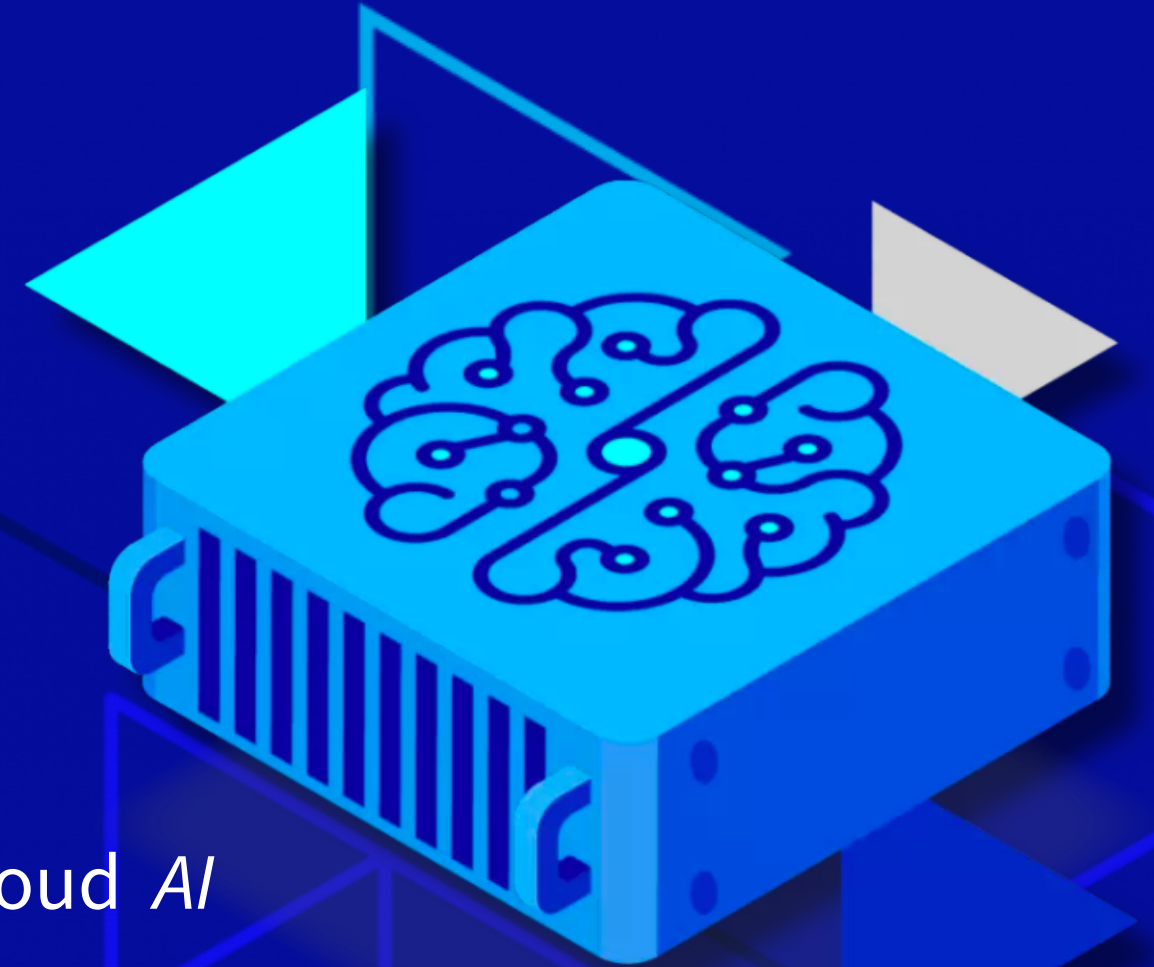


AI Tools in action

Entrenez et déployez un modèle de ML avec les produits AI d'OVHcloud *AI Notebooks, AI Training & AI Deploy*





About OVHcloud

 French & European **leader in Cloud**

 Data **privacy** and **sovereignty**

 **Not subject** to the Cloud Act

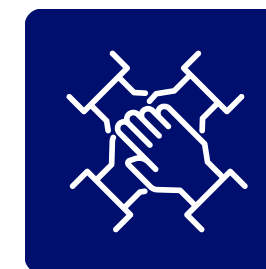
 **HDS certification** (ISO 27001 norm)

 **Collaboration** with public sector

Our values



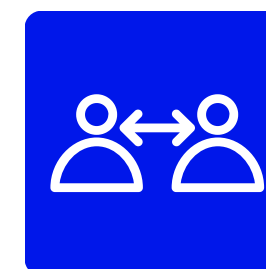
Trust



Working Together



Passion



Disruption



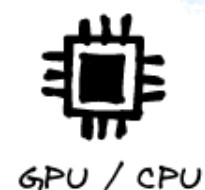
Responsibility

OVHcloud



- Bare Metal cloud
- Hosted Private Cloud
- Public Cloud
- Web Cloud
- Télécom

- AI Notebooks
- AI Training
- AI Deploy



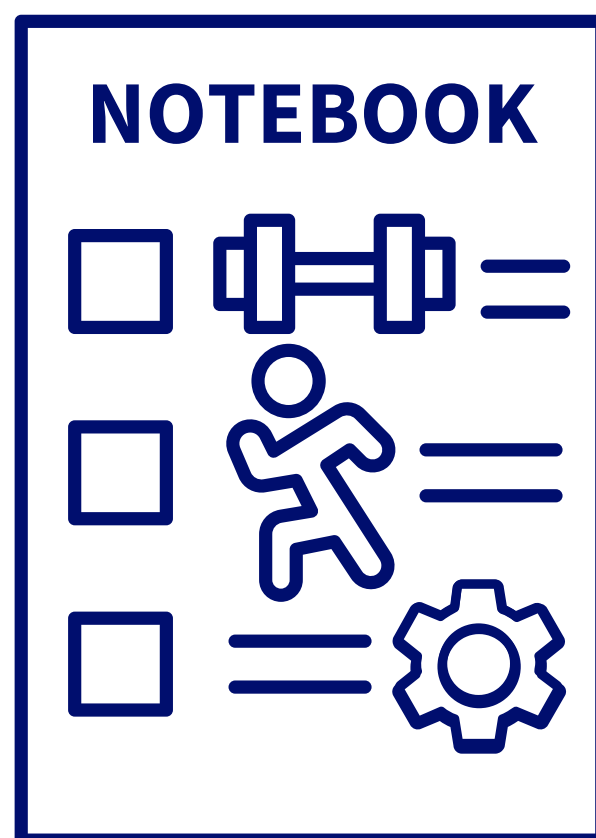
GPU / CPU



31 data centers and 5 under construction

Proprietary network

OVHcloud AI Solutions



AI Notebooks



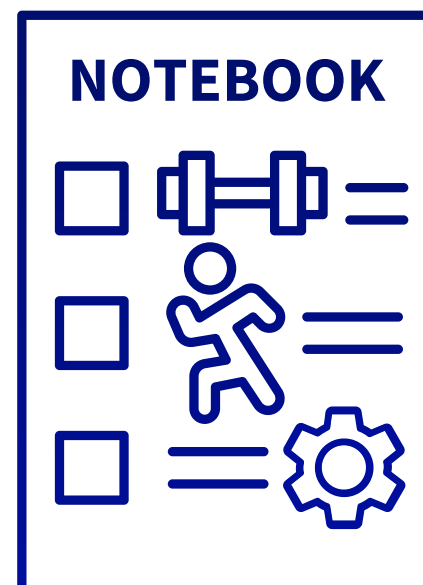
AI Training



AI Deploy

AI Notebooks

JupyterLab / Visual Studio Code as a service



1

Start preconfigured JupyterLab or VS Code notebooks

2

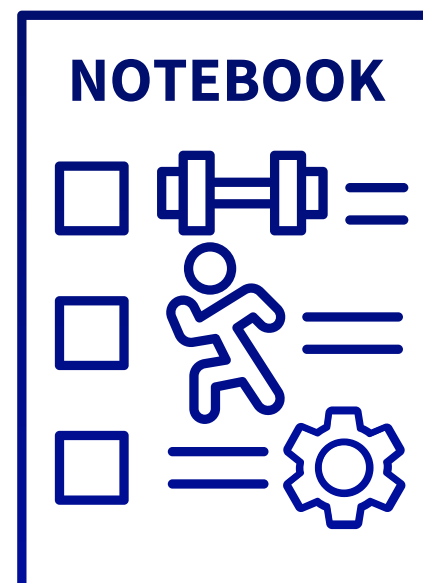
Notebook launched in the cloud with GPU (or CPU)

3

Customer is billed per minute used

AI Notebooks

Machine Learning packages



4

ML frameworks available: PyTorch, TensorFlow, Transformers, ...

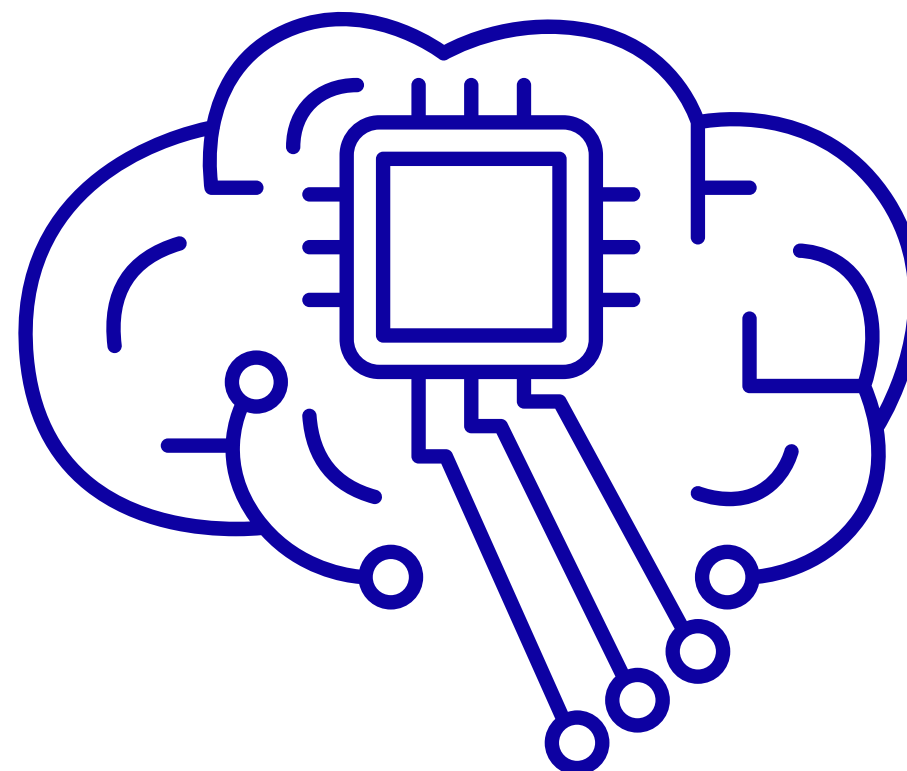
5

Persist user workspace among runs to keep track of custom installed packages

OVHcloud AI Solutions



AI Notebooks



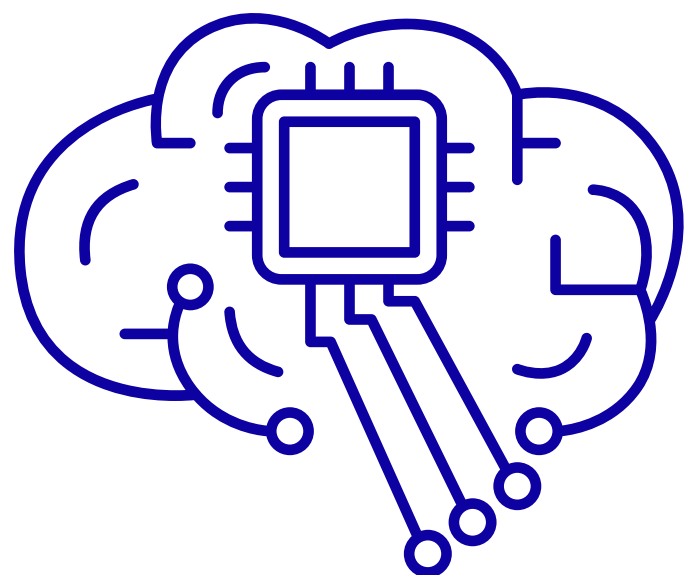
AI Training



AI Deploy

AI Training

Container As A Service Platform



1

Customer provides his docker container through docker registry

2

We run his container in the cloud over GPU (or CPU)

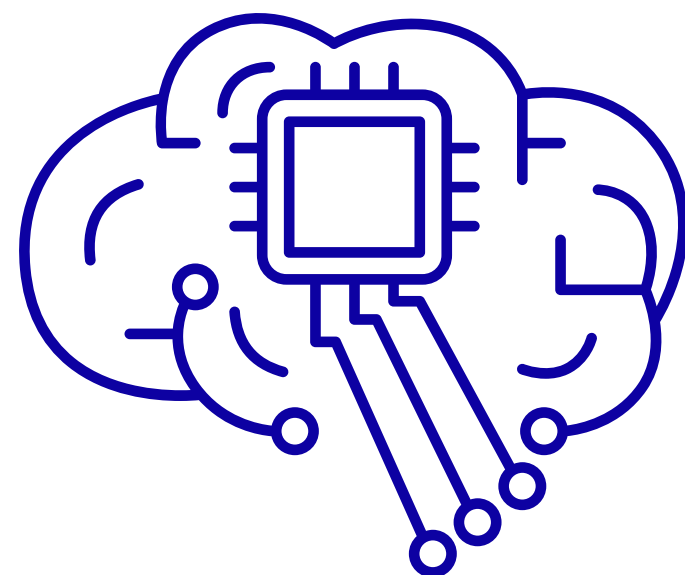
3

Customer is billed per minute used

AI Training

Targeted use cases

Machine Learning pipelines



4

Preprocessing / postprocessing tasks

5

Training of Machine Learning models

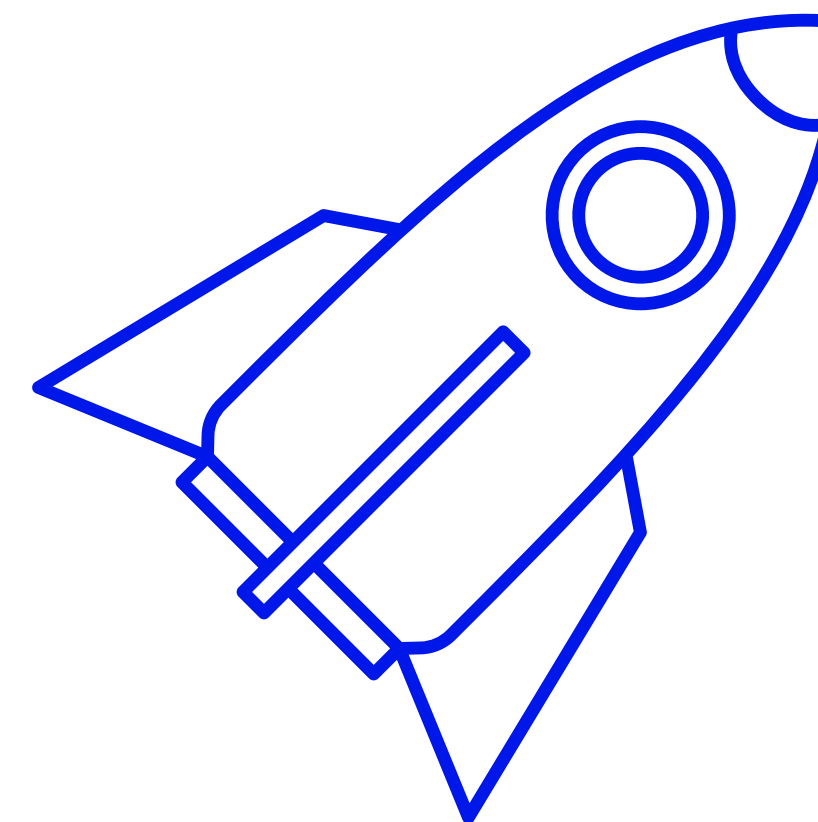
OVHcloud AI Solutions



AI Notebooks



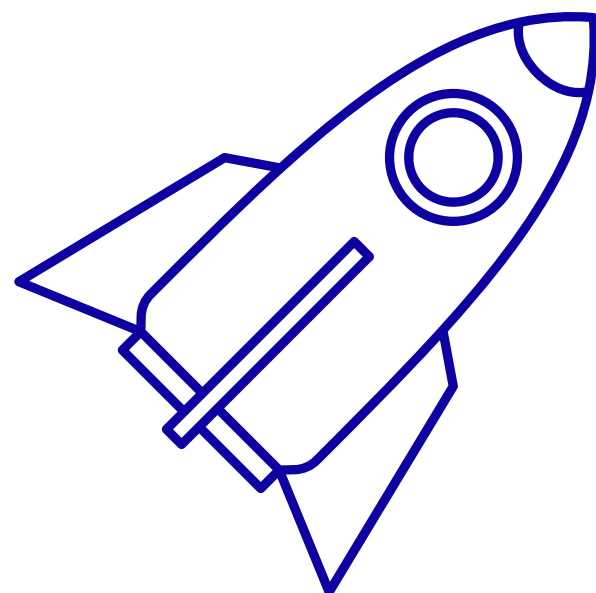
AI Training



AI Deploy

AI Deploy

Container As A Service Platform



1

Customer provides his docker container through docker registry

2

We run his container in the cloud over GPU (or CPU)

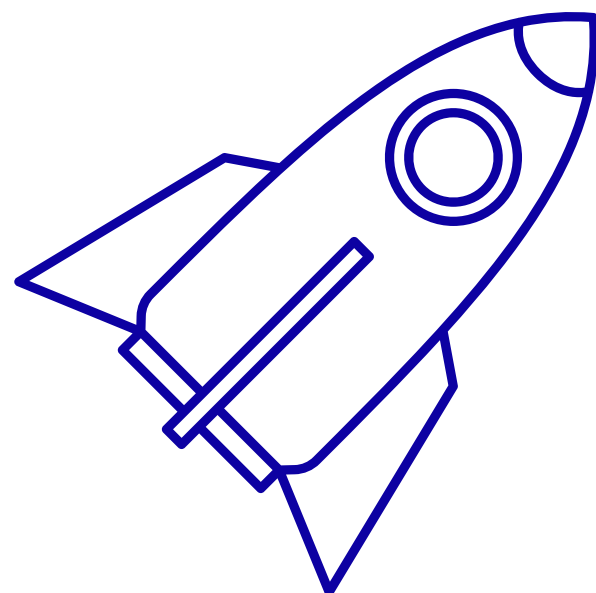
3

Customer is billed per minute used

AI Deploy

Targeted use cases

Model inference



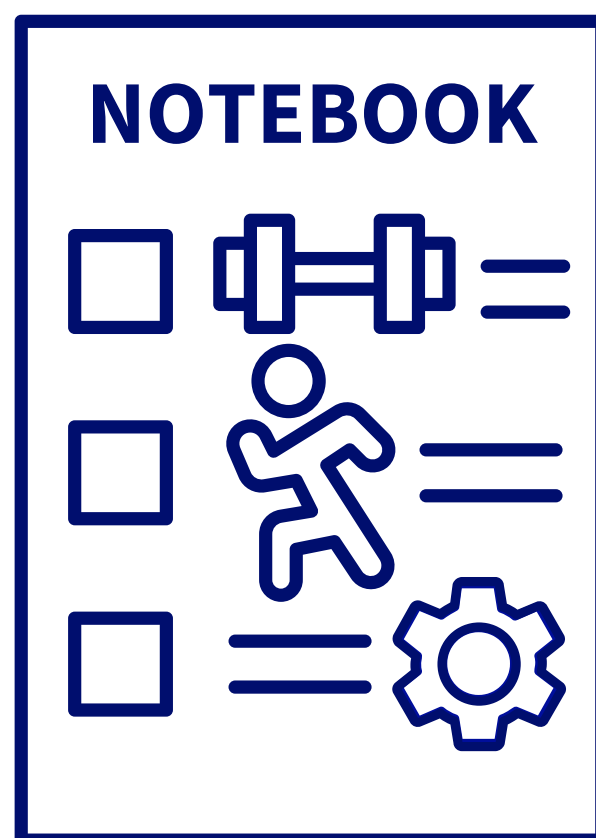
4

Industrial way of deploying stateless API(s)

5

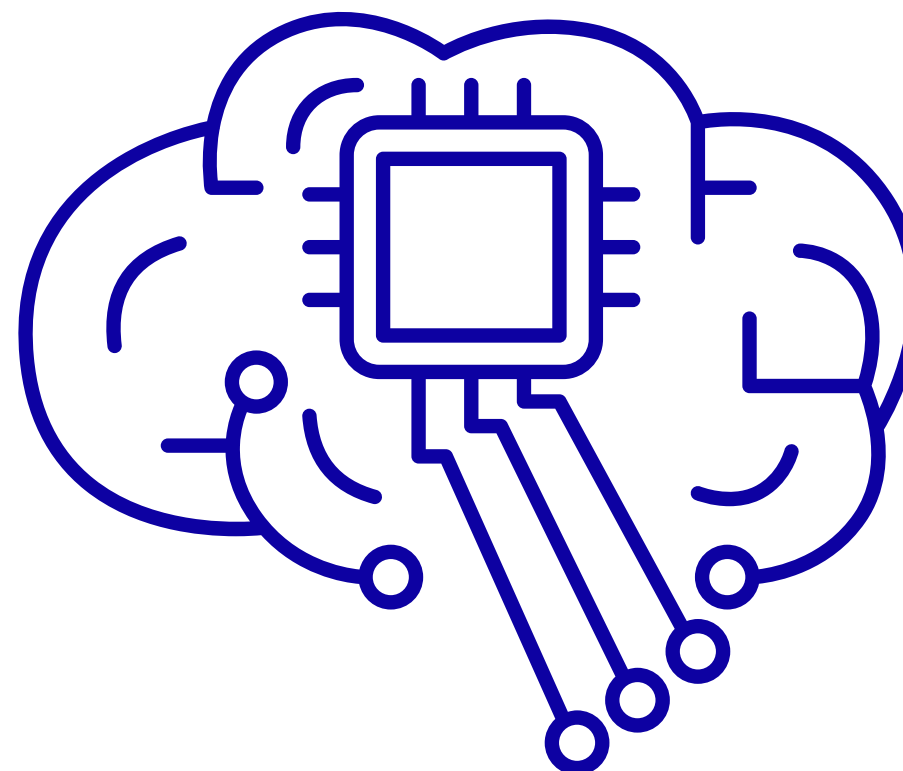
Scalable on the fly

OVHcloud AI Solutions

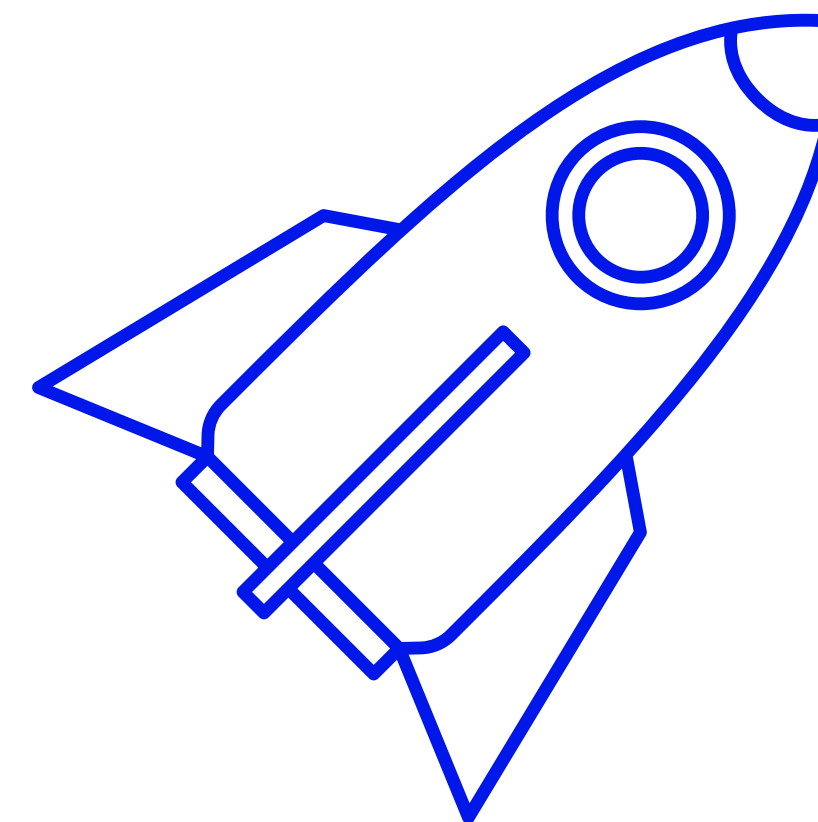


AI Notebooks

Data scientist



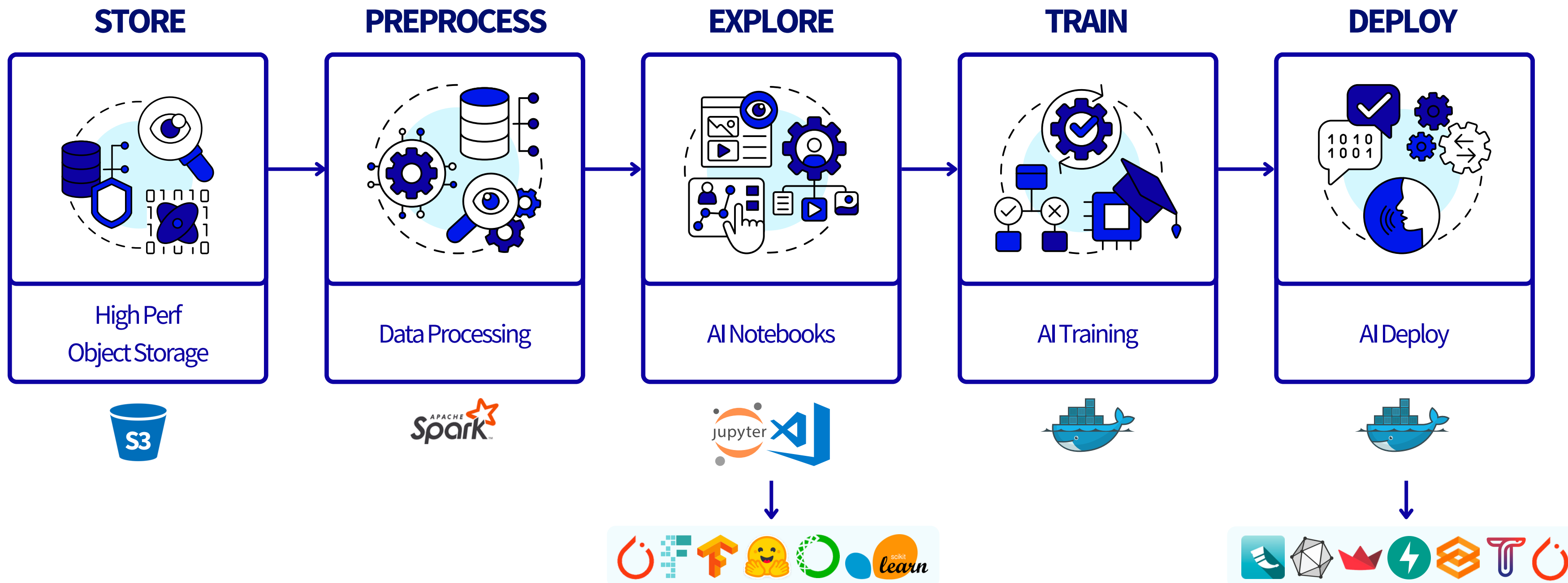
AI Training



AI Deploy

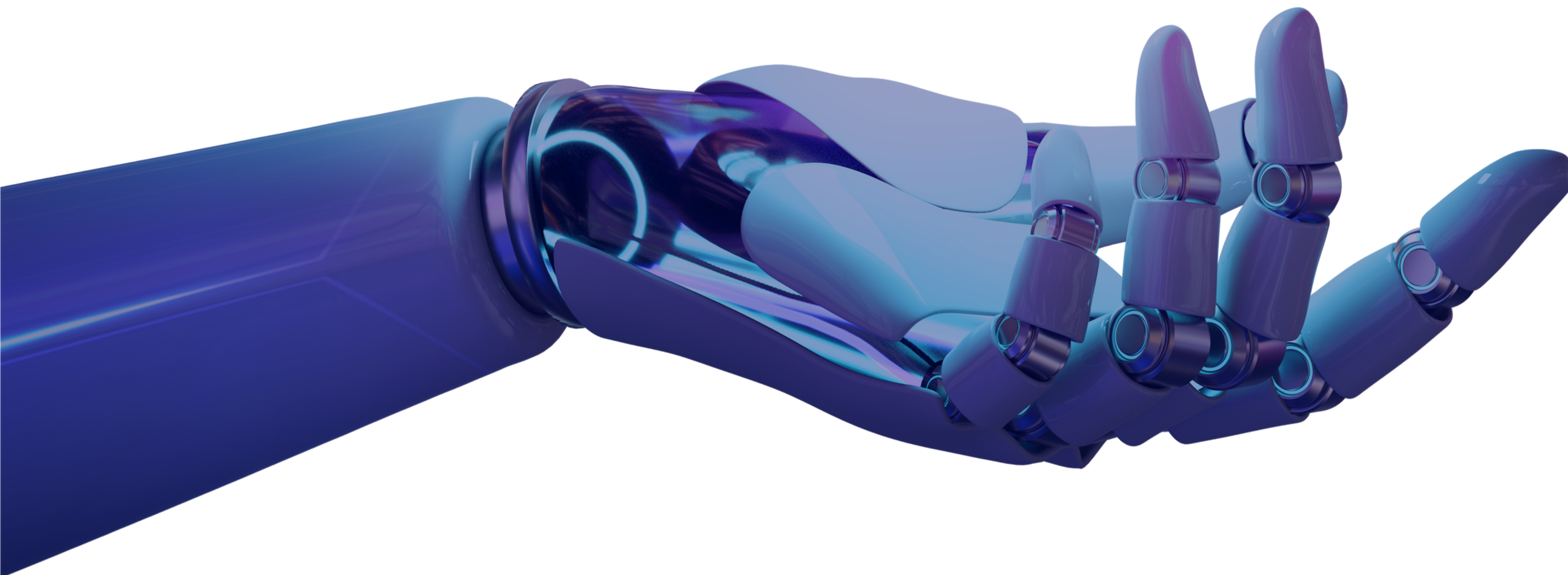
Machine Learning Engineer

Global AI Workflow



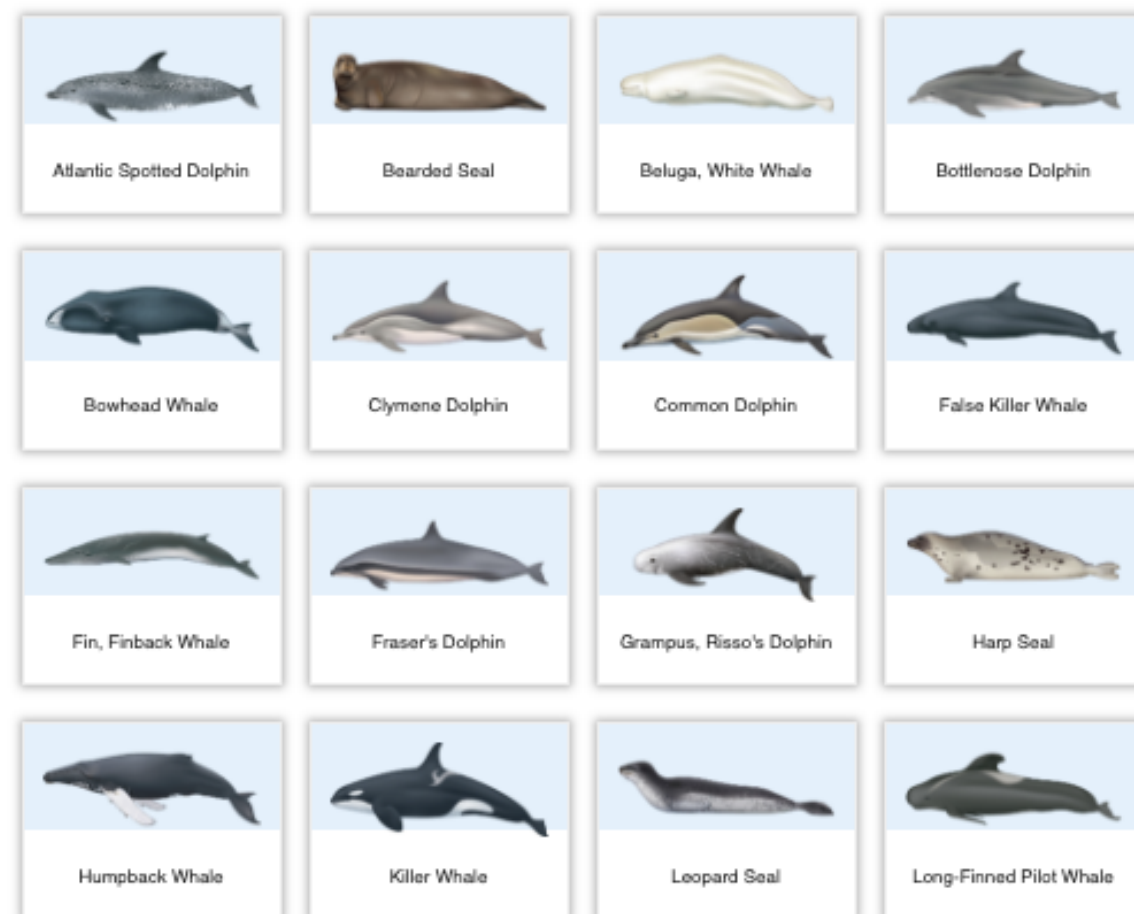


Demo time



Audio use case

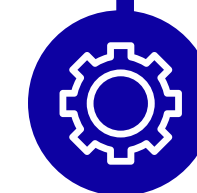
Marine mammal sounds classification



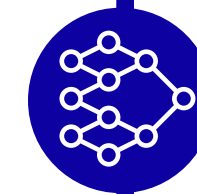
<https://whoicf2.who.edu/science/B/whalesounds/>



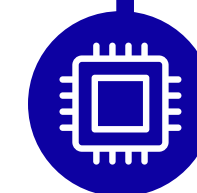
Store Marine mammal sounds database



Process audio files with Librosa



Build neural network

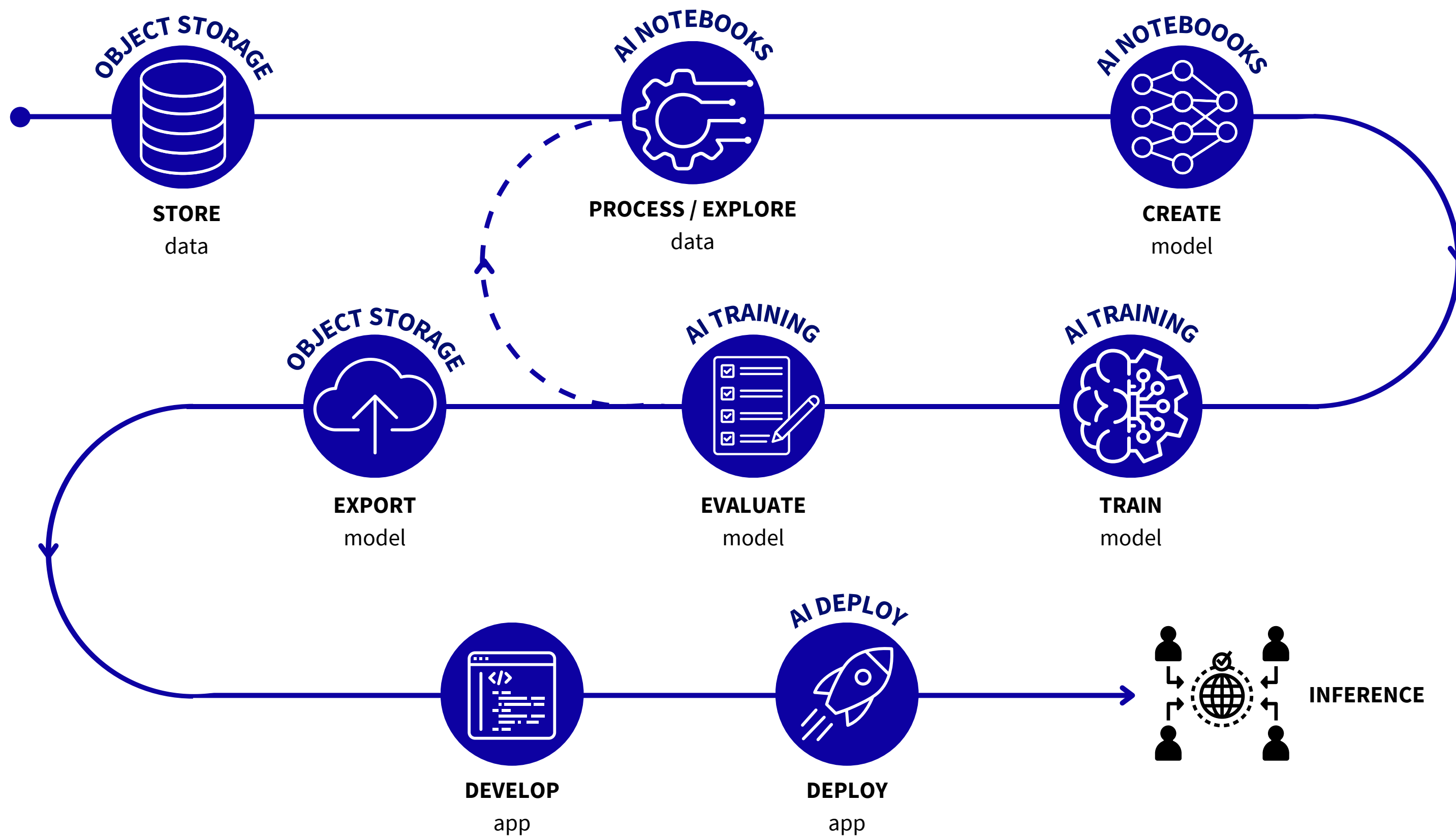


Train and **evaluate** model



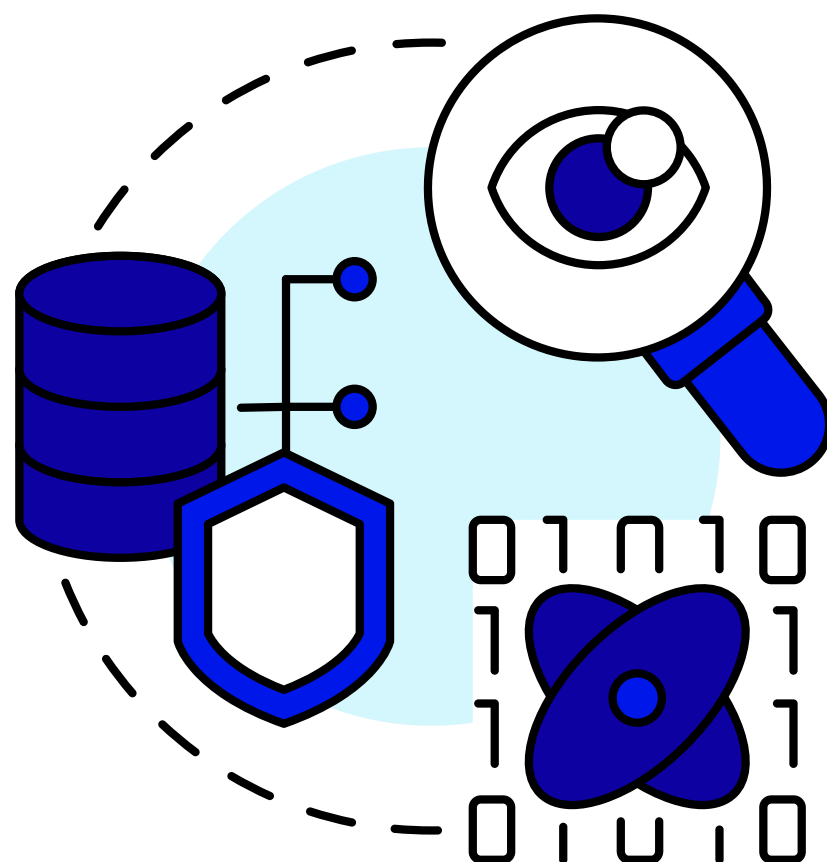
Develop and **deploy** an app

Journey to the center of AI Solutions



Object Storage

- store data, codes, models

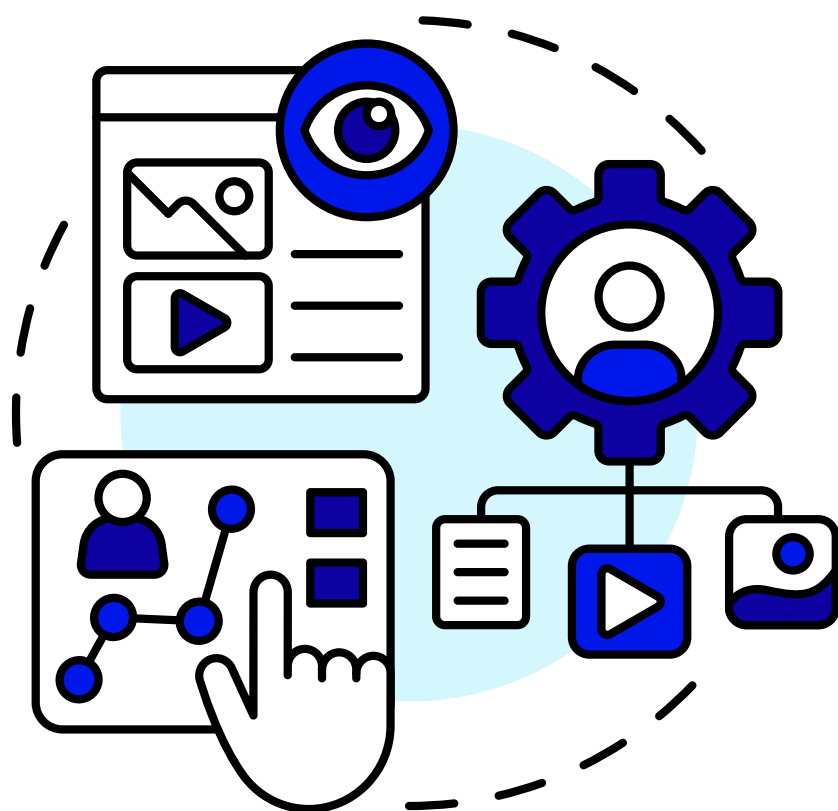


The screenshot shows the OVHcloud Object Storage management interface. The left sidebar contains a navigation menu with categories: Compute, Storage, Network, Containers & Orchestration, AI & Machine Learning, and Data & Analytics. The 'Storage' section is active, showing options like Block Storage, Object Storage, Cloud Archive, Cold Archive, Databases, Volume Snapshot, Volume Backup, and Instance Backup. The main content area displays the 'Object Storage' page for a project named 'AI Days Demo'. It includes a 'Create an object container' button, a search bar, and a table listing existing containers. The table has columns for Name, Region, Solution, Number of objects, Used space, and Type. One container named 'notebooks_workspace' is listed with 436351 objects and 14.08 GB of space used. The interface also shows pagination controls indicating 1 of 1 results.

Name	Region	Solution	Number of objects	Used space	Type
notebooks_workspace	GRA	Standard - Swift	436351	14.08 GB	Private

AI Notebooks

- explore
- process
- build

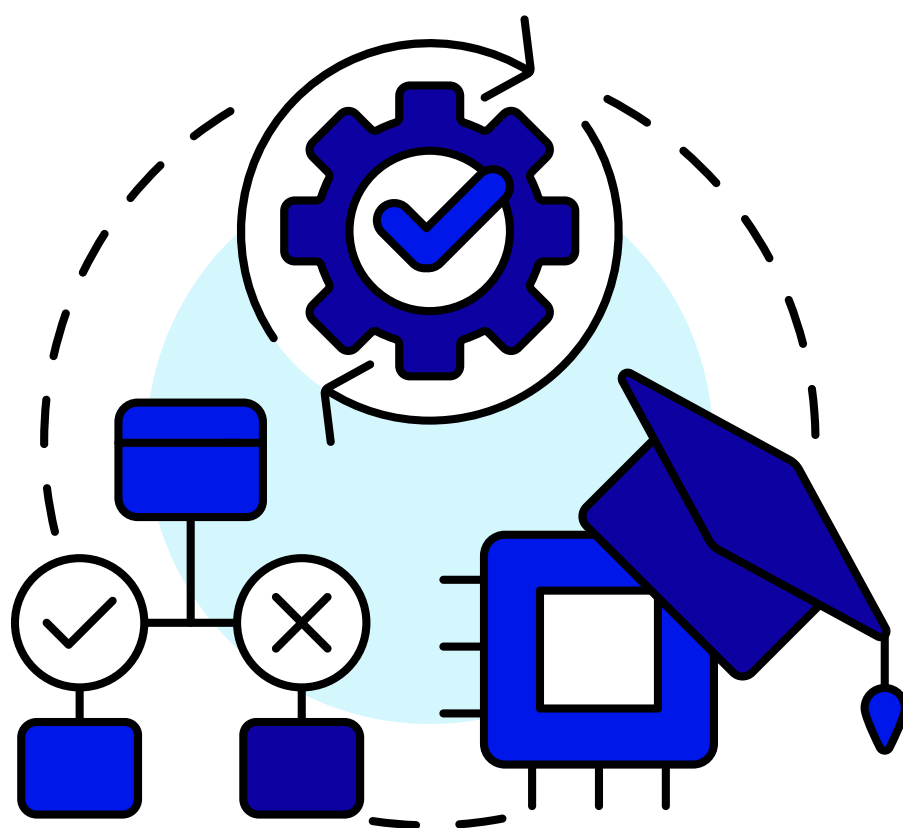


The screenshot shows the OVHcloud AI Notebooks onboarding page. The browser address bar displays `ovh.com/manager/#/public-cloud/pcl/projects/2feb547015f249f0be2e8370fa9bc25e/notebooks/onboarding`. The page features a navigation menu with options like Dashboard, Bare Metal Cloud, Hosted Private Cloud, Public Cloud, Web Cloud, Telecom, Sunrise, and Marketplace. The main content area is titled "AI Days Demo / AI Notebooks" and includes a "Create a new project" button. A sidebar on the left lists various services under categories like Compute, Storage, Network, Containers & Orchestration, and AI & Machine Learning. The "AI Notebooks" option is highlighted. The main content area contains a large heading "AI Notebooks" with the subtext "Get your notebooks up and running in seconds." and "Get your projects and models started quicker with notebooks." Below this is a "Create a Notebook" button. There are also several tutorial cards, including "Full AI Notebooks documentation", "AI Notebooks definition", "Getting started with AI Notebooks", "Share a Notebook", and "Access your data from".

<https://docs.ovh.com/gb/en/publiccloud/ai/ai-comparative-tables/>

AI Training

- train
- validate
- export

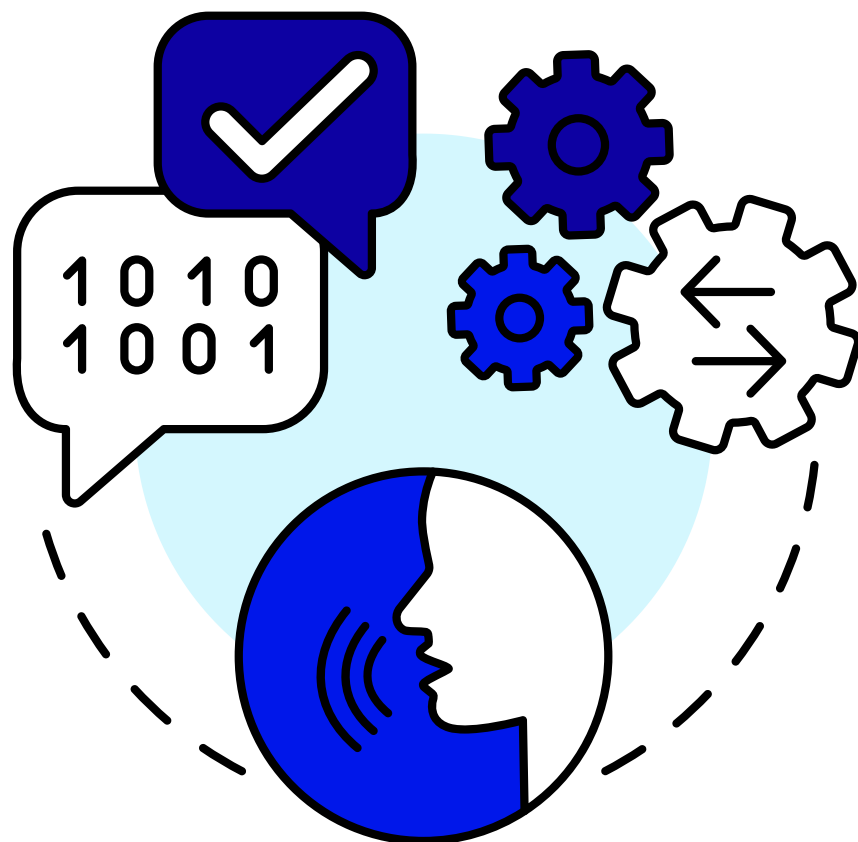


The screenshot shows the OVHcloud AI Training dashboard. The dashboard is divided into several sections:

- Information:** Contains links for Shared Docker Registry and OVHcloud AI Training command line interface.
- Usage:** Displays job counts: 0 Running, 0 Done, 0 Failed, and 0 Other.
- Billing in progress:** Shows €0.00 used this month and a link for Billing details.
- AI Training users:** Includes a User management button and a table with one user: user-zfmA3FaQbTEm, Elea.
- Active jobs:** Shows a message: "You have no jobs running right now" and buttons for Launch a new job and View all jobs.

AI Deploy

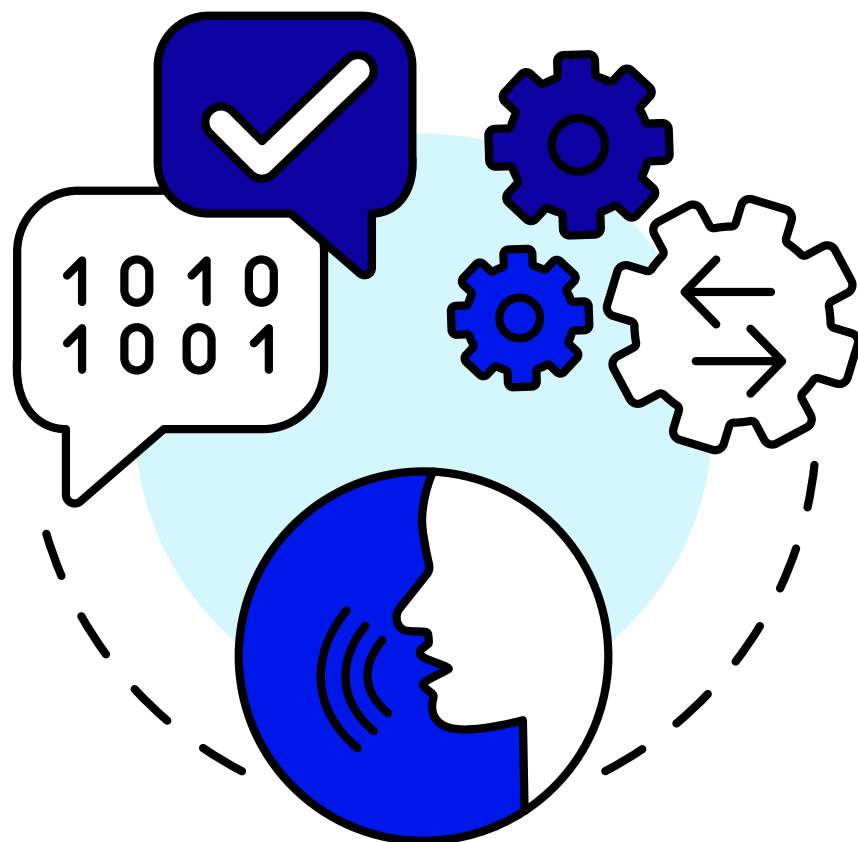
- size
- secure
- deploy
- infer



A screenshot of the OVHcloud web interface showing the AI Deploy page. The browser address bar shows 'ovh.com/manager/#/public-cloud/pci/projects/2feb547015f249f0be2e8370fa9bc25e/ai/apps/onboarding'. The page has a navigation menu with 'Public Cloud' selected. On the left, a sidebar lists various services under categories like Compute, Storage, Network, Containers & Orchestration, AI & Machine Learning, Data & Analytics, and Management Interfaces. The 'AI Deploy' option is highlighted. The main content area is titled 'AI Deploy' and includes a sub-header 'AI Days Demo / AI Deploy / My apps'. It features a central graphic of a server with a brain icon. Below this, the text reads: 'Deploy your AI applications and models with high availability. Choose from a catalogue or deploy your own Docker images.' A paragraph explains the service for data scientists and developers, mentioning high-availability, security, and pay-as-you-go pricing. A 'Deploy an app' button is prominently displayed. At the bottom, there are several tutorial cards: 'Complete AI Deploy documentation', 'App definition', 'Getting started with AI Deploy', 'Share an app', and 'Access your data from...'.

AI Deploy

- size
- secure
- deploy
- infer



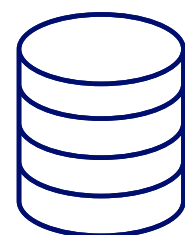
The screenshot shows the OVHcloud AI Deploy configuration interface. The browser address bar displays the URL: `ovh.com/manager/#/public-cloud/pci/projects/2feb547015f249f0be2e8370fa9bc25e/ai/apps/new`. The navigation menu includes: Dashboard, Bare Metal Cloud, Hosted Private Cloud, Public Cloud, Web Cloud, Telecom, Sunrise, and Marketplace. The left sidebar lists various services under categories: Compute (Instances), Storage (Block Storage, Object Storage, Cloud Archive, Cold Archive, Databases, Volume Snapshot, Volume Backup, Instance Backup), Network (Private Network, Public IPs, Gateway), Containers & Orchestration (Load Balancer, Managed Kubernetes Service, Managed Private Registry, Workflow Management), AI & Machine Learning (AI Dashboard, AI Notebooks, AI Training, AI Deploy), Data & Analytics (Data Processing, Logs Data Platform), and Management Interfaces.

The main content area is titled "Labels" and contains the following sections:

- Labels:** A text box for "Key" with the value "owner" and a "Value" box with "elea". Below it is a "+ Add a label" button and a counter "1/10 labels".
- HTTP port:** A dropdown menu showing "8498" with the text "The HTTP port your app is linked to." below it.
- App access rule:** Two options are shown: "Restricted access" (selected) with the description "Access to your app is restricted by authentication." and "Public access" with the description "Your app is publicly accessible through your URL or API. Anyone can access your application and the data attached to it." and a warning "Be careful with sensitive data."
- Readiness probe:** A section with the text "To determine when your application is ready to receive a HTTP request, you can configure a fully-customised readiness probe (Kubernetes Readiness probe) by adding an API endpoint and port." Below it is a toggle switch for "Use a readiness probe" which is currently disabled, labeled "Readiness probe disabled".

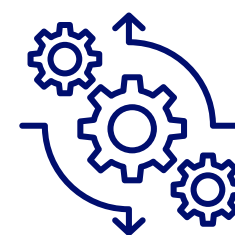
At the bottom of the configuration area is a blue "Next" button. A progress indicator at the very bottom shows a circle with the number "6" and the word "Review".

AI Solutions in a nutshell



Object Storage

Swift, S3, High Perf



Spark jobs

Data Processing



AI Notebooks

Exploration, training



AI Training

Training, validation



Locally

Create ,develop, build



AI Deploy

Deploy, serve, infer

QUESTIONS?

References

OVHcloud WebSite - AI offers

<https://www.ovhcloud.com/en/public-cloud/ai-machine-learning/>

OVHcloud Public Cloud - AI Solutions

<https://www.ovh.com/manager/#/public-cloud>

OVHcloud documentation - AI Solutions

https://help.ovhcloud.com/csm/en-gb-documentation-public-cloud-ai-and-machine-learning?id=kb_browse_cat&kb_id=574a8325551974502d4c6e78b7421938&kb_category=1f34d555f49801102d4ca4d466a7fd7d

OVHcloud GitHub repository - AI examples

<https://github.com/ovh/ai-training-examples>

OVHcloud Blog Post

<https://blog.ovhcloud.com/>

