Data Science Workshop
An Experiential Journey with Data to Inspire ***Your*** Work
(Prework: Setup Instructions)

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Neeraj Madan
Mwai Kalengamaliro
July 27th, 2022

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Agenda

1. Predictive Analytics and Machine Learning Solutions
2. Overview of Watson Studio and Watson Machine Learning
3. Setup an Environment
    - Registration (Create an account)
    - Setup an Environment (API Key, Watson Machine Learning, Cloud Object Storage, and Watson Studio)
4. Create a Project

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Predictive Analytics and Machine Learning Solutions

To name a few:

1. IBM Watson Studio
2. SAS Advanced Analytics
3. RapidMiner
4. Amazon SageMaker
5. Azure Machine Learning Studio (Microsoft)
6. Google Cloud AI Platform

"The Forrester Wave™: Multimodal Predictive Analytics And Machine Learning Solutions, Q3 2018", Forrester Research, September 2018

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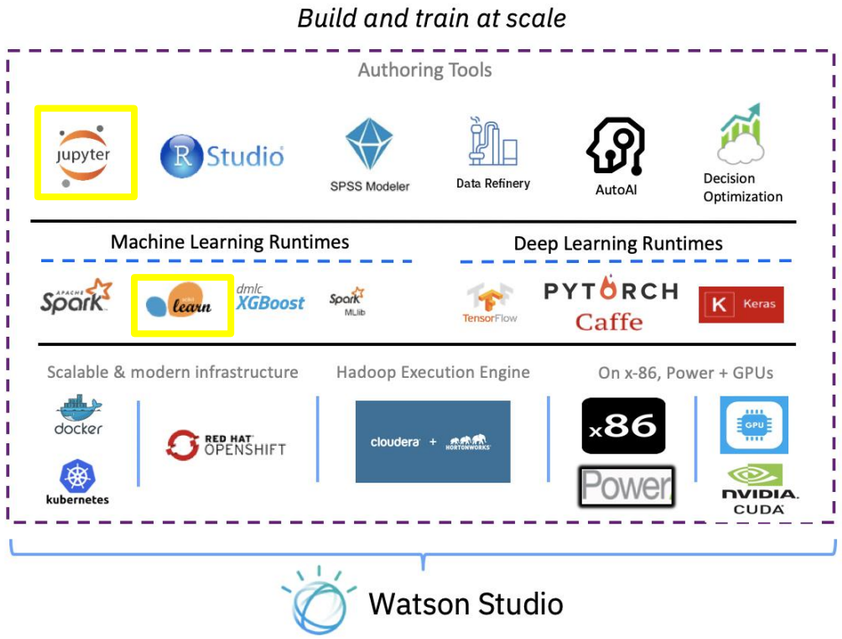
IBM Watson Studio Overview (1 of 4)

(Enterprise Data Science platform that helps your team work together to build models to make better data driven decisions for your business)

Analyze any data, no matter where it lives

Empower your entire organization with notebooks, visual productivity, and automation tools

One platform to rule them all from discovery to production



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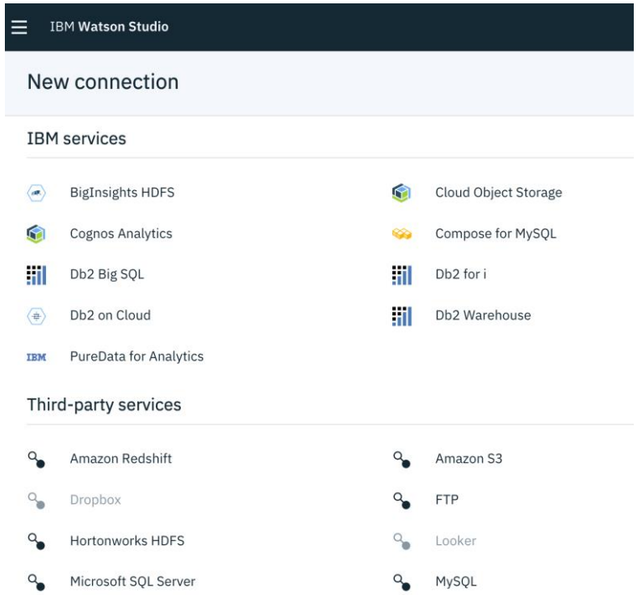
IBM Watson Studio Overview (2 of 4)
(Enterprise Data Science platform that helps your team work together to build models to make better data driven decisions for your business)

Analyze any data, no matter where it lives
Connect to and analyze your data without moving a single byte through dozens of connectors and multiple deployment options.

Empower your entire organization with notebooks, visual productivity, and automation tools
Leverage your entire organization with a variety of tools in a single integrated platform.

One platform to rule them all from discovery to production
Analyze data, build predictive models, and seamlessly integrate Watson Machine Learning to deploy at scale



IBM Services like Cognos & DB2

3rd Party Services like Amazon S3, Hadoop, & Microsoft SQL Server

We have Public Cloud, Private Cloud, & Desktop/Server deployment options

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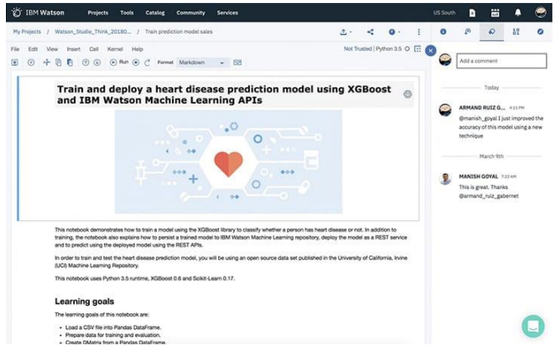
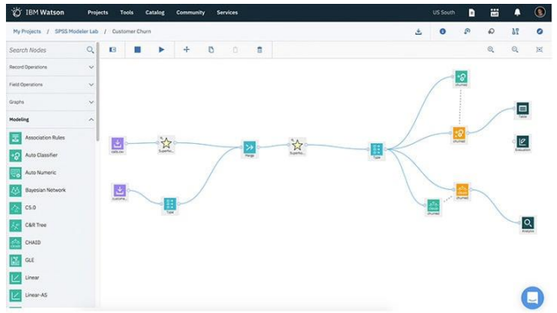


Super charged Jupyter Notebooks & R Studio as most popular IDEs for data scientists well integrated with data connectors and rich set of default environments



Visual tools such as SPSS Modeler, Data Refinery, & AutoAI for non coders to analyze data and build models

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Seamless integration with:

- Watson Knowledge Catalog brings governance & catalog management
- Watson Machine Learning deploys, manages, & automatically retrains your models
- Watson OpenScale offers unmatched levels of trust in automation

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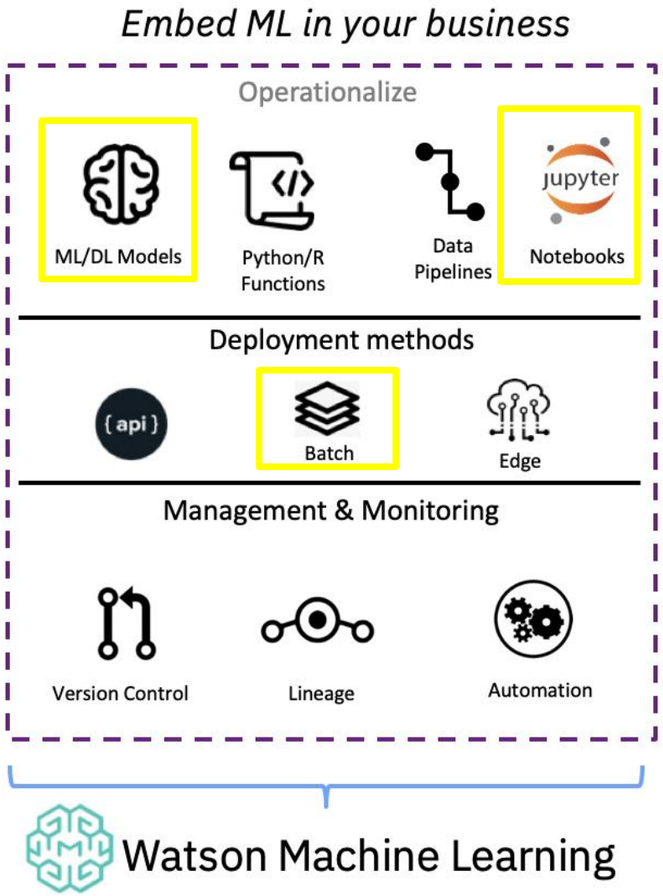
IBM Watson Machine Learning Overview (1 of 4)
(Embed Machine Learning and Deep Learning in your Business)

Deploy and Manage Models

Intelligent Model Operations

Accelerate Compute Intensive Workloads



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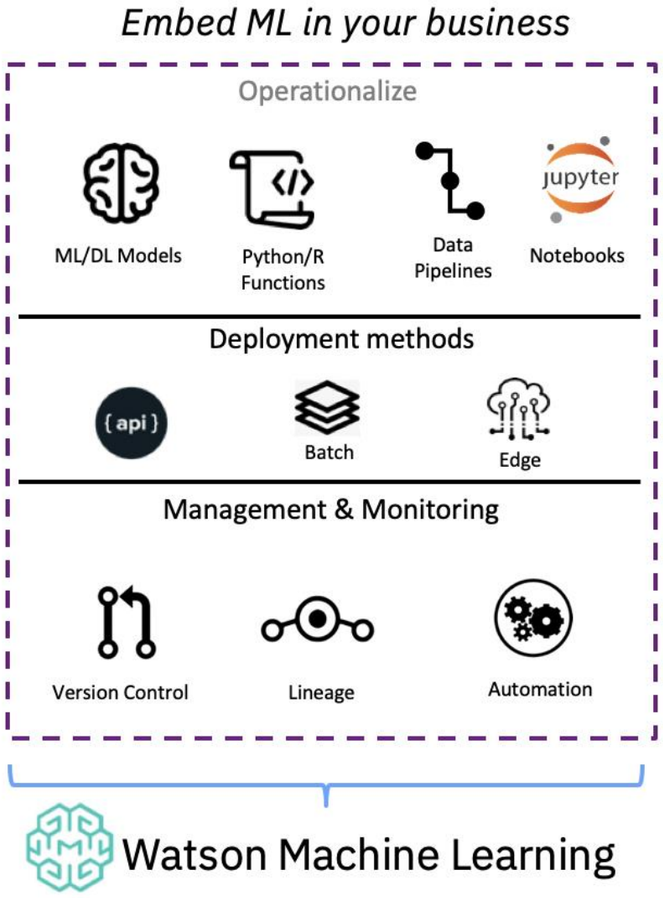
IBM Watson Machine Learning Overview (2 of 4)
(Embed Machine Learning and Deep Learning in your Business)

Deploy and Manage Models
Move models to production, in an easy, secure, and compliant way.

Intelligent Model Operations
Embed intelligent training services, with feedback loops that constantly learn from new data, regardless where it resides.

Accelerate Compute Intensive Workloads
Distribute your deep learning training and Hadoop/Spark workloads with multi-tenant job scheduling .



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IBM Watson Machine Learning Overview (3 of 4)
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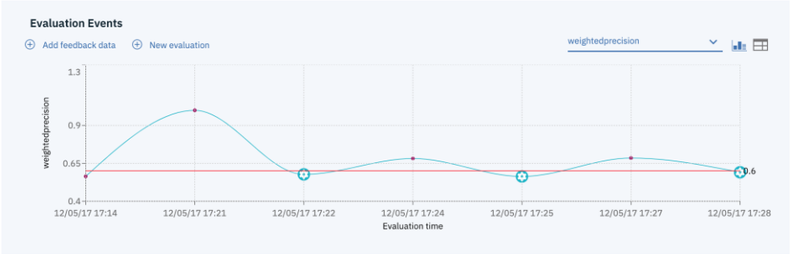

- **Configure learning systems**
- **Flexible management experience**
  - User Interface
  - CLI
  - APIs
  - Python SDK

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IBM Watson Machine Learning Overview (4 of 4)
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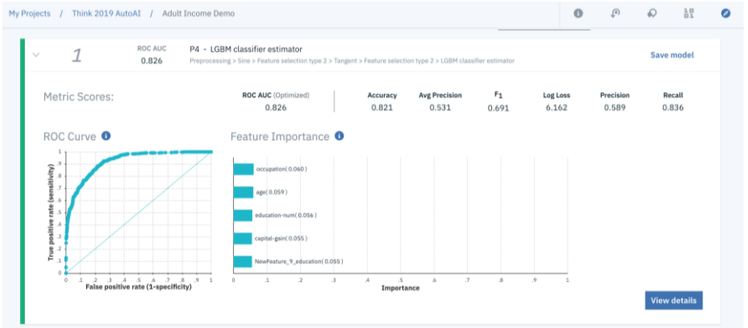

- **Visually monitor training jobs**
  - Experiments
  - AutoAI
- **WML Accelerator for optimized Spark and GPU jobs**
- **Integration with Hadoop for in-place batch training and scoring**

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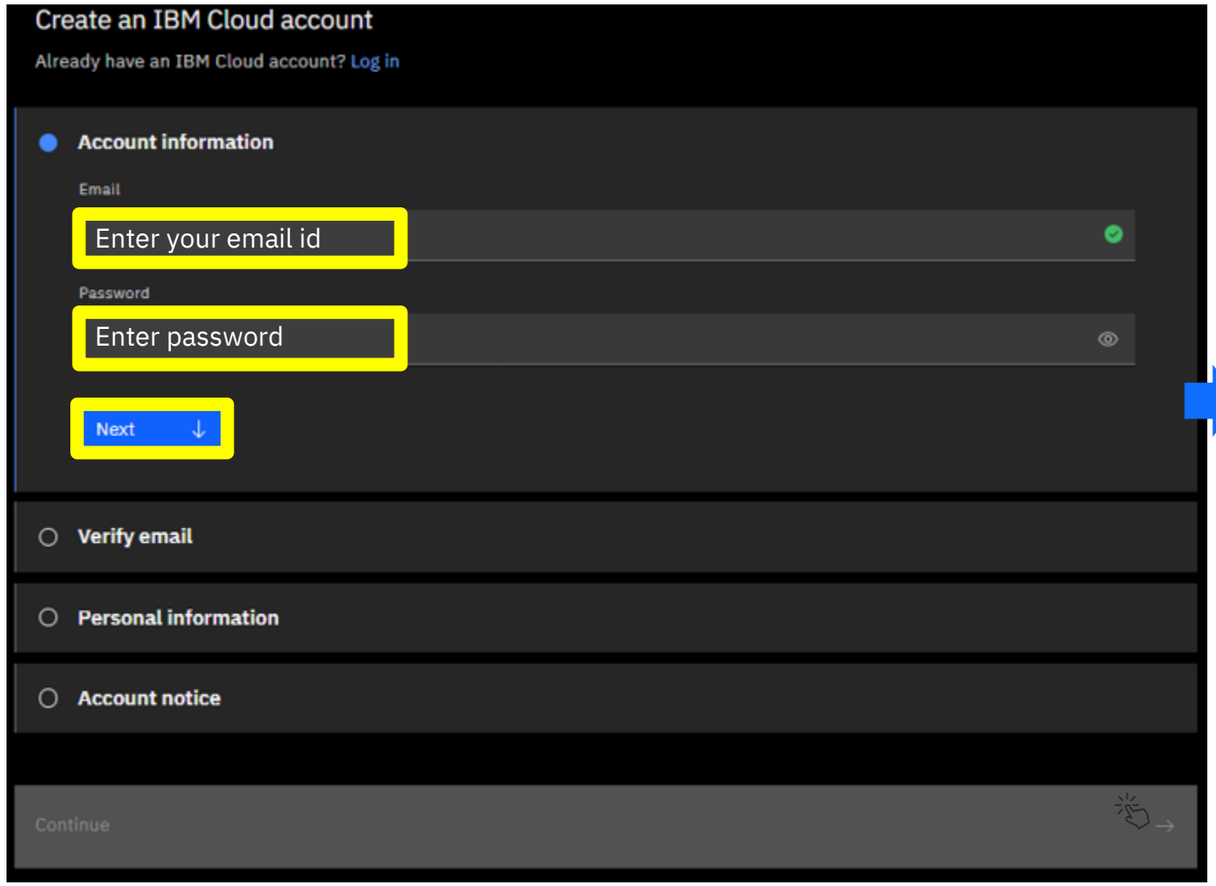
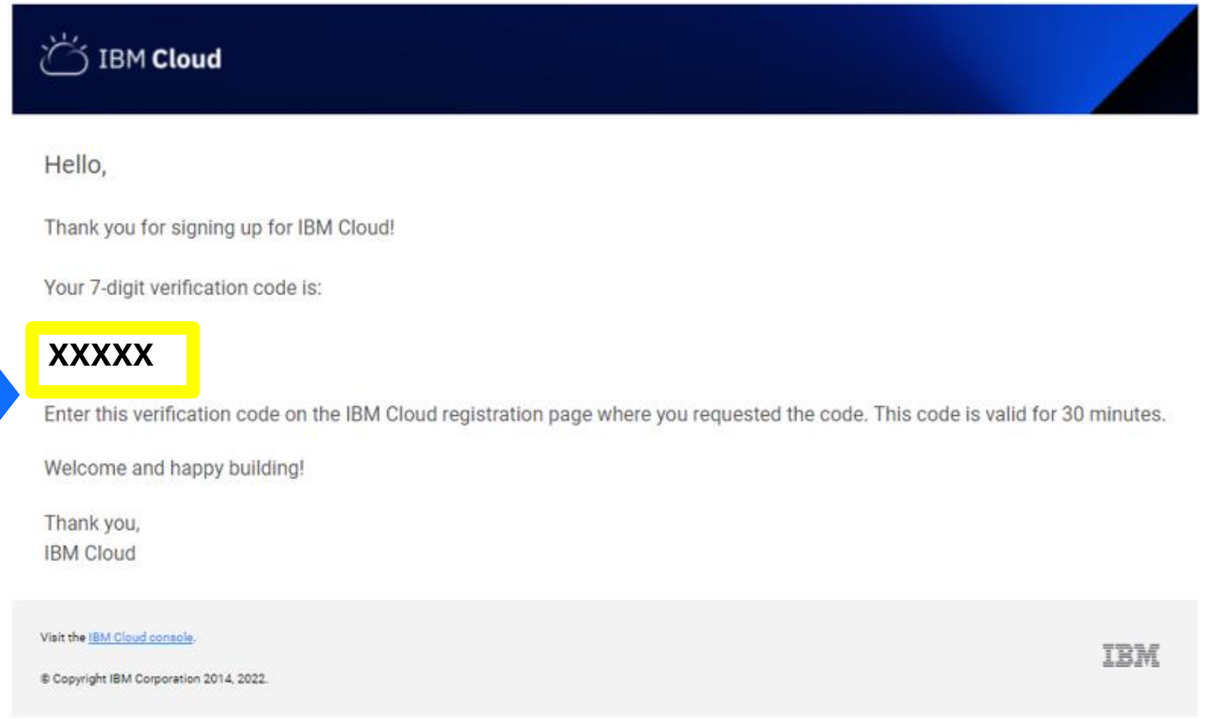
Getting Started: Setup an Environment
Registration (Sign up / Log into IBM Cloud) (1 of 4)





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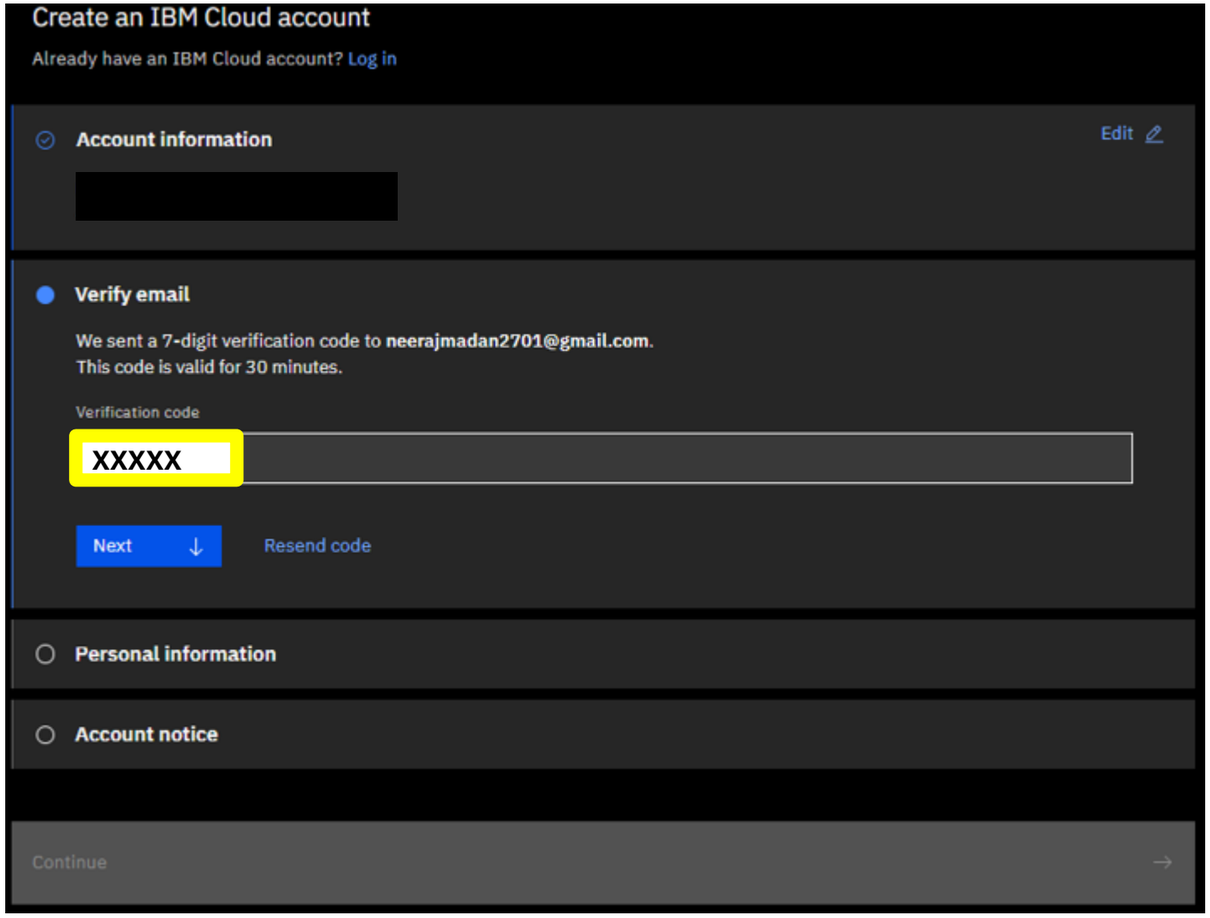
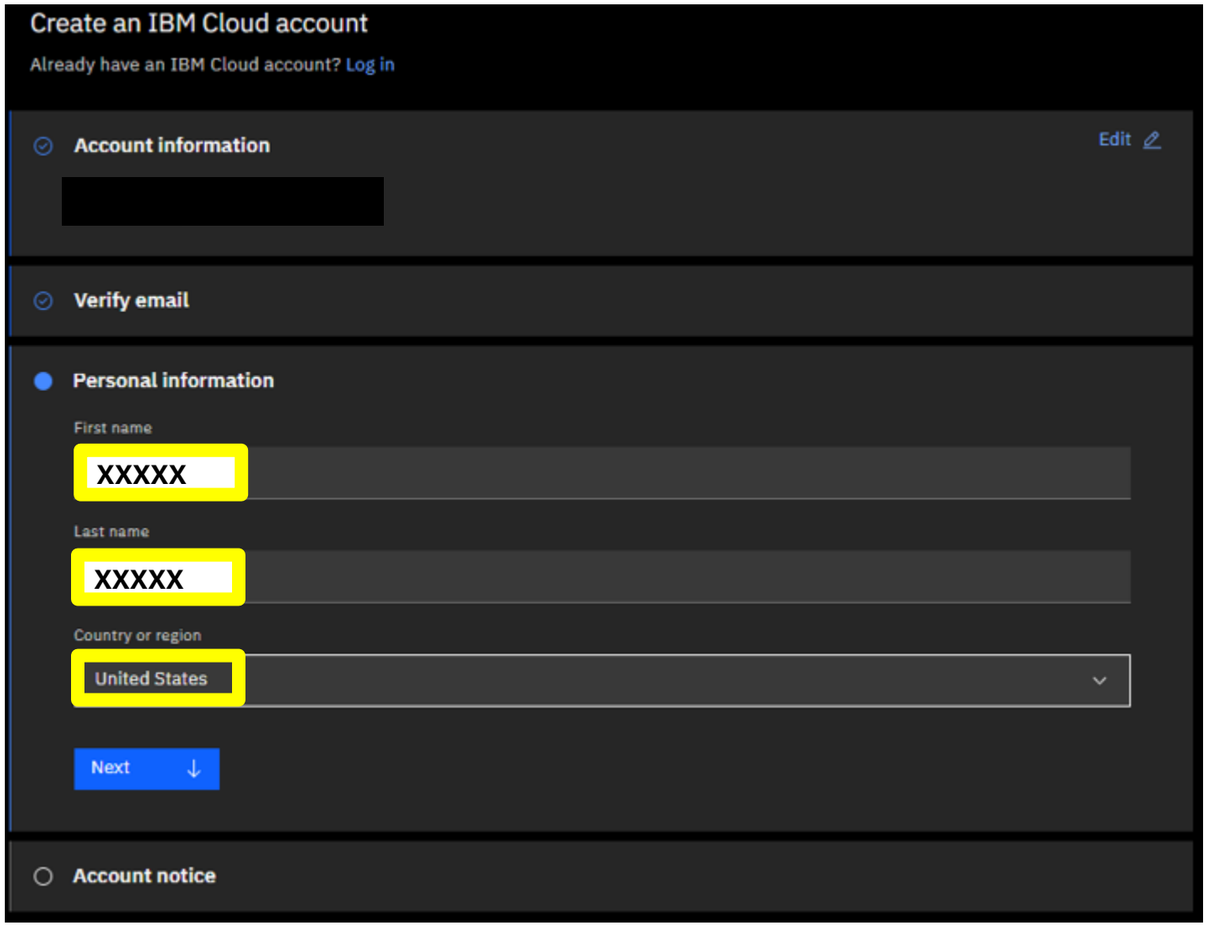
Getting Started: Setup an Environment
Registration (Sign up / Log into IBM Cloud) (2 of 4)





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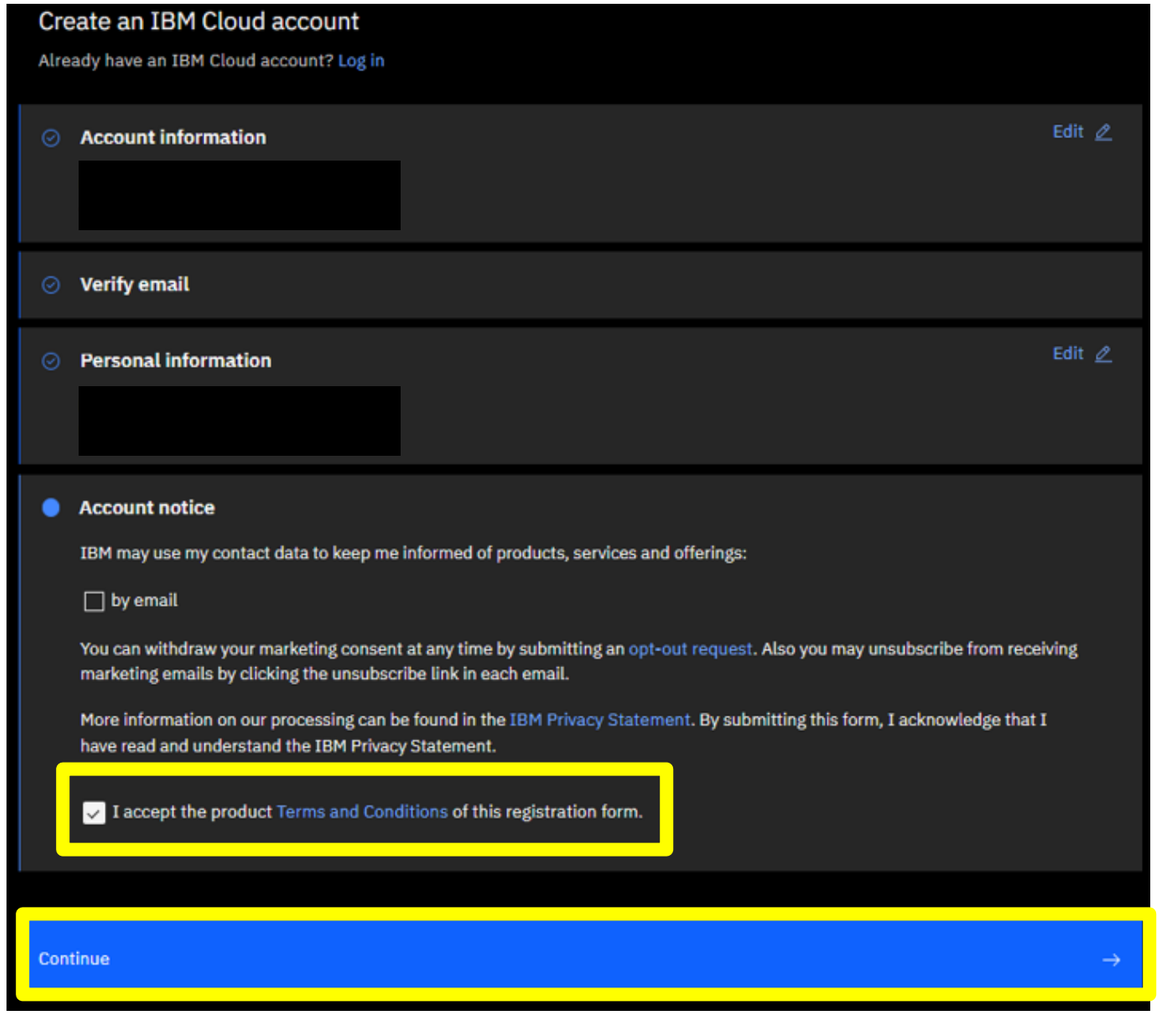
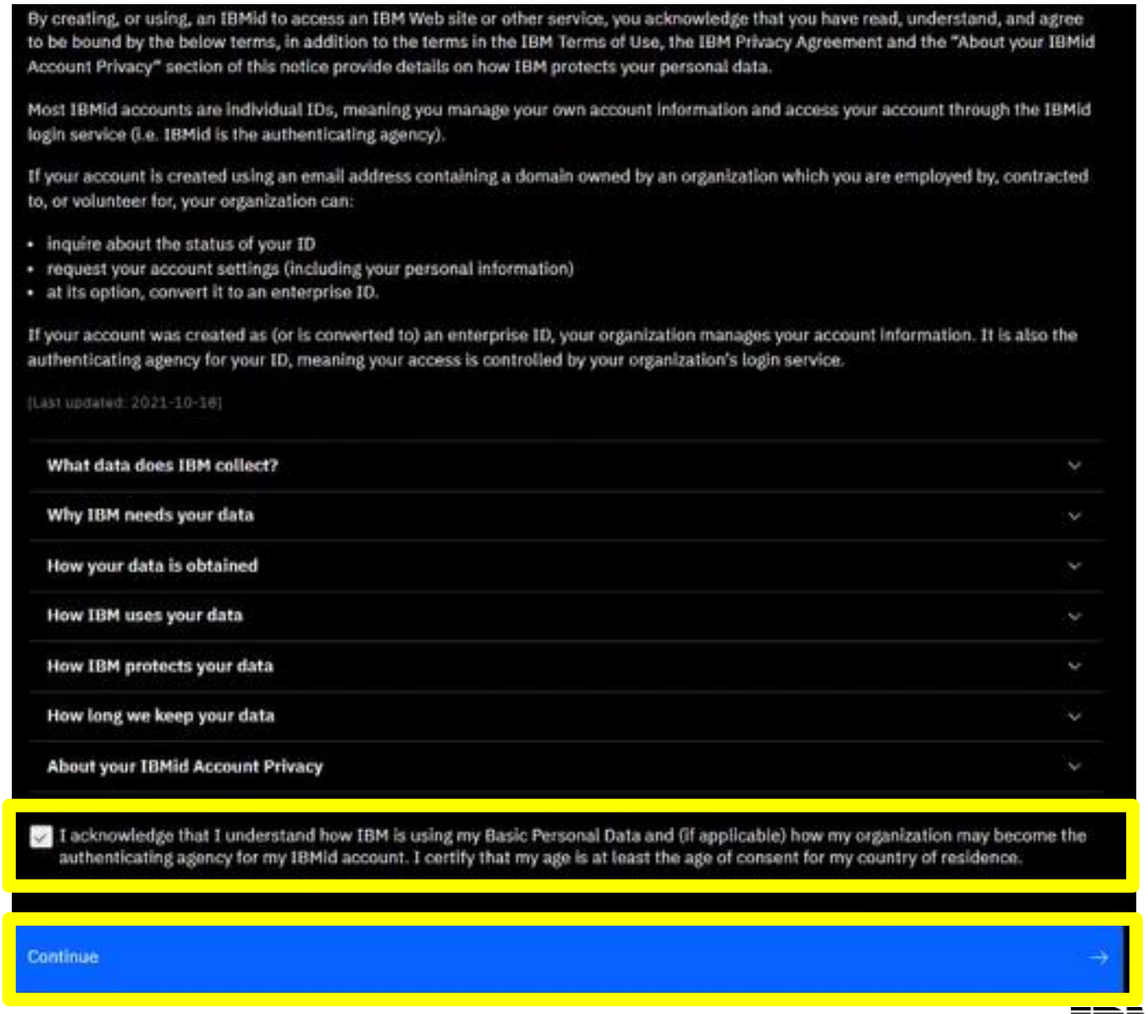
Getting Started: Setup an Environment
Registration (Sign up / Log into IBM Cloud) (3 of 4)





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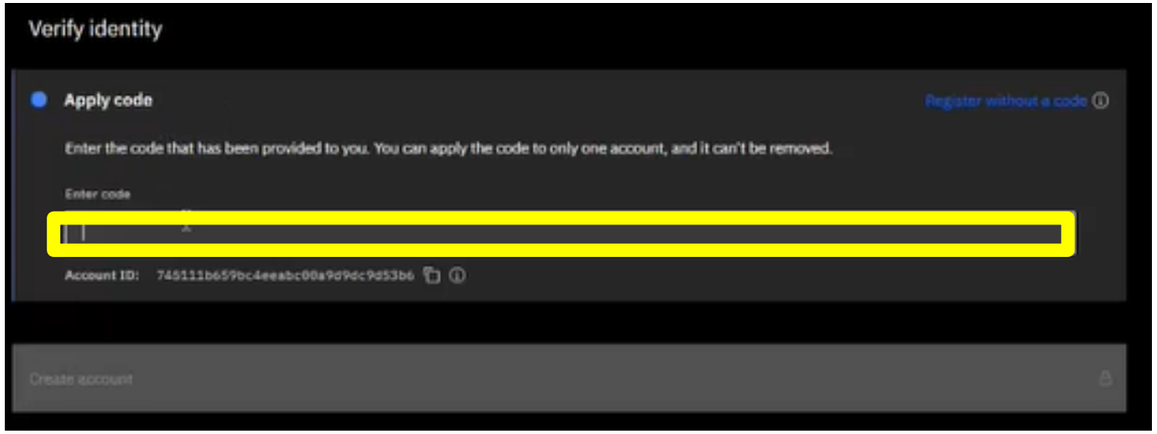
Getting Started: Setup an Environment
Registration (Sign up / Log into IBM Cloud) (4 of 4)



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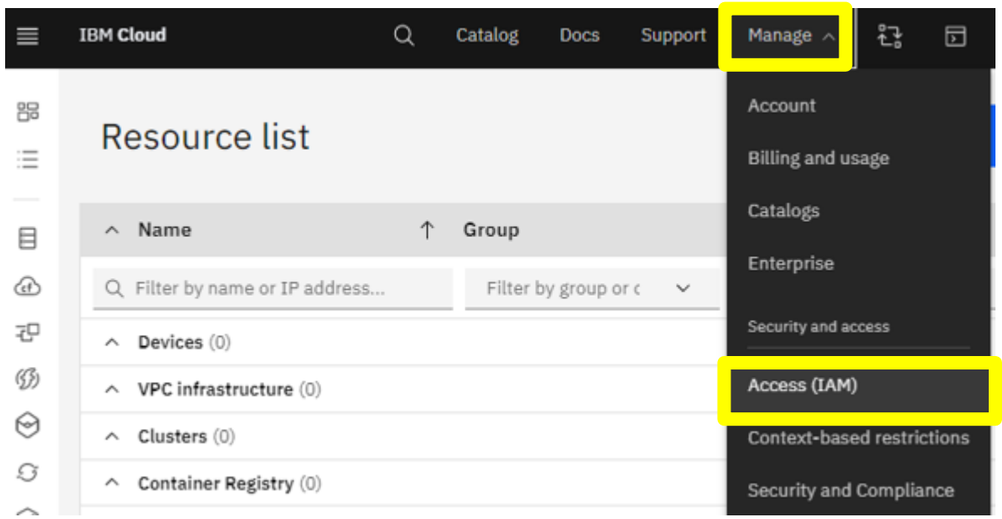
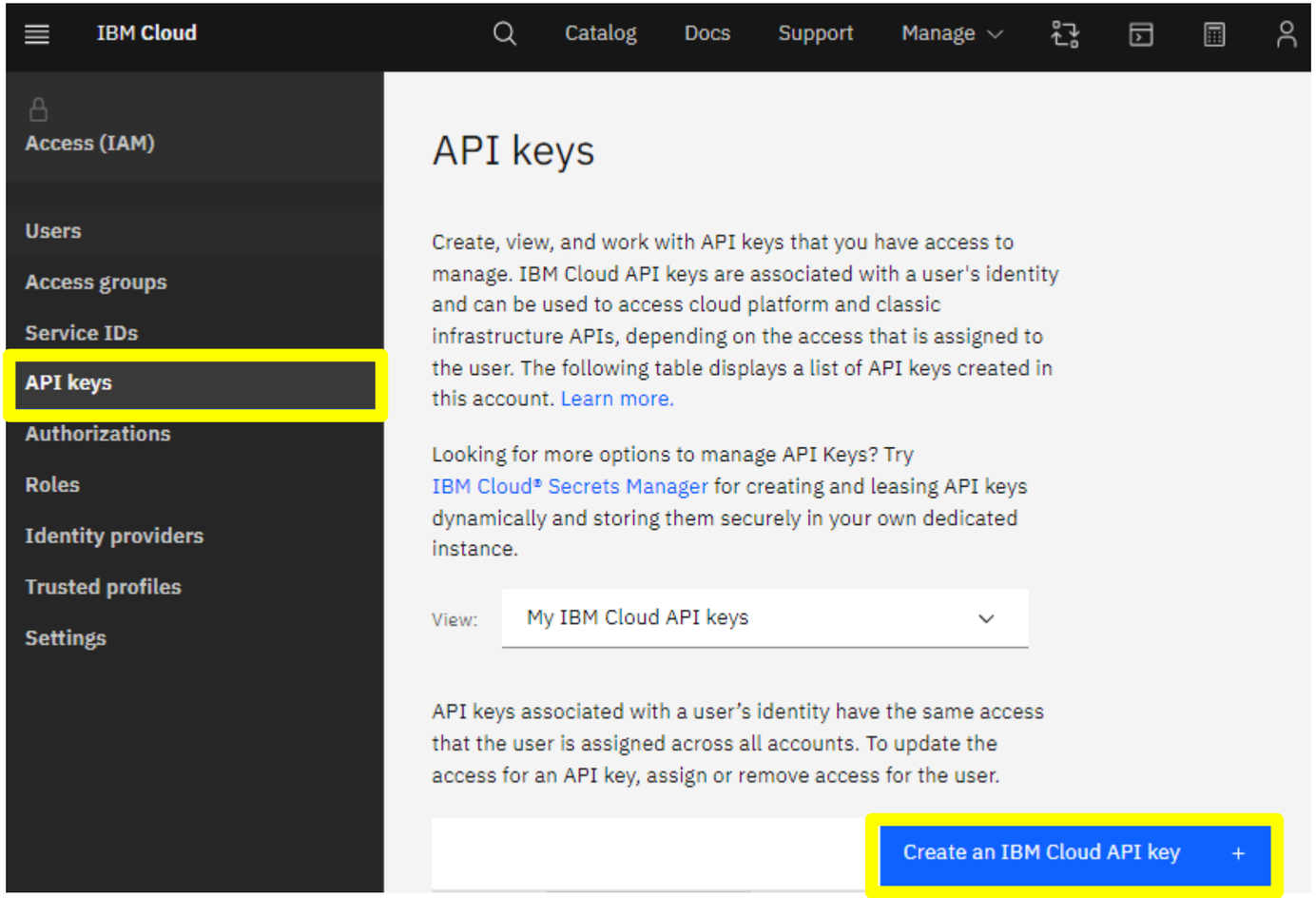
Getting Started: Access (IAM)
API Key (1 of 2)





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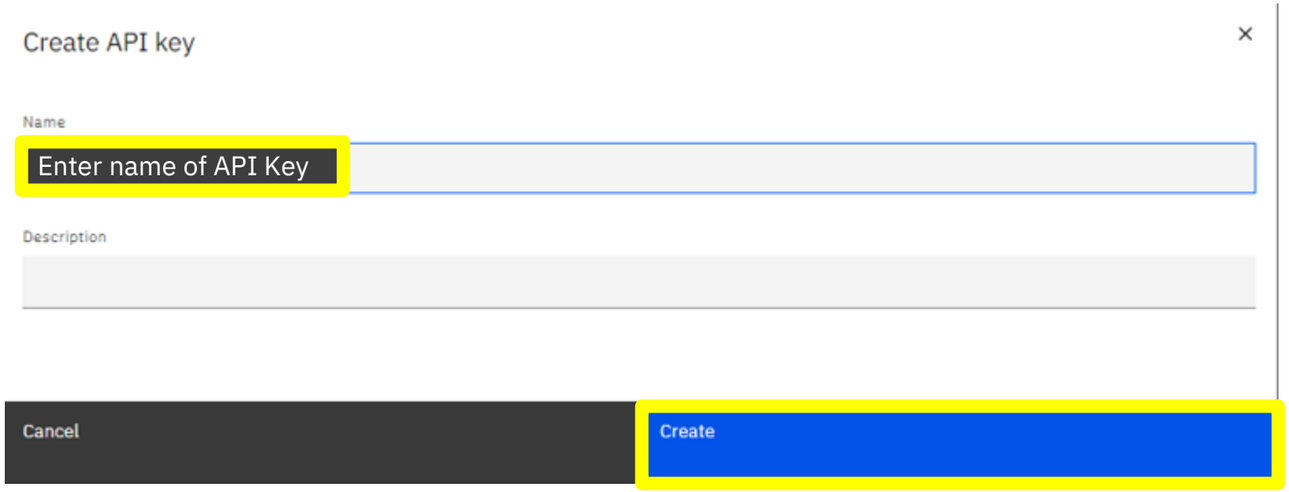
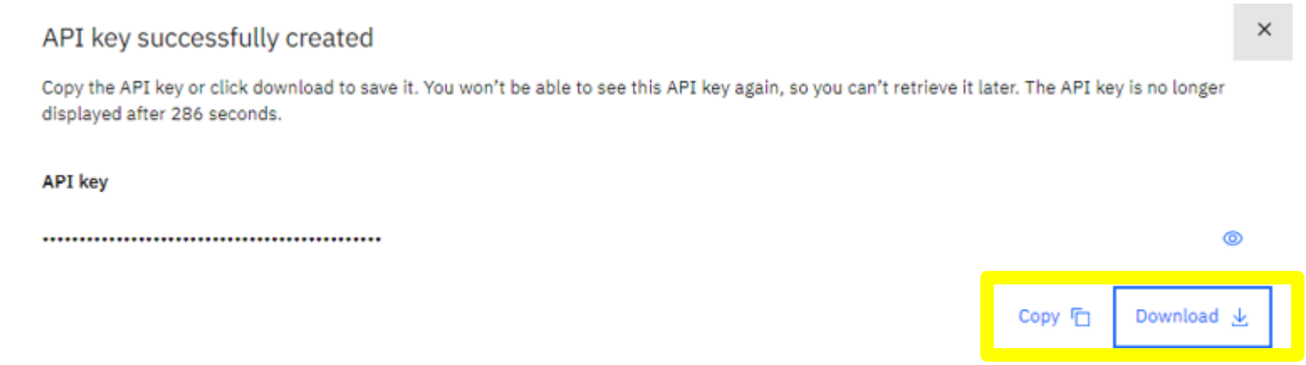
Getting Started: Access (IAM)
API Key: Create, Copy and Download API Key (2 of 2)





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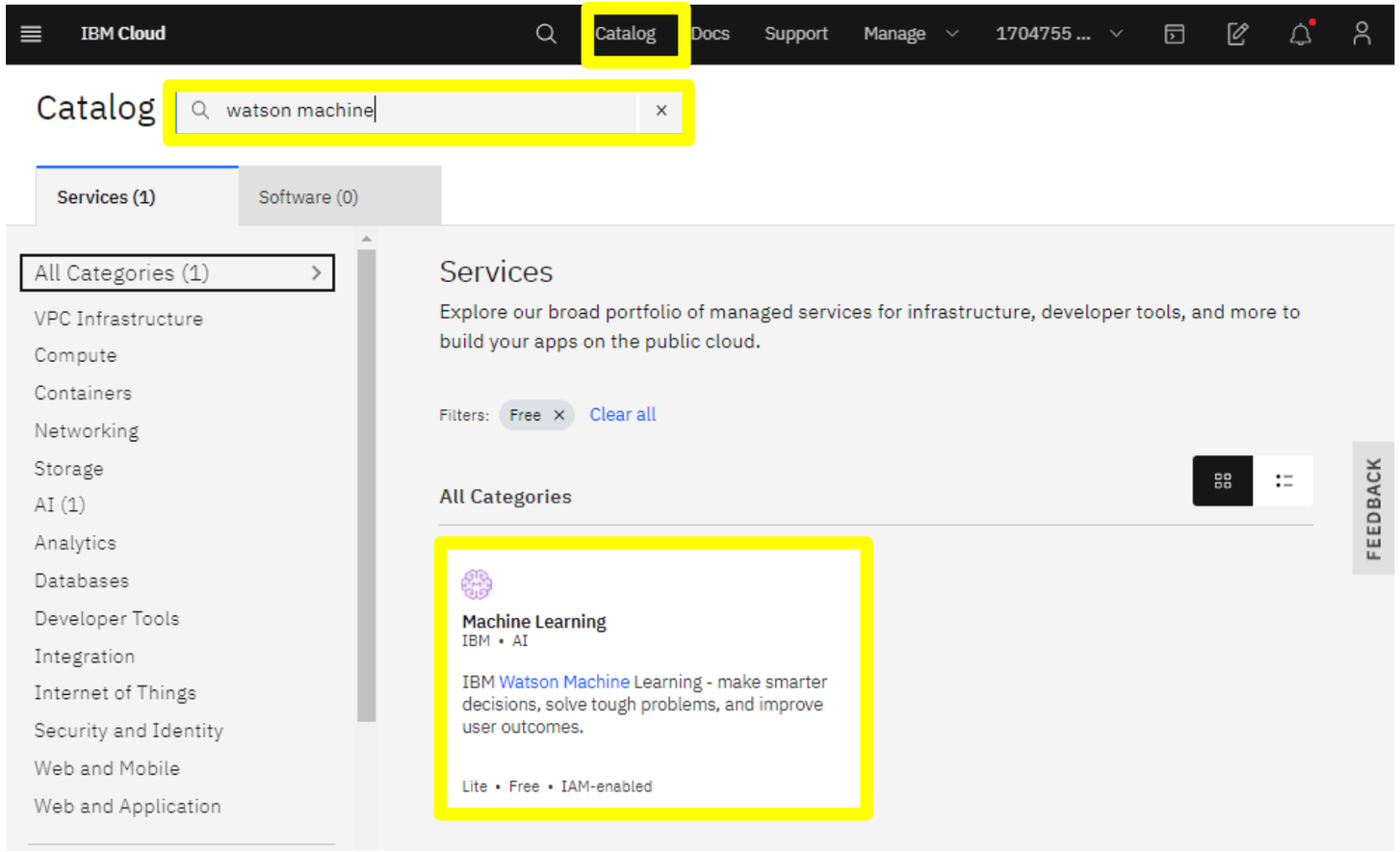
Getting Started: Setup an Environment
Watson Machine Learning (1 of 2)



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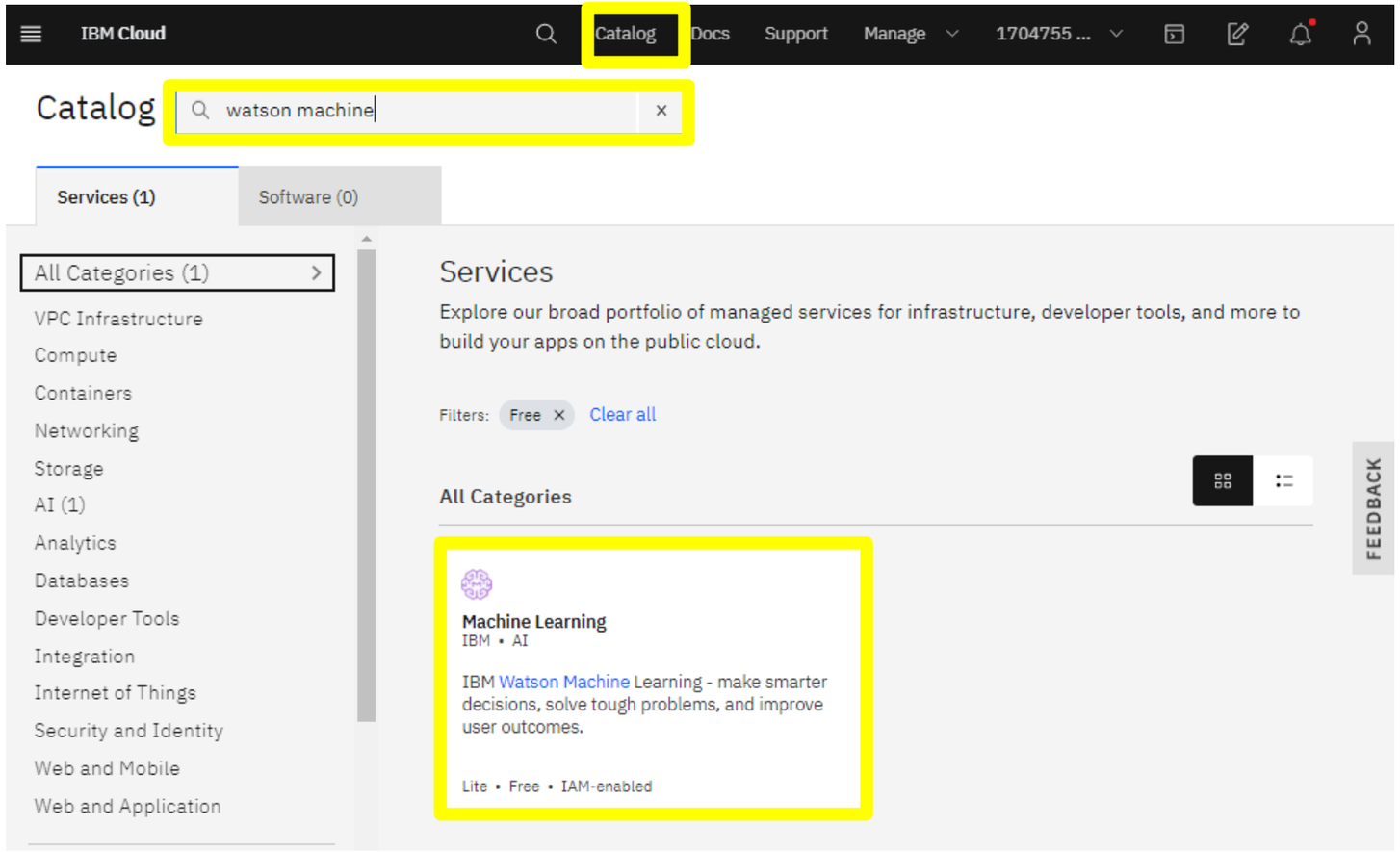
Getting Started: Setup an Environment
Watson Machine Learning (1 of 2)



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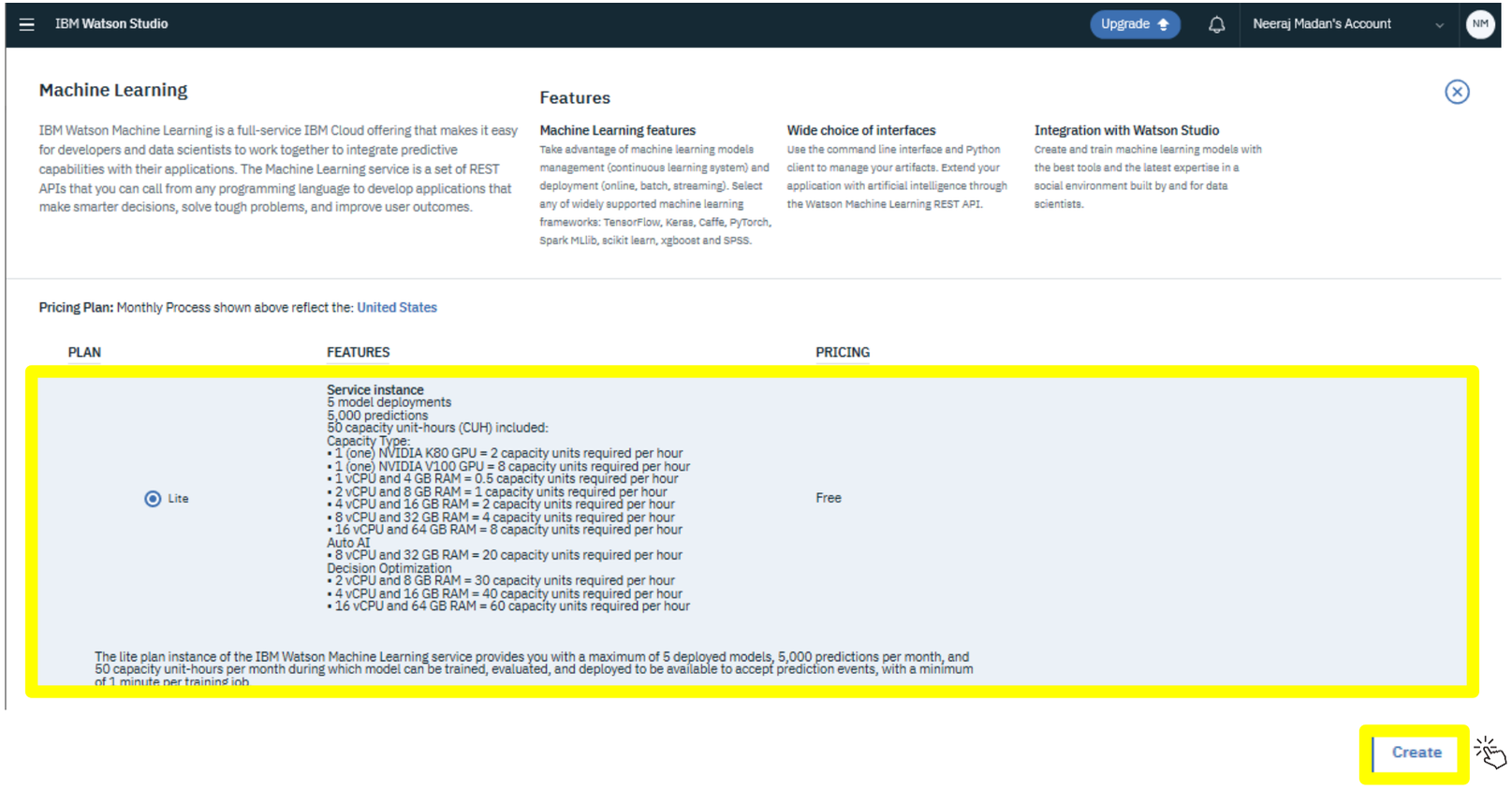
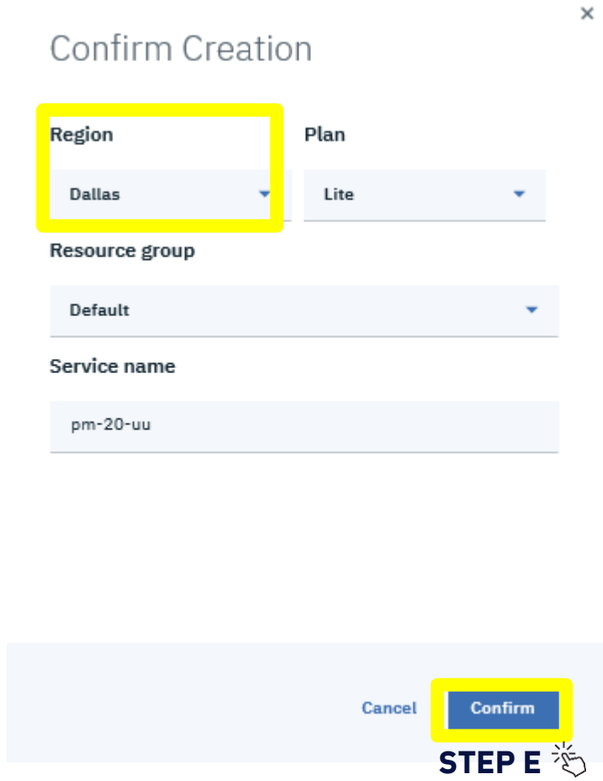
Getting Started: Setup an Environment
Watson Machine Learning (2 of 2)





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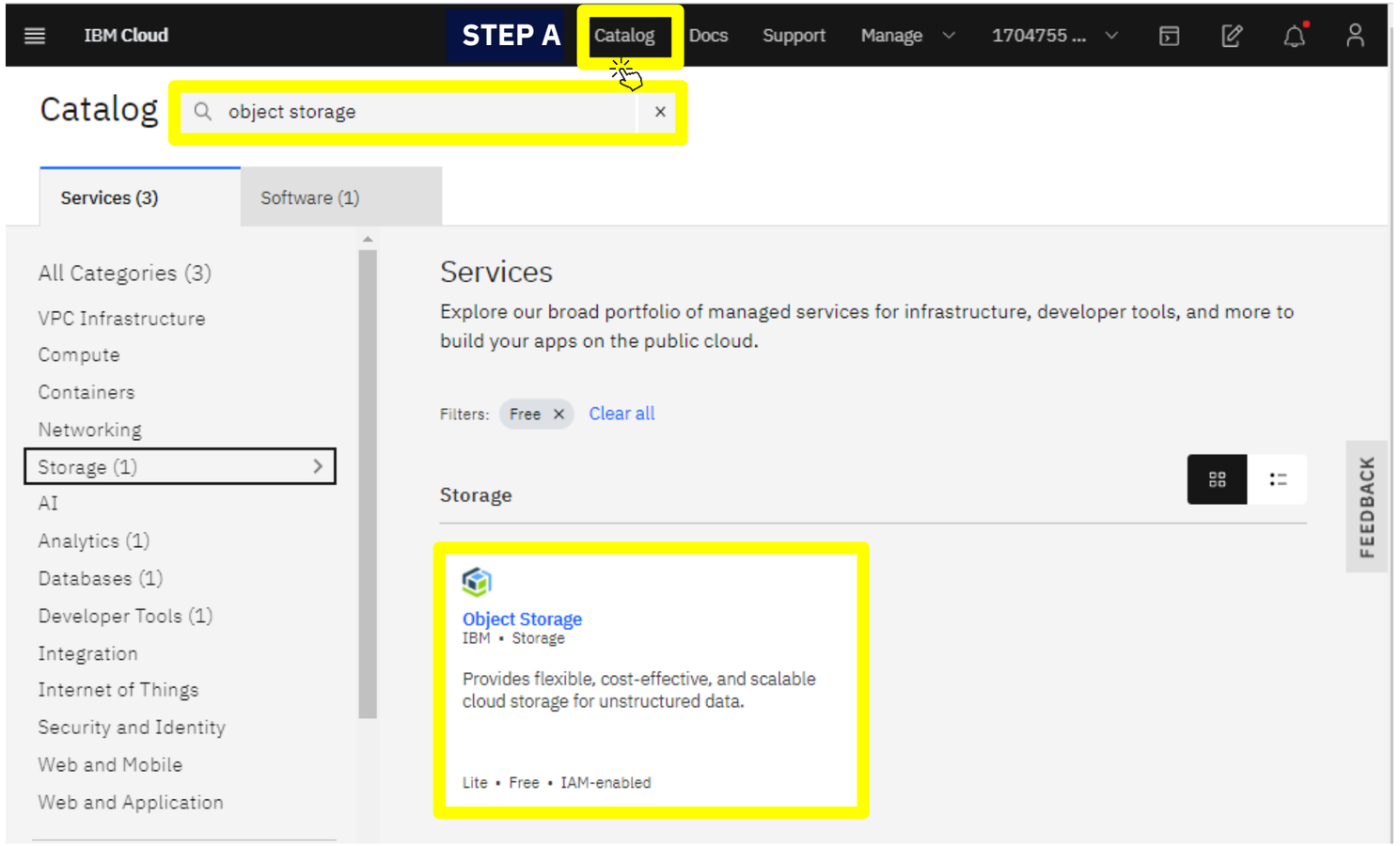
Getting Started: Setup an Environment
Cloud Object Storage (1 of 2)



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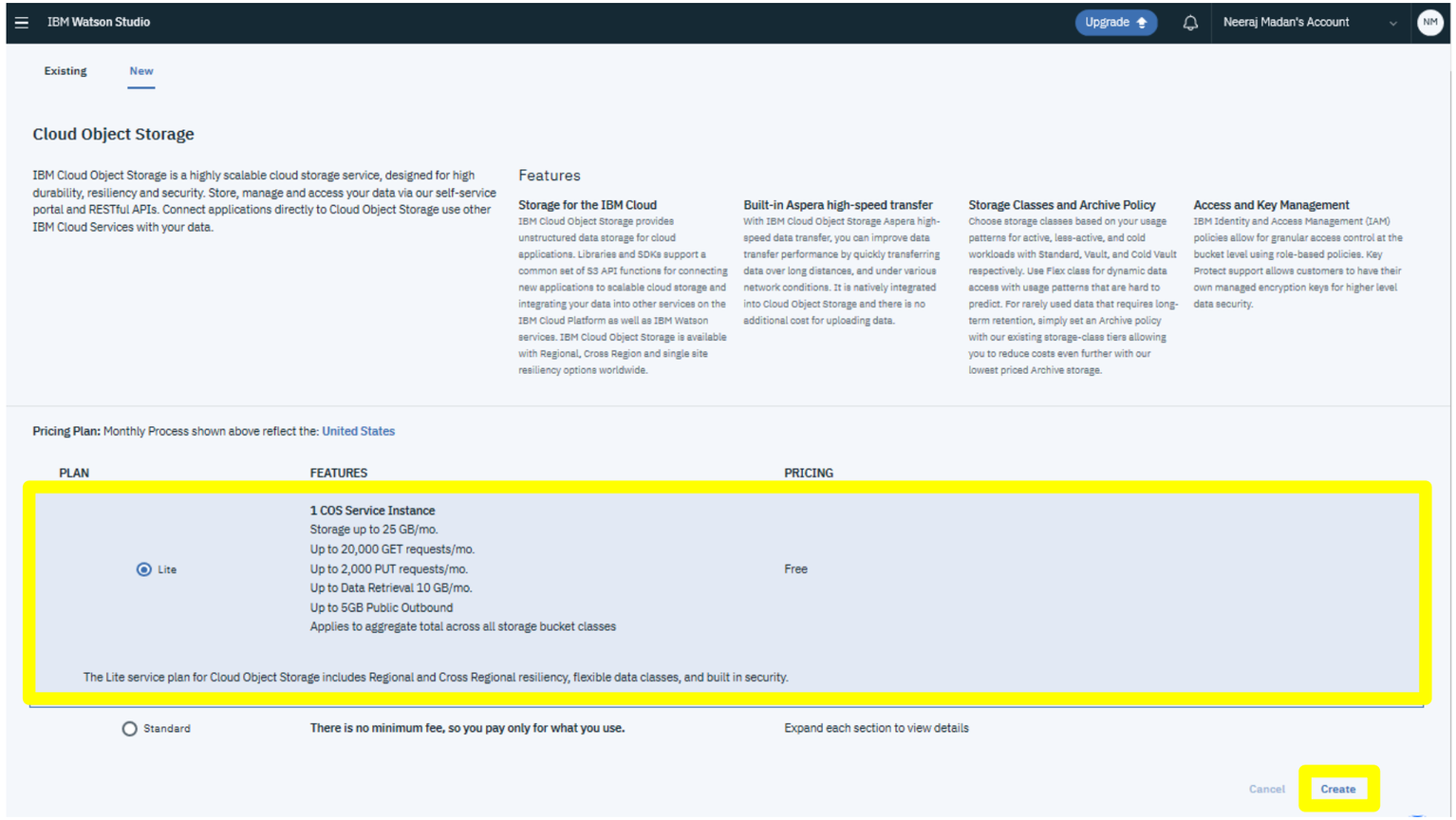
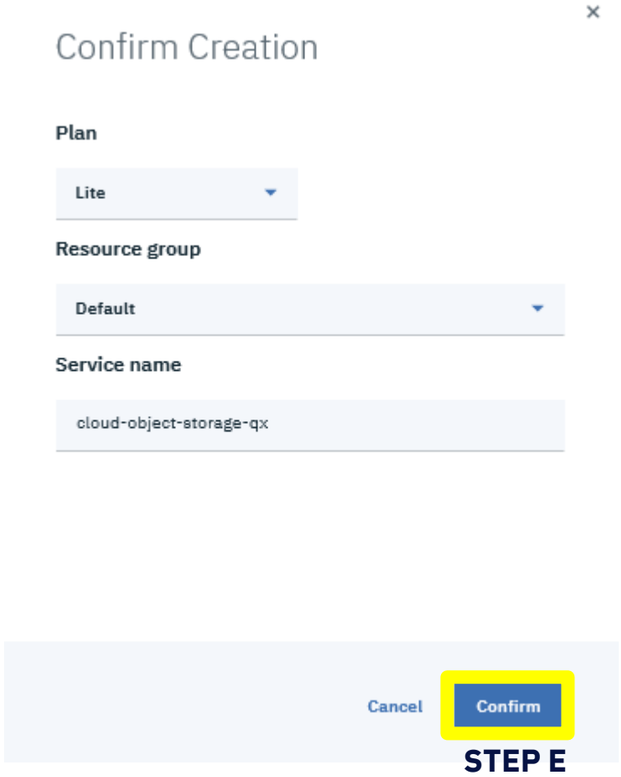
Getting Started: Setup an Environment
Cloud Object Storage (2 of 2)



STEP D



STEP E

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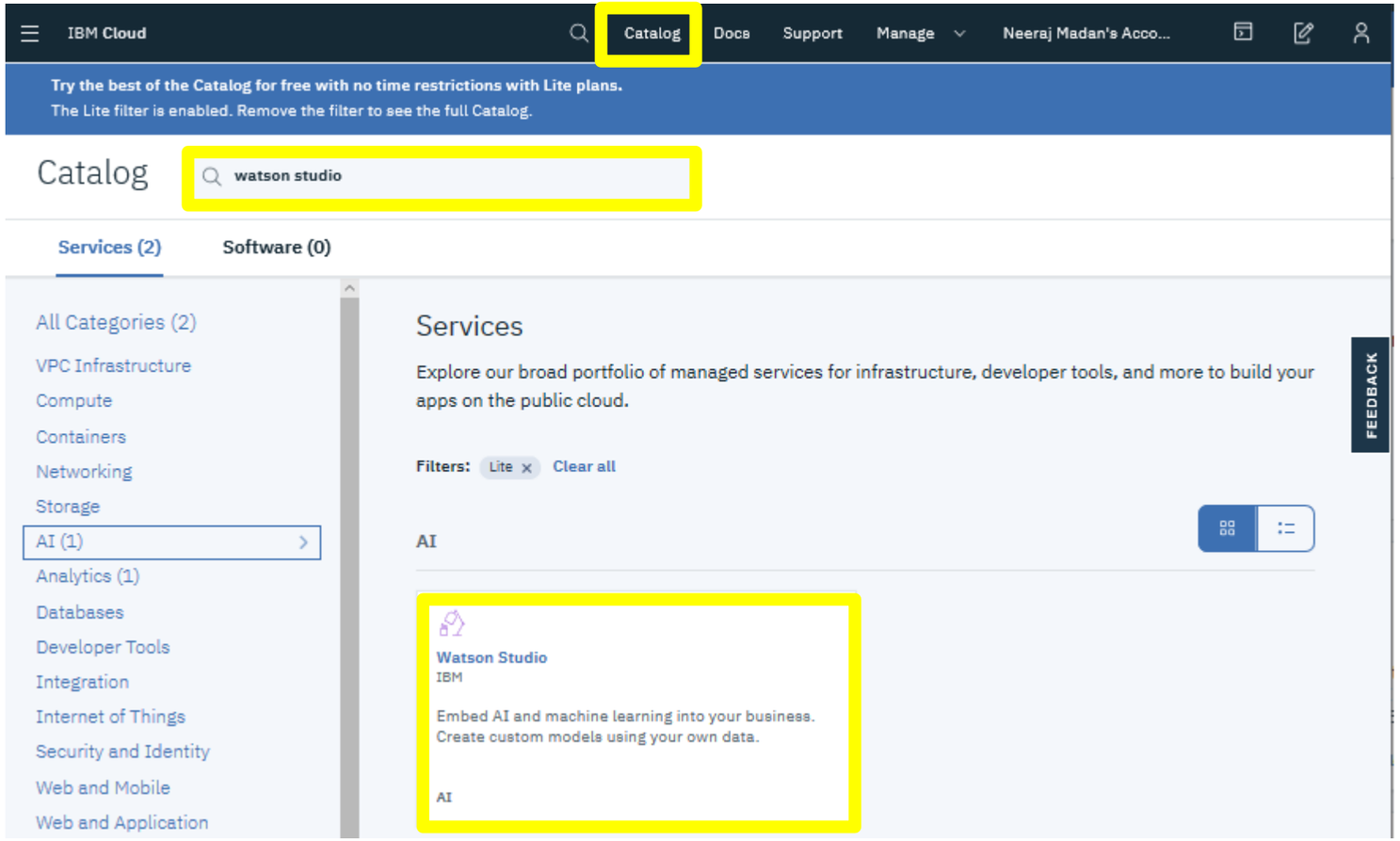
Getting Started: Setup an Environment
Watson Studio Service (1 of 2)



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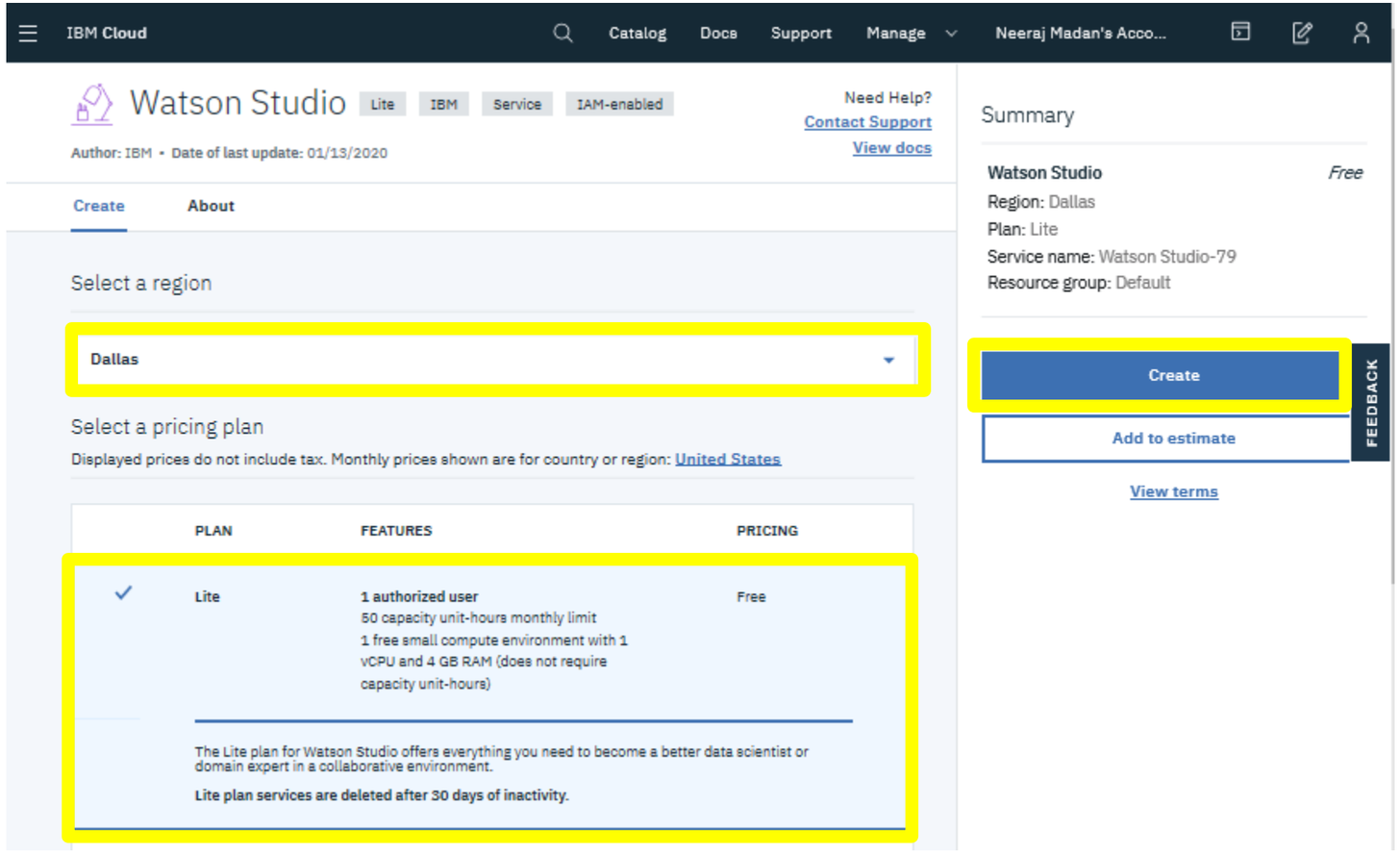
Getting Started: Setup an Environment
Watson Studio Service (2 of 2)



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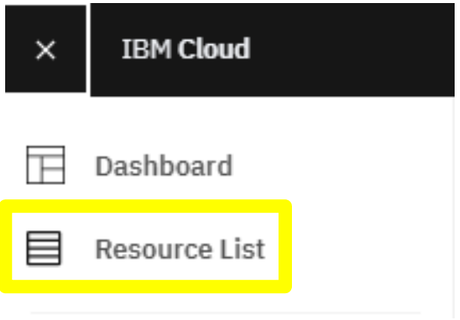
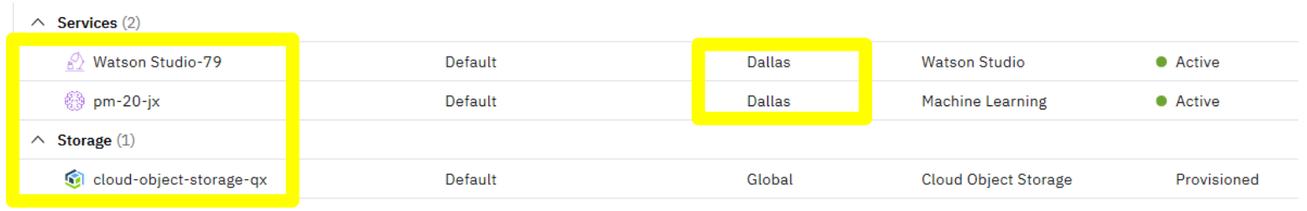
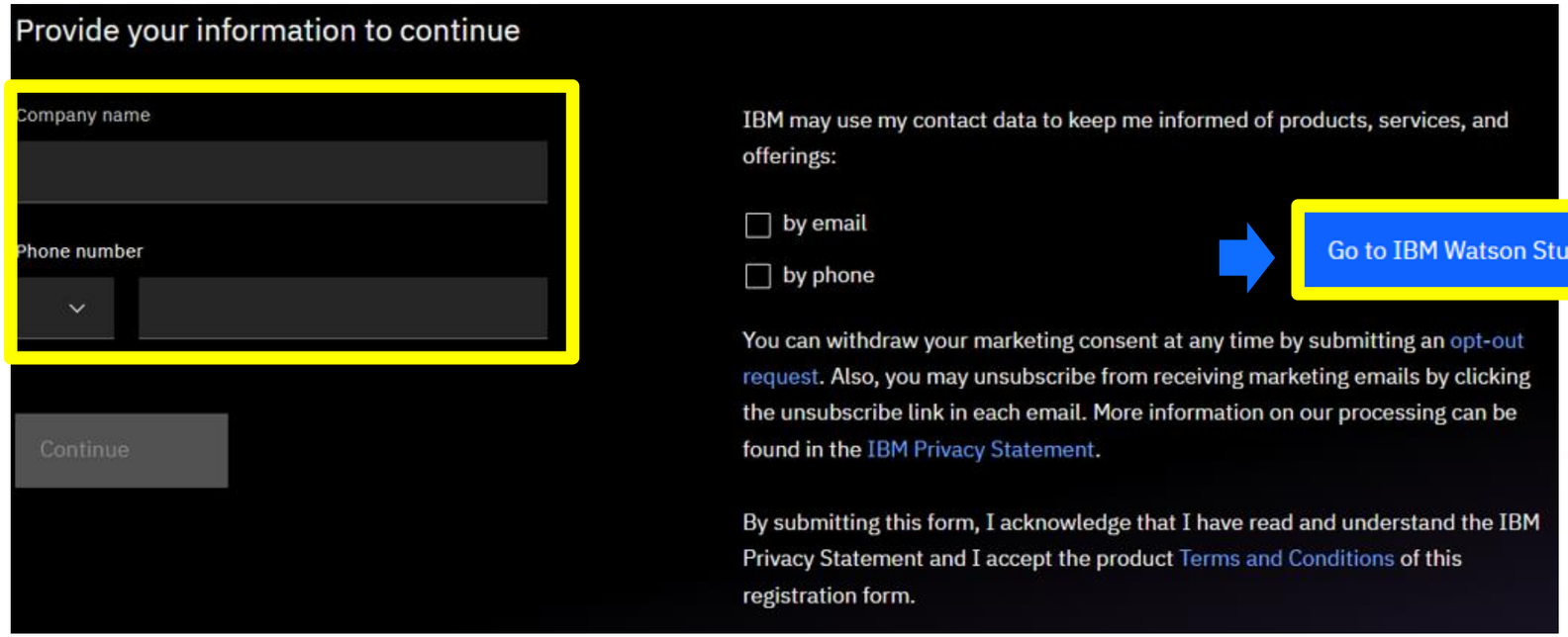
Getting Started: Final Check
Verify Services and Storage; Launch Watson Studio



Services to show Watson Studio, Cloud Object Storage, and Machine Learning Services.





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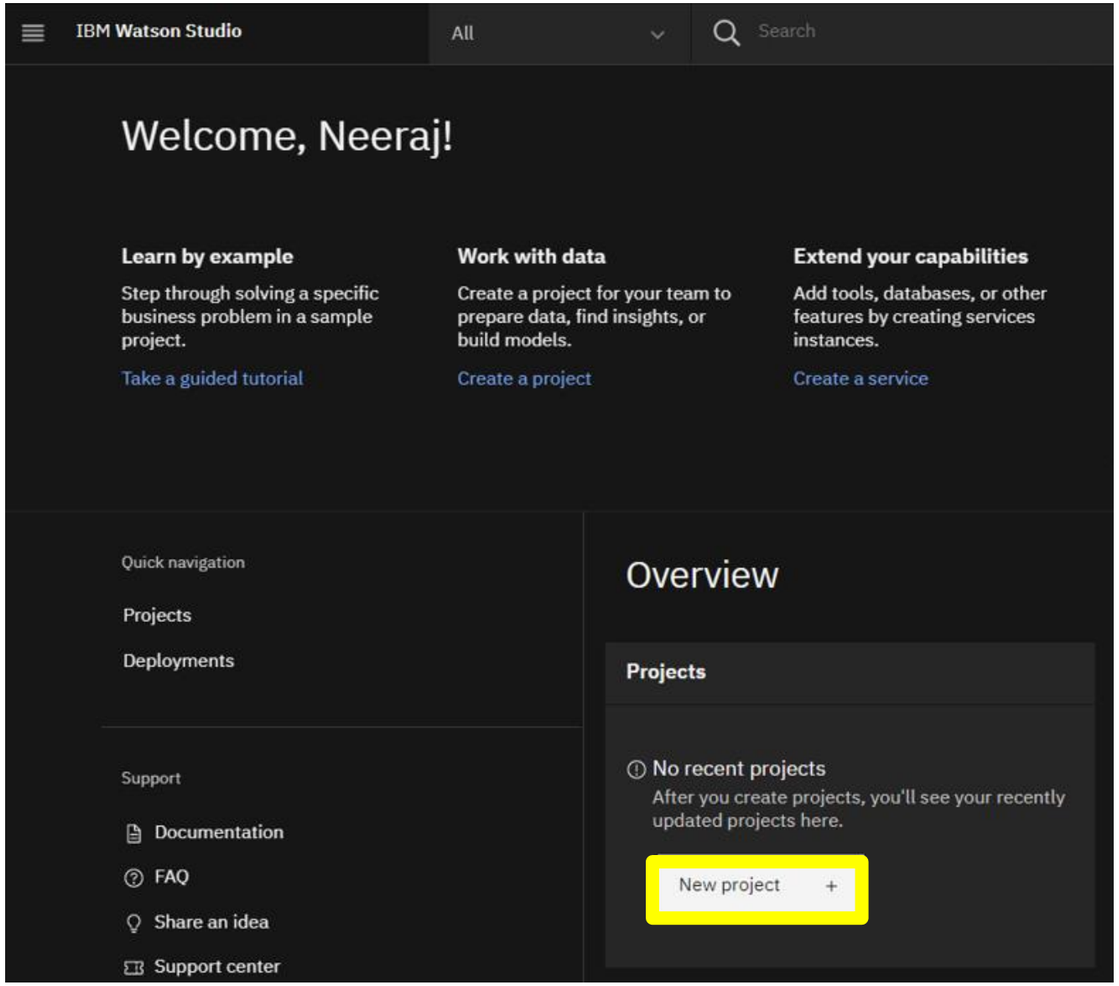
Getting Started: Create a Project
Select a New Project (1 of 4)



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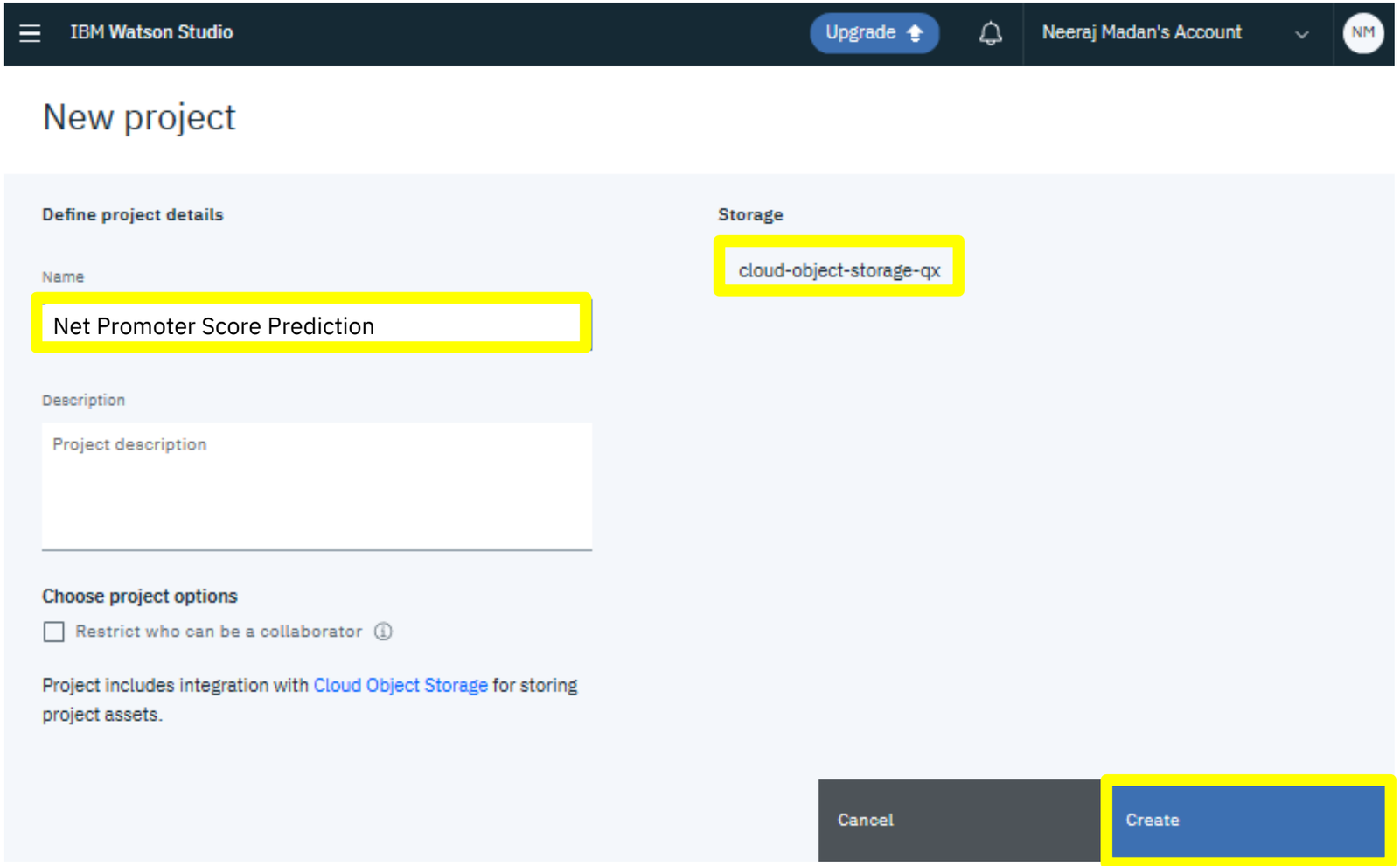
Getting Started: Create a Project
Mention the Project Name (2 of 4)



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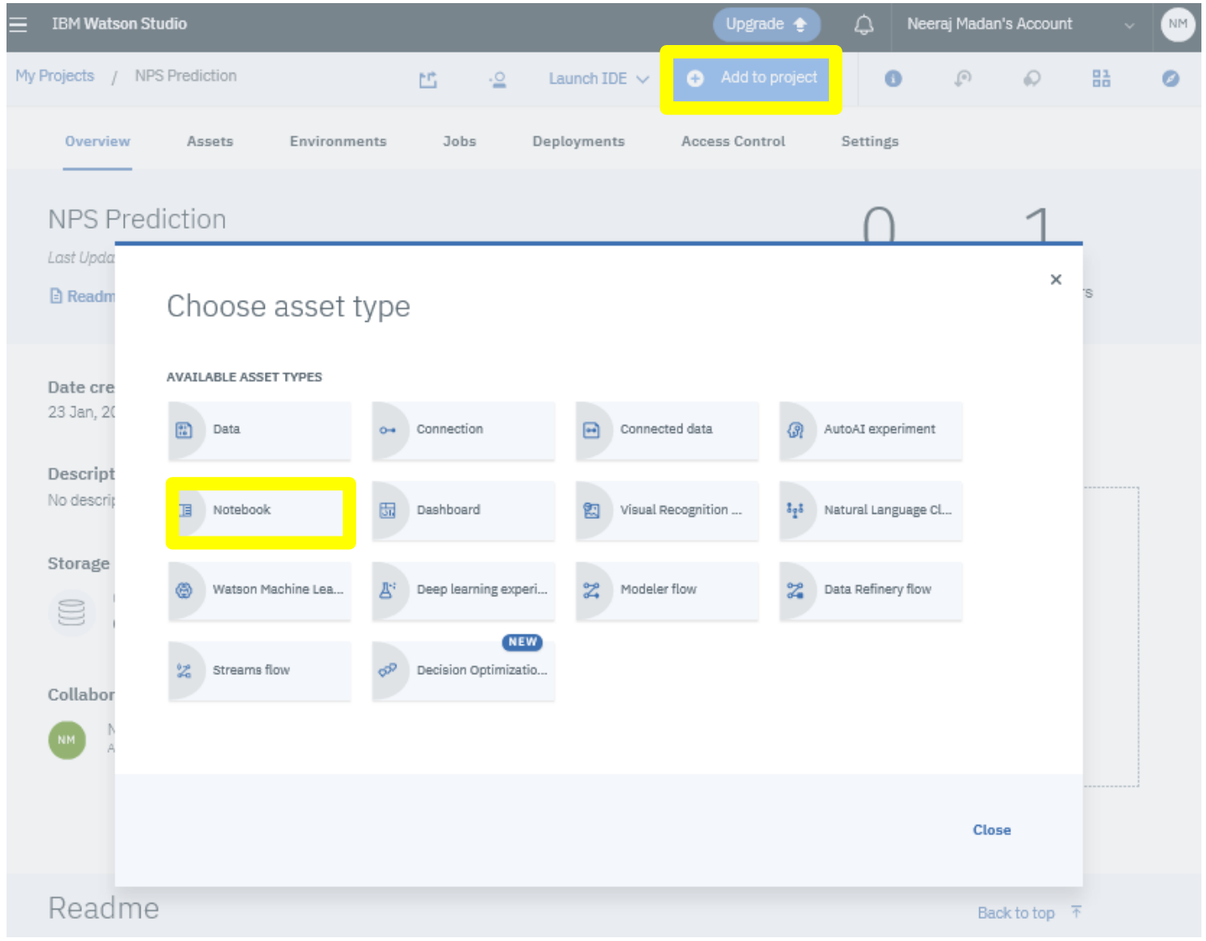
Getting Started: Create a Project
Add a notebook to your project (3 of 4)



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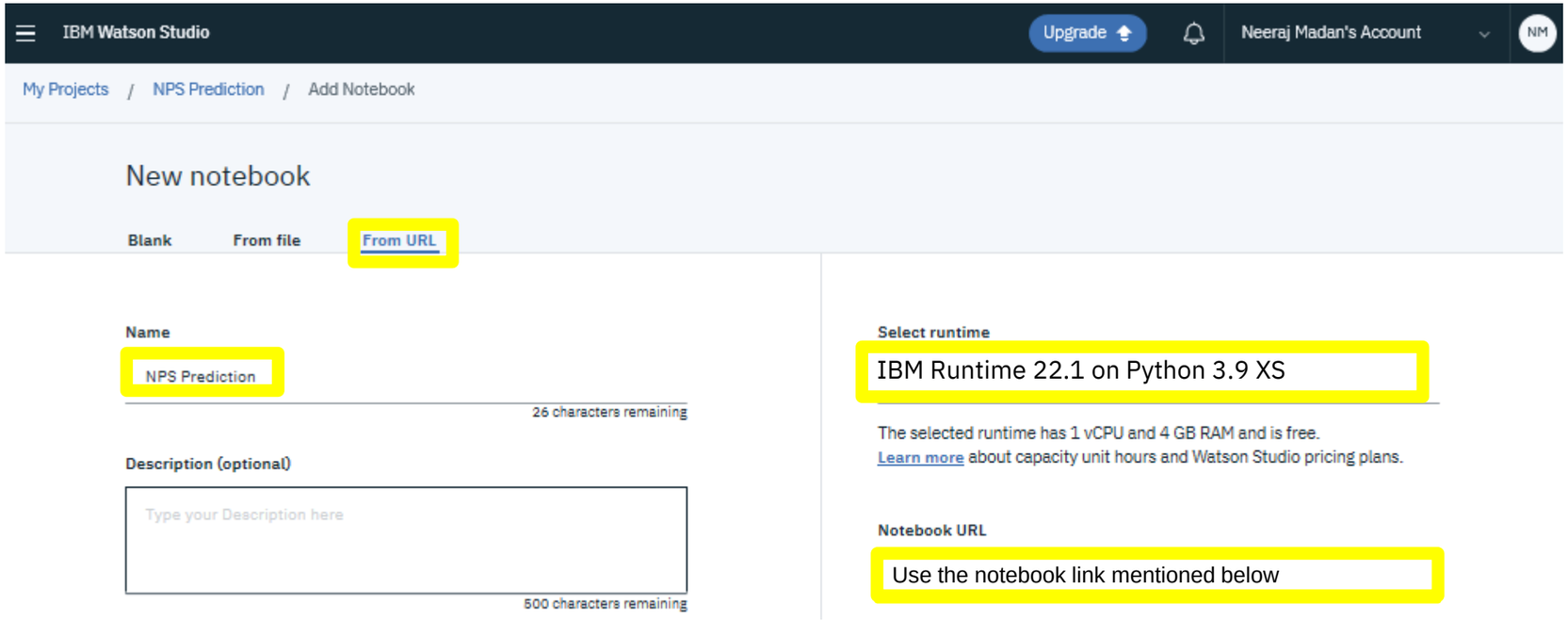
Getting Started: Create a Project
Import a notebook from GitHub (4 of 4)



Notebook URL: https://github.com/neemadan/An-Experiential-Journey-With-Data-to-Inspire-Your-Work/blob/master/An%20Experimental%20Journey%20With%20Data%20to%20Inspire%20Your%20Work.ipynb (To be used in the workshop)

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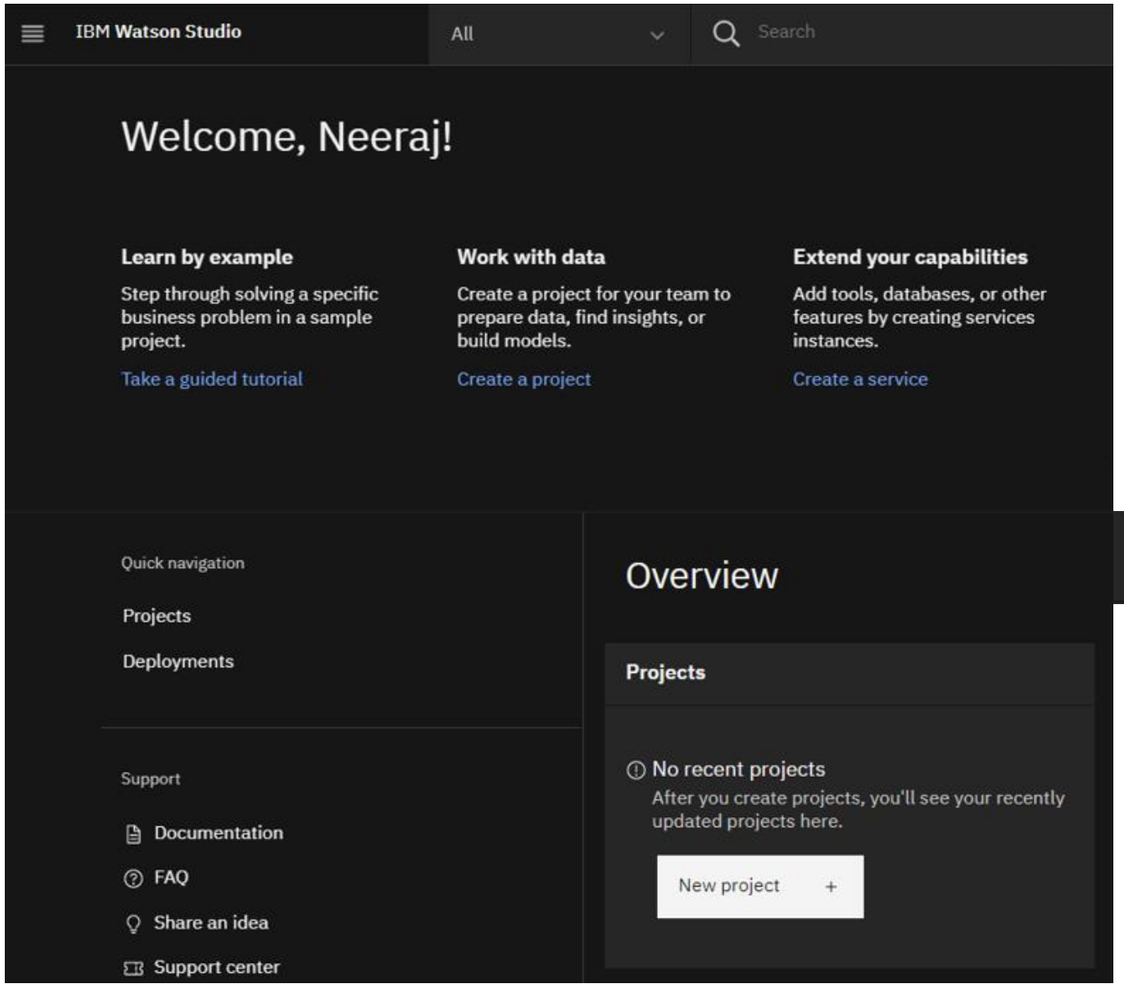
Getting Started: Create a Deployment
Select a New Project (1 of 3)



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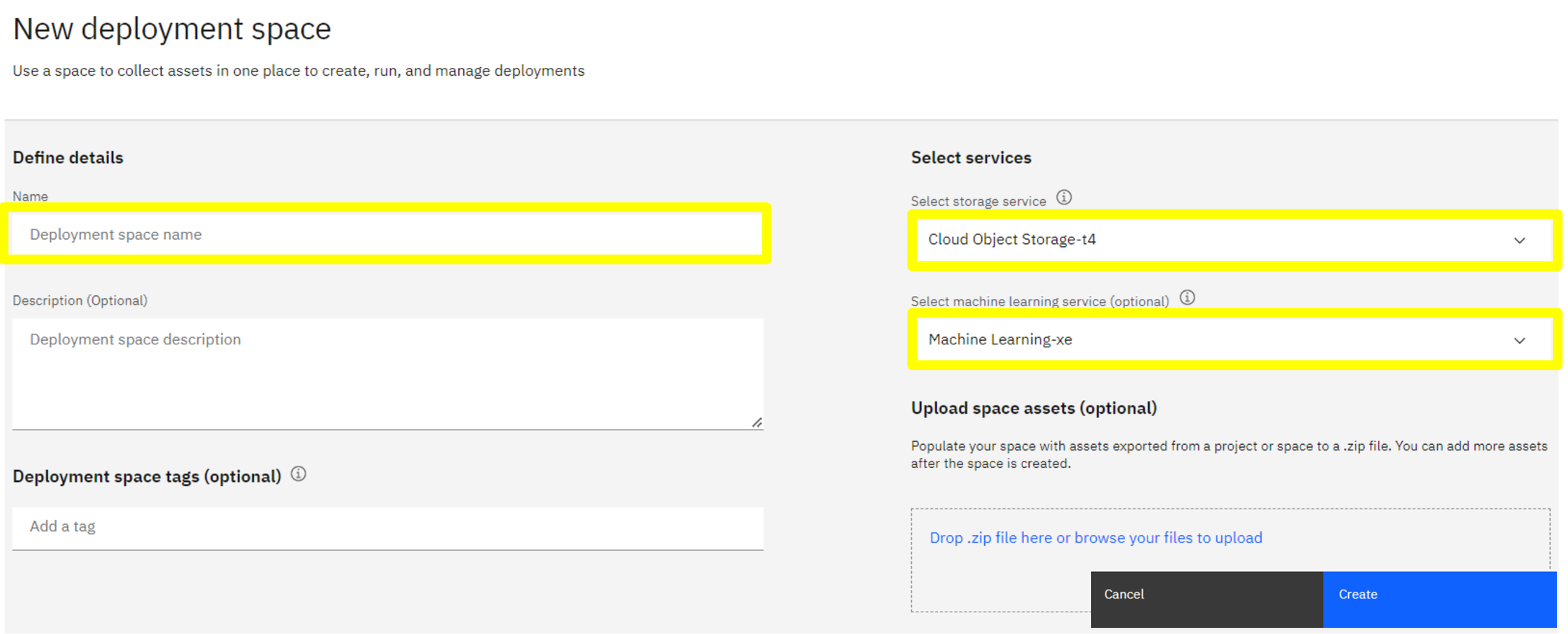
Getting Started: Create a Deployment
Select a New Project (2 of 3)



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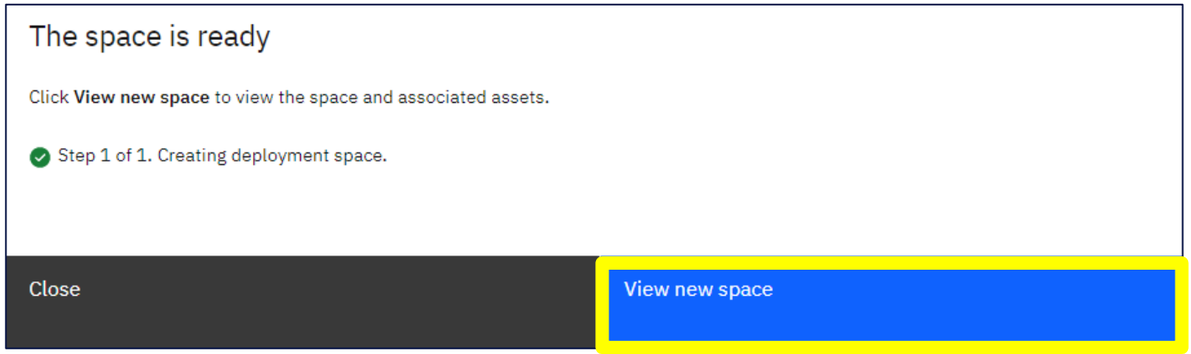
Getting Started: Create a Deployment
Select a New Project (2 of 3)



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Contact Us

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