PHASE 3:

DEVELOPMENT PART -1

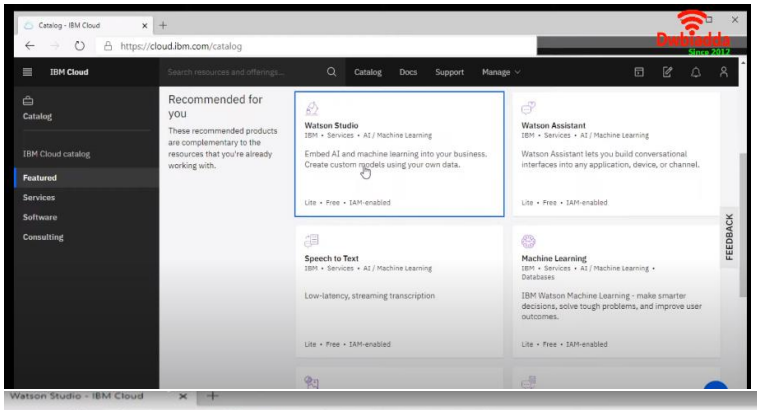
INTRODUCTION:

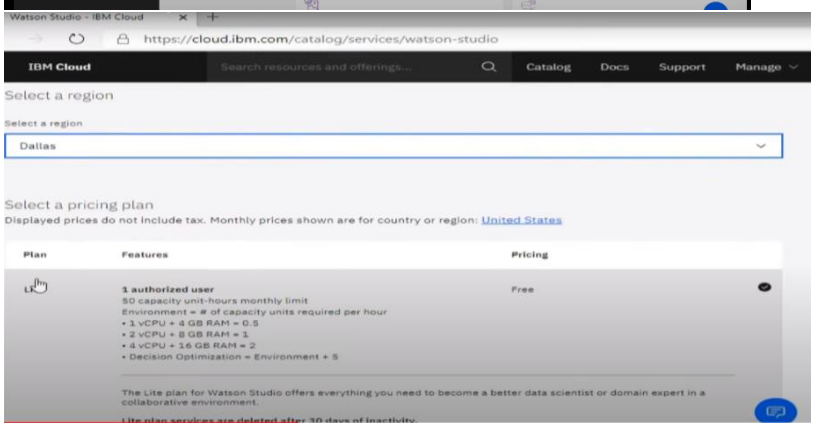
In this project, we are going to develop an image recognition using an “IBM CLOUD VISUAL RECOGNITION”. here are the steps how to implement recognition process using ” IBM WATSON VISUAL RECOGNITION”.IBM Watson Visual Recognition is a service that allows you to train custom image recognition models or use pre-trained models to analyze and classify images. To implement image recognition using Watson Visual Recognition.

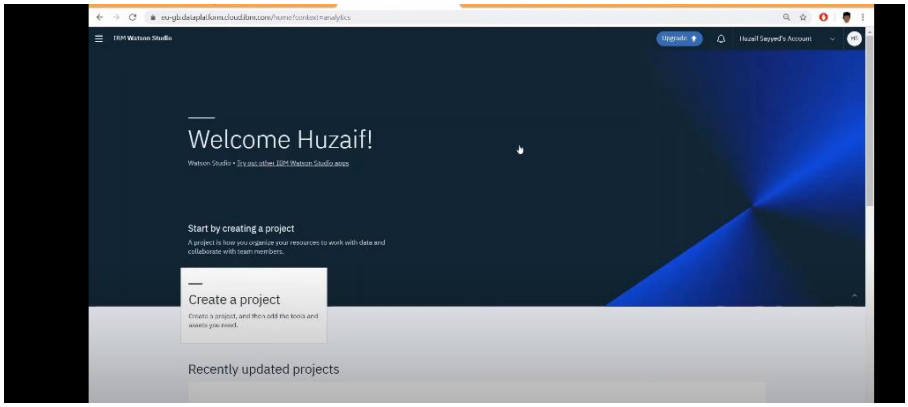
Steps:

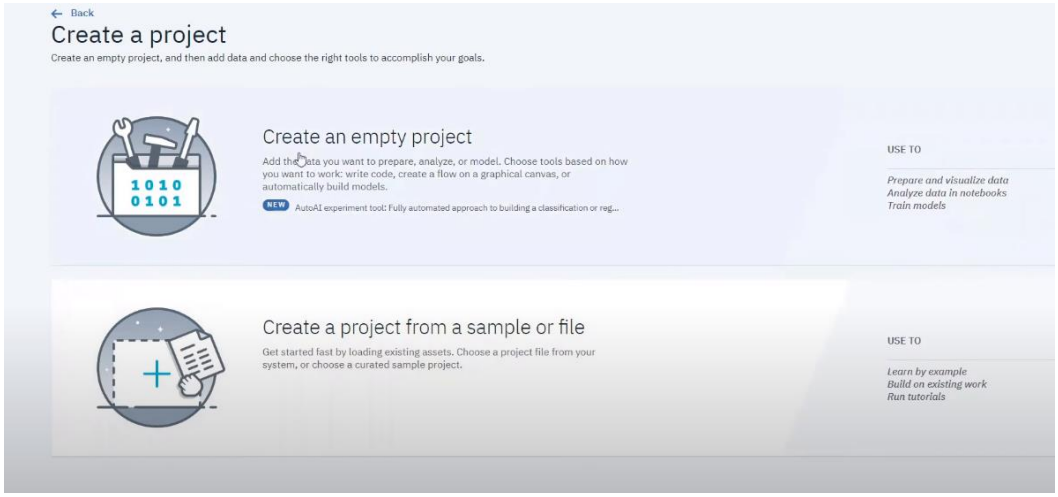
1. Sign up for IBM Watson Services:

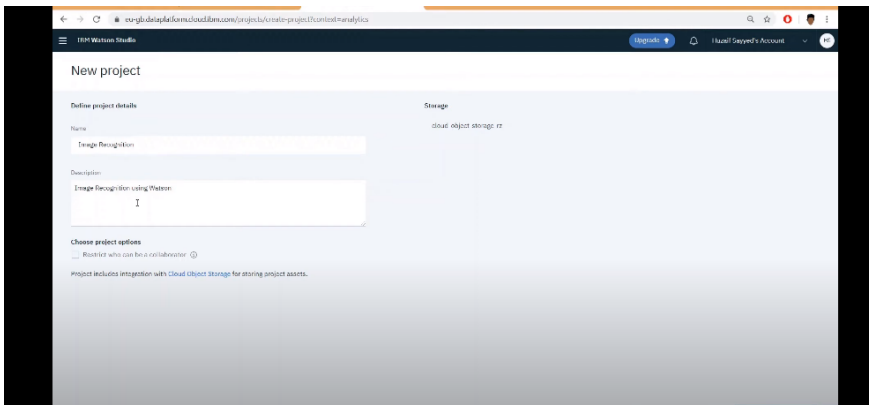
sign up for IBM Watson services and create an instance of Watson Visual Recognition on the IBM Cloud platform.











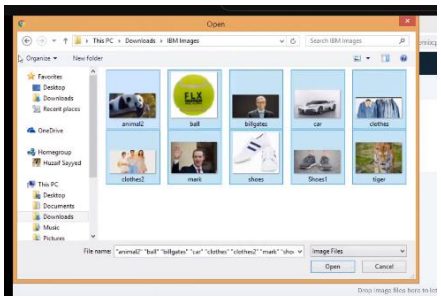
Create an project by clicking “create” on the bottom.

2. Collect and Prepare Your Data:

Gather a dataset of images that you want to recognize and classify. Ensure that the dataset is well-organized and labeled.you're

training a custom model, you should have images grouped into categories or classes.

- Select minimum of 10 images to upload and test.



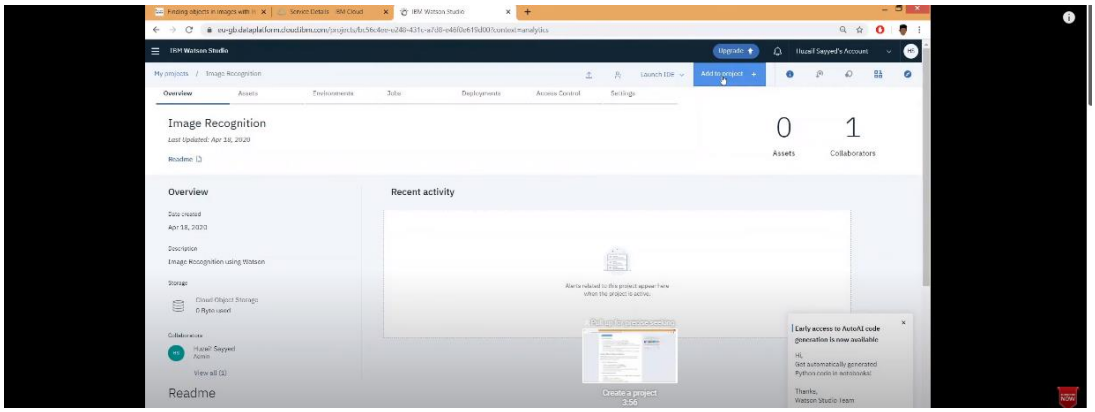
3. Create a Custom Model (Optional):

If you need to recognize specific objects or categories not covered by the pre-trained models, you can train your own custom model. This is useful for cases like recognizing your company's products or unique objects.

- Go to your Watson Visual Recognition instance on the IBM Cloud.
- Create a new project and upload your labeled dataset.
- Train the custom model using the dataset.

4. Use Pre-Trained Models (Optional):

If your recognition needs align with the pre-trained models provided by Watson Visual Recognition, you can skip custom model training and use the pre-built models.click “add to project”.


IBM Watson Studio
Image Recognition
Overview
Recent activity
Readme
0
Assets
1
Collaborators

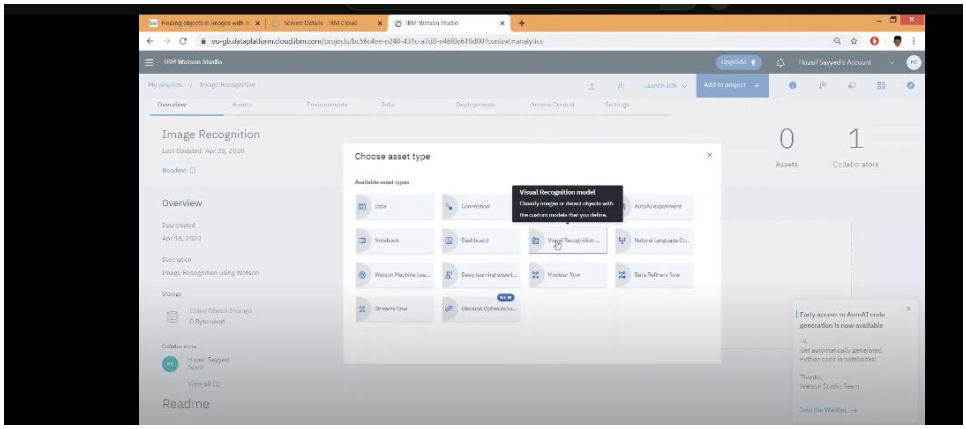
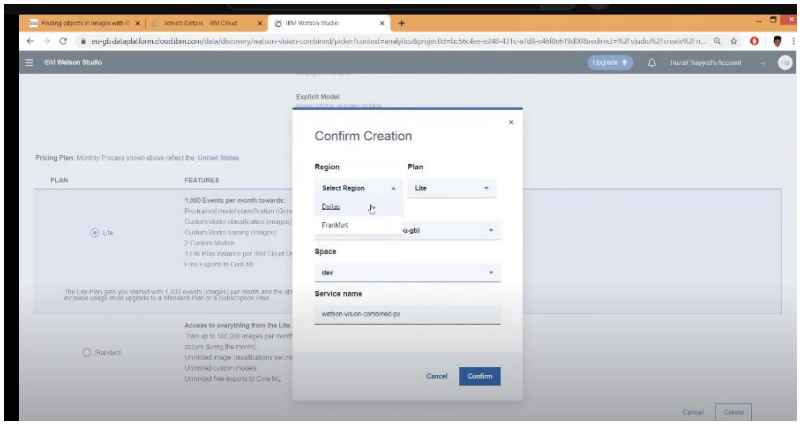
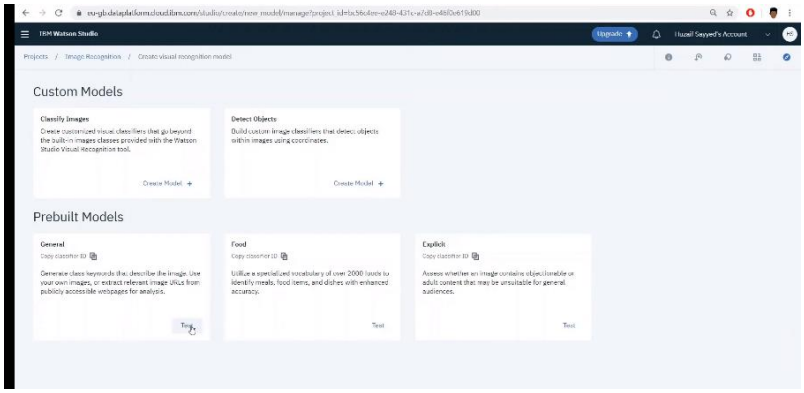
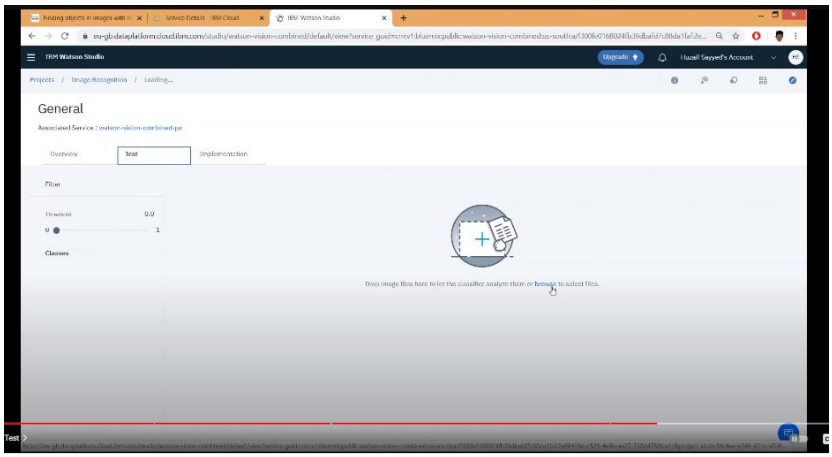


Image Recognition
Choose asset type
Visual Recognition model
Overview
Readme

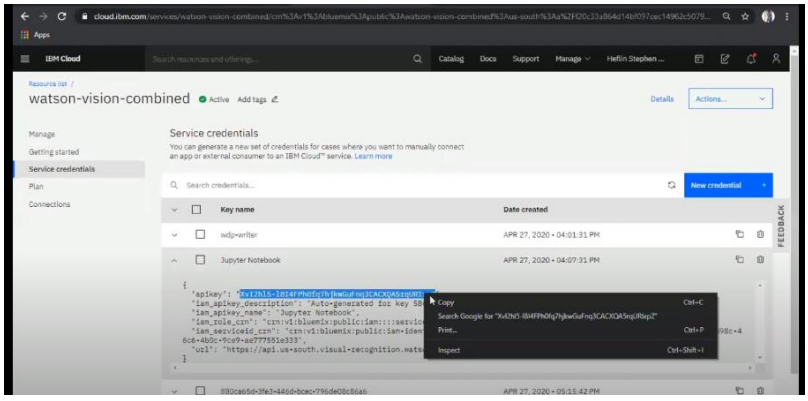

Confirm Creation
Region
Plan
Select Region
Lite
Frankfurt
Space
dev
Service name
watson-vision-combined-px
Cancel
Confirm

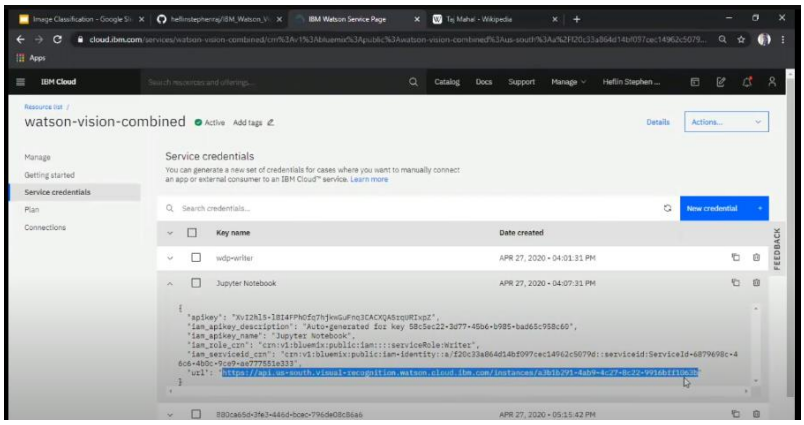




5. Obtain API Credentials:

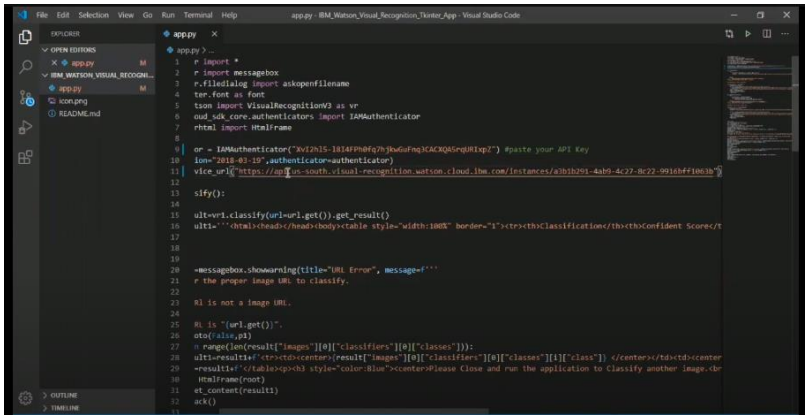
You will need API credentials (API Key and URL) to access the Watson Visual Recognition service. You can find this information in the IBM Cloud dashboard for your Watson Visual Recognition instance.





6. Code Implementation:

Depending on your programming language of choice, you can interact with Watson Visual Recognition using its API.



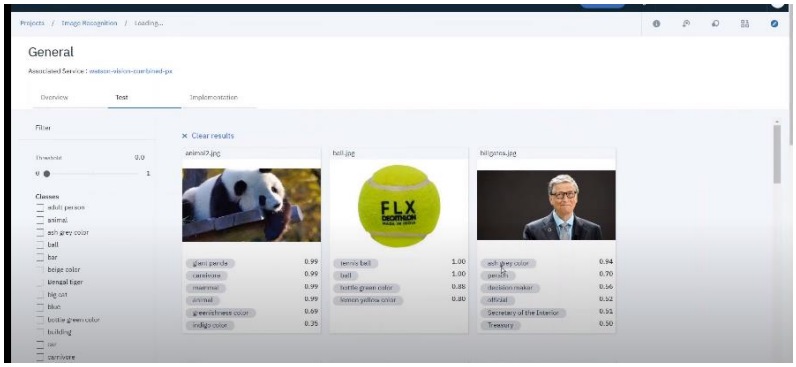
Here's a basic example in Python using the `ibm-watson` Python SDK:

```python
from ibm_watson import VisualRecognitionV3
from ibm_watson.visual_recognition_v3 import FileWithMetadata, RecognizeEnums

api_key = 'your_api_key'
```

```
service_url = 'your_service_url'

# Create a Watson Visual Recognition client
visual_recognition = VisualRecognitionV3(
    '2018-03-19',
    iam_apikey=api_key,
    url=service_url
)

# Use the classify method to analyze an image
with open('image.jpg', 'rb') as image_file:
    classes = visual_recognition.classify(
        images_file=FileWithMetadata(image_file)
    ).get_result()

print(classes)
```

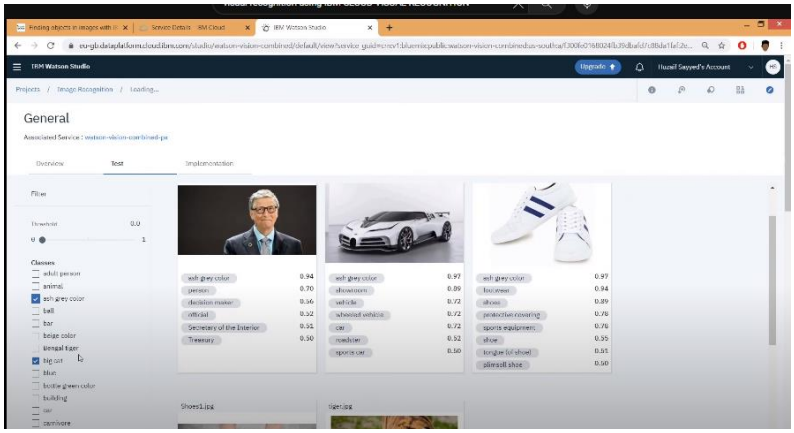
7. Interpret the Results:

The response from Watson Visual Recognition will contain information about the recognized objects or categories in the image. Depending on your use case, you can use this information to take specific actions or provide user feedback.



8. Integrate with Your Application:

Integrate the image recognition code into your application or service, ensuring it can process images and return meaningful results.



9. Test and Iterate:

Test the image recognition system with various images and refine your model or code as needed. Iterate to improve accuracy and performance.

10. Deploy:

Finally, deploy your application or service with the integrated image recognition functionality to make it available to users.

These steps should help you get started with implementing image recognition using Watson Visual Recognition. Customization and fine-tuning may be necessary to meet your specific requirements.