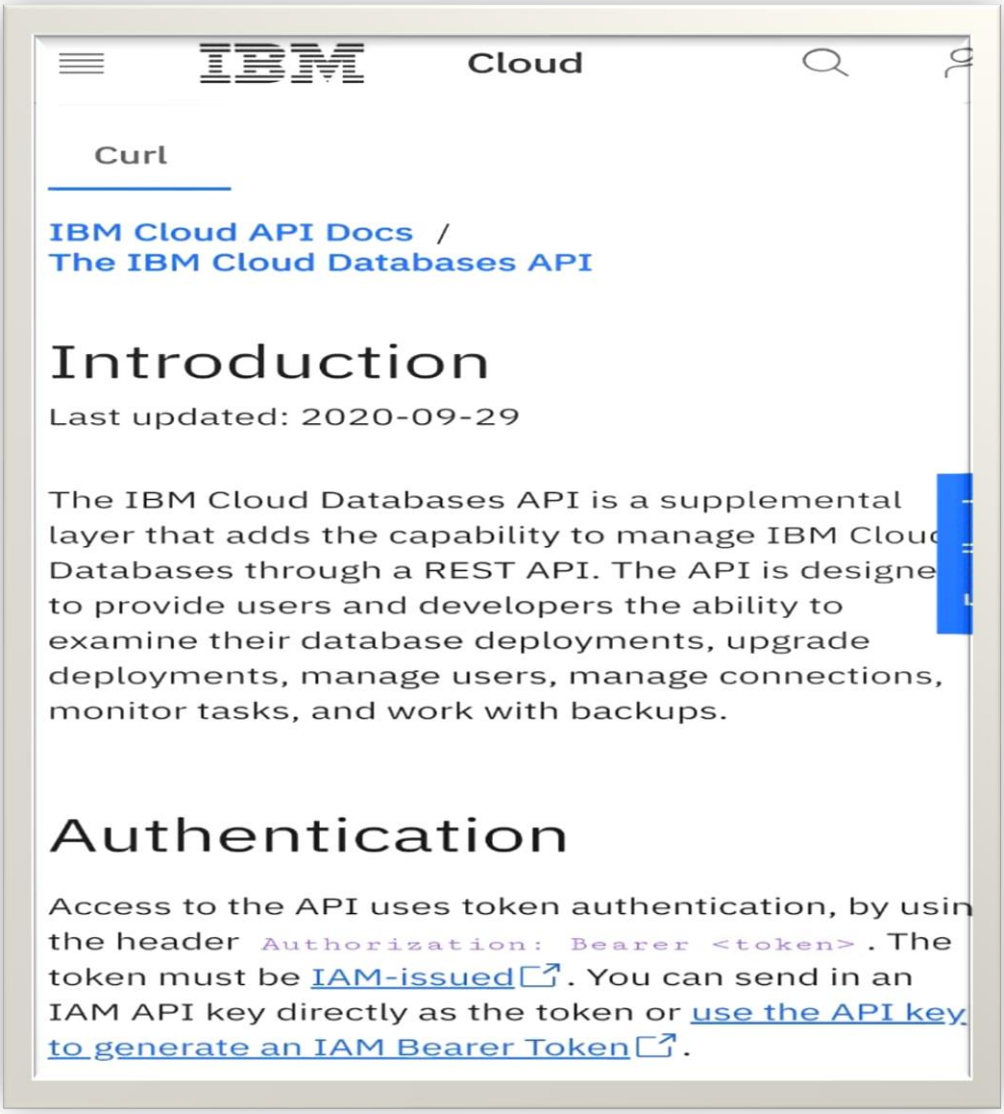


Setting the secret token act as a shared secret between the proxy and your API so that you can all API request that do not come from the gateway if you do want them too.

API KEYS IN DIFFERENT RESOURCES AT CLOUD COMPUTING:

1.AUTHENTICATION 3.DEPLOYMENT IDS AND CRNs

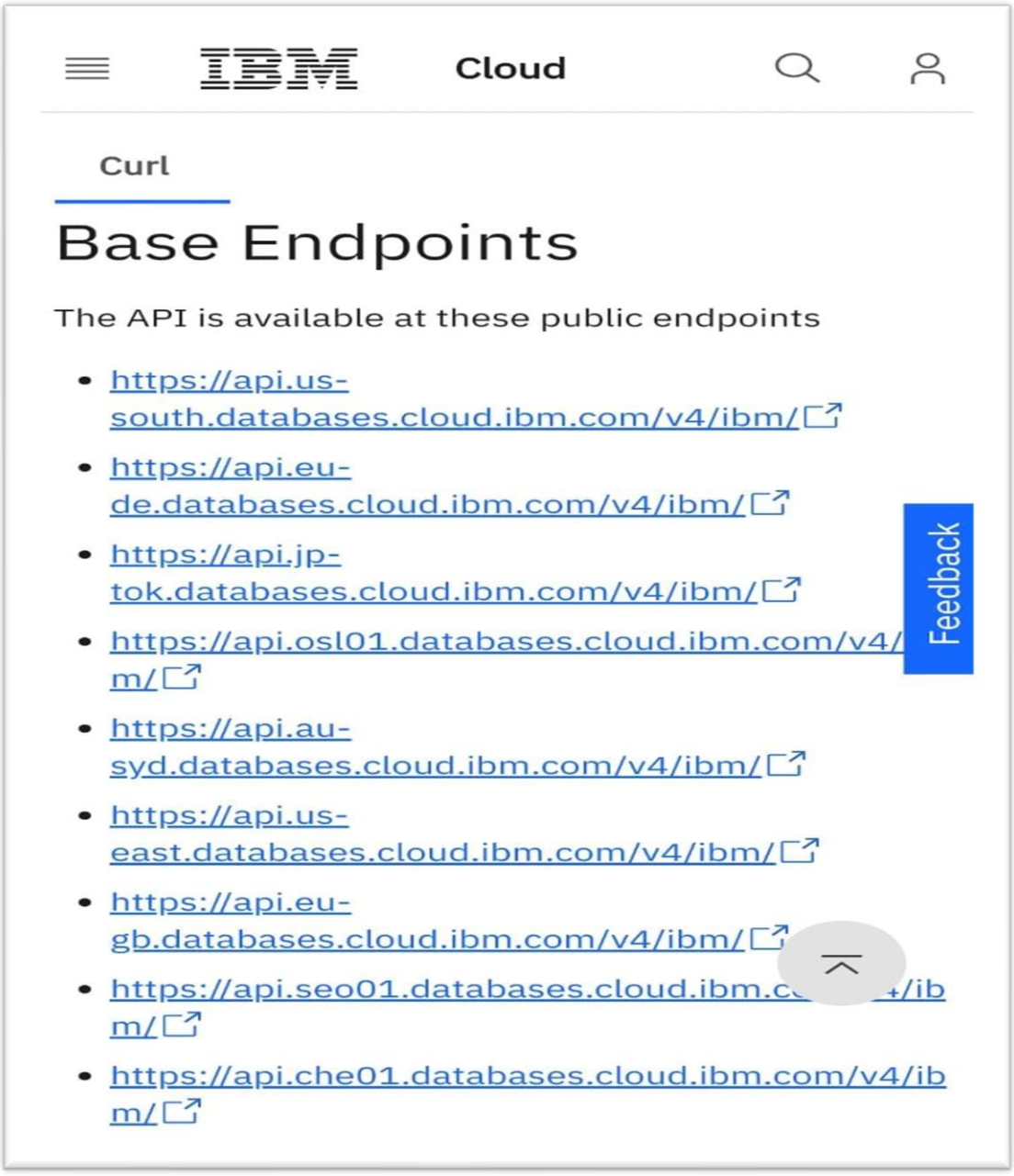
2.EVENT TRACKING 4. BASE END POINTS



BASE ENDPOINTS:

The API is available at this public end points and also available at private end point.

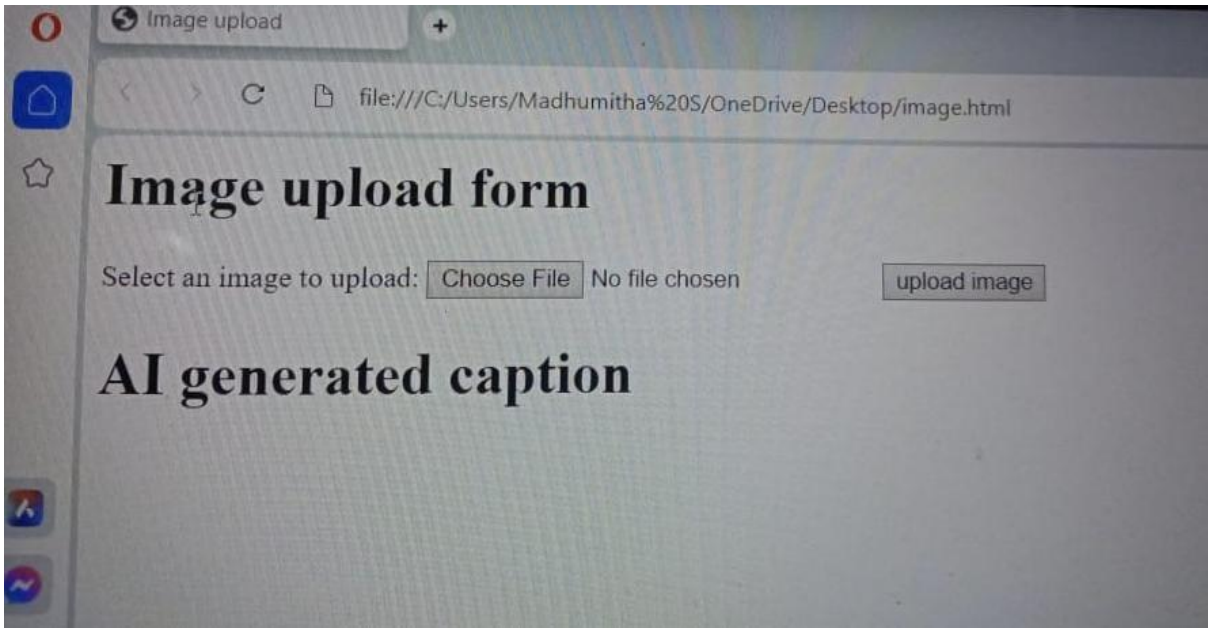
Thus the end point from the same region as your deployment. A deployment end point is also available on its overview tab.



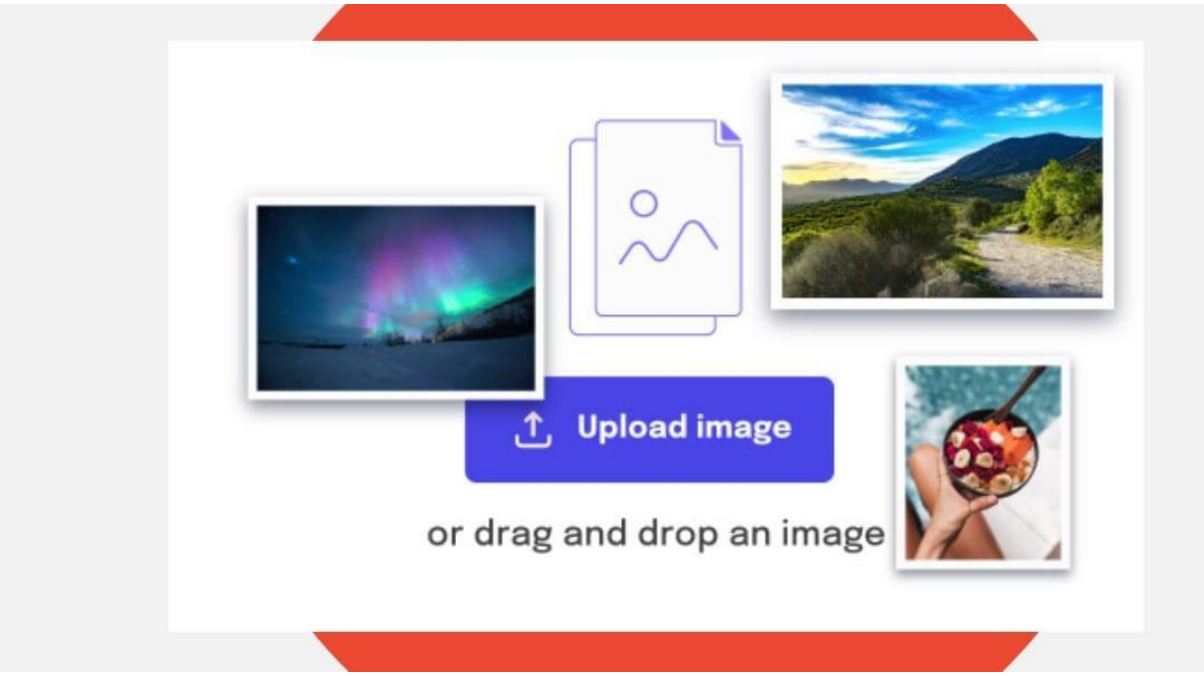
DESIGNING:

A simple web interface where users can upload images and view the AI- generated captions.

CAPTION:



For an web interfaces the user can both upload images and viewed images at one interface.



Web interface coding techniques in IBM cloud computing:

```
<html>
<head>
<title> Image upload</title>
</head>
<body>
<h1> Image upload form </h1>
<form action="upload.jpg"
method="post" enctype="multipart/
form-data">
<label for="image">Select an image to upload:</label>
<input type="file"
name="image" id="image">
<input type="submit"
value="upload image" name="submit">
</form>
</body>
</html>
<html>
<head>
      <title>Image captioning </title>
<body>
<h1> AI generated caption</h1>
<div id="caption"></div>

<script>
var caption = "your generated captions goes here";
var captionElement = document.getElement.innerHTML =caption;
</script>
</body>
</html>
```

Conclusion:

IBM Cloud computing offers a robust platform for organizations to leverage the power of cloud technology. With a wide range of services, including infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS), IBM Cloud provides a scalable, secure, and flexible environment for application development and deployment. Its integrated AI and data analytics capabilities further enhance the value it brings to businesses.

REFERENCE:

i. https://www.ibm.com/docs/en/qradar-common?topic=tuning-reviewing-building-blocks
ii. https://www.ibm.com/topics/api#:~:text=An%20API%2C%20or%20application%20programming,to%20communicate%20with%20each%20other
iii. https://www.javatpoint.com/web-services-in-cloud-computing