EVIDEN

AI Engineering

Courses

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an atos business

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Content overview

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00 Course overview

Contexte

AI Engineer

In the field of AI, many companies are experiencing **major difficulties in deploying and operating AI** models in production in an industrial manner. This is mainly due to a lack of **global maturity** on the subject and a still too **important siloing** of all the teams involved in building this new value centered on AI.

The objective of this course is therefore to reinforce the knowledge of tomorrow's engineers around the issues of **operationalization of AI** in production, with regard to the needs, constraints and demanding processes of today's industry.

The ambition of this course is to provide students with:

An awareness of MLOps and DataOps methodologies so that they can apply them on simple examples

A better knowledge of cloud native environments and technologies

A good visibility on the complete life cycle of a Machine Learning application, with CI/CD, technical monitoring and business monitoring

Some notions about sensitivity, security, encryption and data isolation

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Contexte

Content

This course will not be :

- **Scientific**
- **About ai algorithms**
- **About optimization**

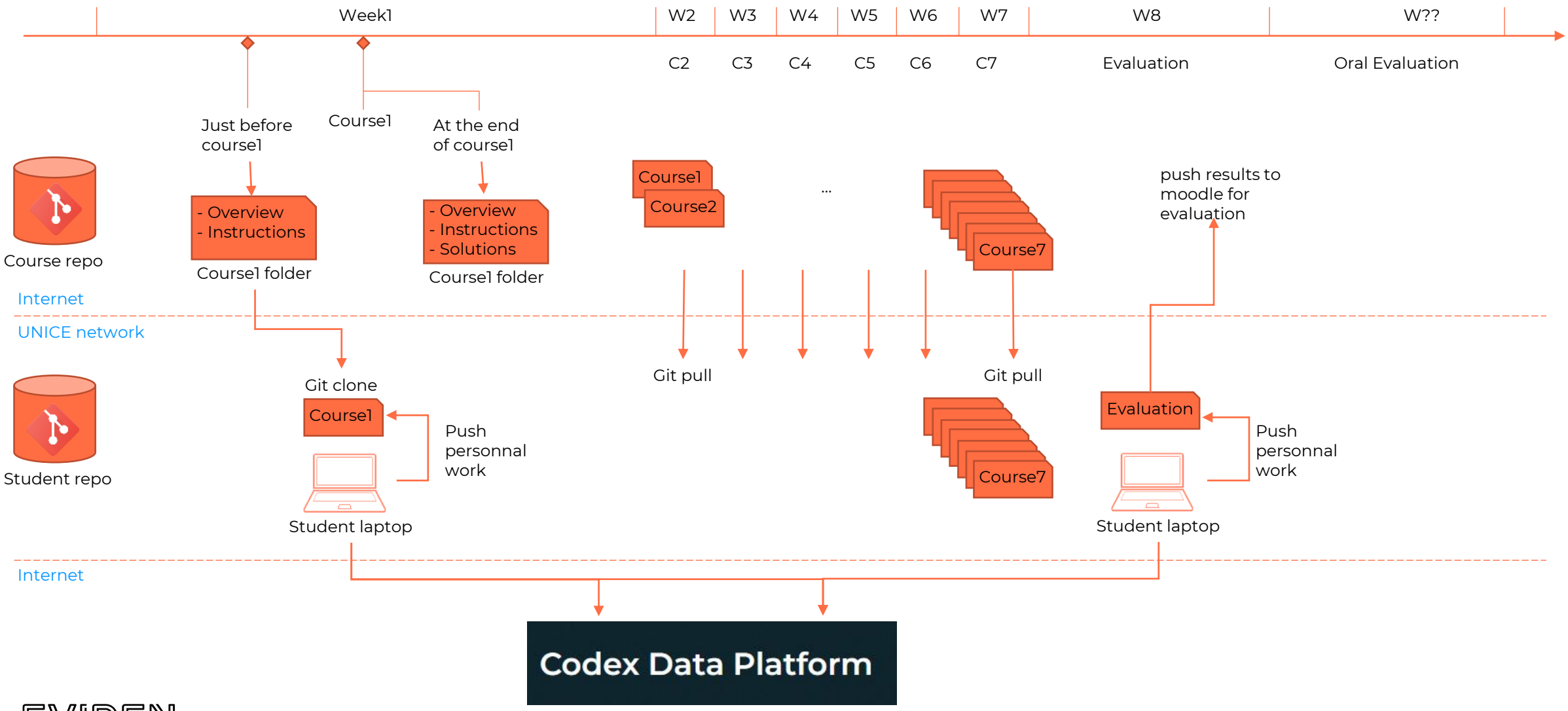
This course will be :

- **Awareness**
- **Architecture**
- **Good practices**
- **Industrialization**

Planning

weeks	date	Title	Theory	Practice
1	05/12	Intro + Data platform Foundation	Introduction MLOps DataOps Cloud, Dataplatform/lakehouse/mesh	Discover platform Interaction with object store Interaction with datawarehouse and viz
2	12/12	Data pipeline	Orchestration, trigger ETL, ELT, DAG Templating, heterogeneous processing, experiment tracking, AutoML	Kubeflow pipeline discovering Create first components and pipelines, analyse results
3	19/12	Data pipeline 2	Stream processing Serving graph & inference explainability	Upgrade your pipeline and put a model on service
4	09/01	Governance in data & ML	Data gov : Catalog, lineage ML gov : model registry, feature store	Interract with data catalog Use a feature store and register a model on mlflow
5	16/01	CICD	CICD and gitops mindset Standardization in ML (model formats)	build and deploy your components & pipelines using automated CICD pipelines with gitlab
6	23/01	ML Monitoring	ML monitoring: drifts, outliers Global moniroting: lineage tracing, infrastructure	See consumption and availability of your models after some stress tests
7	30/01	Wrap up & openings	Opening on api management Openings on fairness, biaises	Project enablement : Consultant pitch
8	06/02	Evaluation	Hands on test on platform	---

Training process



Scoring process

Continuous scoring + « coding exam » + video project exam