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Project Name: Image Recognition with IBM cloud

Problem Solution:

Image recognition project documentation

Step 1: Create an IBM Cloud Account

Use the link given to signup or login to IBM cloud.

<https://cloud.ibm.com/registration>

If you already have an IBM Cloud account you can just log in using the link above the Email field.

Note: To get enhanced benefits, please sign up with you business or corporate email address rather than a free email ID like Gmail, Hotmail, etc.

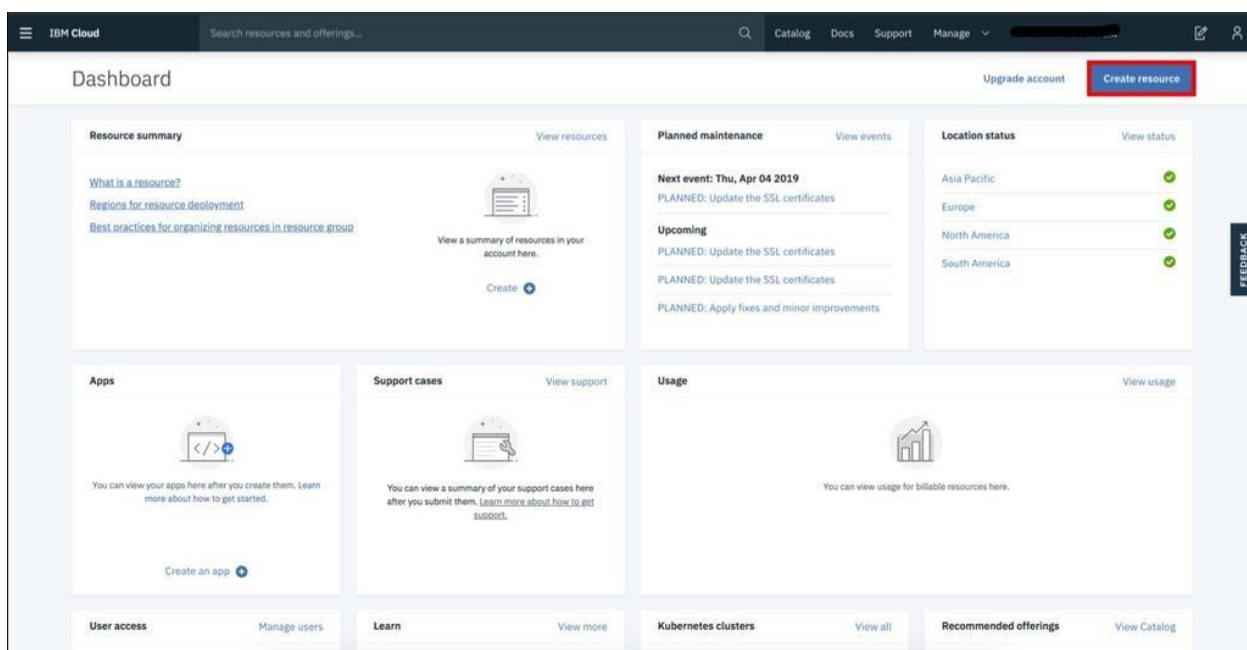
Step 2: Confirm Your Email Address

An email is sent to your email address to confirm your account. Go to your email account, and click on the “Confirm Account” link in the email that was sent to you.

Step 3: Login to Your Account

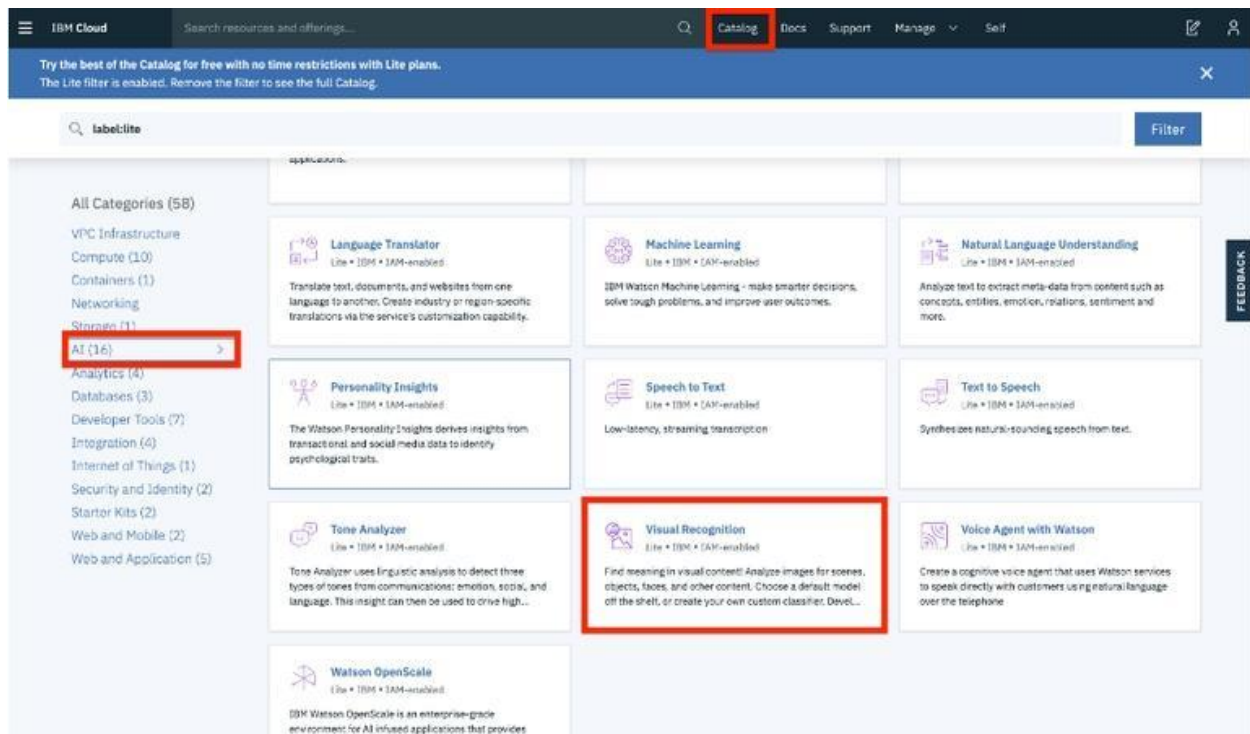
Step 4: Create a New Resource

On your dashboard page, click on the Create a resource on the top right to create a new source.



Step 5: Create a Visual Recognition and Watson Studio Resource

On the Catalog page, select the AI category from the left pane, and then select the Visual Recognition resource.



On the next page, you will get to name your service instance and choose your region. Click on the arrow to reveal the drop-down menu of regions. Make sure to select the region that is closest to you. Then scroll down and make sure that the lite plan is selected, and click the Create button.

Visual Recognition
v3 - IBM

Find meaning in visual content. Analyze images for scenes, objects, faces, and other content. Choose a default model off the shelf, or create your own custom classifiers. Develop smart applications that analyze the visual content of images or video frames to understand what is happening in a scene.

View Data **View API Docs** **Tests**

AUTHOR: IBM
PUBLISHED: 03/22/2019
TYPE: Service

Service name:
Visual Recognition v3

Choose a region/location to deploy in:
Default

Select a resource group:
Default

Tags:
Example: env:dev, version:1

Features

- General Model**
Generate class keywords that describe the image. Use your own images, or extract relevant image URLs from publicly accessible webpages for analysis.
- Custom Model**
Create custom, unique visual classifiers. Use the service to recognize custom visual concepts that are not available with general models.
- Face Model**
Detect human faces in the image. This service also provides a general indication of age range and gender of faces.
- Food Model**
Utilize a specialized vocabulary of over 2,000 foods to identify meals, food items, and dishes with enhanced accuracy.
- Explicit Model**
Assess whether an image contains objectionable or adult content that may be unsuitable for general audiences.
- Text Model (Private Beta)**
Automatically detect and extract recognized words within natural scene images. Private Beta is an invite-only program. Customers must have a Standard Plan to be eligible to use Private Beta features. To request access to the Text Model Private Beta: [ibm.biz/request-text](#)

Pricing Plans
Monthly prices shown are for country or region: [United States](#)

PLAN	FEATURES	PRICING
✓ Lite	<ul style="list-style-type: none"> 5,000 requests per month (monthly) Pre-trained model classification (General, Face, Food, Explicit) (Images) Custom Model classification (Images) Custom Model training (Images) 2 Custom Models 1GB in-play memory per IBM Cloud OpenShift VM Free Experts to CSV/JSON 	Free
Standard	<ul style="list-style-type: none"> Image Tagging (Images) Face Detection (Images) Text Detection (Images) 	\$2,000 USD (General Tagging) / \$2,000 USD (Face Tagging)


[Add to favorites](#) **Create**

On the Catalog page, select the AI category from the left pane, and then select the Watson Studio resource.

On the next page, you will get to name your service instance and choose your region. Click on the arrow to reveal the drop-down menu of regions. Make sure to select the region that is closest to you. Then scroll down and make sure that the lite plan is selected, and click the Create button.

IBM Cloud Search resources and offerings...

View all

 **Watson Studio**
Lts • IBM

Watson Studio democratizes machine learning and deep learning to accelerate infusion of AI in your business to drive innovation. Watson Studio provides a suite of tools and a collaborative environment for data scientists, developers and domain experts.

[View Docs](#) [Terms](#)

AUTHOR	IBM
PUBLISHED	01/31/2019
TYPE	Service

Service name:

Choose a region/location to deploy in:

Select a resource group:

Tag:

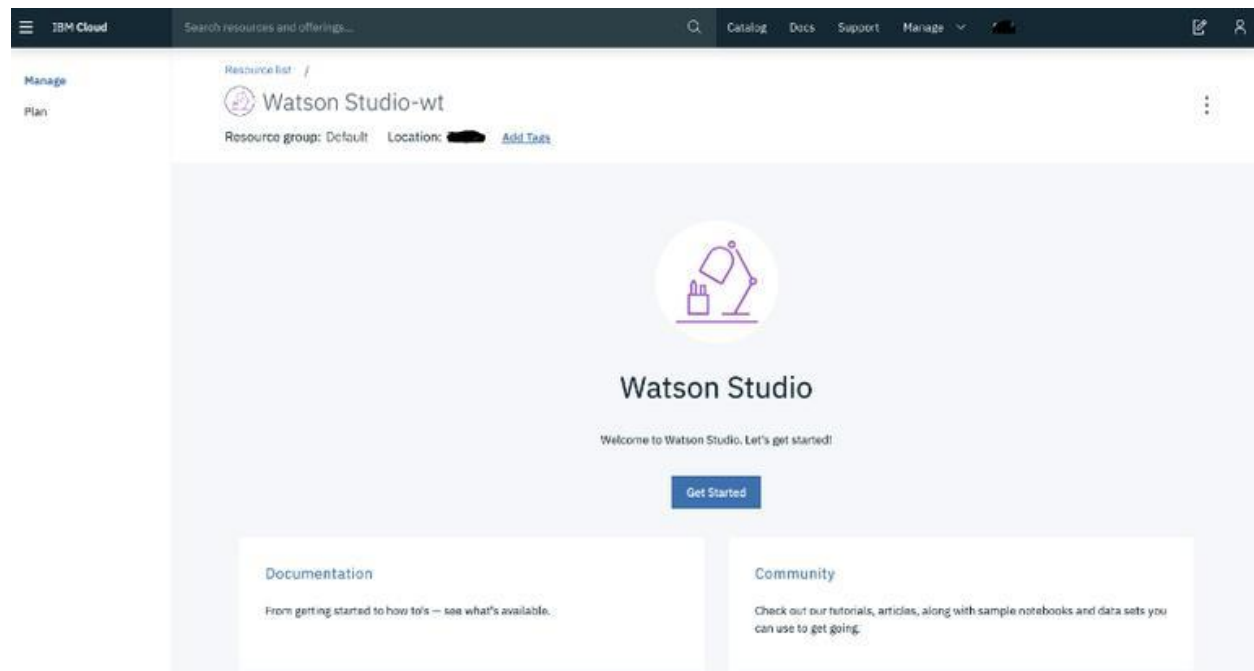
Features

- **Use what you know, learn what you don't**
Start from a tutorial, start from a sample, or start from scratch. Tap into the power of the best of open source (RStudio, Jupyter Notebooks) and Watson services for flexible model creation. Use Python, R, or Scala. Stop downloading and configuring analysis environments and start getting insights.
- **Power on demand**
Enterprise-scale features on demand. From data exploration and preparation, to enterprise-scale performance. Manage your data, your analytical assets, and your projects in a secured cloud environment.
- **Be a founding member**
Take advantage of shared data sets, notebooks, models, and tutorials. Share your work with your team and your peers across job roles. Join a vibrant community of data scientists, developers, and domain experts.
- **Collaborate for better outcomes**
Work with your peers on projects to find better solutions together. Share your knowledge and your work easily with visualizations and code - and help fuel the advancement of data science and AI for all.

Need Help?
[Contact IBM Cloud Support](#)

[Add to estimate](#) [Create](#)

On the next page, click the Get Started button to start using Watson Studio.



Once the provisioning process is complete, click the **Get Started** button to start using Watson Studio.

Step 6: Create a Project

Once you land on the IBM Watson Studio main page, start by creating a project.

IBM Watson Studio

New project

Define project details

Name

New Project

Description

New Project description

Choose project options

☒ Restrict who can be a collaborator

Project will include integration with Cloud Object Storage for storing project assets.

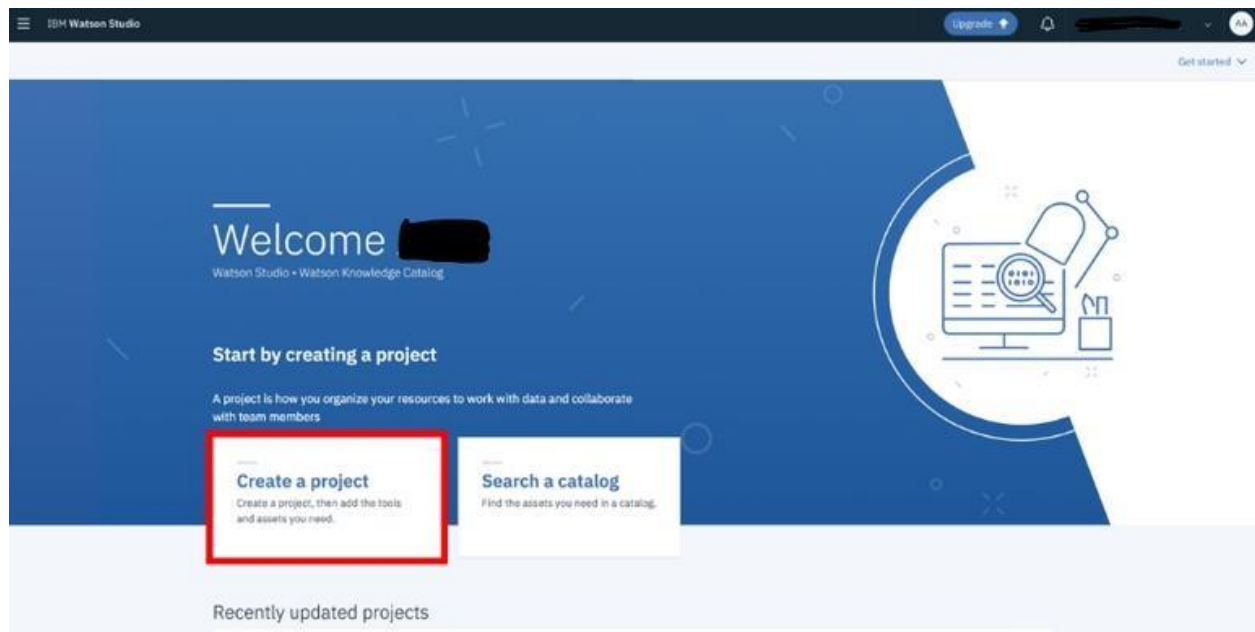
Define storage

1 Select storage service

Add

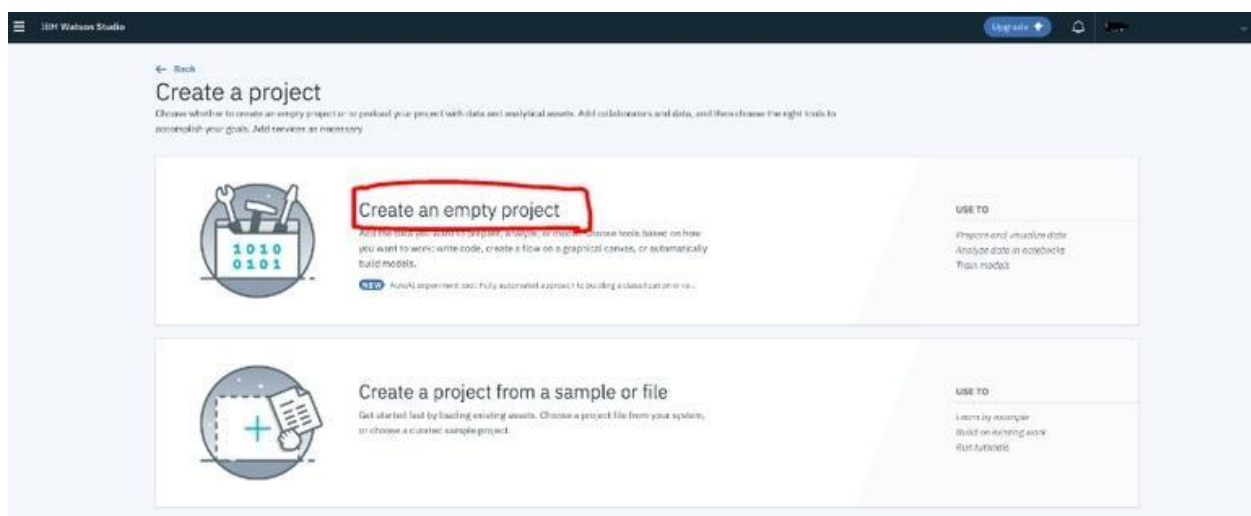
Add an object storage instance and then return to this page and click Refresh.

2 Refresh

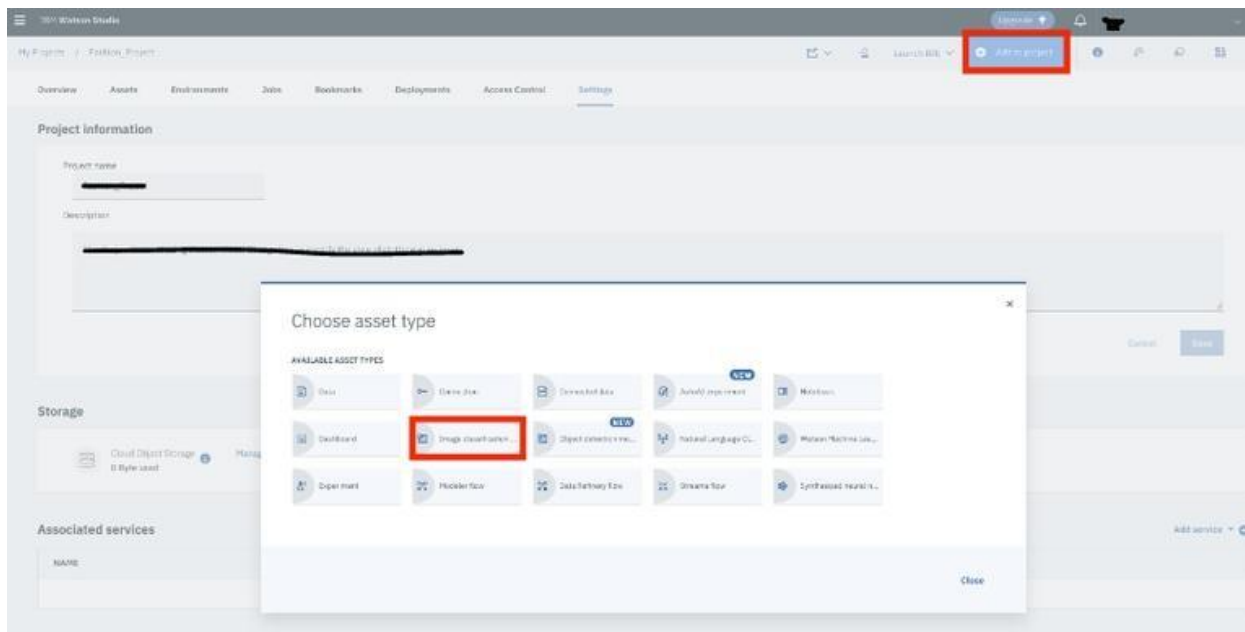


Step 7: Set up Your Projefill in some project details and click Create. The IBM Cloud Object Storage, which provides you storage for your images, should be automatically created for you but if not created you can click on add button below the heading on top right part of screen. If it is already created it will show you name and will not let you create a new one. .

Create the storage service with the lite plan and click on create



button. Go to Add to project and choose Image classification.



Then provision a visual recognition service.

Step 8: Selecting Built-in Models for Watson Visual Recognition

Visual Recognition

Existing New

RESOURCE GROUP: All Resources ▾ LOCATION: Locations 2 ▾ CLOUD FOUNDRY ORG: None ▾

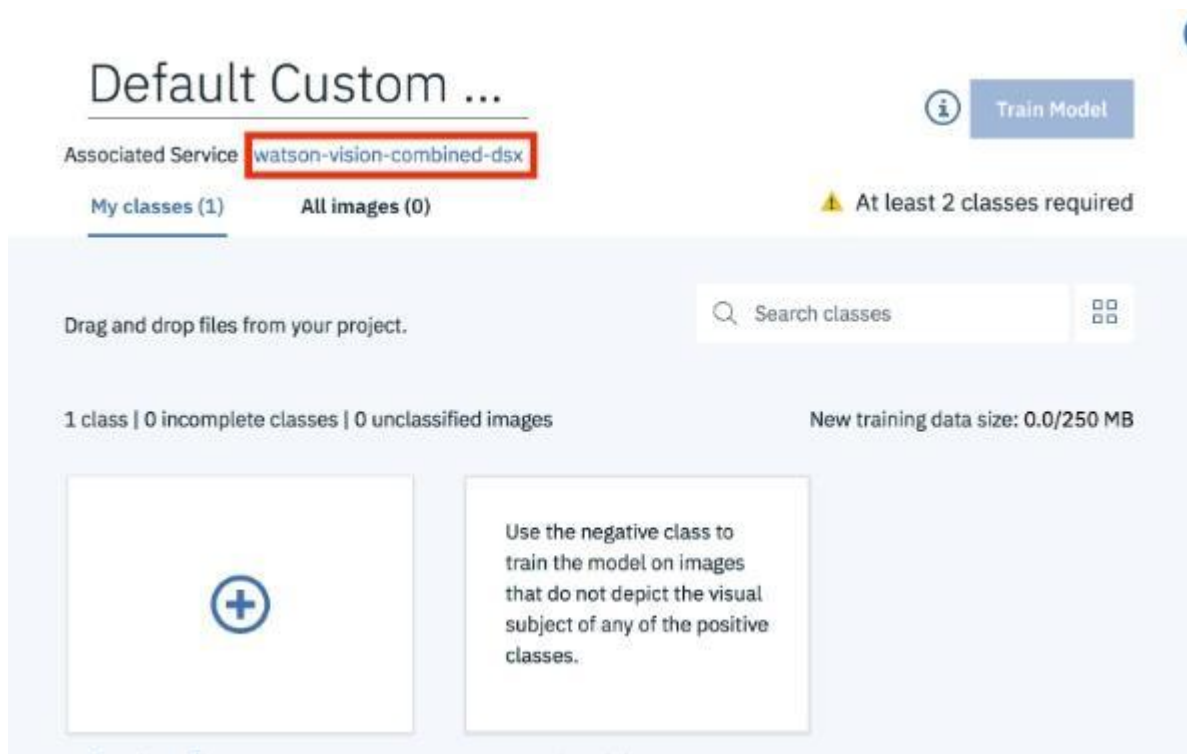
Existing Service Instance

Select service from the list

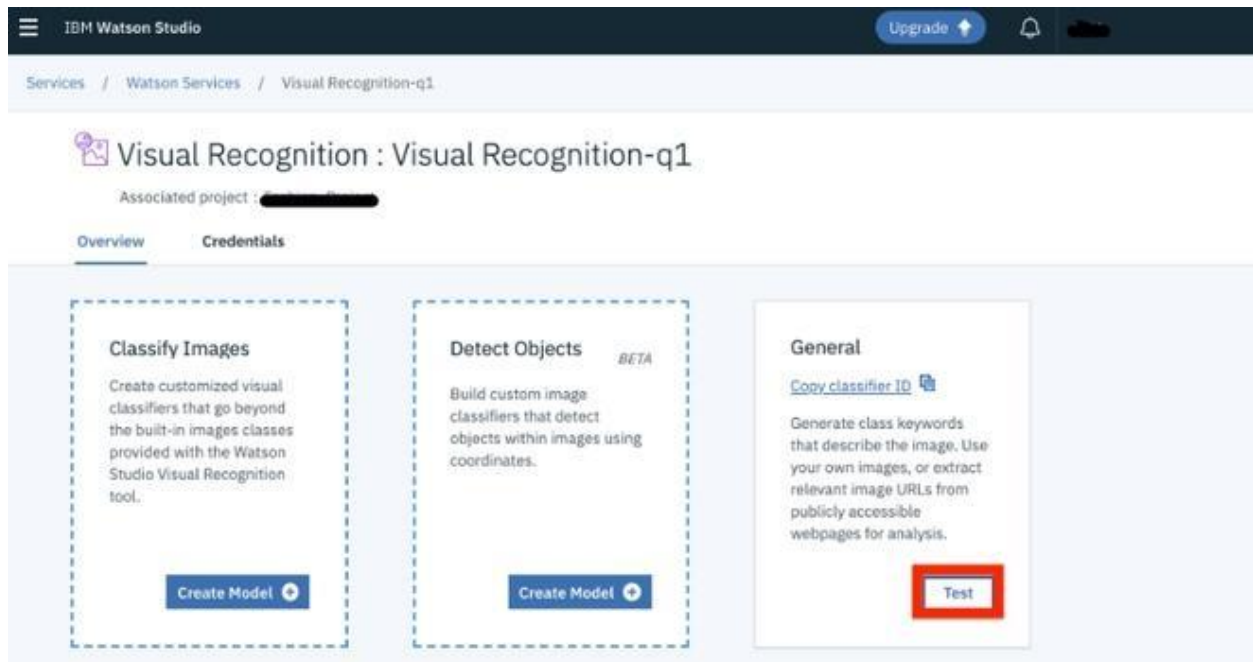
Visual Recognition v1

Select Cancel

After creating your project, by default, you will land on the page where you can perform some advanced tasks but we will skip this for now and use the built-in models. To access the built-in models, click on the name of the service, as seen in the red box below:



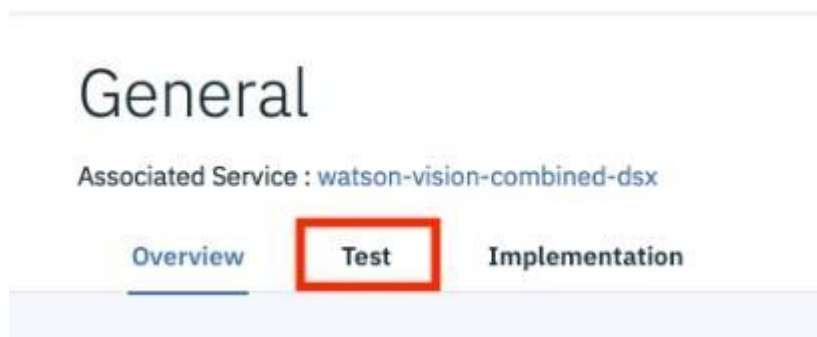
Step 9: Choose the General model.



Now you can see all the built-in image classification models that IBM Watson provides! Let's try the General model.

Step 10: Try out the General model

To test the General model, click on Test tab on top of screen.



Step 11: Upload Your Images!

Now you can upload any images you'd like by clicking on Browse. Remember that you will have to upload all the images that you want to test in a single go as once you upload images then you cannot add more images one by one. You will have to go back and upload all images including the new ones.



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

Step 12: Check Out the Results!

A photograph of a gray military aircraft, possibly a stealth bomber, parked on a tarmac under a clear blue sky. The aircraft is viewed from a side profile, showing its high-wing configuration and V-shaped tail.

A photograph of a multi-story steel framework structure, likely a bridge or industrial building under construction. Yellow safety railings are visible on the various levels. Two workers in high-visibility vests are standing on one of the lower levels.

A photograph of an oil refinery or industrial facility situated along a body of water. Several tall distillation columns and other industrial structures are visible in the background under a clear sky.

gray color	0.89
vehicle	0.86
system	0.78
warplane	0.70
military vehicle	0.70
craft	0.70
aircraft	0.70
bomber (aircraft)	0.67
airplane	0.66
propjet	0.55
nosewheel	0.50
wheel	0.50
machine	0.50
mechanical device	0.50
ash grey color	0.50

supporting structure	0.77
framework	0.71
gantry (steel bridge)	0.70
gray color	0.69
equipment	0.60
girder (beam)	0.56
support	0.56
yellow color	0.54
structure	0.50

ultramarine color	0.92
refinery	0.82
equipment	0.80
nature	0.80
blue color	0.69
oil refinery	0.58
drill rig	0.53

Once you have uploaded your images, it will tell you what it found in your images! Beside each class of object (or color, age, etc.), it will also give you a confidence score (between 0 and 1) on how confident it thinks it found that particular object in your image (0 for lowest confidence and 1 for highest confidence).

Git hub link: