

CLOUD APPLICATION DEVELOPMENT – PHASE 3

PROJECT – IMAGE RECOGNITION WITH IBM CLOUD VISUAL RECOGNITION

TEAM MEMBERS:

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Image Recognition with IBM Cloud Visual Recognition

Phase 3: Development Part 1

In this part you will begin building your project.

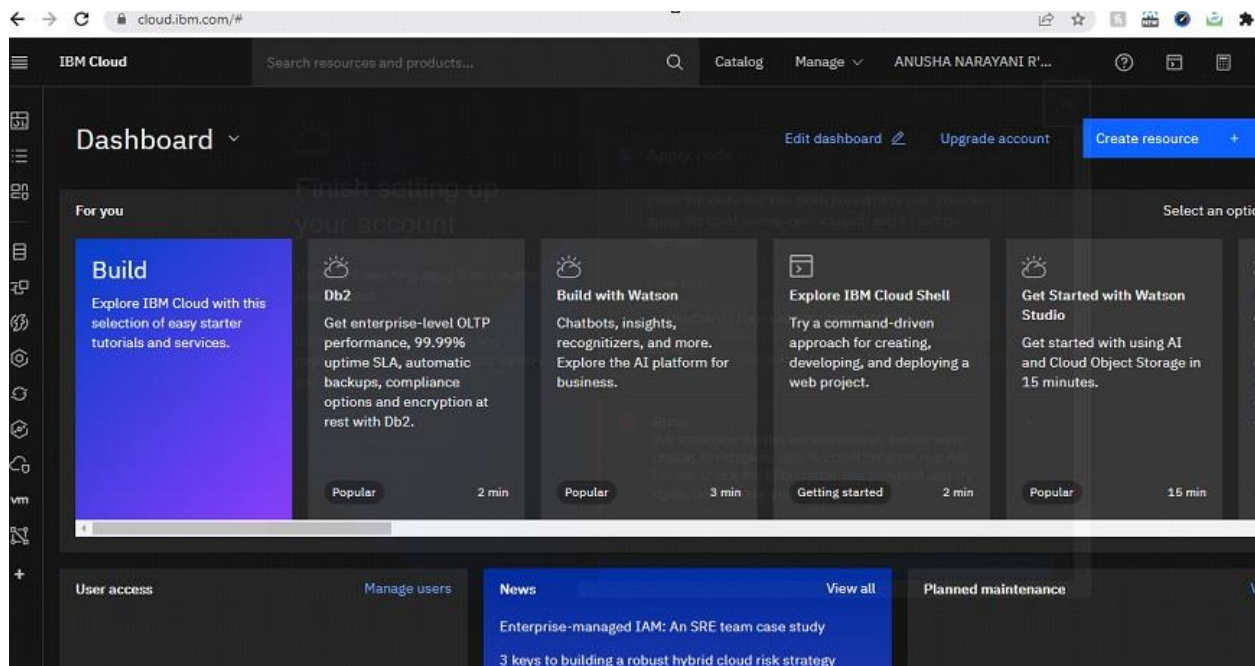
Start building the image recognition system using IBM Cloud Visual Recognition.

Create an IBM Cloud account, set up the Visual Recognition service, and obtain API keys.

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

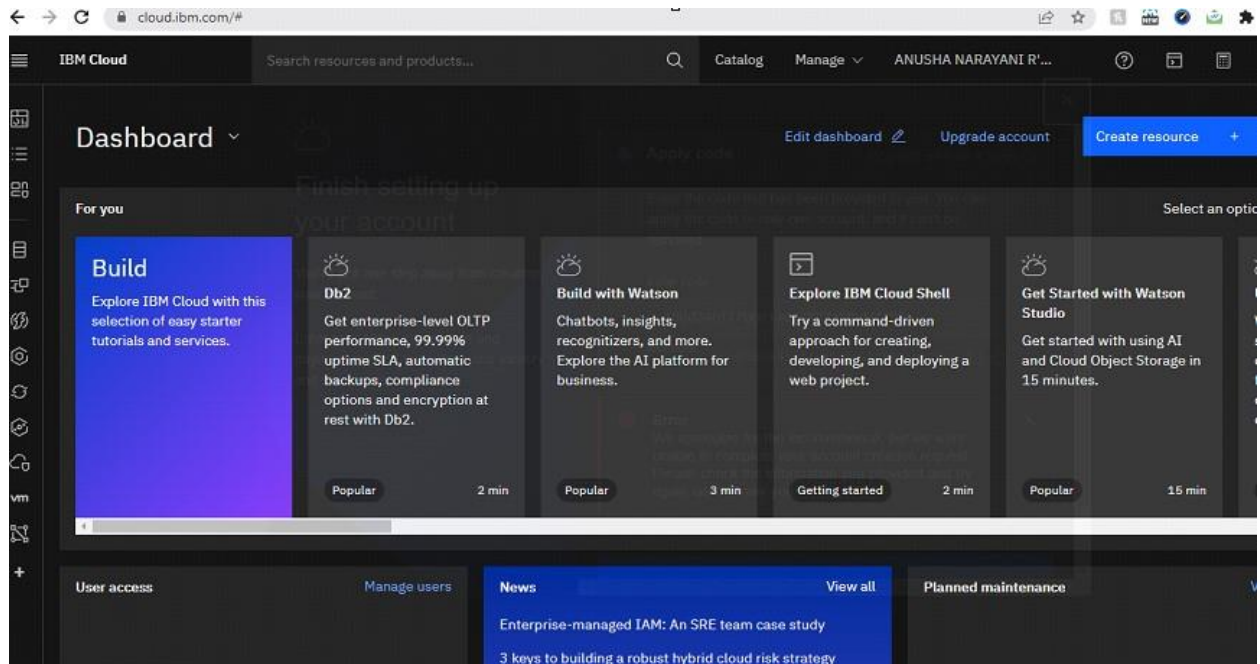
Step 1: Sign Up/Login to IBM Cloud

- Go to the [IBM Cloud website](<https://cloud.ibm.com/>).
- Sign up for a new account or log in if you already have one.

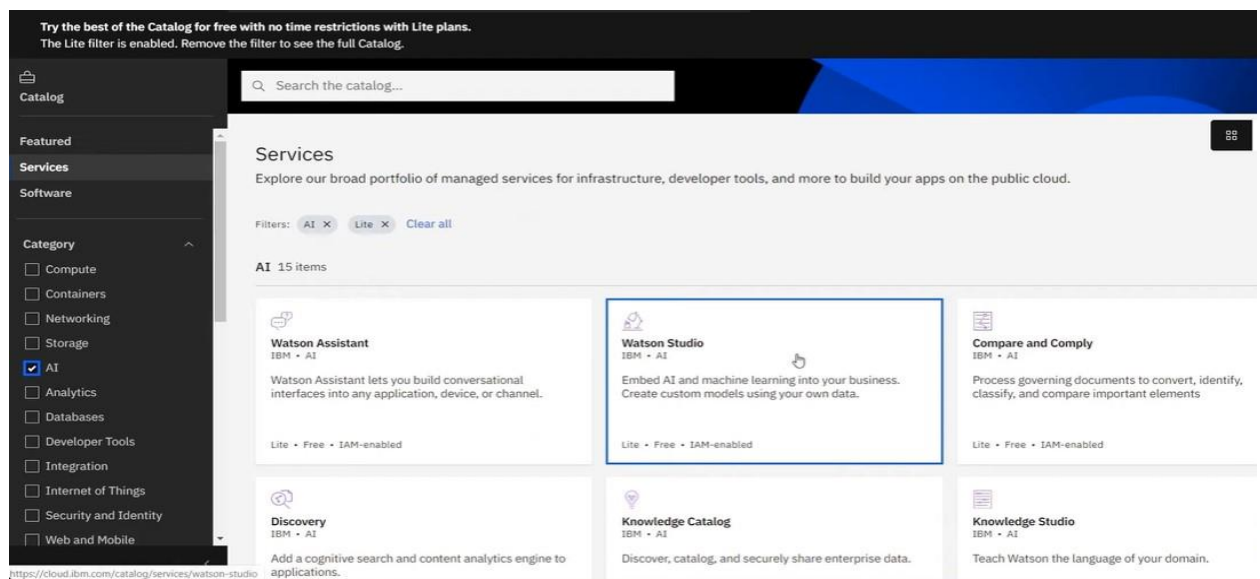


Step 2: Create a Visual Recognition Service

- After logging in, click on "Create Resource" at the top right.



- Search for "Visual Recognition" in the catalog.
- Select the Visual Recognition service.



- Choose the pricing plan that suits your needs.
- Click "Create" to create the service instance.

Create

About

Select a region

Select a region

London

Select a pricing plan

Displayed prices do not include tax. Monthly prices shown are for country or region: [United States](#)

Plan	Features	Pricing
Lite	1 authorized user 50 capacity unit-hours monthly limit 1 free small compute environment with 1 vCPU and 4 GB RAM (does not require capacity unit-hours) The Lite plan for Watson Studio offers everything you need to become a better data scientist or domain expert in a collaborative environment. Lite plan services are deleted after 30 days of inactivity.	Free
Standard v1	1 authorized user + unlimited viewer collaborators 50 capacity unit-hours included monthly (additional capacity available) Unlimited elastic compute environments Environment = # of capacity units required per hour: • 1 vCPU + 4 GB RAM = 0.5 • 2 vCPU + 8 GB RAM = 1 • 4 vCPU + 16 GB RAM = 2 • 8 vCPU + 32 GB RAM = 4 • 16 vCPU + 64 GB RAM = 8	\$99.00 USD/Instance \$0.50 USD/Capacity Unit-Hour \$99.00 USD/Authorized User

Summary

Watson Studio

Region: London

Plan: Lite

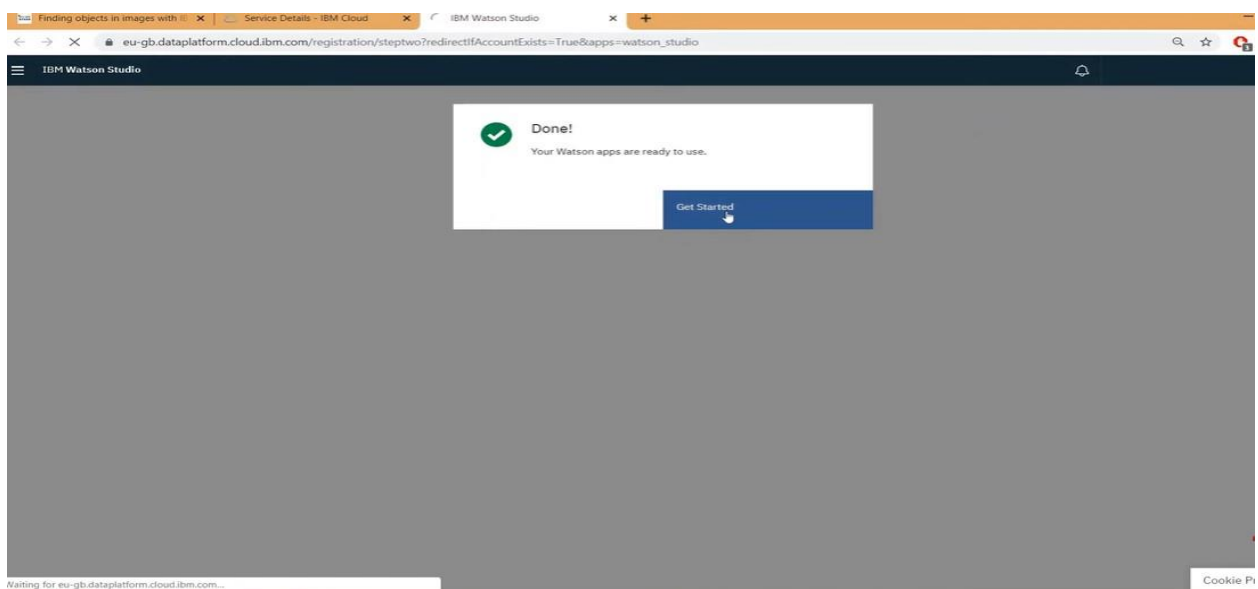
Service name: Watson Studio-4s

Resource group: Default

Create

Add to estimate

View terms



← Back

Create a project

Create an empty project, and then add data and choose the right tools to accomplish your goals.

Create an empty project

Add the data you want to prepare, analyze, or model. Choose tools based on how you want to work: write code, create a flow on a graphical canvas, or automatically build models.

NEW AutoAI experiment tool: Fully automated approach to building a classification or reg...

USE TO

Prepare and visualize data
 Analyze data in notebooks
 Train models

Create a project from a sample or file

Get started fast by loading existing assets. Choose a project file from your system, or choose a curated sample project.

USE TO

Learn by example
 Build on existing work
 Run tutorials

https://au.cloud.ibm.com/registration/steptwo?redirectIfAccountExists=True&apps=watson_studio

reduce costs even further with our lowest priced Archive storage.

Built-in Aspera high-speed transfer
With IBM Cloud Object Storage Aspera high-speed data transfer, you can improve data transfer performance by quickly transferring data over long distances, and under various network conditions. It is natively integrated into Cloud Object Storage and there is no additional cost for uploading data.

Access and Key Management
IBM Identity and Access Management (IAM) policies allow for granular access control at the bucket level using role-based policies. Key Protect support allows customers to have their own managed encryption keys for higher level data security.

Pricing Plan: Monthly Process shown above reflect the: [United States](#)

PLAN	FEATURES	PRICING
<input checked="" type="radio"/> Lite	1 COS Service Instance Storage up to 25 GB/mo. Up to 20,000 GET requests/mo. Up to 2,000 PUT requests/mo. Up to Data Retrieval 10 GB/mo. Up to 5GB Public Outbound Applies to aggregate total across all storage bucket classes	Free
The Lite service plan for Cloud Object Storage includes Regional and Cross Regional resiliency, flexible data classes, and built in security.		
<input type="radio"/> Standard	There is no minimum fee, so you pay only for what you use.	Expand each section to view details

[Cancel](#) [Create](#)

reduce costs even further with our lowest priced Archive storage.

Built-in Aspera high-speed transfer
With IBM Cloud Object Storage Aspera high-speed data transfer, you can improve data transfer performance by quickly transferring data over long distances, and under various network conditions. It is natively integrated into Cloud Object Storage and there is no additional cost for uploading data.

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Pricing Plan: Monthly Process shown above reflect the: [United States](#)

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<input checked="" type="radio"/> Lite	1 COS Service Instance Storage up to 25 GB/mo. Up to 20,000 GET requests/mo. Up to 2,000 PUT requests/mo. Up to Data Retrieval 10 GB/mo. Up to 5GB Public Outbound Applies to aggregate total across all s	
The Lite service plan for Cloud Object Storage includes Regional and Cross Regional		
<input type="radio"/> Standard	There is no minimum fee, so you pay only for what you use.	Expand each section to view details

[Cancel](#) [Create](#)

Confirm Creation

Plan

Lite

Resource group

Default

Service name

cloud-object-storage-rz

New project

Define project details

Name

Description

Choose project options

☐ Restrict who can be a collaborator ⓘ

Project includes integration with [Cloud Object Storage](#) for storing project assets.

Storage

cloud-object-storage-rz

New project

Define project details

Name

Image Recognition

Description

Image Recognition using Watson

Choose project options

☐ Restrict who can be a collaborator ⓘ

Project includes integration with [Cloud Object Storage](#) for storing project assets.

Storage

cloud-object-storage-rz

my projects / image-recognition

Launch LUL

Add to project

0 Assets

1 Collaborators

Overview

Assets

Environments

Jobs

Deployments

Access Control

Settings

Image Recognition

Last Updated: Apr 18, 2020

Readme

Overview

Date created

Apr 18, 2020

Description

Image Recognition using Watson

Storage

Cloud Object Storage

0 Byte used

Collaborators

Huzail Sayyed

Admin

View all (1)

Readme

Choose asset type

Available asset types

Data

Connection

Notebook

Dashboard

Watson Machine Lea...

Deep learning experi...

Streams flow

Decision Optimizatio...

Visual Recognition model

Classify images or detect objects with the custom models that you define.

Visual Recognition ...

Modeler flow

Data Refinery flow

AutoAI experiment

Natural Language CL...

Early access to AutoAI code generation is now available

Hi, Get automatically generated Python code in notebooks!

Thanks, Watson Studio Team

Join the Waitlist

Step 3: Gather and Organize Your Images

- Collect a set of images for each class/category you want to recognize.
- Ensure that the images are clear, relevant, and well-labeled.
- Organize these images into folders, each folder representing a specific category.

Step 4: Train

- Access your Visual Recognition service instance from the IBM Cloud dashboard.
- Click on "Launch Tool" to open the Visual Recognition tool.
- In the tool, click on "Create a Project."
- Add a name for your project and click "Create."
- Inside your project, click on "Add a Collection."
- Upload images from your folders to the respective collections/categories.
- Once images are uploaded, click on "Train" to train your custom classifier.

Explicit Model

Assess whether an image contains objectionable or adult content that may be unsuitable for general audiences.

Pricing Plan: Monthly Process shown above reflect the: United States

PLAN	FEATURES	PRICING
<input checked="" type="radio"/> Lite	1,000 Events per month towards: Pre-trained model classification (General, Food, Explicit) (images) Custom Model classification (images) Custom Model training (images) 2 Custom Models 1 Lite Plan instance per IBM Cloud Organization Free Exports to Core ML	Free
<input type="radio"/> Standard	Access to everything from the Lite Plan including... Train up to 100,000 images per month (only charged if training occurs during the month) Unlimited image classifications per month (charged per image) Unlimited custom models Unlimited free exports to Core ML	

Cancel
Create

Step 5: Test

- After training is completed, you can test your classifier by uploading new images.

projects / Image Recognition / Loading...

General

Associated Service : watson-vision-combined-px

Overview

Test

Implementation

Filter

Threshold

0.0

0

1

Classes

Drop image files here to let the classifier analyze them or [browse](#) to select files.

General

Associated Service : watson-vision-combined-px

Overview

Test

Implementation

Filter

Threshold

0.0

0

1


Classes

☐ adult person
☐ animal
☐ ash grey color
☐ ball
☐ Bengal tiger
☐ big cat
☐ blue
☐ bottle green color
☐ building
☐ car
☐ carnivore
☐ claret red color
☐ clothing
☐ clothing store
☐ coat
☐ dark blue color

×


Clear results

animal2.jpg




giant panda	0.99
carnivore	0.99
mammal	0.99
animal	0.99
greenishness color	0.69
indigo color	0.35

ball.jpg



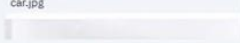
tennis ball	1.00
ball	1.00
bottle green color	0.88
lemon yellow color	0.80

billgates.jpg

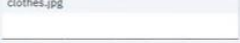


ash grey color	0.94
person	0.70
decision maker	0.56
official	0.52
Secretary of the Interior	0.51
Treasury	0.50

car.jpg



clothes.jpg



mark.jpeg

