Audio file

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Transcript

00:00:03 Speaker 2

In this lesson, we're going to look at navigating the Sagemaker AI user interface, so we'll spend most of our time performing a demonstration.

00:00:13 Speaker 2

In the demonstration, we're going to look at how to create Jupiter Notebook instances. These are the legacy instances that when Sagemaker was first launched, this was all that we had. These have really been superseded by Sagemaker domains and the Sagemaker Studio. We're going to look at this first and then we'll compare later with the Sagemaker Studio.

00:00:39 Speaker 2

We're going to see where we can find data processing jobs, training jobs, and endpoints in the user interface so that we can see where those entities will reside. Now, if you tempt this in your own environment, you might find that there's nothing there. I'm going to show you an environment where there are some historical training jobs and some historical processing jobs, just so that you can see what would the detail would be of each one of those.

00:01:06 Speaker 2

We're also good to see where any models have been trained would be stored and we're going to see how we can access the Jupyter notebook that we launch. Let's dive in Here we are in the AWS Web Management Console. This is where we can administer all AWS services. Now I can see in my recently visited panel, I've got Amazon Sagemaker AI. Now, if you're performing this on your own machine, this might not be recently visited, so we can click up in the search bar and just enter.

00:01:37 Speaker 2

Agemaker Now I can see straight away there are two hits for Sagemaker, one called Agemaker AI, one called Sagemaker. Now Sagemaker AI is the original product that has been around since about 2016 and this is what we would use for developing, training and hosting our machine learning models. In mid 2024 we got Amazon Sagemaker platform.

00:02:04 Speaker 2

And that really is just taking Sagemaker AI and integrating.

00:02:08 Speaker 2

It with better data governance and integration with data warehousing and data lakes, everything we do in Sagemaker AI, we can do in the Sagemaker platform. So further now the focus is on Sagemaker AI. So let's click into that. OK, now is bringing me into the Sagemaker AI user interface.

Now down the left hand side, I have my navigation bar. Let's see what some things we can figure out. I can see down under applications and Ides.

00:02:38 Speaker 2

I've got notebooks. If I click into notebooks, we can find out if I've got any Jupyter lab server notebooks, and at the moment I have none. As I Scroll down a little bit further, I can see under processing I can see if I've got any data processing jobs. Now again, if you're doing this for the first time on your own account when you click in processing jobs.

00:03:02 Speaker 2

You might not see anything, but because I've been using this for the past few months, I've got some historical processing jobs in here. So whenever you have kicked off a processing job, for example, maybe you did a data cleanup job to prepare some data for training, then it would appear here I can see the status of those jobs. Looks like nearly all completed successfully except for one that failed. What about training? If I start a machine learning training process, where would that be?

00:03:32 Speaker 2

Well, under the training section, I can expand and see what algorithms I have and what training jobs have been run. So let's click into training jobs and I can see, OK, I've got some training jobs over the last couple of months that I've run at different times as well. And I can see how long they took and I can see their completion status as well. Now, again, if you're just starting out and you're clicking into these areas as I did when I first learned Sagemaker, then you would find nothing under processing jobs and nothing under.

00:04:02 Speaker 2

Training jobs. The interface felt kind of empty and it will feel that way until you populate it with jobs that you have initiated from your code. Remember, we are really a code first product. We are going to be driving our creation of training jobs or our creation of processing jobs from Python code in a Jupyter notebook.

00:04:27 Speaker 2

Now if I scroll a little bit further down I can see inference, and under inference I can find out if I've got any models created.

00:04:36 Speaker 2

It looks like we have created some models here already, but three already, and it looks like I've got my house price model or at least a previous candidate of it already waiting there. So until you've trained a model successfully and registered it again, you would see nothing here. But I've got a few historical ones sitting here. If I check under endpoints, then endpoints will show me if I am hosting any of those models. An endpoint simply means that we've deployed A managed instance and the model is inside it, so.

00:05:06 Speaker 2

We can provide predictions, so let's just check our endpoints and good, we have no endpoints at this point, so we can't perform any real time inferencing just yet. OK, so now we're going to take a zoom in on the Jupyter notebooks. We're going to be revisiting creating models and processing. For now, let's just concentrate on the first step of getting a Jupyter notebook up and running within Sagemaker.

00:05:34 Speaker 2

Now, if we scroll back up so that we're looking at applications and Ides and we come down to notebooks.

00:05:41 Speaker 2

Now, the first thing I should highlight here is this big banner advert at the top that's telling us saying try the new Jupyter Lab in Sagemaker Studio. This is excellent advice and I would strongly encourage you if you're going to use Sagemaker, to use Sagemaker Studio. However, we are all about demystifying what Sagemaker can do. So we do need to differentiate the Sagemaker Studio from what we're doing here. And in a lot of ways, this is to do with history.

00:06:11 Speaker 2

When the Sagemaker product first launched, if you wanted a Jupyter notebook, you needed to launch a notebook instance. When Sagemaker started, we didn't have Sagemaker Studio. Sagemaker Studio came later and thankfully is way, way better. So we're going to look at both and you'll be able to see why Studio is better. But for now, let's jump back in time and say we want a notebook instance.

00:06:35 Speaker 2

So I'm going to come across here and create a notebook instance. So let's call it Codecloud. I'm going to call it legacy Jupyter just to hammer home the point that this is the the old way of doing it. Now this is going to create a managed virtual machine. And in that managed machine there will be a Jupyter server running that. We saw in a previous lesson how easy it was to install Jupyter on an Ubuntu Linux machine. Here it will become.

00:07:05 Speaker 2

To us, we can just consume it. There will be no need to install anything. Now the size of the compute instance that we will get will depend on what we picked from this dropdown list. So I can see here I've got T3 dot medium, the Tfamily just being a burstable CPU type that's ideal for jobs that are not going to be running 100% CPU all the time. Well, medium size will be typically I think 2 CPUs and about 4 gigabytes of RAM. But if you're not sure what.

00:07:34 Speaker 2

What size of CPU and memory?

00:07:36 Speaker 2

You get for an instance, I find this is a really good tool and we'll just open up a new browser tab and if you check Vantage SH and let's look for T3 dot medium. So I'm just typing that into Google search

and it will take me straight away to the Vantage website and I can see D3 medium pricing and specs. I tend to use this more than the official AWS documentation. It's just become a habit, but AWS document this as well. But I like this site.

00:08:06 Speaker 2

Now I can see there that T3 medium will give me two CPUs and 4 gigabytes of RAM and it even tells me the generation of CPU family I would run on if I thought I needed more compute power. And I could click on the drop down list and maybe pick something a bit different. Let's come down to the C5 family, so C5 extra large for example. So what would that give me a C5 extra large? So we can even change here C5 dot.

00:08:36 Speaker 2

X large like that.

00:08:39 Speaker 2

You should find that there we go. That gives us 4 CPUs and 8 gigabytes of RAM and it runs on the Intel Xeon Platinum.

00:08:47 Speaker 2

So let's say we decide that's appropriate for our use case.

00:08:51 Speaker 2

So I'll leave the instance type, then we can pick which Jupyter Lab version we want to run. Obviously Jupyter Lab 4 is newer than three or one, so generally we would want to run the latest version of the Jupyter Lab software.

00:09:07 Speaker 2

We then have to pick an IAM role for our notebook to run as.

00:09:12 Speaker 2

Now, IEM rules are a little bit like a user account. We attach policies to them that confer privilege permissions to do things like talk to S3 or invoke a Sagemaker feature. But we attach those roles directly to the resource. So what this will do is it will provision a managed EC2 instance.

00:09:36 Speaker 2

And it will attach this permission to the instance, ensuring anything that runs inside of that instance will then run under that security context.

00:09:45 Speaker 2

Now I could select one of the pre-existing roles that I have here in my account.

00:09:52 Speaker 2

Notice it gives me the option to either create a new role.

00:09:55 Speaker 2

But it also gives me an option to create a role using the Role Creation Wizard. Now the Role Creation Wizard is good, but it is better suited for creating roles that are in the Sagemaker Studio integrated development environment.

00:10:11 Speaker 2

If I'm creating a legacy notebook, I'm going to use the legacy way of creating a role which is right at the top of this list.

00:10:20 Speaker 2

It goes right at the top there.

00:10:22 Speaker 2

And that's create I am role. Now when I create I am role. I could narrow the permissions here and say.

00:10:28 Speaker 2

Just specific's 3 buckets I want to give you access to, but for simplicity of the demo I'm going to leave it as any bucket. Now obviously that is not good security practice.

00:10:39 Speaker 2

In production, you would want to narrow the role down to just the buckets that related to this use case.

00:10:47 Speaker 2

OK, that's created me a new I am role with the required permissions that will be needed by this instance.

00:10:55 Speaker 2

And a little bit further down, I'm not going to modify any other settings to do with network or git or tagging. I just create notebook instance. Now at this point I can see that my notebook instance is pending, so it will remain like that for anywhere up to about 5 minutes. So what we'll do is we'll pause the video there and accelerate it and jump to the point when it's ready.

00:11:20 Speaker 2

OK, so that looks like our Jupiter notebook instance is now up and running and notice its status is showing as in service. Now when it's in service, that means we are now being billed for that instance. So make sure that you only have those instances running for as long as you need them. Always shut down or delete things you are not using.

00:11:45 Speaker 2

Now in order to get to the Jupiter interface, I come to the actions column.

00:11:50 Speaker 2

And I can see I've got two options to either open Jupiter or open Jupiter Lab. Let's look at both of them.

00:11:57 Speaker 2

If we open Jupiter first of all and click on it and it will open up a new tab.

00:12:02 Speaker 2

Notice it redirects me, takes a moment and then will render Jupyter interface. OK, so we now have the Jupyter interface. Now remember, Jupyter came first, Jupyterlab then came after that. So I've got an interface where I could create a new Jupyter notebook. Let's create it just as a standard Python 3 kernel, untitled dot ipymb.

00:12:27 Speaker 2

And now we can do our usual coding gear, print, A+B, just make sure everything is working like that. And yes, our Jupyter notebook indeed is working wonderful, but Jupyter on its own is a little limited because we can only work on one file at a time. So let's come back into interface and say, well, what if we use Jupyter Lab instead?

00:12:54 Speaker 2

So let's open Jupyterlab.

00:12:56 Speaker 2

And when we do that again, it opens a new browser tab with a redirection, and we'll get a Jupyter Lab interface, a bit more modern. And remember, with Jupyter Lab, you are able to edit multiple Jupyter notebooks at the same time, or indeed open up other file types too, such as CSV. And that can be a lot more helpful to you when working on projects because they can examine what's in a file as well as have my Jupyter Lab open.

00:13:24 Speaker 2

I can see here there's my untitled ipmy I'm going to open up and again I can start my hello in here.

00:13:33 Speaker 2

You know, and Yep, Python.

00:13:36 Speaker 2

Jupiter lab is working.

00:13:39 Speaker 2

Remember, not only can I open up files, but I can also use this to open up a terminal with the instance that is running my Jupyterlab server. So I could do things like piplist and I'd be able to see the Python packages that are installed and determine if I need to install any new ones. Remember,

we might want to do things like seaborn or matplotlib for visualizations, things like that. Over in the left hand side, I can see if I've got any.

00:14:10 Speaker 2

Available to me, you can see here I've got a a git extension that would allow me to clone a repository directly into this environment extremely useful so that I can work on my Jupyter notebooks, have them in that local Git, and I could then git push them back to a git server. I can see down here as well that I've got other extensions available to me table of contents. So we've got introduction to Amazon algorithms in here. So here we've got some.

00:14:39 Speaker 2

Ready made Jupiter notebooks. So if I want to maybe take a look, let's tabular regression problem, for example, here we go. Double click on that one and then I can see hopefully over here I've got my Jupyter notebook and I can see this is a really well documented one. Notice how neat it is because they're making really good use of markdown to render it neatly. And This is why I love Jupiter so much.

00:15:08 Speaker 2

Because of that kind richness.

00:15:10 Speaker 2

Of mixing your code and mixing your documentation, your annotations with it. O you can see here I'm installing dependencies and a little bit further down saying region specifying. Okay, I'm going to train a tabular model and then we're using a head feature to show me the first few rows of that particular data set. But for now, what I want you to concentrate on is that we've got multiple tabs open to us that we can flip between.

00:15:37 Speaker 2

We can flip to a terminal.

00:15:39 Speaker 2

We can even extend this environment by going to the extensions you need to say yes to enable them, and then I can choose to install additional extensions into that interface. And there are numerous open source extensions that can add functionality into your Jupyter Lab environment. OK, cut back to here. So we're clear now that we've created notebook instances.

00:16:05 Speaker 2

We've shown where we can find data processing jobs.

00:16:08 Speaker 2

Training jobs and endpoints in our interface. We're sure where we can find models, and we've shown how we can access the Juyter and the Juyter Lab interfaces of a notebook instance.

00:16:22 Speaker 2

So launching these Jupiter notebooks has been using the legacy way of doing it. I mentioned a number of times that Sagemaker Studio will be our preferred way of consuming A Jupyter Lab interface. We now have a basic knowledge of navigating Sagemaker console. We know where to find legacy notebook instances, where to find historical processing jobs, training jobs and if we have any Sagemaker endpoints which are provided hosted.

00:16:52 Speaker 2

Models.

00:16:53 Speaker 2

Those data processing jobs we are typically going to use for data preparation ahead of model training. When you first look into your Sagemaker interface, it will be blank. It will be none there. But you saw on mine that I had some that I'd run previously for training jobs. Again, when we start out, this area will be empty until you've run a training job. Now, those training jobs you saw in my interface had all been launched because I'd been using the Sagemaker SDK with the.

00:17:23 Speaker 2

Estimator object in order to represent starting a training job, and we know where to find model artifacts now listed under Inference and Models and determine if any of them are being hosted right now by Sagemaker for real-time inference, which we would see under the endpoint section. Now. We have also seen many other options within the user interface. We will explore these throughout the rest of the course.

00:17:53 Speaker 2

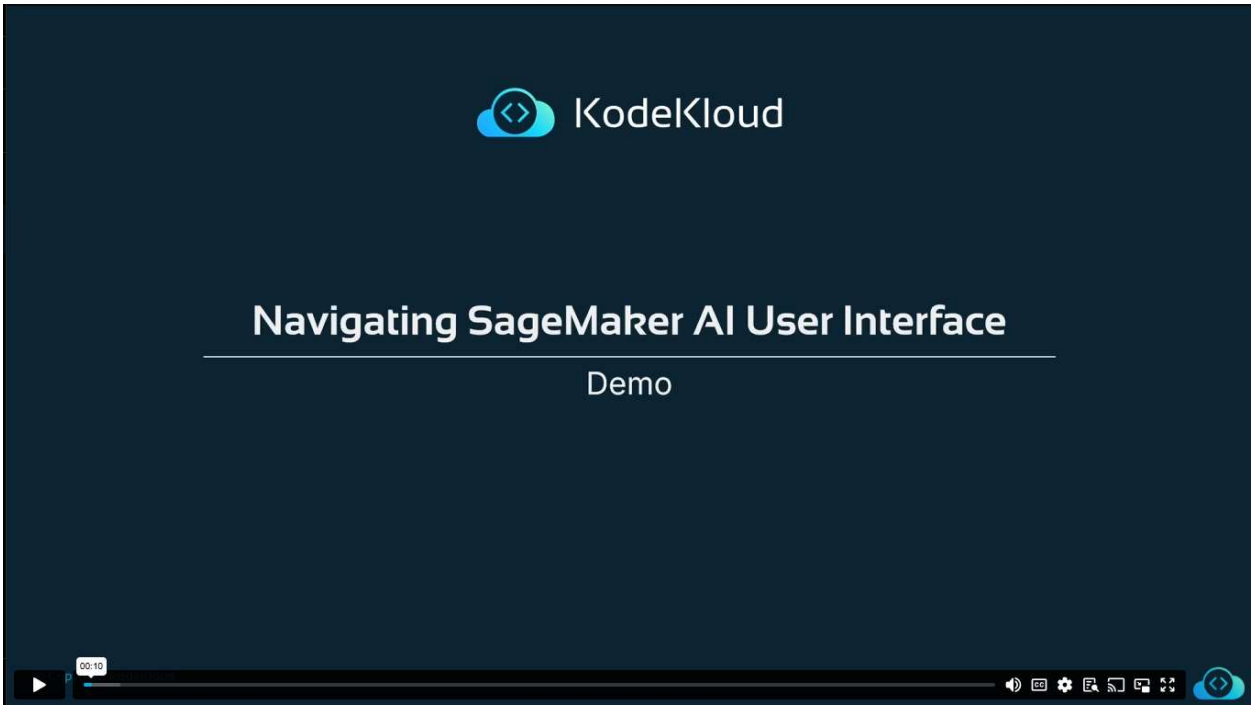
But for now, we're beginning to get a firm idea about where to find specific things in the interface. But one last piece of advice here, don't get too concerned about the web interface. Your workflow will be driven from your Jupyter notebook and your code. And generally you'll only be coming back to the web interface to check on progress to see if a data processing job is finished yet or a training job is finished, something like that. Your day-to-day actions.

00:18:22 Speaker 2

Are not going to be driven by the UI. So after I finished that last .5, I'll do the hand to the next lesson. So that wraps up this demonstration lesson. In our next lesson, we're going to get an introduction into Sagemaker domains, which are the foundation for using the newer Sagemaker Studio development environment, which will give us a much more modern and more complete implementation.

00:18:50 Speaker 2

Of Jupiter Lab. See you there.



Demo Steps

01 Show creating notebook instances

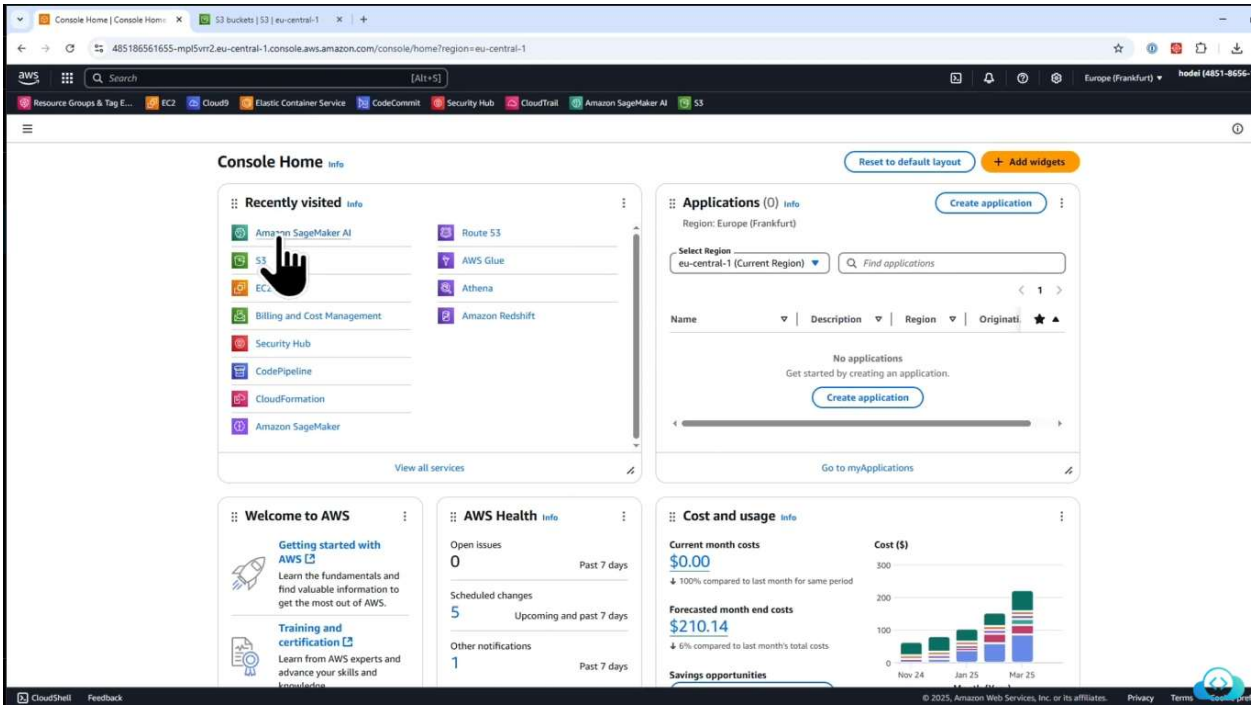
02 Show data processing jobs

03 Show training jobs

04 Show endpoints

05 Show models

06 Show accessing Jupyter notebook vs lab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CloudFormation
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Getting started with AWS
Learn the fundamentals and find valuable information to get the most out of AWS.
Training and certification
Learn from AWS experts and advance your skills and
AWS Health Info
Open issues
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Past 7 days
Scheduled changes
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Upcoming and past 7 days
Other notifications
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Past 7 days
Cost and usage Info
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Forecasted month end costs
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Savings opportunities
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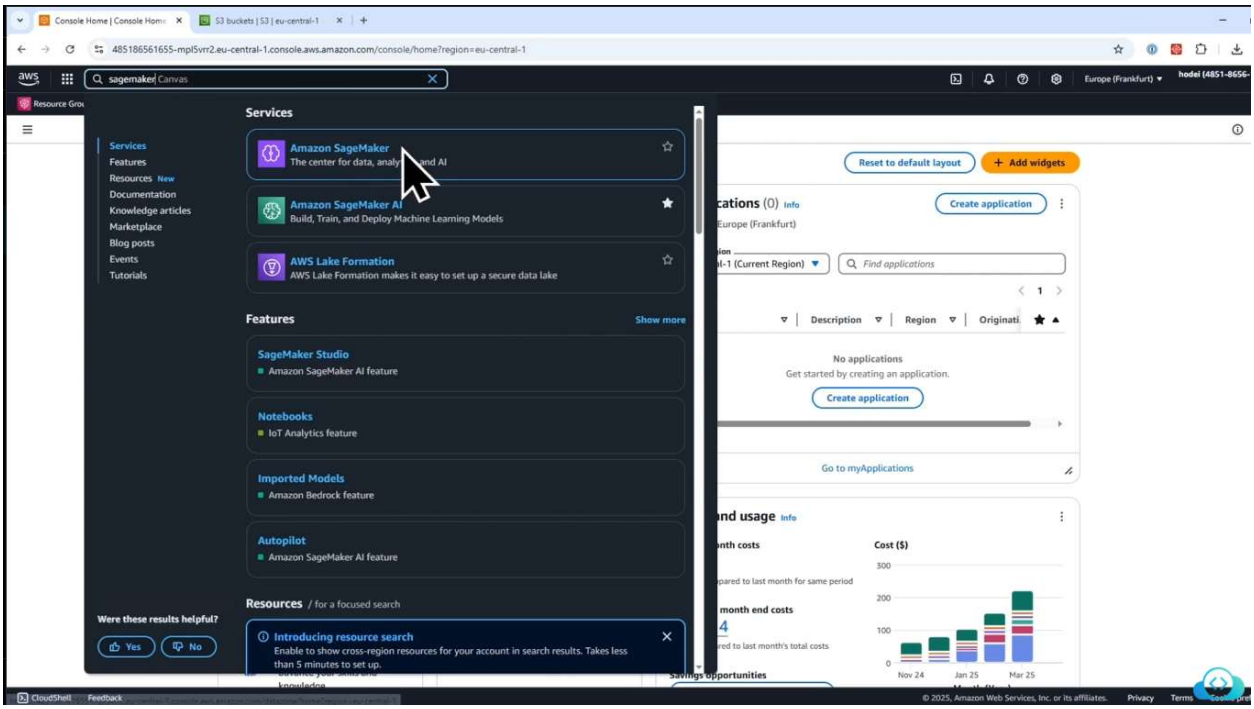
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Were these results helpful?
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Enable to show cross-region resources for your account in search results. Takes less than 5 minutes to set up.
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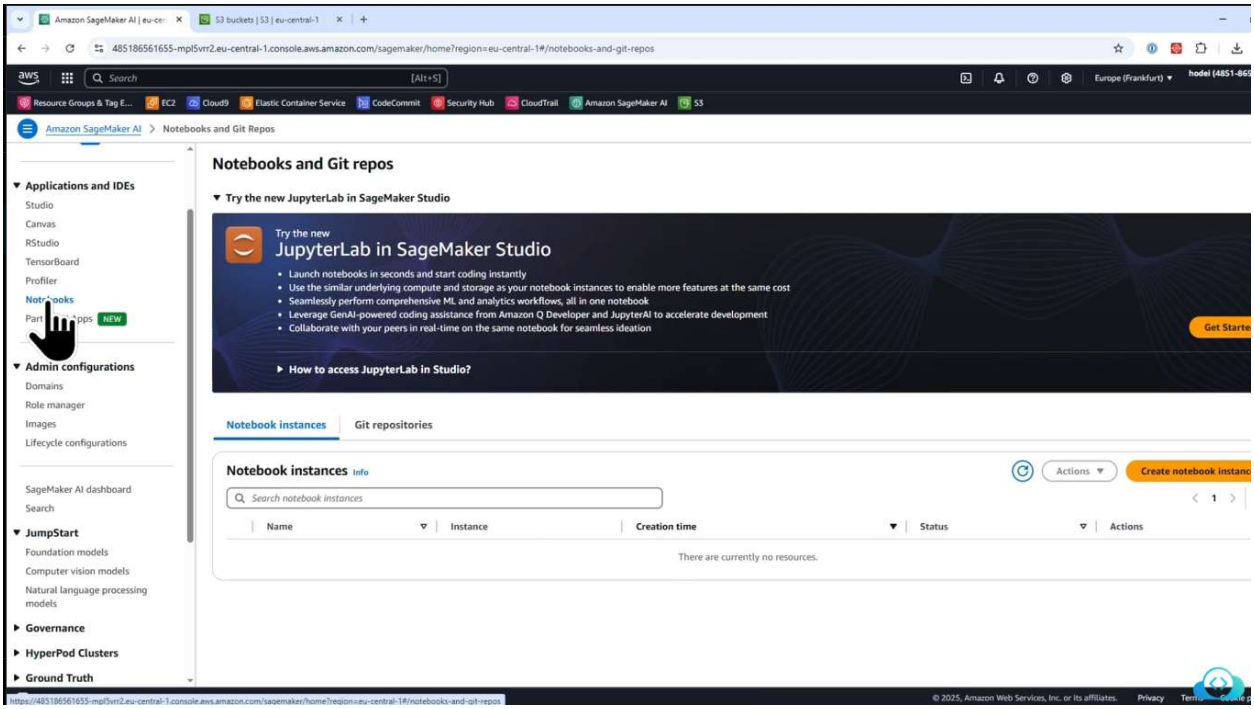
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Use the similar underlying compute and storage as your notebook instances to enable more features at the same cost
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How to access JupyterLab in Studio?
Notebook instances
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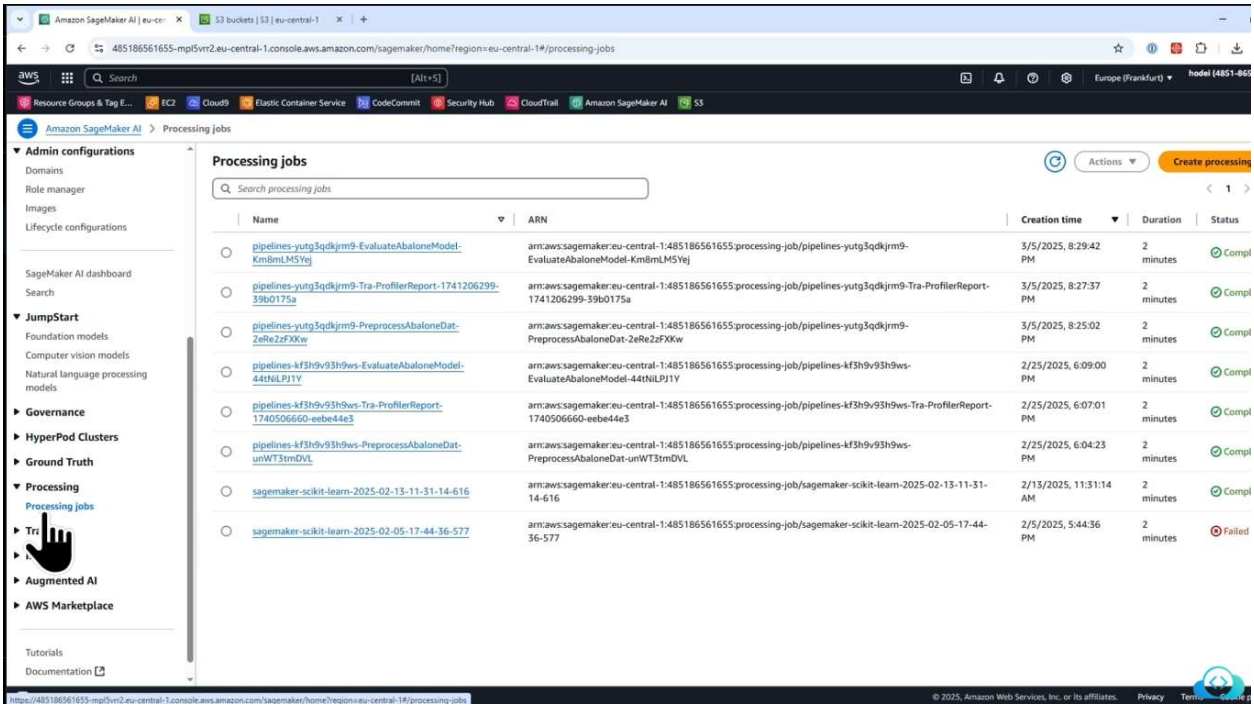
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Name
ARN
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Duration
Status
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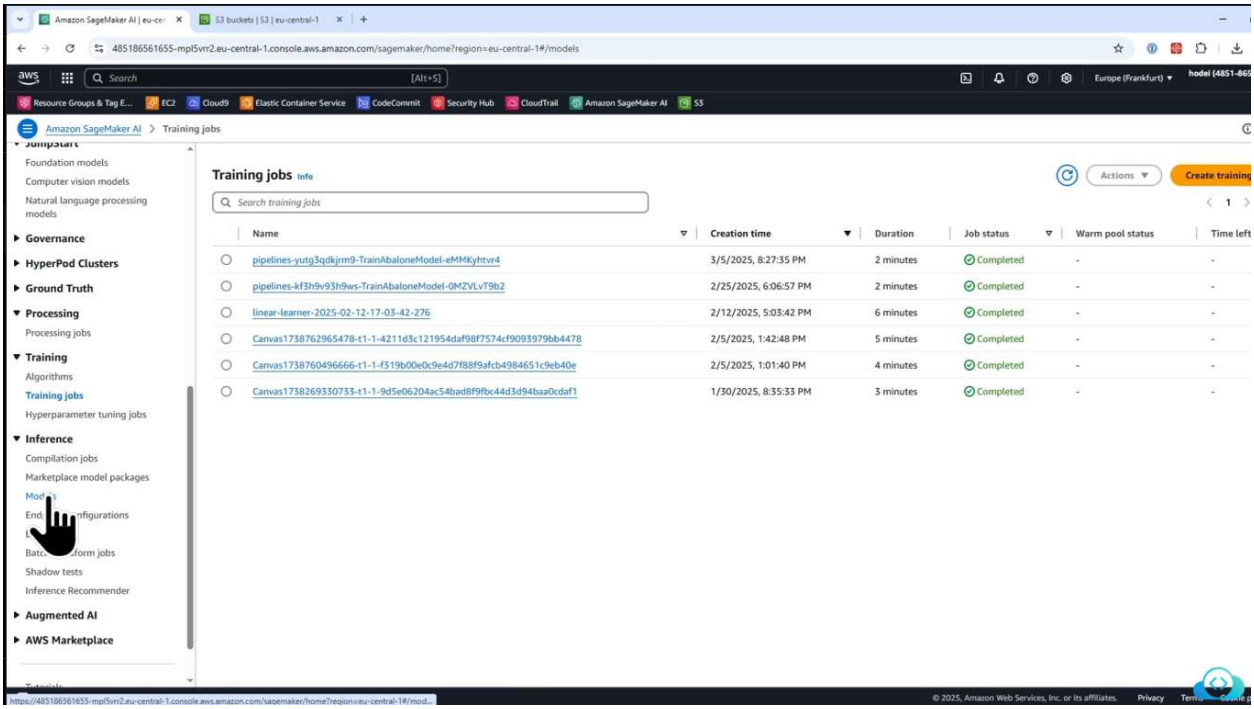
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Foundation models
Computer vision models
Natural language processing models
Governance
HyperPod Clusters
Ground Truth
Processing
Processing jobs
Training
Algorithms
Training jobs
Hyperparameter tuning jobs
Inference
Compilation jobs
Marketplace model packages
Shadow tests
Inference Recommender
Augmented AI
AWS Marketplace
Training jobs Info
Search training jobs
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linear-learner-2025-02-12-17-03-42-276 2/12/2025, 5:03:42 PM 6 minutes Completed
Canvas1738762965478-t1-1-4211d3c121954daf98f7574cf9093979bb4478 2/5/2025, 1:42:48 PM 5 minutes Completed
Canvas1738760496666-t1-1-f319b00e0c9e4d7f88f9afcb4984651c9eb40e 2/5/2025, 1:01:40 PM 4 minutes Completed
Canvas1738269330733-t1-1-9d5e06204ac54bad8f9fbc44d3d94baa0cdaf1 1/30/2025, 8:35:33 PM 3 minutes Completed
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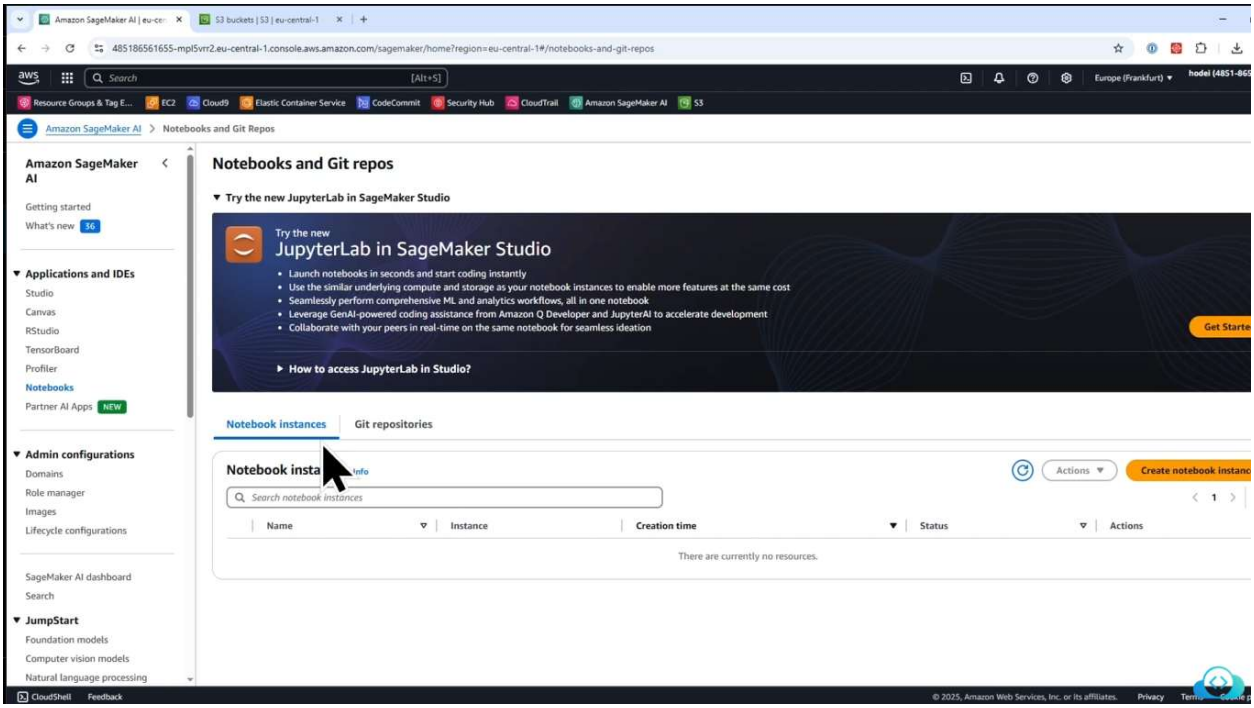
Amazon SageMaker AI | eu-cen
S3 buckets | S3 | eu-central-1
485186561655-mpl5vrr2.eu-central-1.console.aws.amazon.com/sagemaker/home?region=eu-central-1#/notebooks-and-git-repos
Search
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Europe (Frankfurt)
Resource Groups & Tag E...
EC2
Cloud9
Elastic Container Service
CodeCommit
Security Hub
CloudTrail
Amazon SageMaker AI
S3
Amazon SageMaker AI > Notebooks and Git Repos
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Search
JumpStart
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Computer vision models
Natural language processing
Notebooks and Git repos
Try the new JupyterLab in SageMaker Studio
Try the new
JupyterLab in SageMaker Studio
Launch notebooks in seconds and start coding instantly
Use the similar underlying compute and storage as your notebook instances to enable more features at the same cost
Seamlessly perform comprehensive ML and analytics workflows, all in one notebook
Leverage GenAI-powered coding assistance from Amazon Q Developer and JupyterAI to accelerate development
Collaborate with your peers in real-time on the same notebook for seamless ideation
How to access JupyterLab in Studio?
Notebook instances
Git repositories
Notebook insta Info
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Actions
Create notebook instanc
Name
Instance
Creation time
Status
Actions
There are currently no resources.
CloudShell
Feedback
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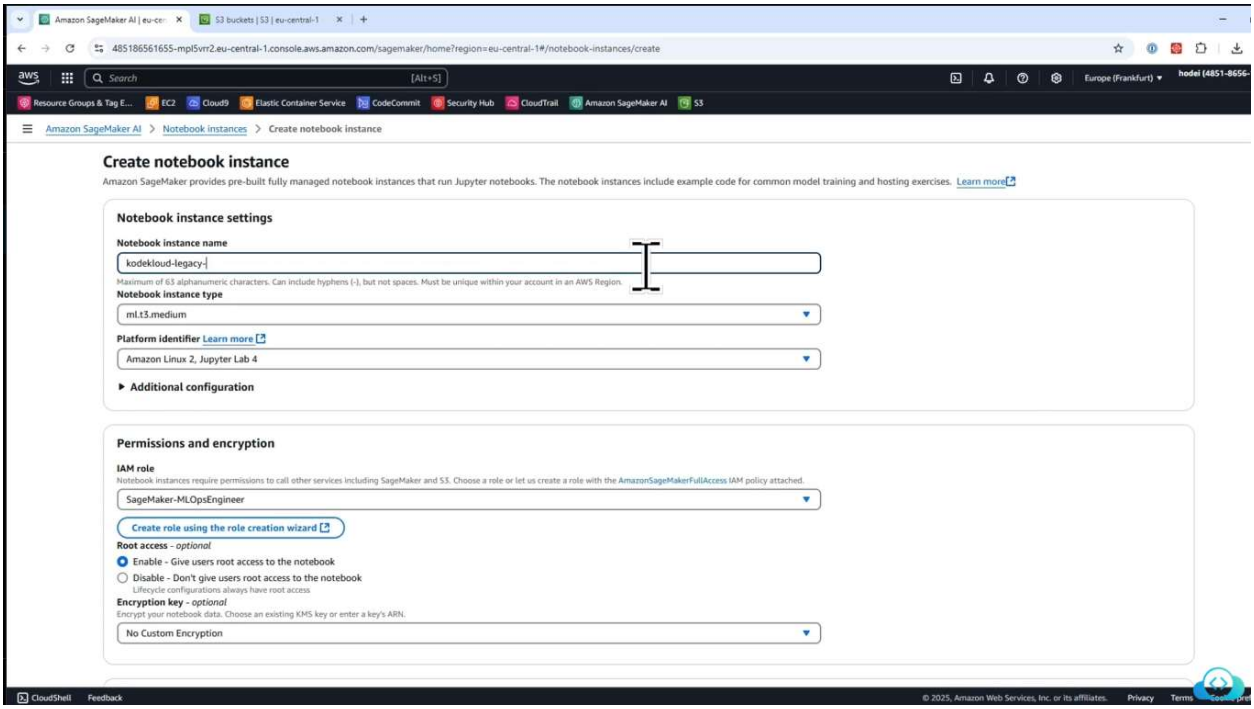
Amazon SageMaker AI | eu-cen
S3 buckets | S3 | eu-central-1
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Search
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Resource Groups & Tag E...
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Amazon SageMaker AI
S3
Amazon SageMaker AI > Notebook instances > Create notebook instance
Create notebook instance
Amazon SageMaker provides pre-built fully managed notebook instances that run Jupyter notebooks. The notebook instances include example code for common model training and hosting exercises. Learn more
Notebook instance settings
Notebook instance name
kodekloud-legacy-
Maximum of 63 alphanumeric characters. Can include hyphens (-), but not spaces. Must be unique within your account in an AWS Region.
Notebook instance type
ml.t3.medium
Platform identifier Learn more
Amazon Linux 2, Jupyter Lab 4
Additional configuration
Permissions and encryption
IAM role
Notebook instances require permissions to call other services including SageMaker and S3. Choose a role or let us create a role with the AmazonSageMakerFullAccess IAM policy attached.
SageMaker-MLOpsEngineer
Create role using the role creation wizard
Root access - optional
Enable - Give users root access to the notebook
Disable - Don't give users root access to the notebook
Lifecycle configurations always have root access
Encryption key - optional
Encrypt your notebook data. Choose an existing KMS key or enter a key's ARN.
No Custom Encryption
CloudShell
Feedback
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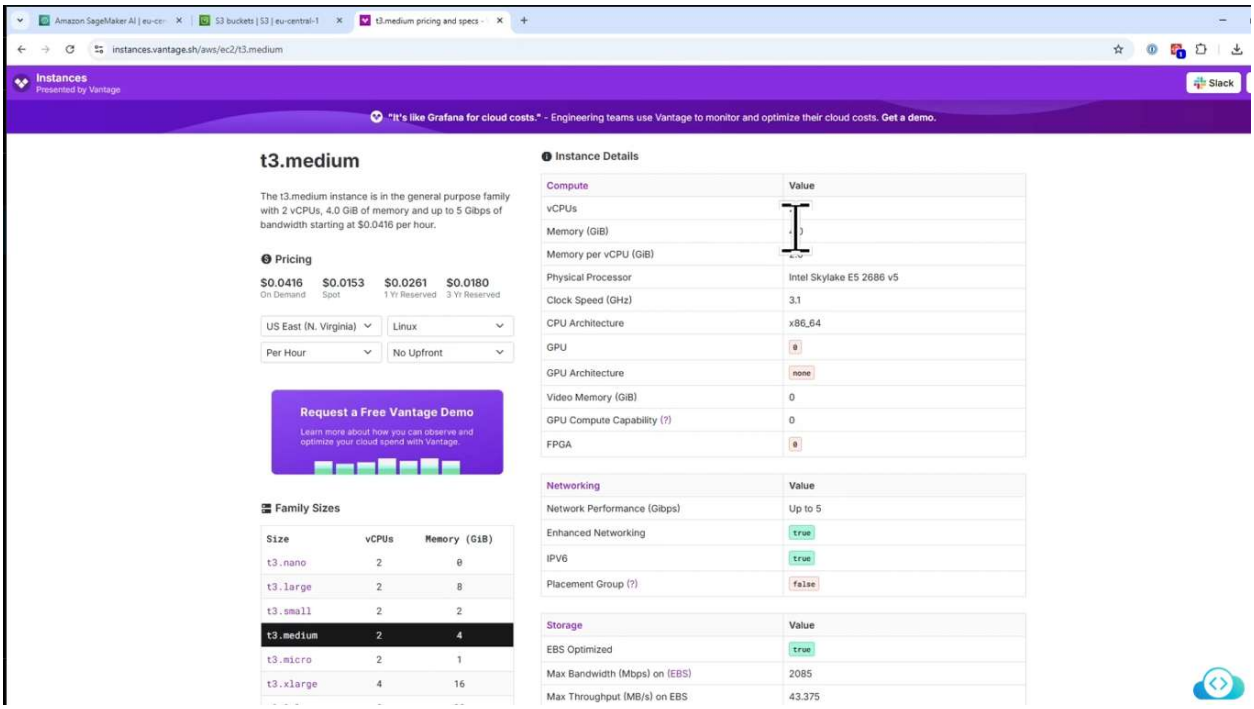
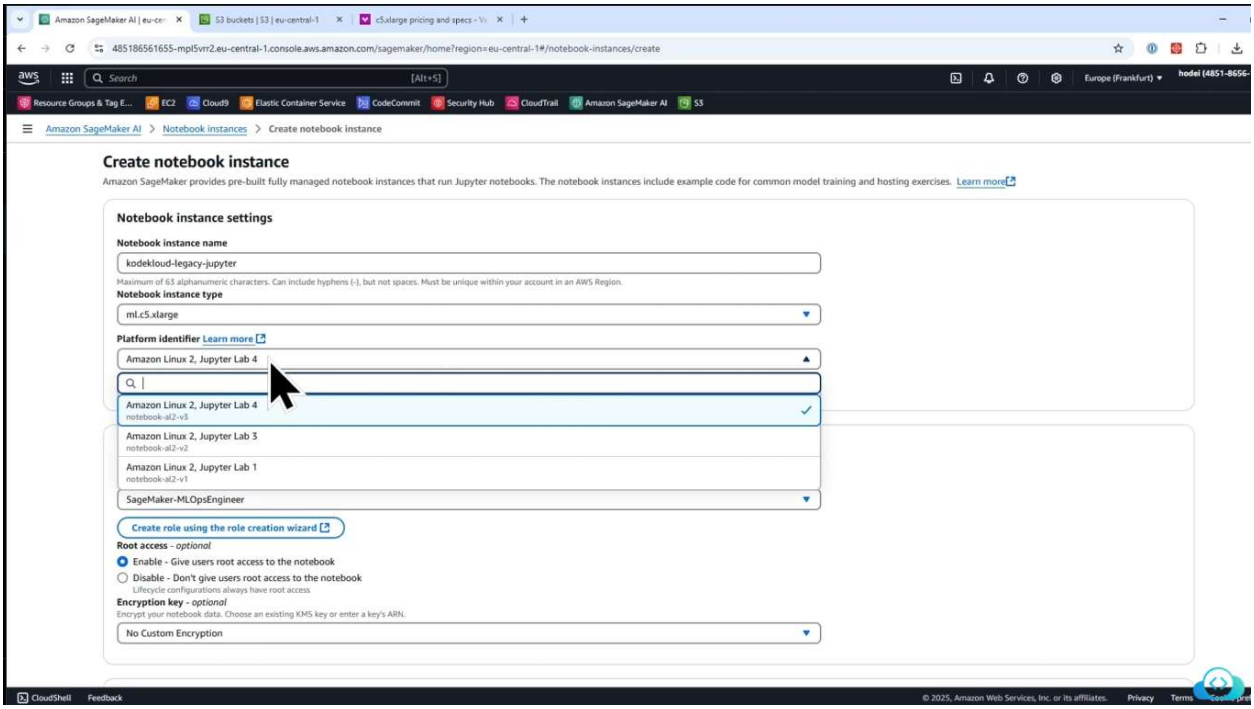

Amazon SageMaker AI | eu-cen
S3 buckets | S3 | eu-central-1
t3.medium pricing and specs
instances.vantage.sh/aws/ec2/t3.medium
Instances
Presented by Vantage
Slack
"It's like Grafana for cloud costs." - Engineering teams use Vantage to monitor and optimize their cloud costs. Get a demo.
t3.medium
The t3.medium instance is in the general purpose family with 2 vCPUs, 4.0 GiB of memory and up to 5 Gibps of bandwidth starting at $0.0416 per hour.
Pricing
$0.0416 On Demand
$0.0153 Spot
$0.0261 1 Yr Reserved
$0.0180 3 Yr Reserved
US East (N. Virginia)
Linux
Per Hour
No Upfront
Request a Free Vantage Demo
Learn more about how you can observe and optimize your cloud spend with Vantage.
Family Sizes
Size | vCPUs | Memory (GiB)
t3.nano | 2 | 0
t3.large | 2 | 8
t3.small | 2 | 2
t3.medium | 2 | 4
t3.micro | 2 | 1
t3.xlarge | 4 | 16
Instance Details
Compute | Value
vCPUs
Memory (GiB)
Memory per vCPU (GiB)
Physical Processor | Intel Skylake E5 2686 v5
Clock Speed (GHz) | 3.1
CPU Architecture | x86_64
GPU | 0
GPU Architecture | none
Video Memory (GiB) | 0
GPU Compute Capability (?) | 0
FPGA | 0
Networking | Value
Network Performance (Gibps) | Up to 5
Enhanced Networking | true
IPV6 | true
Placement Group (?) | false
Storage | Value
EBS Optimized | true
Max Bandwidth (Mbps) on (EBS) | 2085
Max Throughput (MB/s) on EBS | 43.375


Amazon SageMaker AI | eu-cen
S3 buckets | S3 | eu-central-1
c5.xlarge pricing and specs
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Amazon SageMaker AI > Notebook instances > Create notebook instance
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kodekloud-legacy-jupyter
Maximum of 63 alphanumeric characters. Can include hyphens (-), but not spaces. Must be unique within your account in an AWS Region.
Notebook instance type
ml.c5.xlarge
Platform identifier Learn more
Amazon Linux 2, Jupyter Lab 4
Amazon Linux 2, Jupyter Lab 4
notebook-al2-v3
Amazon Linux 2, Jupyter Lab 3
notebook-al2-v2
Amazon Linux 2, Jupyter Lab 1
notebook-al2-v1
SageMaker-MLOpsEngineer
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Root access - optional
Enable - Give users root access to the notebook
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Encryption key - optional
Encrypt your notebook data. Choose an existing KMS key or enter a key's ARN.
No Custom Encryption
CloudShell
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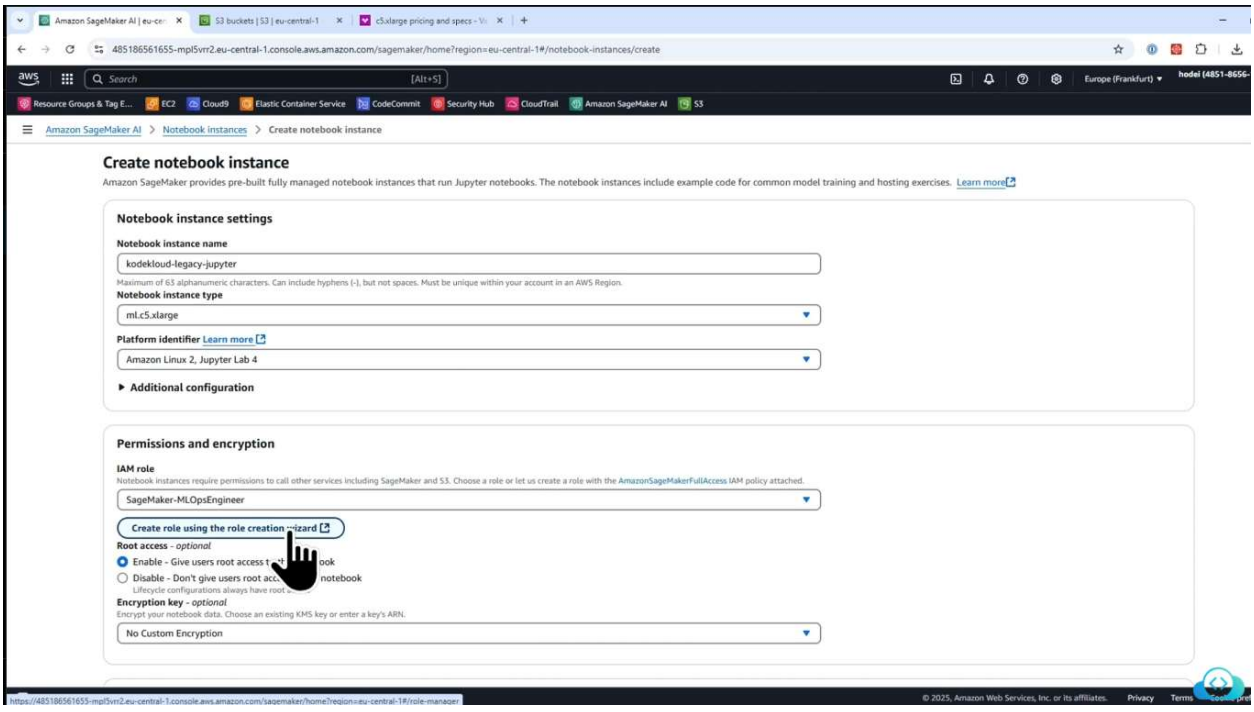
Amazon SageMaker AI | eu-cen
S3 buckets | S3 | eu-central-1
c5.xlarge pricing and specs
485186561655-mpl5vrr2.eu-central-1.console.aws.amazon.com/sagemaker/home?region=eu-central-1#/notebook-instances/create
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S3
Amazon SageMaker AI > Notebook instances > Create notebook instance
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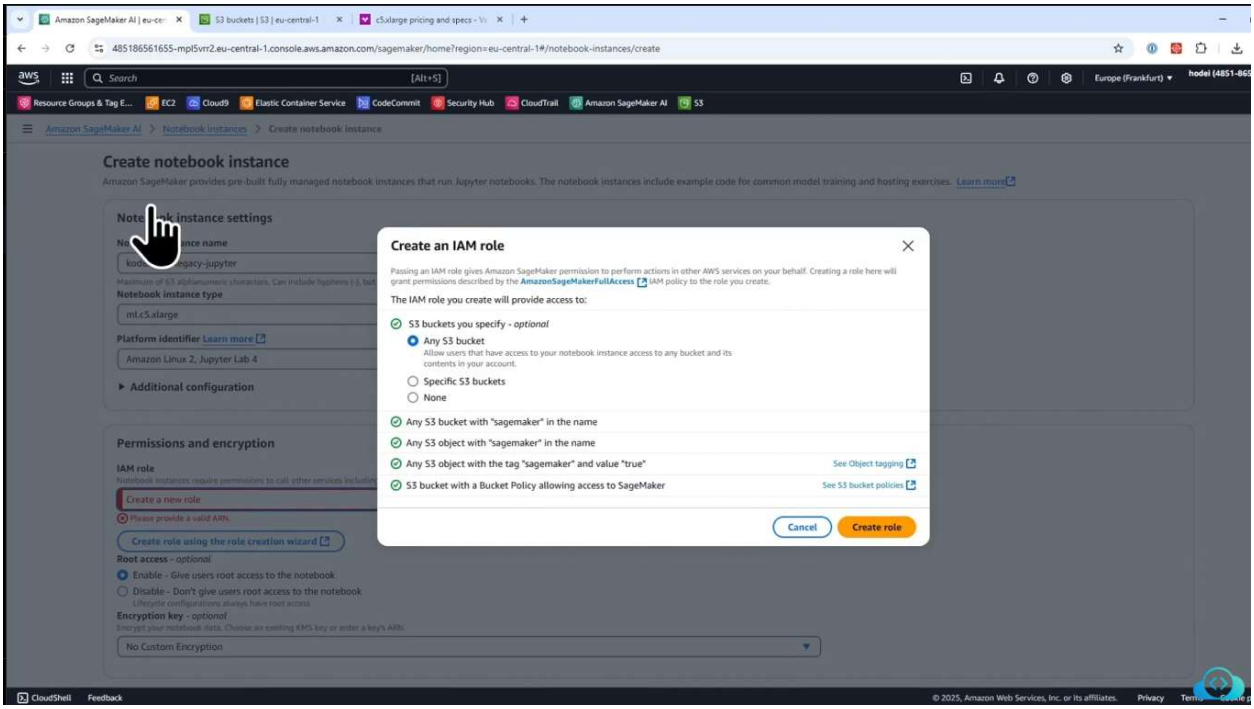
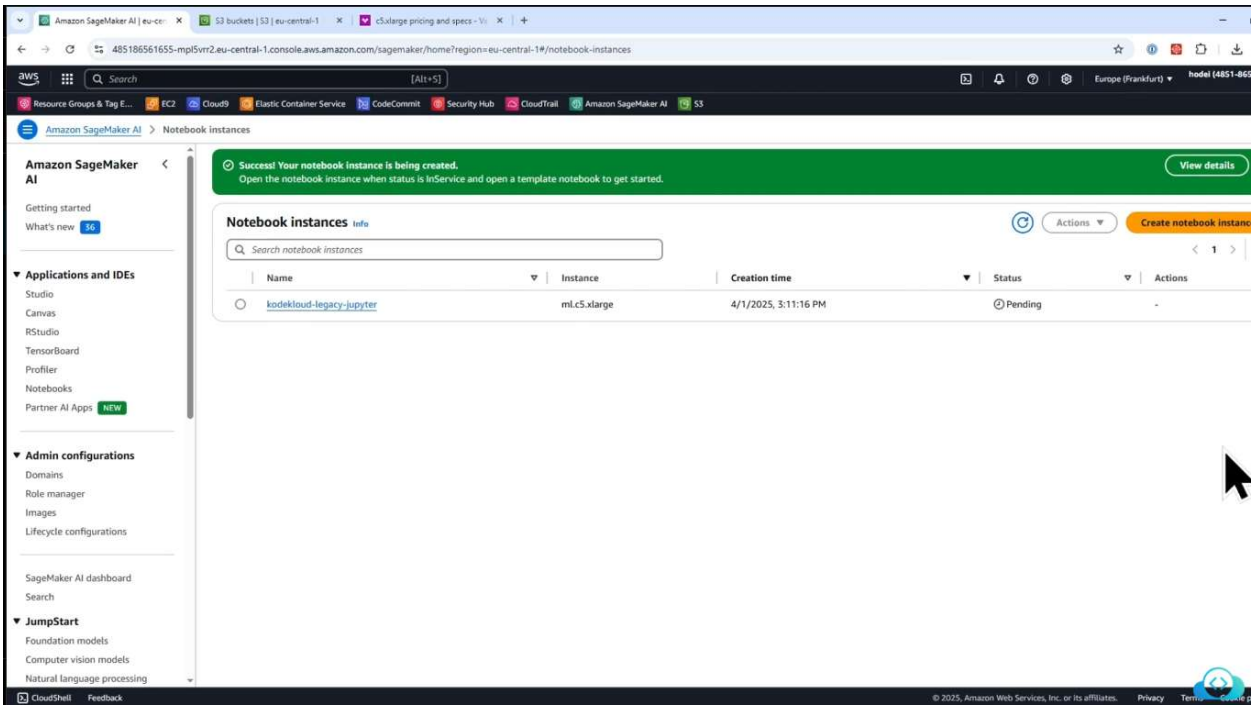

Create notebook instance
Create an IAM role
The IAM role you create will provide access to:
S3 buckets you specify - optional
Any S3 bucket
Specific S3 buckets
None
Any S3 bucket with "sagemaker" in the name
Any S3 object with "sagemaker" in the name
Any S3 object with the tag "sagemaker" and value "true"
S3 bucket with a Bucket Policy allowing access to SageMaker
Cancel
Create role
Permissions and encryption
IAM role
Create a new role
Create role using the role creation wizard
Root access - optional
Enable - Give users root access to the notebook
Disable - Don't give users root access to the notebook
Encryption key - optional
No Custom Encryption


Success! Your notebook instance is being created.
Open the notebook instance when status is InService and open a template notebook to get started.
View details
Notebook instances
Search notebook instances
Name
Instance
Creation time
Status
Actions
kodekloud-legacy-jupyter
ml.c5.xlarge
4/1/2025, 3:11:16 PM
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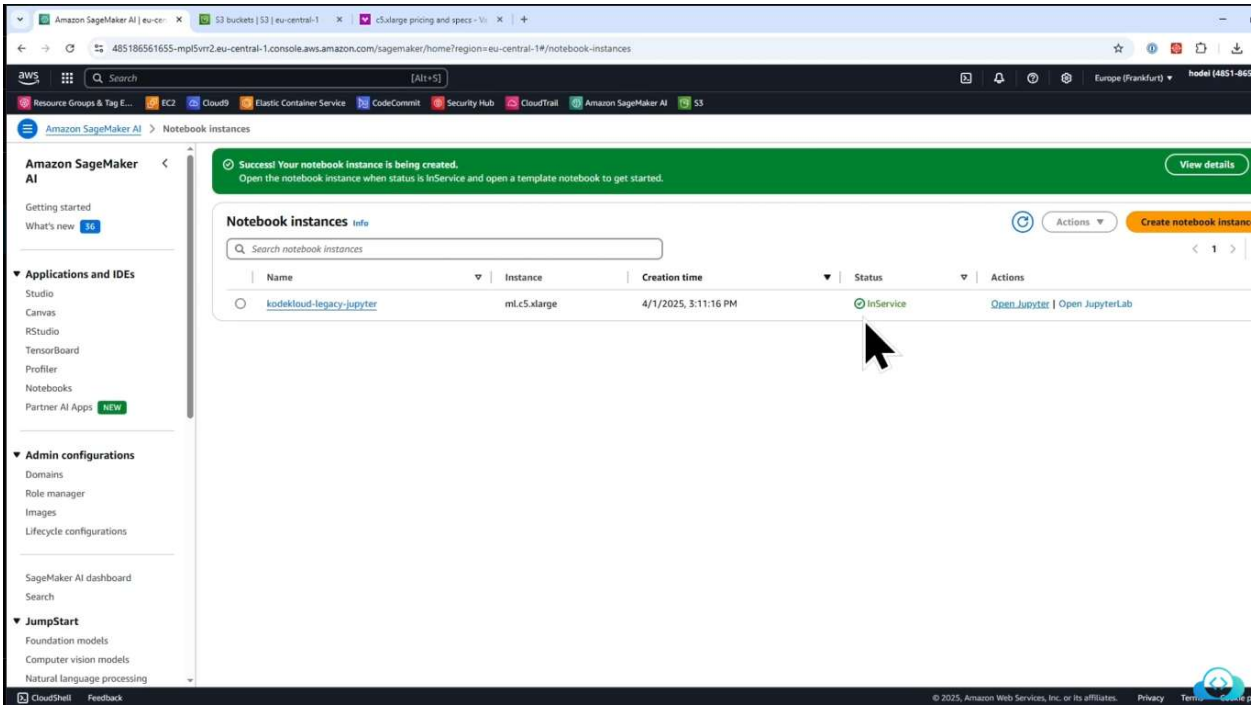
Computer vision models
Natural language processing


Amazon SageMaker AI
Notebook instances
Success! Your notebook instance is being created.
Open the notebook instance when status is InService and open a template notebook to get started.
View details
Notebook instances Info
Actions
Create notebook instance
Search notebook instances
Name
Instance
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Status
Actions
kodekloud-legacy-jupyter
ml.c5.xlarge
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InService
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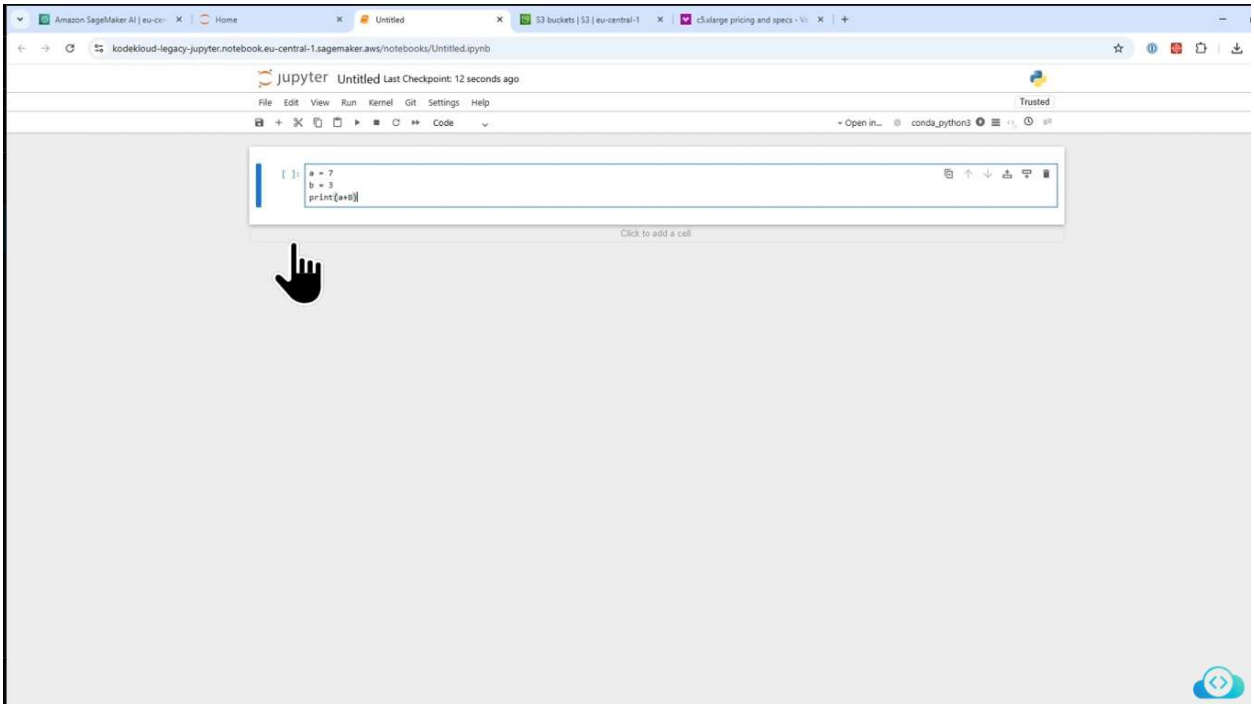
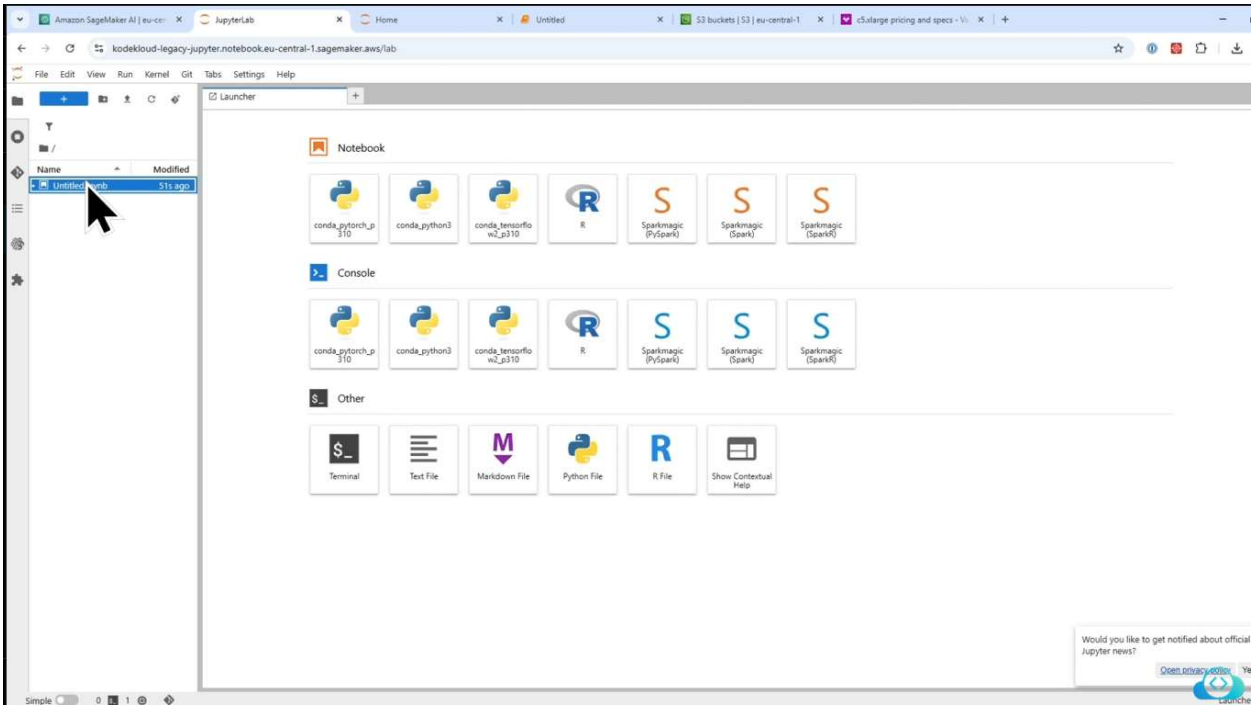
CloudShell
Feedback


jupyter Untitled Last Checkpoint: 12 seconds ago
File Edit View Run Kernel Git Settings Help
Trusted
Code
conda_python3
a = 7
b = 3
print(a+b)
Click to add a cell


JupyterLab
Home
Untitled
kodekloud-legacy-jupyter.notebook.eu-central-1.sagemaker.aws/lab
File Edit View Run Kernel Git Tabs Settings Help
Launcher
Name
Modified
Untitled.ipynb
51s ago
Notebook
conda_pytorch_p310
conda_python3
conda_tensorflow2_p310
R
Sparkmagic (PySpark)
Sparkmagic (Spark)
Sparkmagic (SparkR)
Console
Other
Terminal
Text File
Markdown File
Python File
R File
Show Contextual Help
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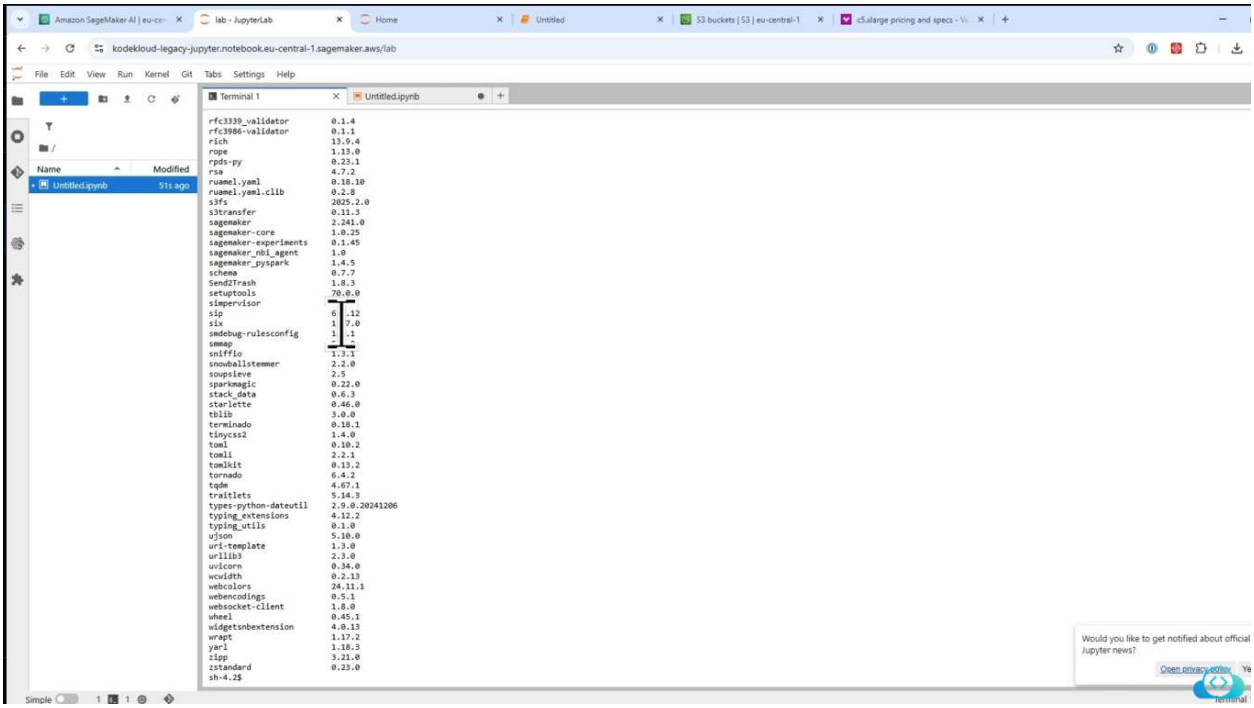
Simple


lab - JupyterLab
kodekloud-legacy-jupyter.notebook.eu-central-1.sagemaker.aws/lab
File Edit View Run Kernel Git Tabs Settings Help
Terminal 1
Untitled.ipynb
Name
Modified
Untitled.ipynb
51s ago
rfc3339_validator 0.1.4
rfc3986-validator 0.1.1
rich 13.9.4
rope 1.13.0
rpds-py 0.23.1
rsa 4.7.2
ruamel.yaml 0.18.10
ruamel.yaml.clib 0.2.8
s3fs 2025.2.0
s3transfer 0.11.3
sagemaker 2.241.0
sagemaker-core 1.0.25
sagemaker-experiments 0.1.45
sagemaker_nbi_agent 1.0
sagemaker_pyspark 1.4.5
schema 0.7.7
Send2Trash 1.8.3
setuptools 70.0.0
simpervisor 1.0.0
six 1.17.0
smdebug-rulesconfig 1.0.1
smmap 5.0.2
sniffio 1.3.1
snowballstemmer 2.2.0
soupsieve 2.5
sparkmagic 0.22.0
stack_data 0.6.3
starlette 0.46.0
tblib 3.0.0
terminado 0.18.1
tinycss2 1.4.0
toml 0.10.2
tomli 2.2.1
tomlkit 0.13.2
tornado 6.4.2
tqdm 4.67.1
traitlets 5.14.3
types-python-dateutil 2.9.0.20241206
typing_extensions 4.12.2
typing_utils 0.1.0
ujson 5.10.0
uri-template 1.3.0
urllib3 2.3.0
uvicorn 0.34.0
wcwidth 0.2.13
webcolors 24.11.1
webencodings 0.5.1
websocket-client 1.8.0
wheel 0.45.1
widgetsnbextension 4.0.13
wrapt 1.17.2
yarl 1.18.3
zipp 3.21.0
zstandard 0.23.0
sh-4.2$
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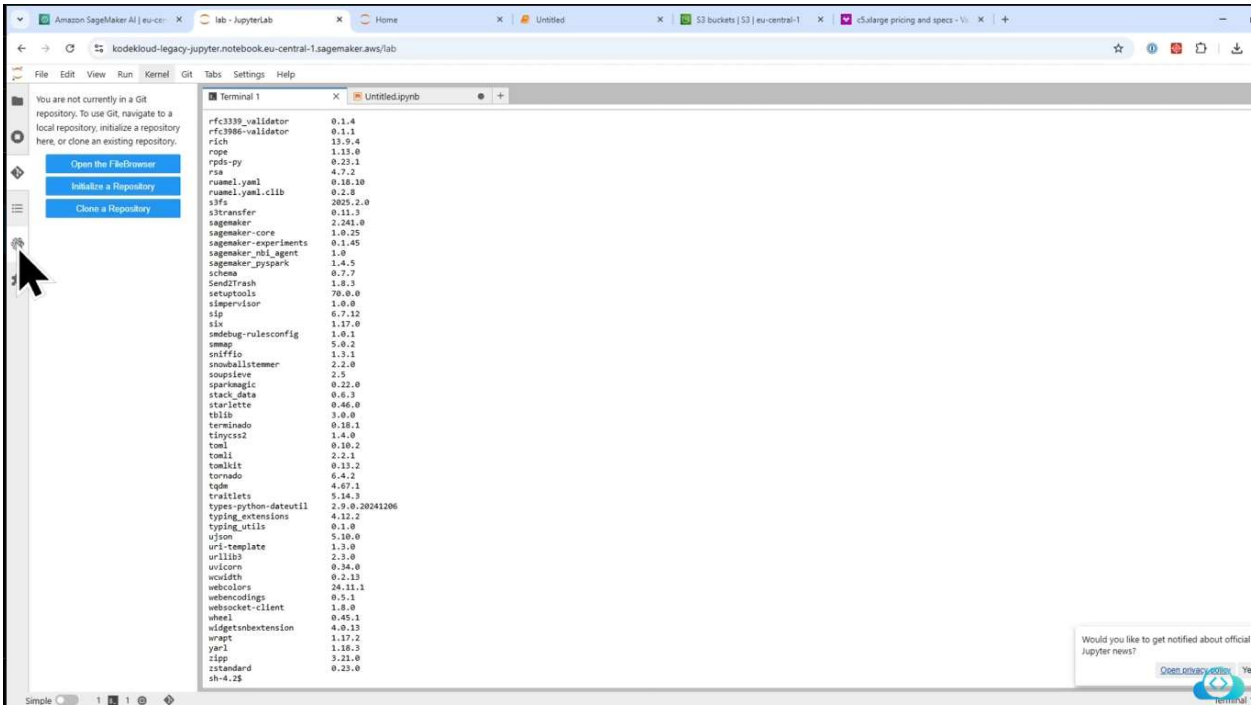
kodekloud-legacy-jupyter.notebook.eu-central-1.sagemaker.aws/lab
File Edit View Run Kernel Git Tabs Settings Help
You are not currently in a Git repository. To use Git, navigate to a local repository, initialize a repository here, or clone an existing repository.
Open the FileBrowser
Initialize a Repository
Clone a Repository
Terminal 1
Untitled.ipynb
rfc3339_validator 0.1.4
rfc3986-validator 0.1.1
rich 13.9.4
rope 1.13.0
rpds-py 0.23.1
rsa 4.7.2
ruamel.yaml 0.18.10
ruamel.yaml.clib 0.2.8
s3fs 2025.2.0
s3transfer 0.11.3
sagemaker 2.241.0
sagemaker-core 1.0.25
sagemaker-experiments 0.1.45
sagemaker_nbi_agent 1.0
sagemaker_pyspark 1.4.5
schema 0.7.7
Send2Trash 1.8.3
setuptools 70.0.0
simpervisor 1.0.0
sip 6.7.12
six 1.17.0
smdebug-rulesconfig 1.0.1
smmap 5.0.2
sniffio 1.3.1
snowballstemmer 2.2.0
soupsieve 2.5
sparkmagic 0.22.0
stack_data 0.6.3
starlette 0.46.0
tblib 3.0.0
terminado 0.18.1
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tomli 2.2.1
tomlkit 0.13.2
tornado 6.4.2
tqdm 4.67.1
traitlets 5.14.3
types-python-dateutil 2.9.0.20241206
typing_extensions 4.12.2
typing_utils 0.1.0
ujson 5.10.0
uri-template 1.3.0
urllib3 2.3.0
uvicorn 0.34.0
wcwidth 0.2.13
webcolors 24.11.1
webencodings 0.5.1
websocket-client 1.8.0
wheel 0.45.1
widgetsnbextension 4.0.13
wrapt 1.17.2
yarl 1.18.3
zipp 3.21.0
zstandard 0.23.0
sh-4.2$
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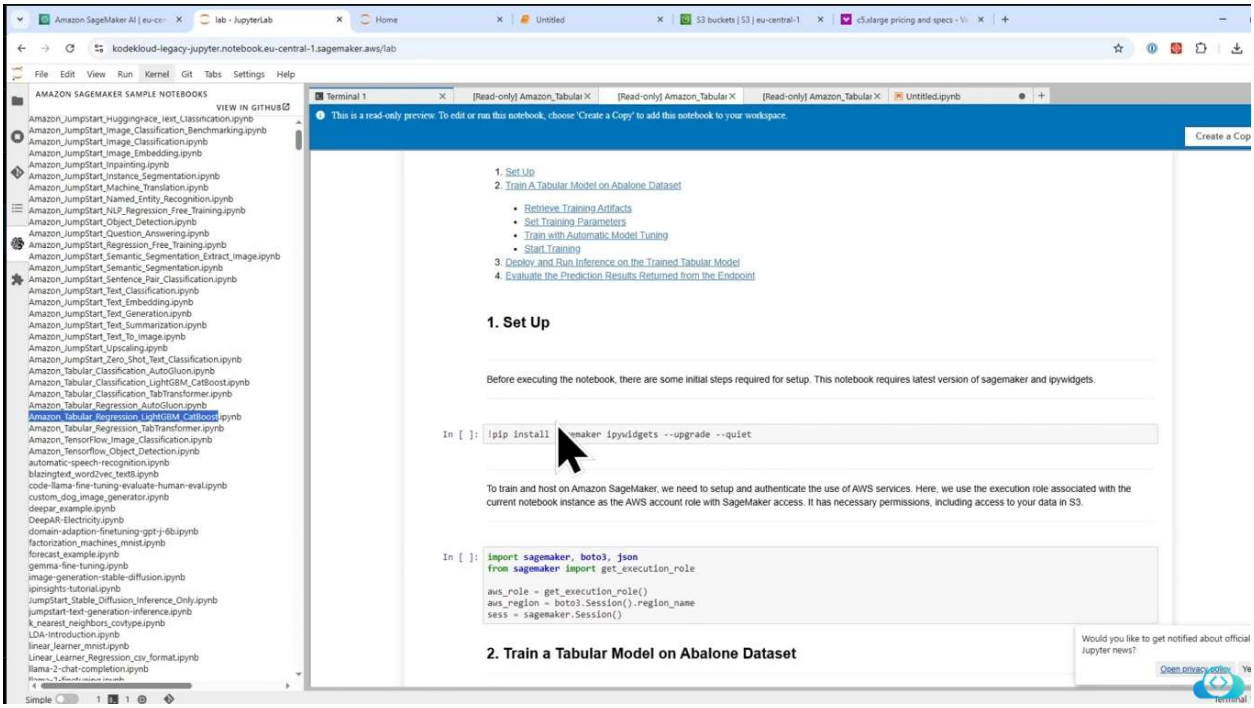
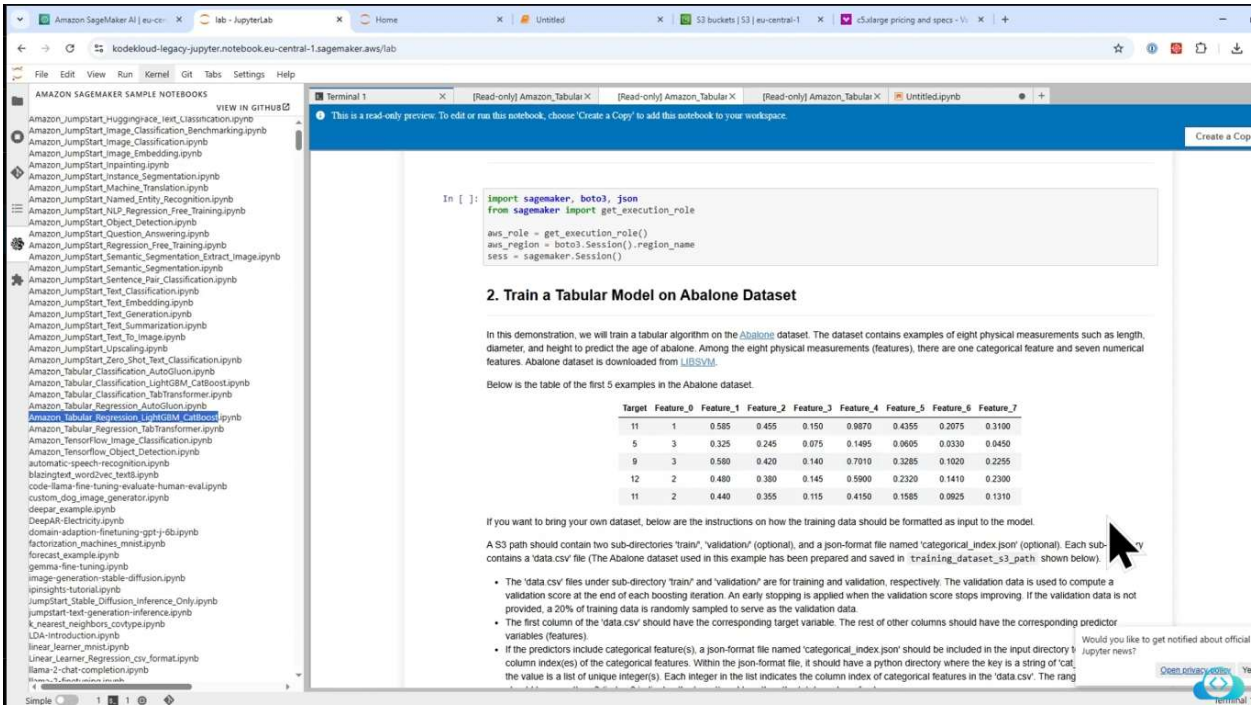

kodekloud-legacy-jupyter.notebook.eu-central-1.sagemaker.aws/lab
File Edit View Run Kernel Git Tabs Settings Help
AMAZON SAGEMAKER SAMPLE NOTEBOOKS
VIEW IN GITHUB
Terminal 1
[Read-only] Amazon_Tabular
Untitled.ipynb
This is a read-only preview. To edit or run this notebook, choose 'Create a Copy' to add this notebook to your workspace.
Create a Cop
1. Set Up
2. Train A Tabular Model on Abalone Dataset
Retrieve Training Artifacts
Set Training Parameters
Train with Automatic Model Tuning
Start Training
3. Deploy and Run Inference on the Trained Tabular Model
4. Evaluate the Prediction Results Returned from the Endpoint
1. Set Up
Before executing the notebook, there are some initial steps required for setup. This notebook requires latest version of sagemaker and ipywidgets.
In [ ]: !pip install emaker ipywidgets --upgrade --quiet
To train and host on Amazon SageMaker, we need to setup and authenticate the use of AWS services. Here, we use the execution role associated with the current notebook instance as the AWS account role with SageMaker access. It has necessary permissions, including access to your data in S3.
In [ ]: import sagemaker, boto3, json
from sagemaker import get_execution_role
aws_role = get_execution_role()
aws_region = boto3.Session().region_name
sess = sagemaker.Session()
2. Train a Tabular Model on Abalone Dataset
Would you like to get notified about official Jupyter news?



Demo Steps

01 Show creating notebook instances

02 Show data processing jobs

03 Show training jobs

04 Show endpoints

05 Show models

06 Show accessing Jupyter notebook vs lab

Summary

01 Launch and access legacy Jupyter notebooks

02 Navigate SageMaker Console to monitor jobs

03 Monitor data processing jobs

04 Monitor training jobs

05 Review trained models and monitor-hosted models (endpoints)