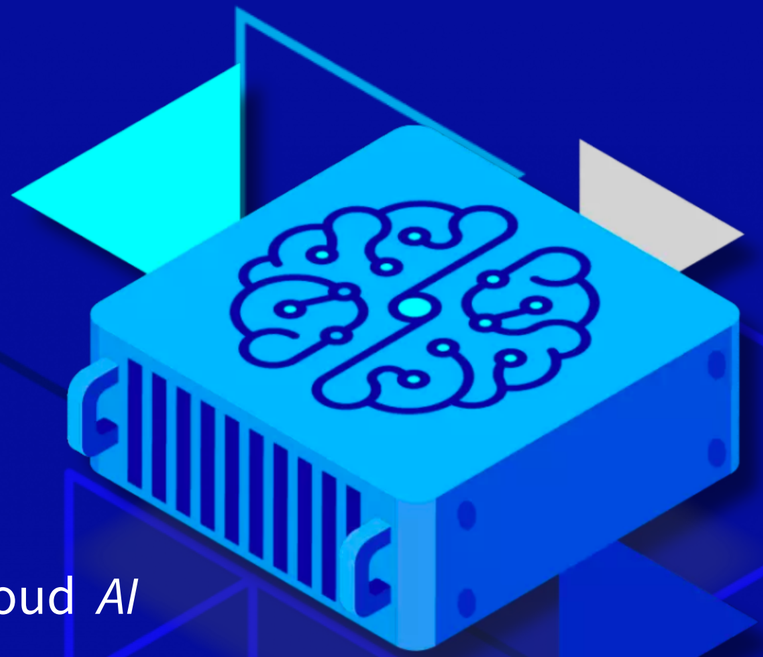
OVHcloud

AI Tools in action

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



Kevin AMIL, Eléa PETTON

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

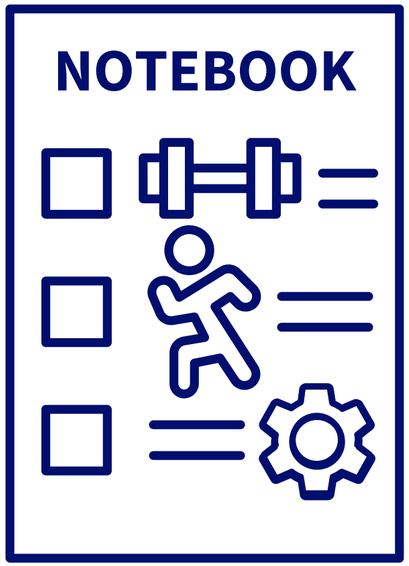
- Bare Metal Cloud
- Hosted Private Cloud
- Public Cloud
- Web Cloud
- Télécom

→

- AI Notebooks
- AI Training
- AI Deploy

GPU / CPU

OVHcloud AI Solutions



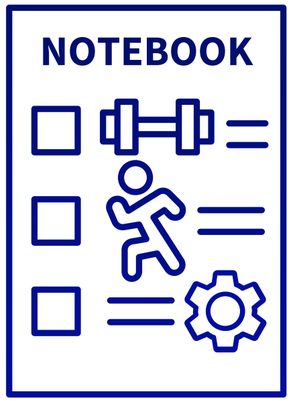
AI Notebooks

AI Training

AI Deploy

AI Notebooks

JupyterLab / Visual Studio Code as a service



1

Start preconfigured JupyterLab or VS Code notebooks

2

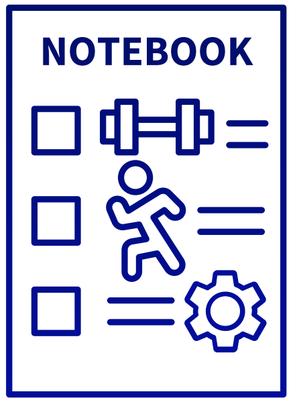
Notebook launched in the cloud with GPU (or CPU)

3

Customer is billed per minute used

AI Notebooks

Machine Learning packages



4

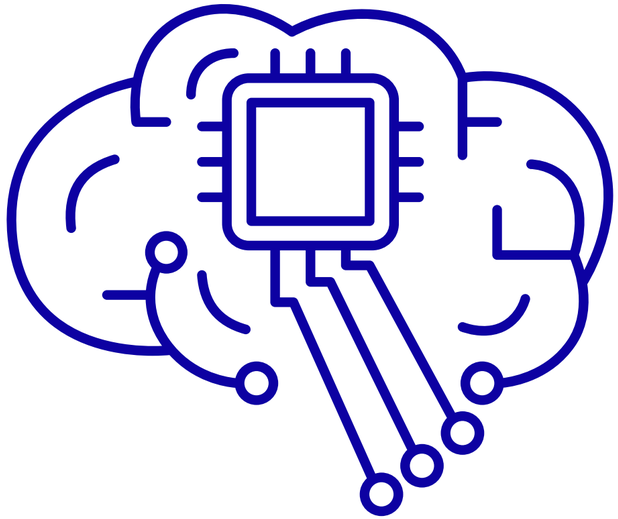
ML frameworks available: PyTorch, TensorFlow, Transformers, ...

5

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

OVHcloud AI Solutions

AI Notebooks

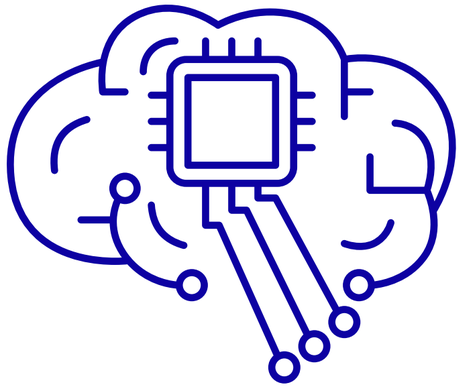


AI Training

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)

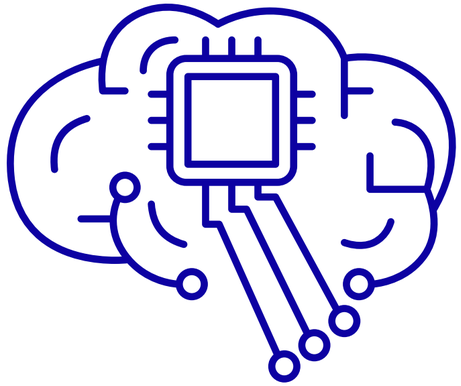
3

Customer is billed per minute used

AI Training

Targeted use cases

Machine Learning pipelines



4

Preprocessing / postprocessing tasks

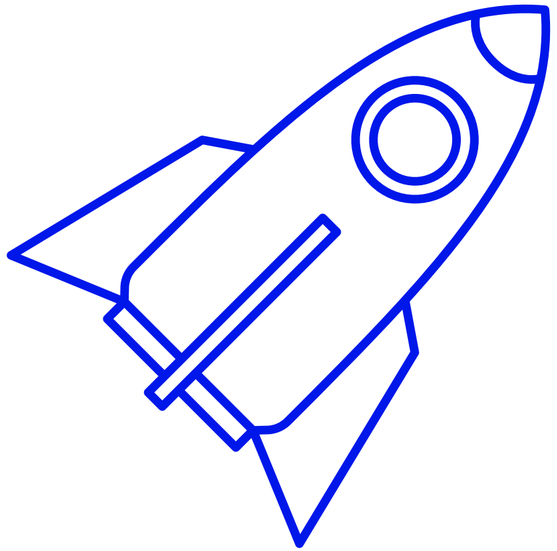
5

Training of Machine Learning models

OVHcloud AI Solutions

AI Notebooks

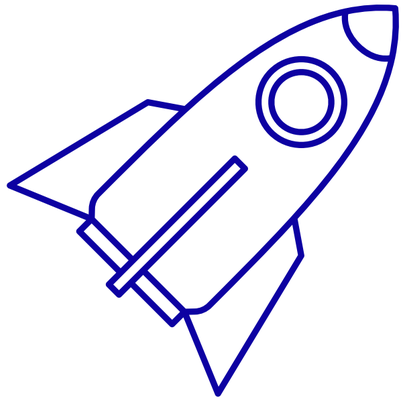
AI Training



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)

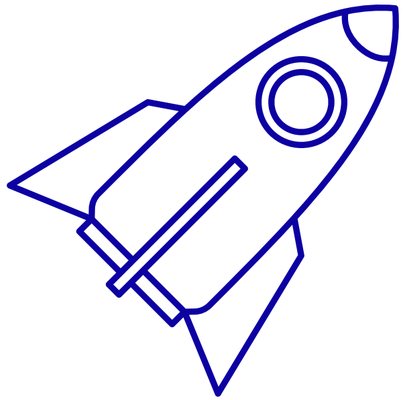
3

Customer is billed per minute used

AI Deploy

Targeted use cases

Model inference



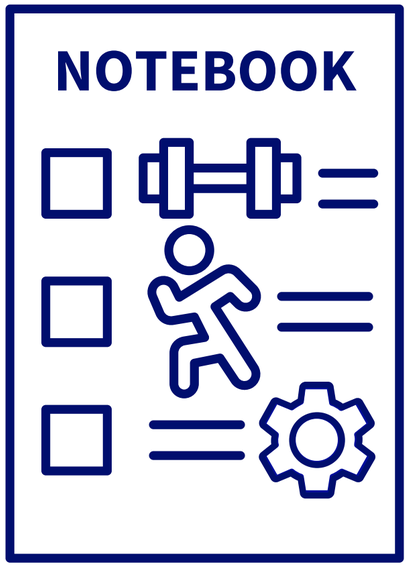
4

Industrial way of deploying stateless API(s)

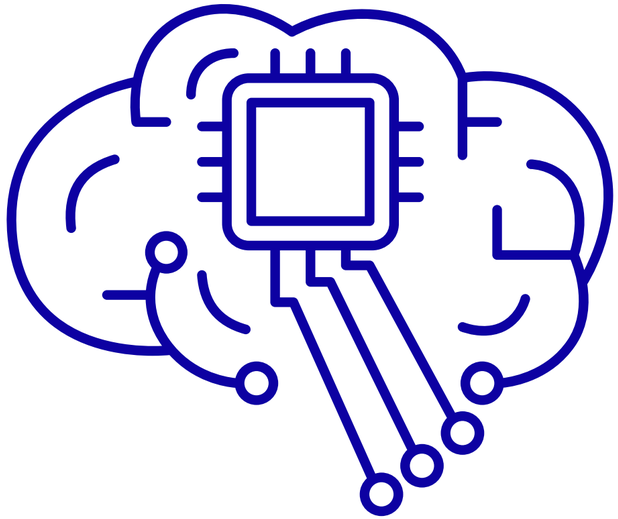
5

Scalable on the fly

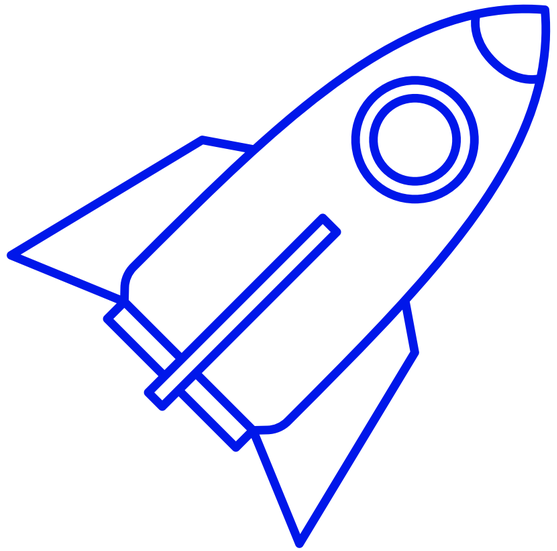
OVHcloud AI Solutions



AI Notebooks



AI Training

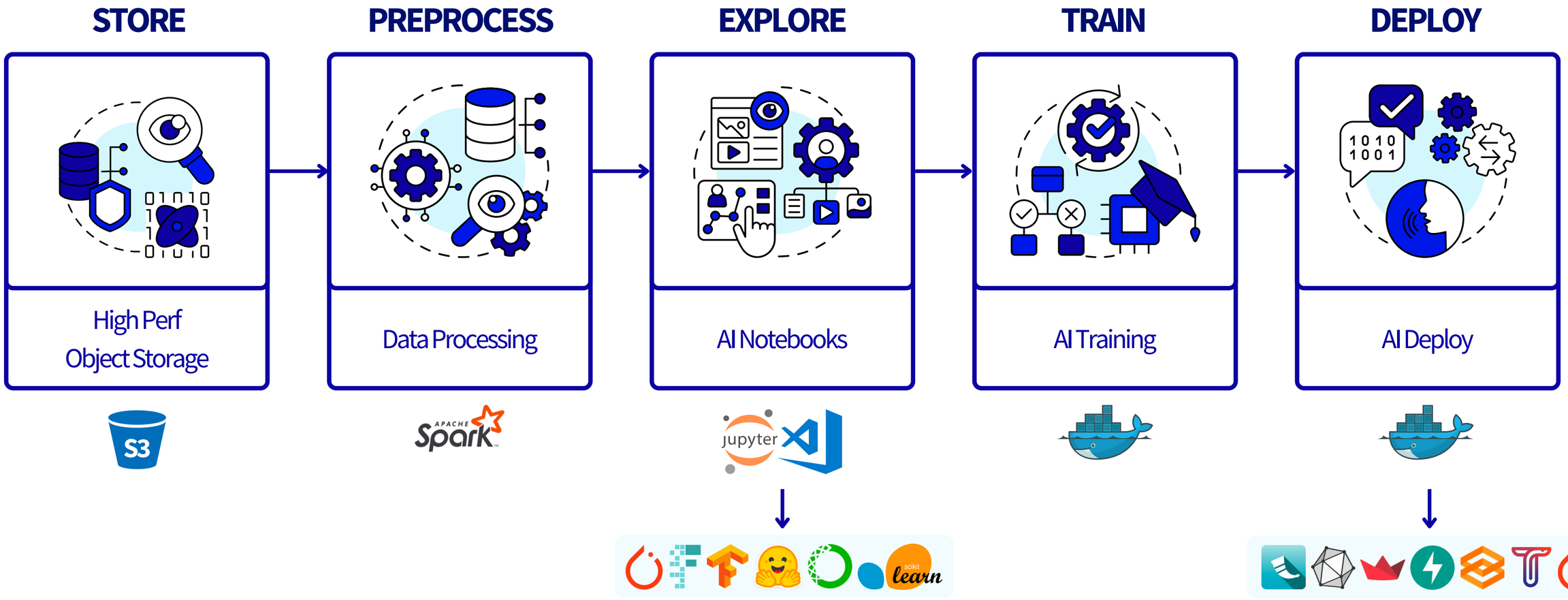


AI Deploy

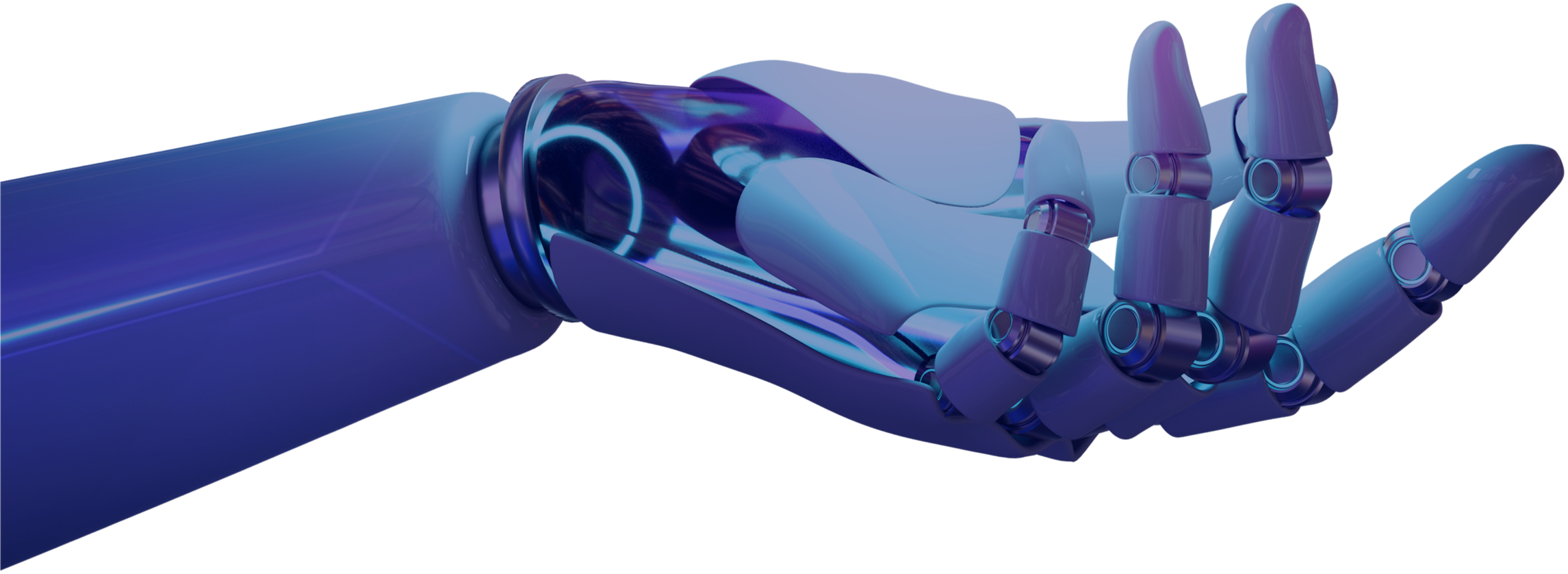
Data scientist

Machine Learning Engineer

Global AI Workflow

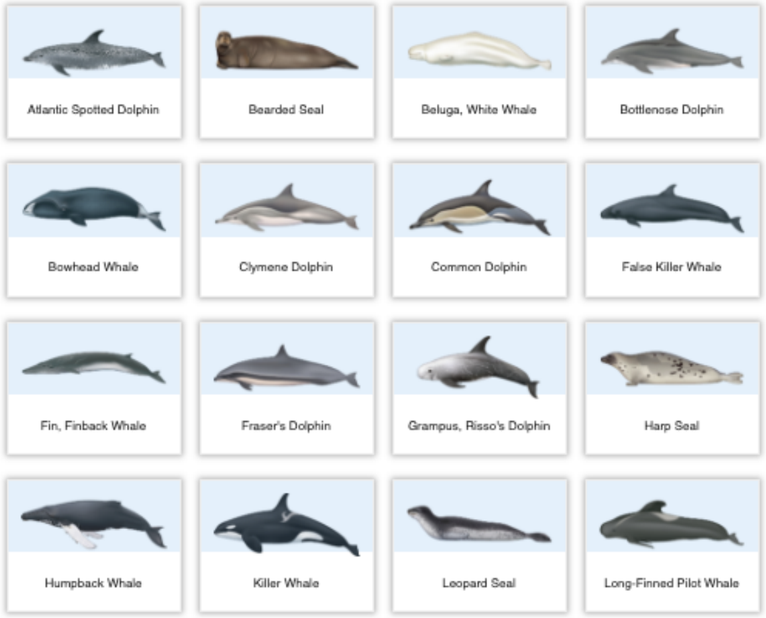


Demo time



Audio use case

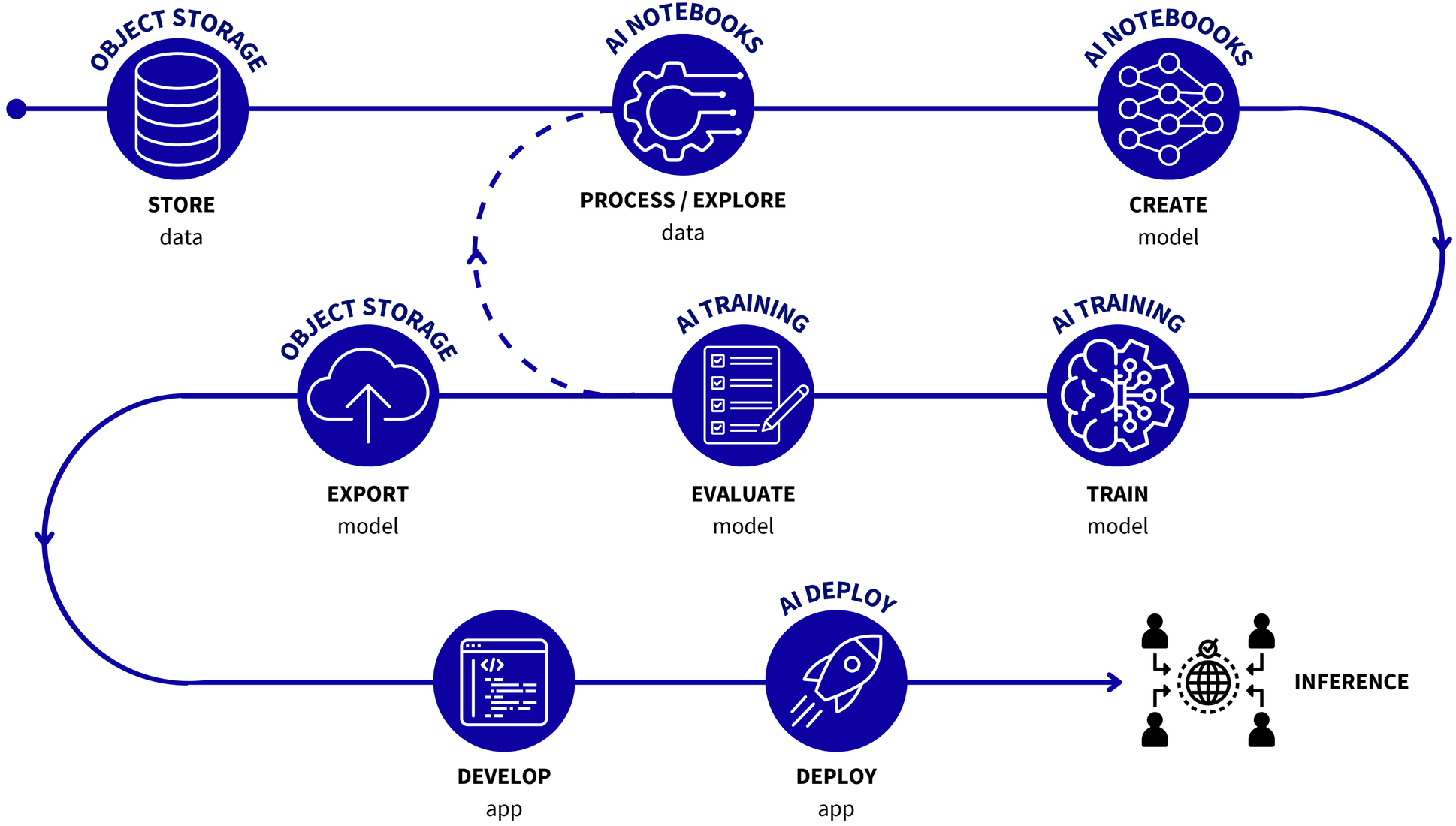
Marine mammal sounds classification



https://whoicf2.whoi.edu/science/B/whalesounds/

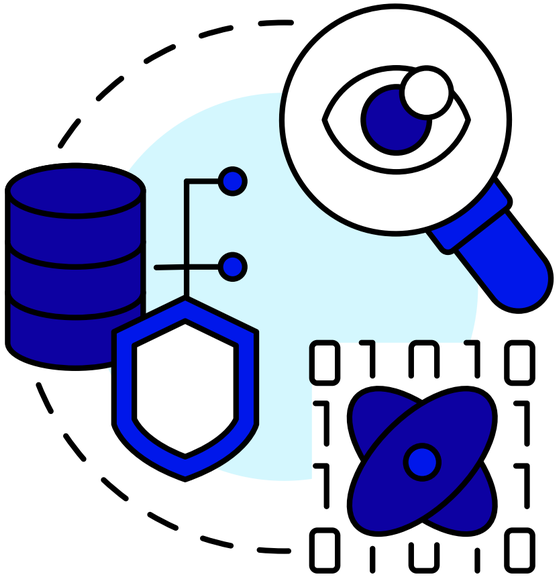
- **Store** Marine mammal sounds database
- **Process** audio files with Librosa
- **Build** neural network
- **Train** and **evaluate** model
- **Develop** and **deploy** an app

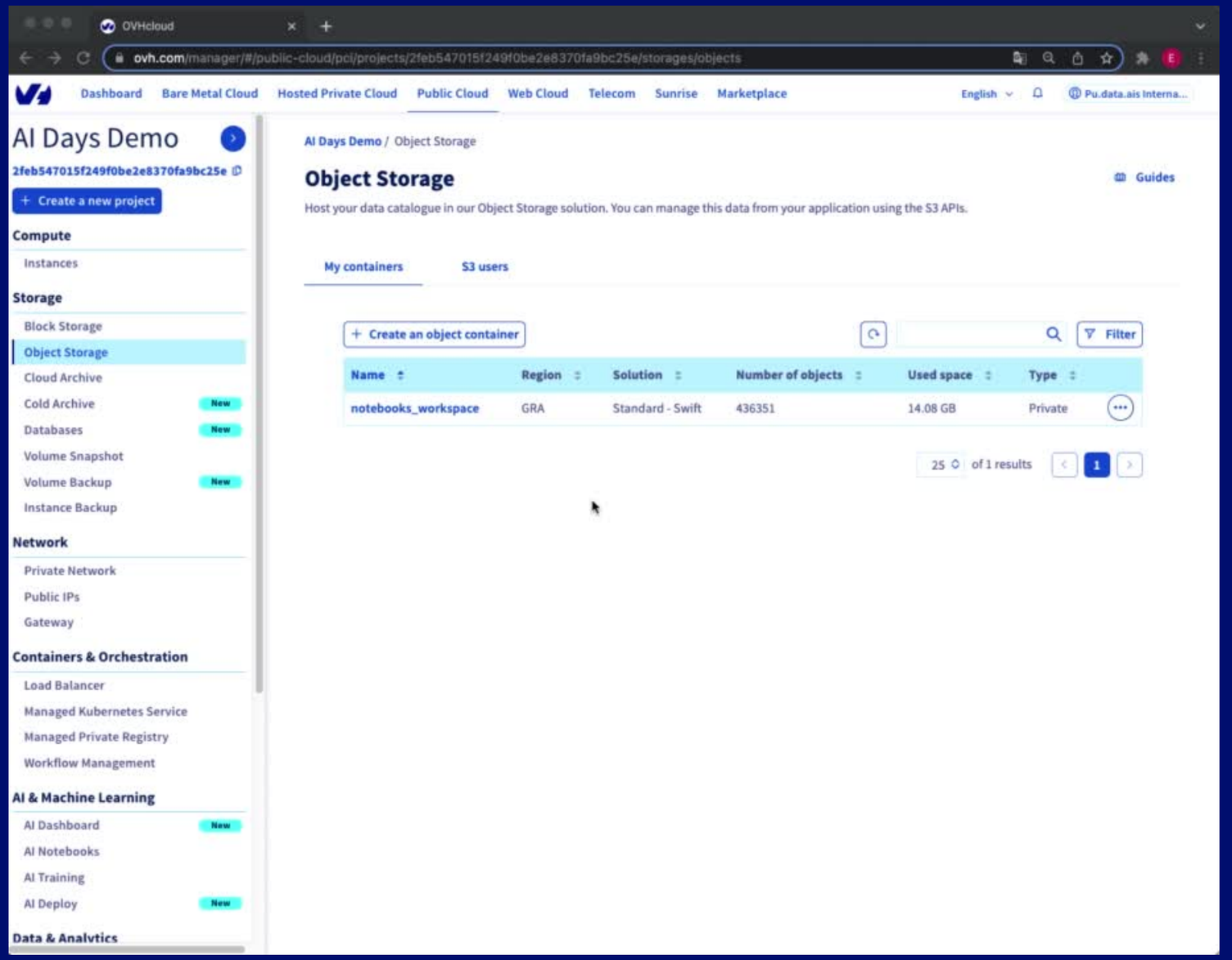
Journey to the center of AI Solutions



Object Storage

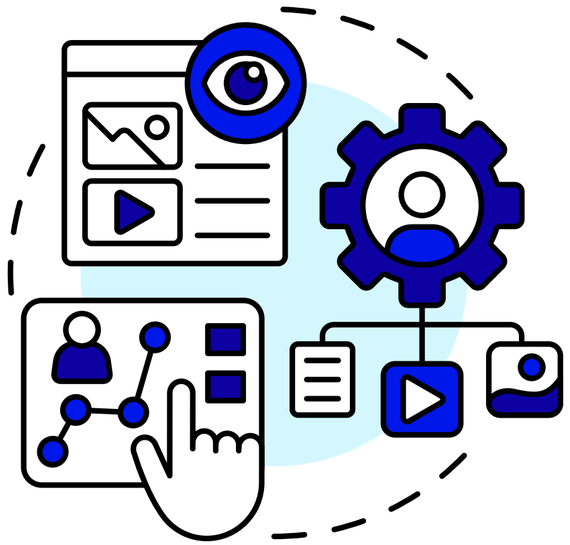
- store data, codes, models

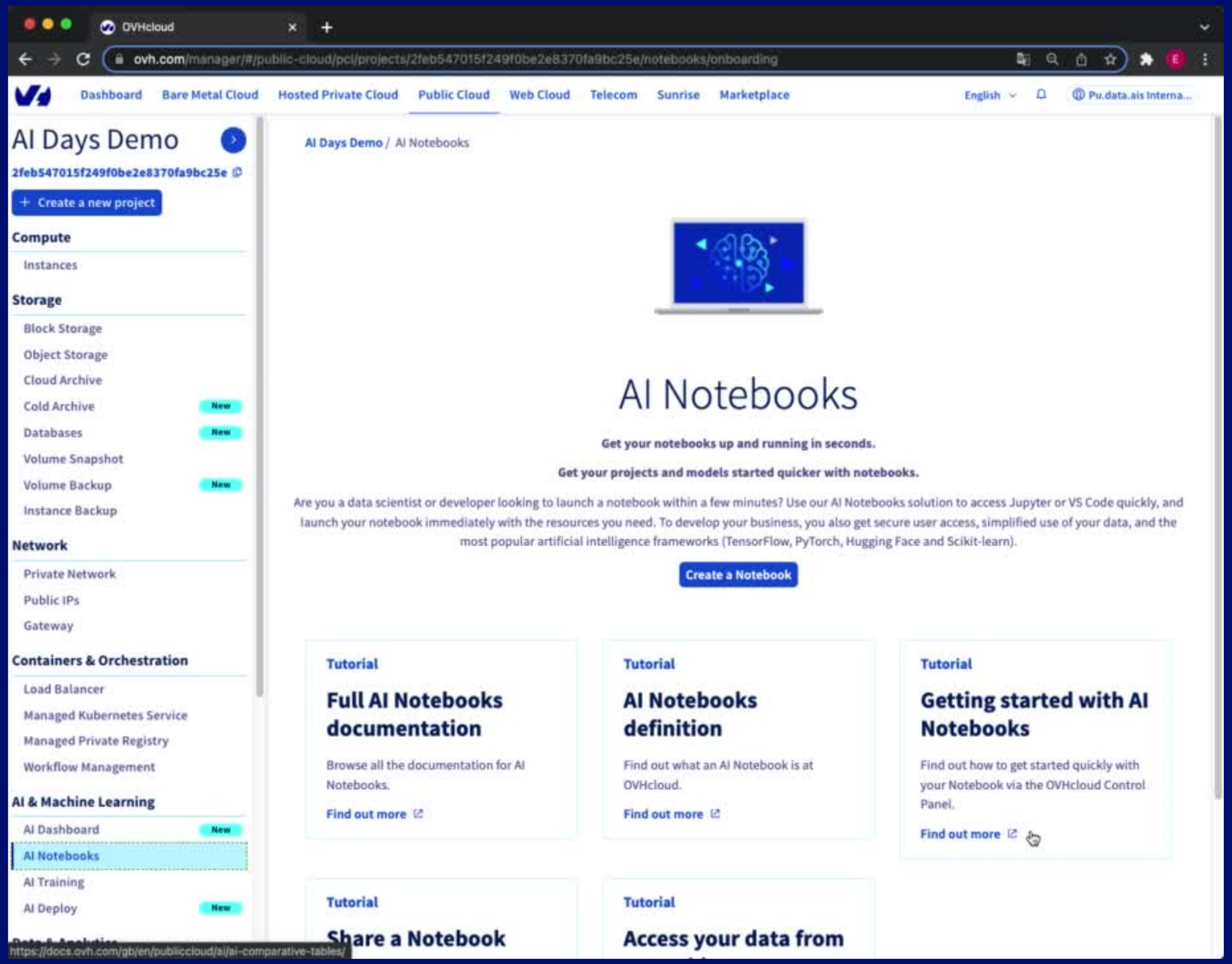




AI Notebooks

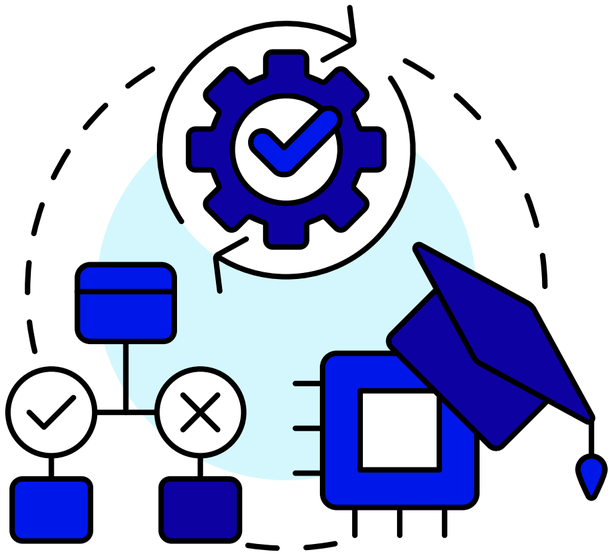
- explore
- process
- build

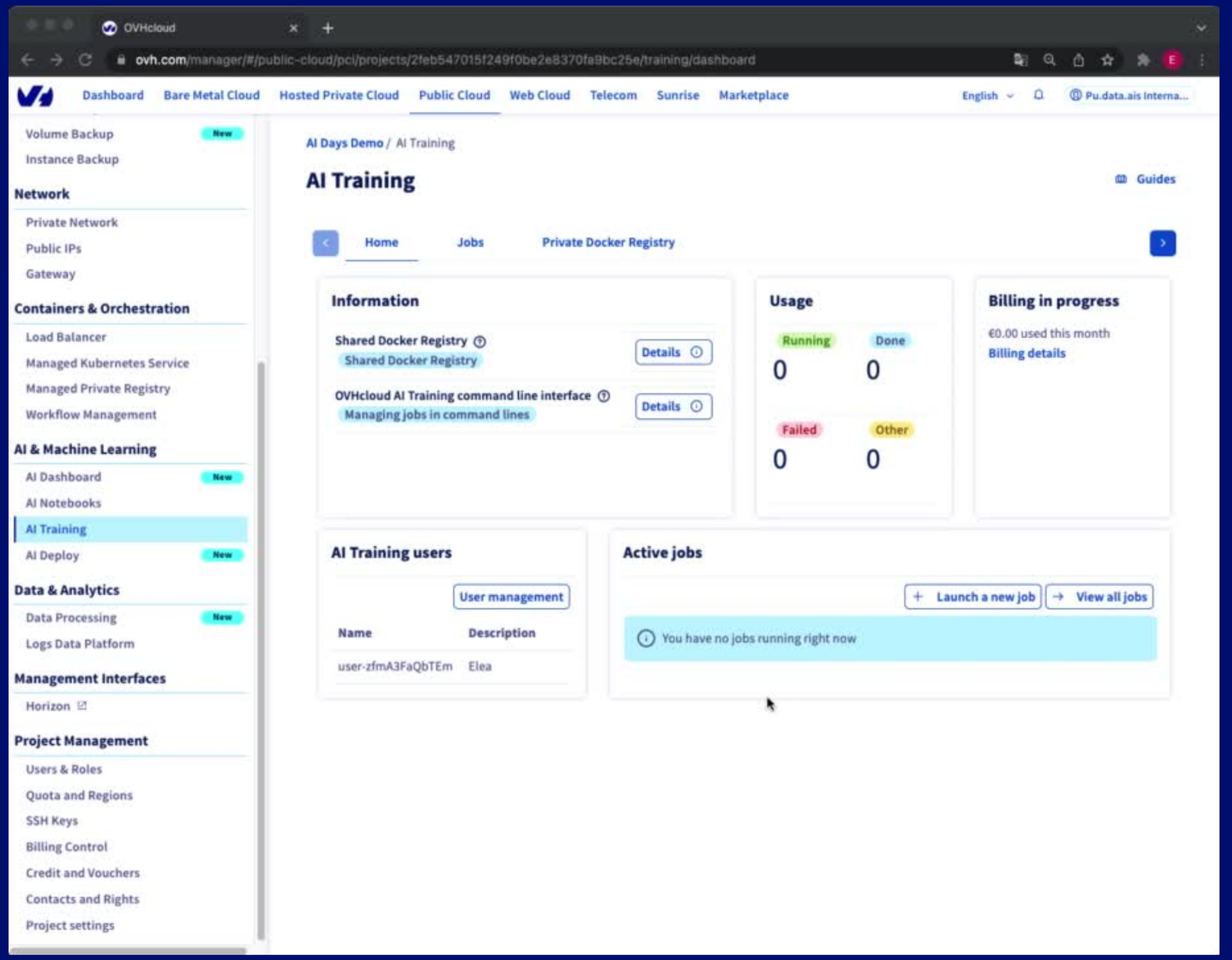




AI Training

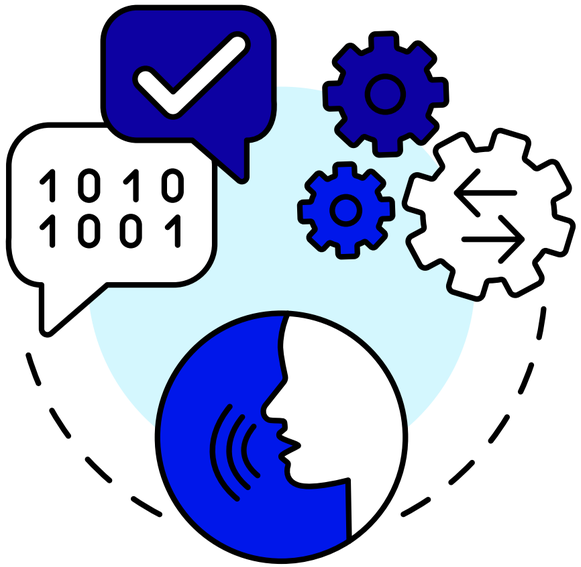
- train
- validate
- export

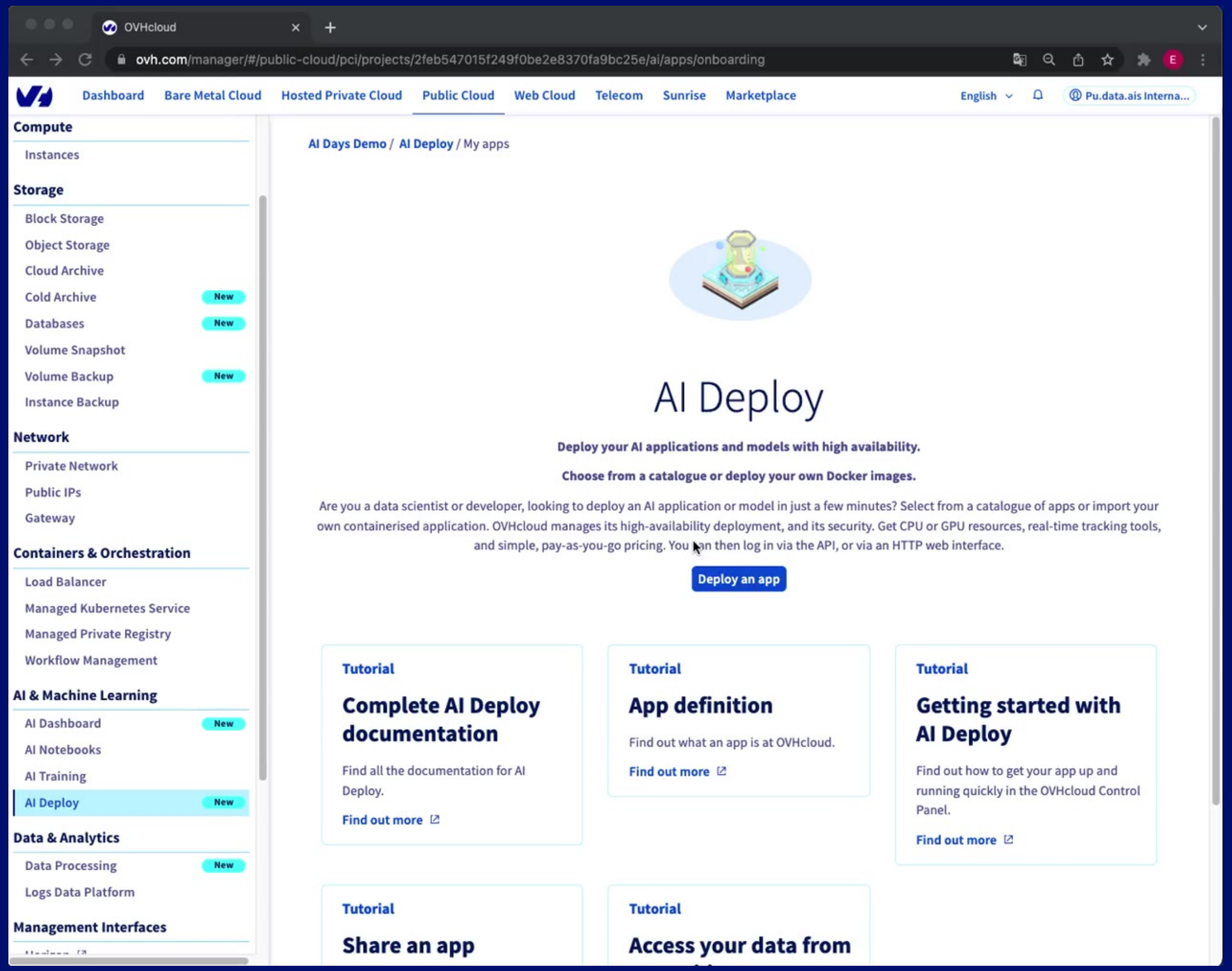




AI Deploy

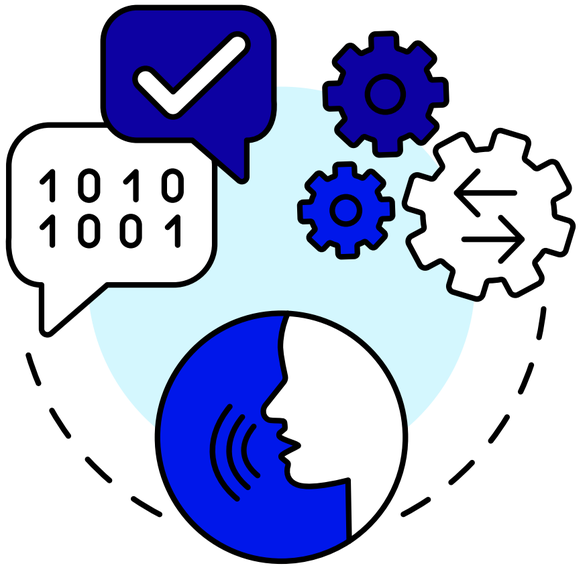
- size
- secure
- deploy
- infer

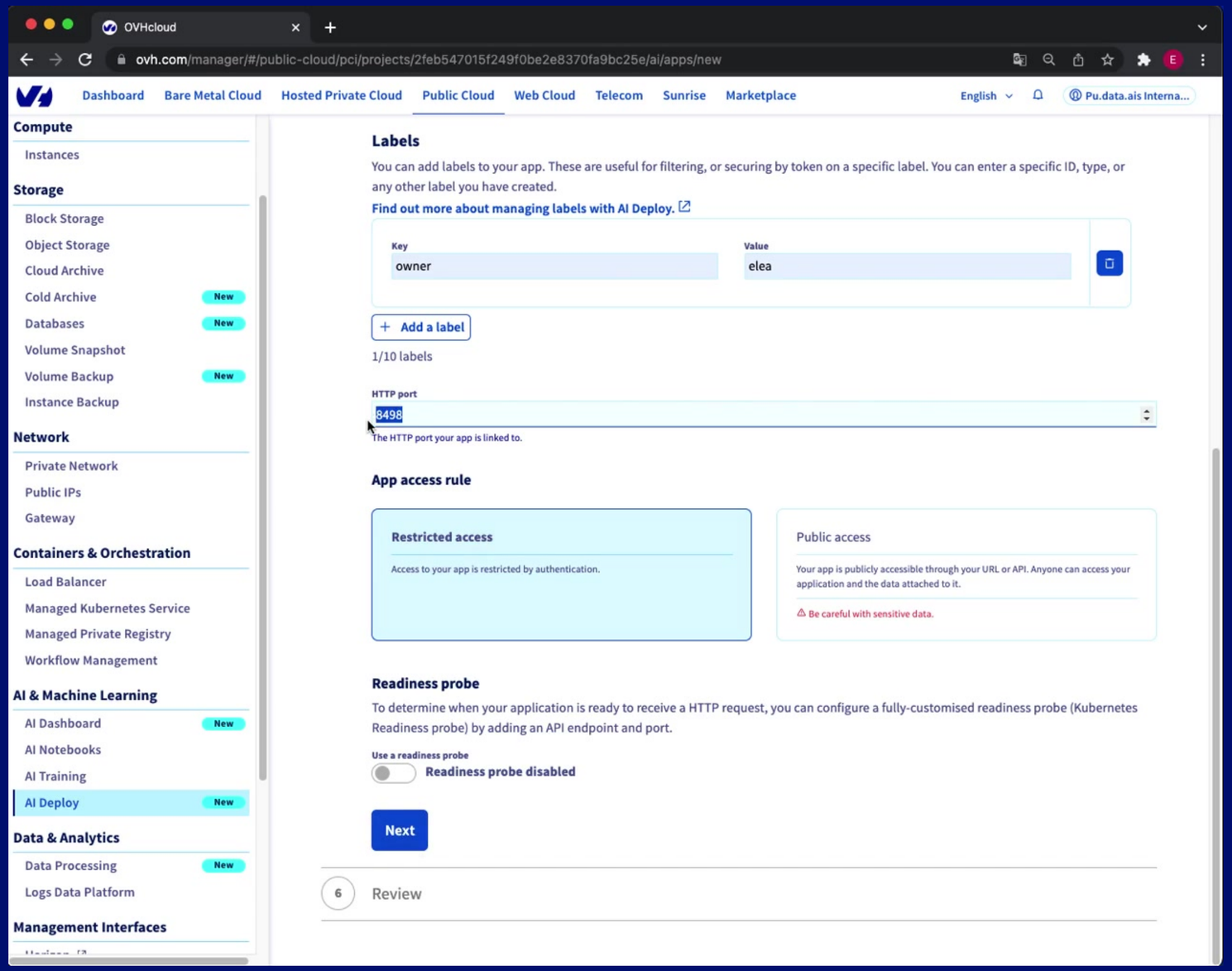




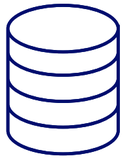
AI Deploy

- size
- secure
- deploy
- infer





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/