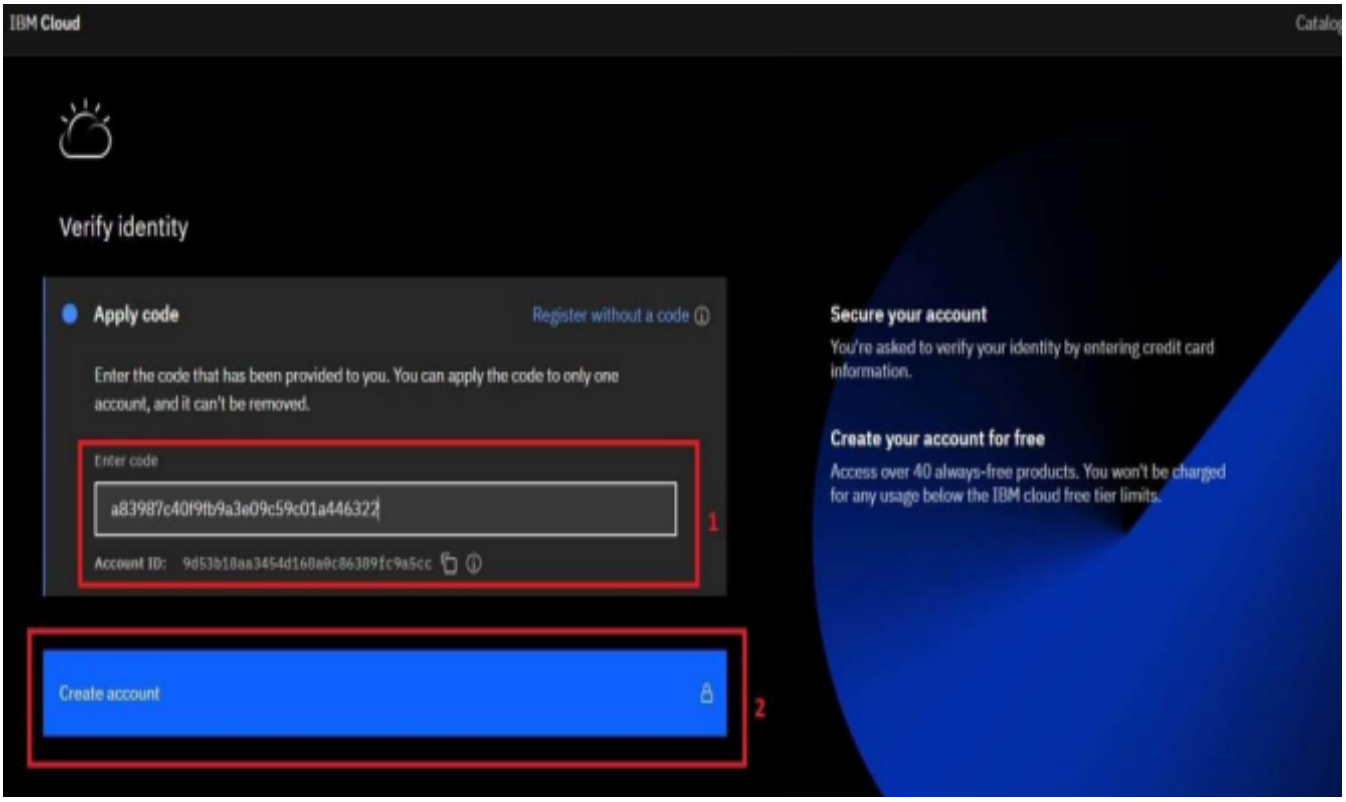
IMAGE RECOGNITION WITH IBM CLOUD VISUAL RECOGNITION
PHASE 3

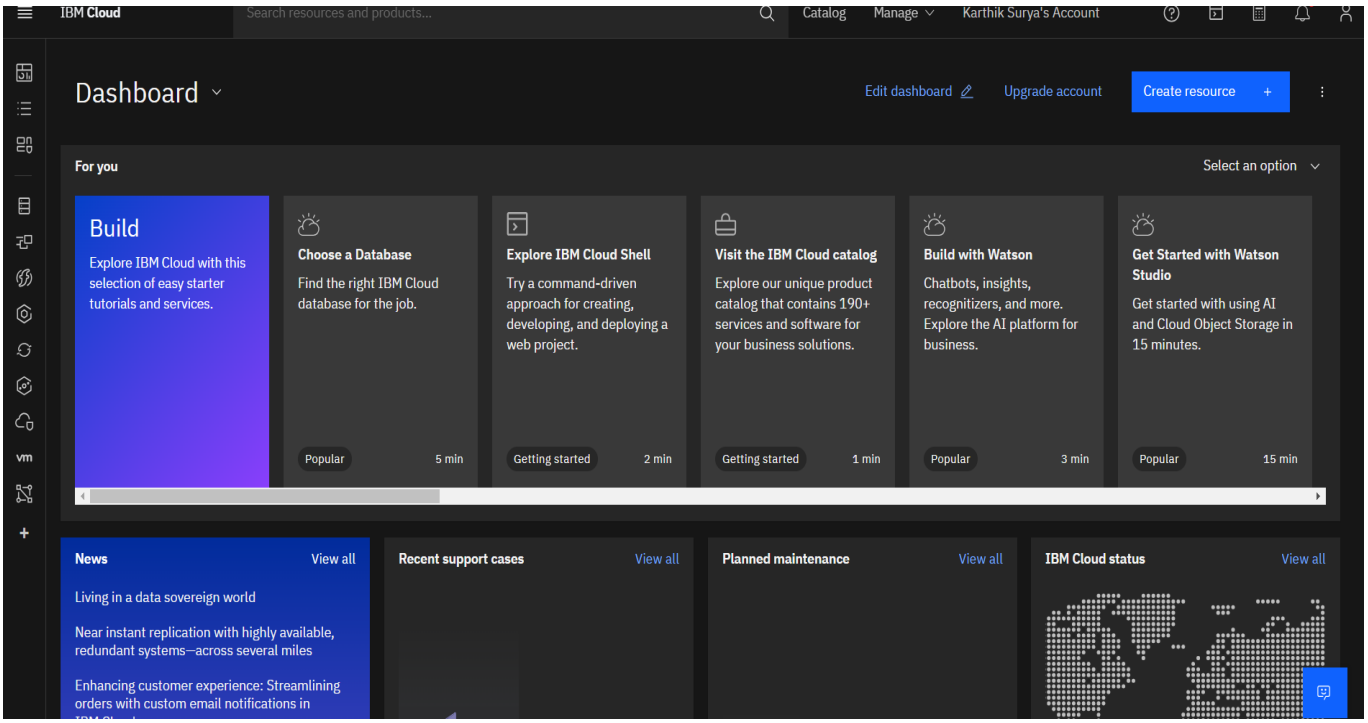
OVERVIEW

Certainly! Here's an overview of the steps to build an image recognition system using IBM Cloud Visual Recognition and design a simple web interface for users to upload images and view AI-generated captions

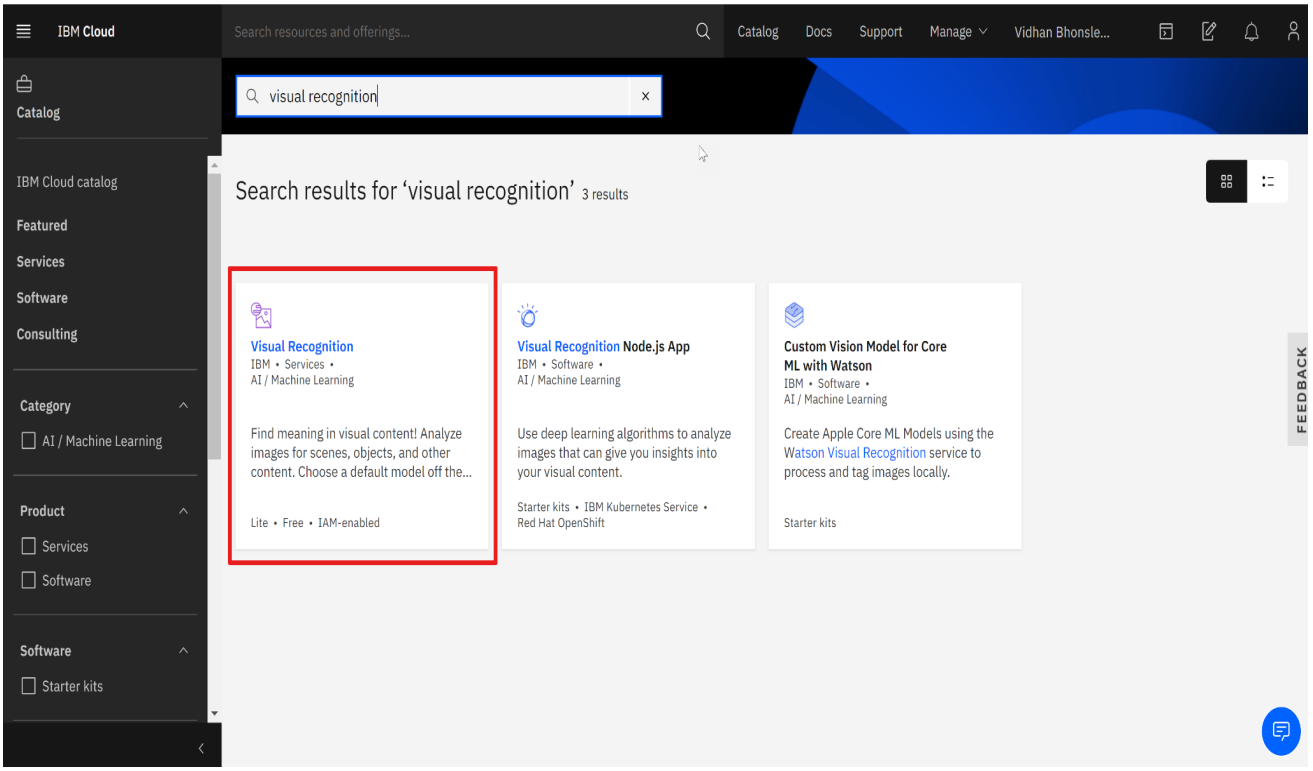
IBM CLOUD VISUAL RECOGNITION

CREATE A IBM CLOUD





VISUAL RECOGNITION AND API KEY



```
watsonvr:
      - name: "Account 1"
        credentials:
           authType: "BASIC"
           apiKey: "2AbcdefghiJK_lmn37oP0qrSTUvwxZmUUpa-6E4AGjt2"
           apiVersion: "v3"
           versionDate: "2018-03-19"
           loggingFlag: "true"
        endpoint: {}
```

CODE TO CREATE WEBSITE

STEP 1 CREATE A HTML

```
<!DOCTYPE html>
<html>
<head>
   <title>Image Recognition</title>
</head>
<body>
   <h1>Image Recognition</h1>
   <input type="file" id="imageInput" accept="image/*">
   <button id="analyzeButton">Analyze Image</button>
   <p>AI-generated Caption: <span id="caption"></span></p>
   <img id="uploadedImage" style="display: none;" />
   <script src="script.js"></script>
</body>
</html>
```

STEP 2:Set Up JavaScript to Call the Visual Recognition API

Create a JavaScript file (script.js) to handle user interactions and call the Visual Recognition API using the API key.

```
document.getElementById('analyzeButton').addEventListener('click', () => {
   const fileInput = document.getElementById('imageInput');
   const image = fileInput.files[0];
```

```
    if (!image) {
        alert('Please select an image to analyze.');
        return;
    }

    const formData = new FormData();
    formData.append('images_file', image);

    // Call the Visual Recognition API
    analyzeImage(formData);
});

async function analyzeImage(imageData) {
    // Replace with your Visual Recognition API key
    const apiKey = 'YOUR_API_KEY';

    const url =
`https://api.us-south.visual-recognition.watson.cloud.ibm.com/instances/YOUR_INSTANCE
_ID/v3/classify?version=2018-03-19`;

    try {
        const response = await fetch(url, {
            method: 'POST',
            headers: {
                'Authorization': `Basic ${btoa(`apikey:${apiKey}`)}`,
            },
            body: imageData,
        });

        if (response.ok) {
            const result = await response.json();
            displayCaption(result);
        } else {
            alert('Error analyzing the image. Please try again.');
        }
    } catch (error) {
        console.error('An error occurred:', error);
    }
}

function displayCaption(result) {
    const caption = result.images[0].classifiers[0].classes[0].class;
    const captionElement = document.getElementById('caption');
    captionElement.textContent = caption;
```

```
}
// Replace with your Visual Recognition API key
const apiKey = 'YOUR_API_KEY';

// Event listener for the "Analyze Image" button
document.getElementById('analyzeButton').addEventListener('click', () => {
    const fileInput = document.getElementById('imageInput');
    const image = fileInput.files[0];

    const formData = new FormData();
    formData.append('images_file', image);

    // Use the IBM Watson Visual Recognition SDK to analyze the image
    // Include code here to send the image to the Visual Recognition service
    // and display the AI-generated caption in the 'caption' span.
});
```