

Image Recognition with IBM cloud Visual Recognition

STEP 1: Create an IBM Cloud account

1: 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.

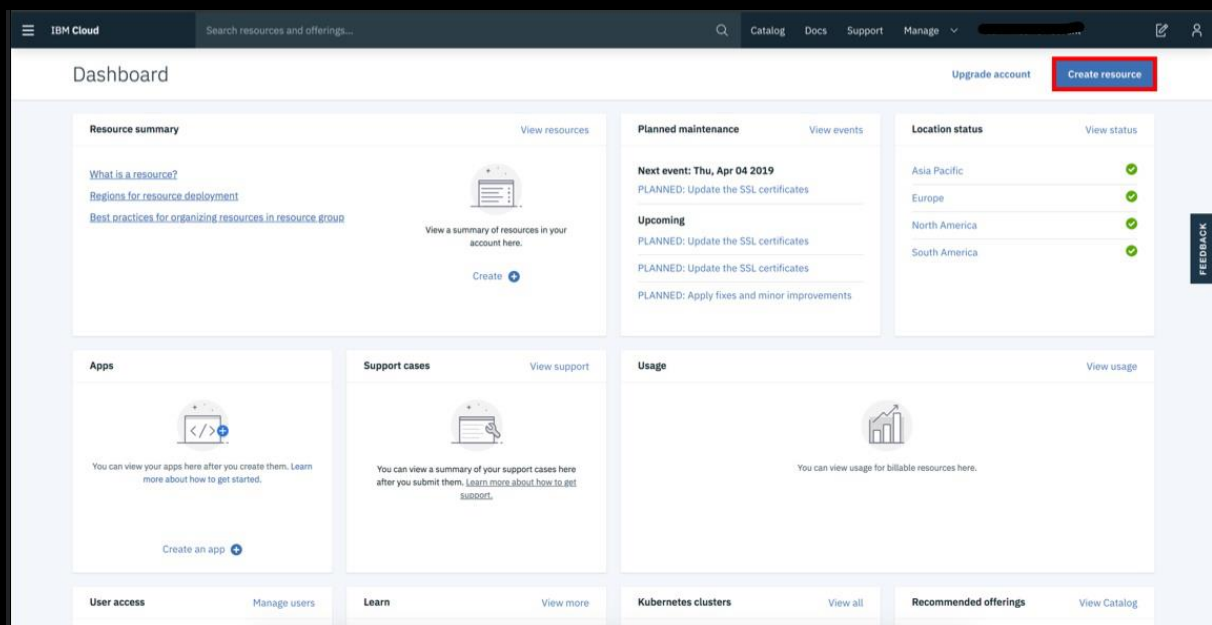
2: Confirm Your Email Address

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.

3: Login to Your Account

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.

The screenshot shows the IBM Cloud Catalog interface. At the top, there's a navigation bar with 'IBM Cloud', a search bar, and links for 'Catalog', 'Docs', 'Support', 'Manage', and 'Self'. A blue banner below the navigation bar states: 'Try the best of the Catalog for free with no time restrictions with Lite plans. The Lite filter is enabled. Remove the filter to see the full Catalog.' Below this, there's a search bar with 'label:lite' and a 'Filter' button. On the left, a sidebar lists categories: 'All Categories (58)', 'VPC Infrastructure', 'Compute (10)', 'Containers (1)', 'Networking', 'Storage (1)', 'AI (16)' (highlighted with a red box and an arrow), 'Analytics (4)', 'Databases (3)', 'Developer Tools (7)', 'Integration (4)', 'Internet of Things (1)', 'Security and Identity (2)', 'Starter Kits (2)', 'Web and Mobile (2)', and 'Web and Application (5)'. The main area displays a grid of AI services, each with an icon, title, and description. The 'Visual Recognition' service is highlighted with a red box. Other services include 'Language Translator', 'Machine Learning', 'Natural Language Understanding', 'Personality Insights', 'Speech to Text', 'Text to Speech', 'Tone Analyzer', and 'Watson OpenScale'. A 'FEEDBACK' button is visible on the right side of the grid.

IBM Cloud

Search resources and offerings...

Catalog Docs Support Manage Self

Try the best of the Catalog for free with no time restrictions with Lite plans. The Lite filter is enabled. Remove the filter to see the full Catalog.

label:lite Filter

All Categories (58)

VPC Infrastructure

Compute (10)

Containers (1)

Networking

Storage (1)

AI (16)

Analytics (4)

Databases (3)

Developer Tools (7)

Integration (4)

Internet of Things (1)

Security and Identity (2)

Starter Kits (2)

Web and Mobile (2)

Web and Application (5)

Language Translator

Machine Learning

Natural Language Understanding

Personality Insights

Speech to Text

Text to Speech

Tone Analyzer

Visual Recognition

Watson OpenScale

FEEDBACK

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.

On the Catalog page, select the AI category from the left pane, and then select the **Watson Studio** resources

Visual Recognition
Lite • 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 classifier. Develop smart applications that analyze the visual content of images or video frames to understand what is happening in a scene.

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

AUTHOR: IBM
PUBLISHED: 08/22/2019
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:3

Features

- General Model**
Generate close 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 model.
- 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, see [ibm.biz/visual-text](#).

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

PLAN	FEATURES	PRICING
✓ Lite	<ul style="list-style-type: none"> 3,000 Events per month towards: Pre-trained model classification (General, Faces, Food, Explicit (Image)) Custom Model classification (Image) Custom Model training (Image) 2 Custom Models 1 Lite Plan includes per IBM Cloud Region used on Free Exports to Core ML. 	Free
Standard	<ul style="list-style-type: none"> Image Tagging Events Pay per Use Face Detection Events Pay per Use 	<ul style="list-style-type: none"> \$2,000 USD/Gen. Tagging Event \$0.004 USD/Event Tagging Event

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

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

Catalog

Try the best of the Catalog for free with no time restrictions with Lite plans. The Lite filter is enabled. Remove the filter to see the full Catalog.

AI

Watson Assistant
Lite • IBM • IAM-enabled
Watson Assistant lets you build conversational interfaces into any application, device, or channel.

Watson Studio
Lite • IBM • IAM-enabled
Embed AI and machine learning into your business. Create custom models using your own data.

Compare and Comply
Lite • IBM • IAM-enabled
Process governing documents to convert, identify, classify, and compare important elements.

Discovery
Lite • IBM • IAM-enabled
Add a cognitive search and content analytics engine to applications.

Knowledge Catalog
Lite • IBM • IAM-enabled
Discover, catalog, and securely share enterprise data.

Knowledge Studio
Lite • IBM • IAM-enabled
Teach Watson the language of your domain.

Language Translator
Lite • IBM • IAM-enabled
Translate text, documents, and websites from one language to another. Create industry or region-specific translators via the service's customization capability.

Machine Learning
Lite • IBM • IAM-enabled
IBM Watson Machine Learning - make smarter decisions, solve tough problems, and improve user outcomes.

Natural Language Understanding
Lite • IBM • IAM-enabled
Analyze text to extract meta-data from content such as concepts, entities, emotion, relations, sentiment and more.

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...

Watson Studio

Lite • 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: Watson Studio-b7

Choose a region/location to deploy in: [Dropdown menu]

Select a resource group: Default

Tags: [Input field]

Examples: envdev, version-3

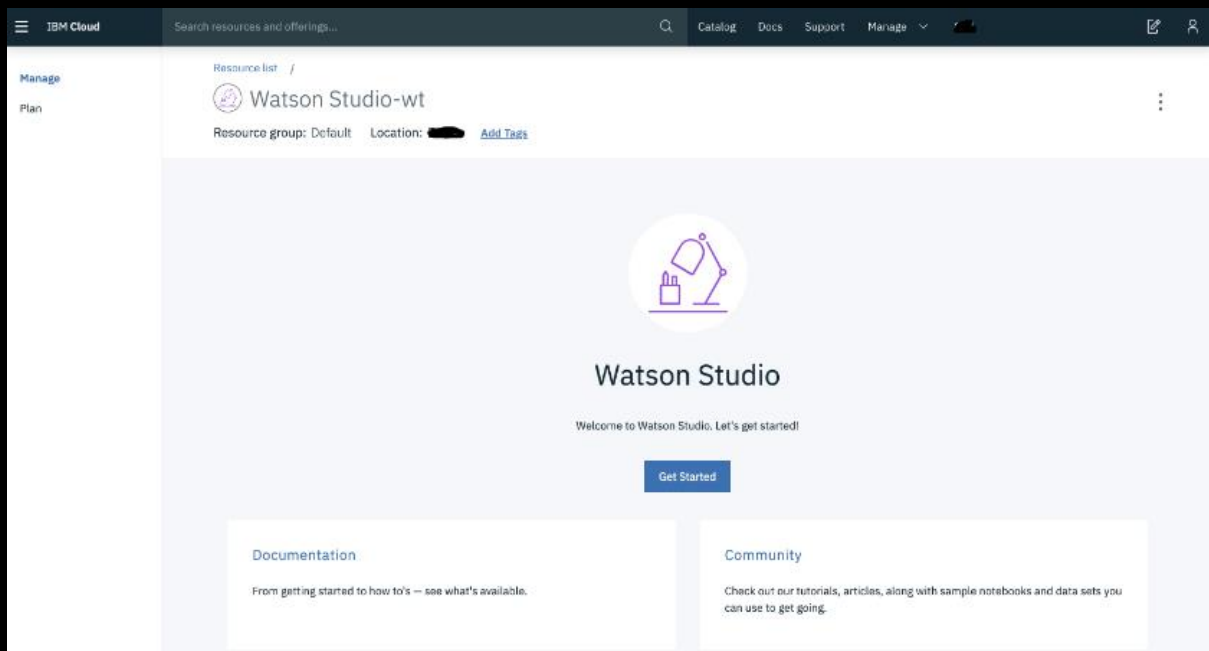
Features

- **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

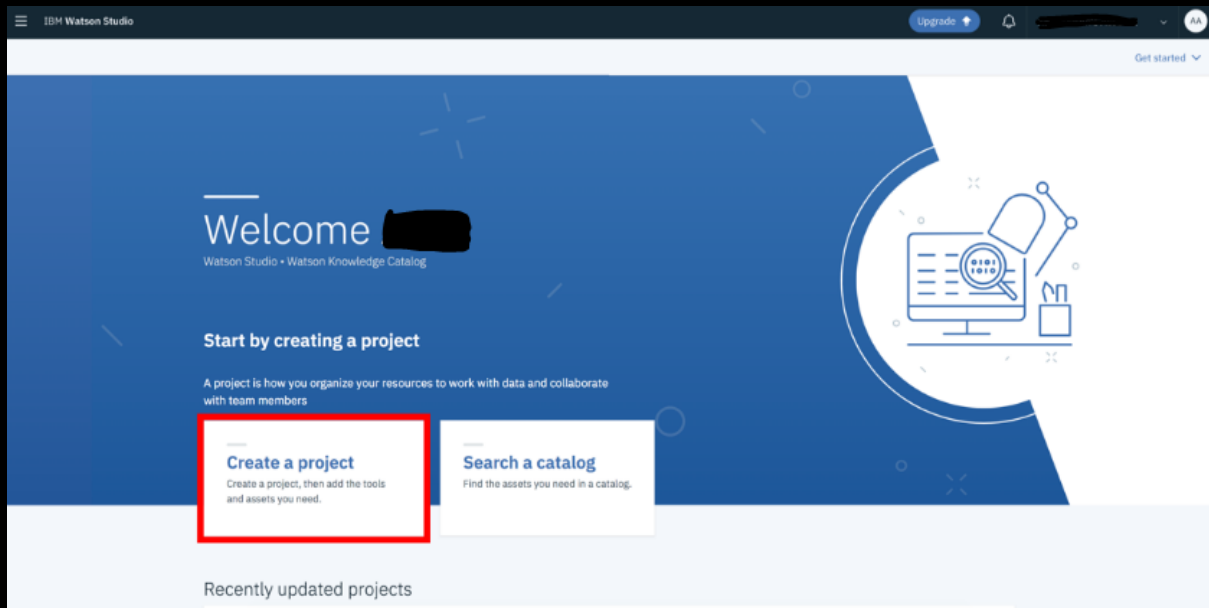
On the next page, click the **Get Started** button to start using Watson Studio.



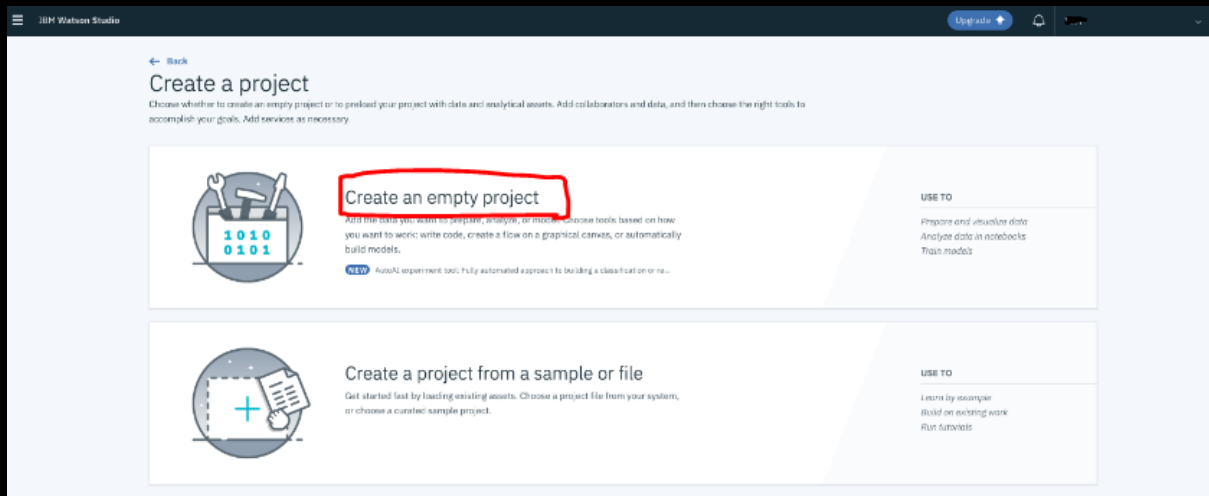
Once the provisioning process is complete, click the **Get Started** button to start using Watson Studio.

Step 6: Create a Project

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



Choose create empty project.



Step 7: Set up Your Project

fill 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.

IBM Watson Studio

New project

Define project details

Name

Description

Choose project options

☒ Restrict who can be a collaborator ⓘ

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

Define storage

- Select storage service**
Add
Add an object storage instance and then return to this page and click Refresh.
- Refresh**

Create the storage service with the **lite** plan and click on **create** button. Go to **Add to project** and choose **Image classification**.

IBM Watson Studio

My Projects > Fashion Project

Overview Assets Environments Jobs Bookmarks Deployments Access Control Settings

Project information

Project name

Description

Storage

Cloud Object Storage B1 Standard

Associated services

NAME

Choose asset type

AVAILABLE ASSET TYPES

Image	Image classification	Image classification	Image classification	Image classification
Image	Image classification	Image classification	Image classification	Image classification
Image	Image classification	Image classification	Image classification	Image classification

Then provision a visual recognition service.

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

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

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:

Default Custom ...

Associated Service **watson-vision-combined-dsx**

Train Model

[My classes \(1\)](#) [All images \(0\)](#)

⚠ At least 2 classes required

Drag and drop files from your project.

Search classes

1 class | 0 incomplete classes | 0 unclassified images

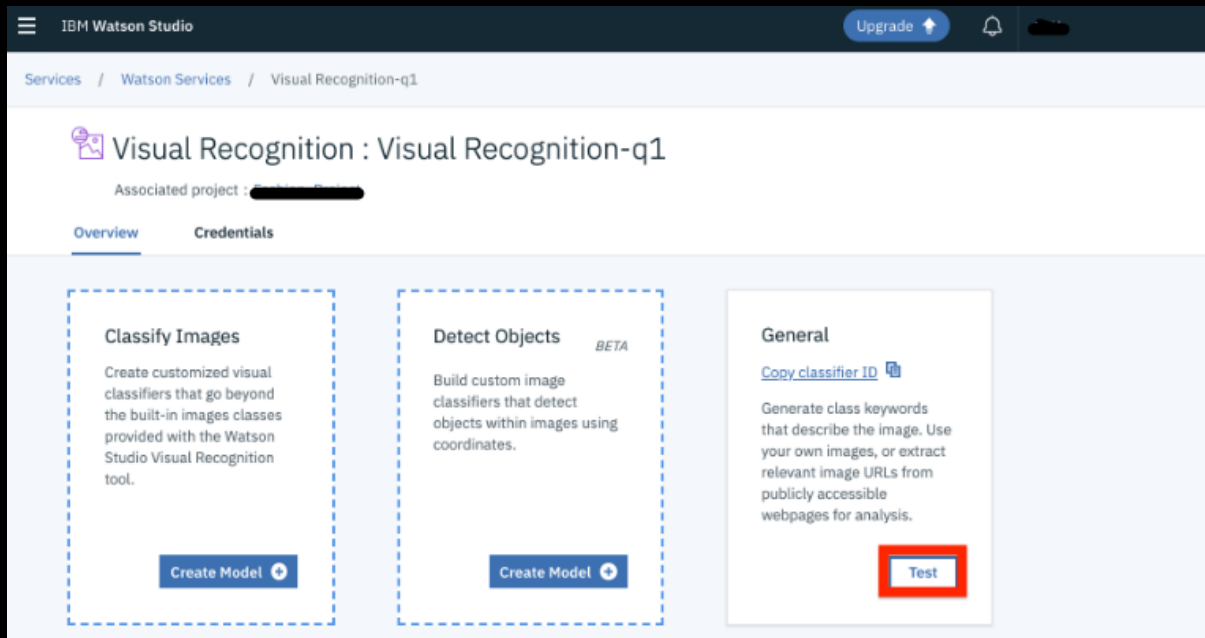
New training data size: 0.0/250 MB

+

Use the negative class to train the model on images that do not depict the visual subject of any of the positive classes.

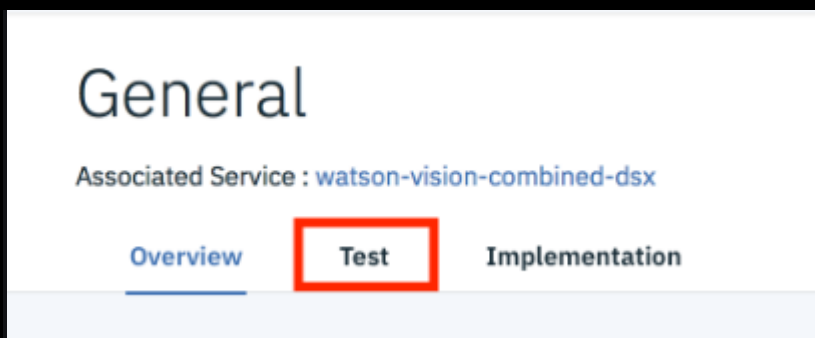
Step 9: Choose the General model.

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!

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).



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

Step 13: Filter Your Results

You can even filter your results based on tag generated from images by selecting the tags from list in left hand side of screen.

Conclusion:

It allows for better organization and analysis of visual data, leading to more efficient and effective decision-making. Additionally, image recognition technology can enhance customer experience by providing personalized and interactive features.