

Agile Data Science Project

Project goals

To build, following the Agile methodologies best practices and the MLOps recommendations, a ML-based recommendation system with the following components:

- Data dashboard / understanding
- Data Storage
- Data cleaning pipeline
- Model training pipeline
- Model evaluation pipeline
- Model registry and Monitoring mechanisms
- Model serving
- Model consumer app

Epics (for instance)

- US1- As an Analyst I want to be able to analyze the data to understand it and to monitor it, so that a Recommender can be done.
- US2- As a Recommender Developer, I want to obtain the recommendations in batch, so that a Recommender can be done.
- US3- As a Data Scientist, I want to be able to reproduce the experiments and results, so that a better version of a Recommender can be done
- US4- As a DevOps, I want to register and control the model versions, so that the Quality of the recommender can be tracked
- US5- As a Data Scientist, I want to monitor the model performance and retrain if needed easily, so the Quality of the recommender can be Improved
- US6- As a User, I want some movies recommendation for this evening Movie Session, so I can enjoy it
- US7- As a User, I want a Web Application where i can search for recommendations, and I can store my preferences and ratings

Rules

- You have 3 sprints to do it
- Every member of the team has to work on the project and do specific tasks
- You have to follow the Scrumban Agile Methodology (product backlog, sprint planning, daily meetings, demo, retrospective, kanban...)
- You can use (up to you) all the tools that we explain during the course

Calendar

10/11	Init Sprint 1: Backlog Product, Sprint Planning A and B	Agile	Project	2	Enrique
11/11	Init Sprint 1: Backlog Product, Sprint Planning B	Agile	Project	2	Eloi
17/11	Sprint 1: Working in	Agile	Project	2	Enrique
18/11	Sprint 1: Working in	Agile	Project	2	Eloi
24/11	Sprint 1: Demo Review + Retrospective, Sprint Planning A	Agile	Project	2	Enrique
25/11	Sprint 1: Demo Review + Retrospective, Sprint Planning B	Agile	Project	2	Eloi
01/12	Sprint 2: Working in	Agile	Project	2	Enrique
02/12	Sprint 2: Working in	Agile	Project	2	Eloi
08/12	HOLIDAYS	Agile	Project	2	Enrique
09/12	Sprint 2: Demo Review + Retrospective + Init Sprint 3 Planning A-B	Agile	Project	2	Eloi
15/12	Sprint 3: Working in	Agile	Project	2	Enrique
16/12	Sprint 3: Working in	Agile	Project	2	Eloi
22/12	Final Group Presentation	Agile	Project	2	Enrique/Eloi

Evaluation

- 2 demo days (partial product) + 1 final demo (24-25/11, 9/12, 22/12)
- It is important:
 - To provide evidences that you are following the Agile methodologies. Use of Github project, issues and pull requests are mandatory. The ScrumMaster is in charge of gathering the documentation
 - Methodology is MOST IMPORTANT than technical final solution
 - You are following the MLOps best practices (dockers, model registry, pipelines, model metrics ...)
 - Scrum Master upload Sprint template spreadsheet after the demo

Sprint Template Example

https://eloipuertas.github.io/ADS/ph_product_sprint_backlog_0.03.xls

Release plan (Sprints)

Product backlog, (Priorities)

Product backlog burndown chart, (Plan size, Velocity)

Sprint Backlog (Estimations and Remaining effort)

Daily Meeting report (Done since last meeting, to do for next, blockers)

Sprint Retrospective (What was good, What wasn't so good, Improve for next)

Team Self-Assessment:

Group A: Thursdays

SARA	BARDAJI SERRA	niub18017941	1	Thursday
SERGI	BECH SALA	niub18018011	1	Thursday
MARTA	BUETAS ARCAS	niub21231210	1	Thursday
SABINA	CARDELL	niub21323201	1	Thursday
GERARD	CASTRO CASTILLO	niub21231221	1	Thursday
JORDI	SEGURA PONS	niub21287490	1	Thursday
MARGARIDA	GONCALVES	niub21107192	2	Thursday
SERGIO	HERNÁNDEZ JIMÉNEZ	niub21231346	2	Thursday
CELINE	ODDING	niub21242045	2	Thursday
MARIA MAGDALENA	POL PUJADAS	niub21231486	2	Thursday
ZOLTAN	KUNOS	niub21231442	2	Thursday
Nikos	NIKOLAOS ATHANASOPOULOS	niub21251996	2	Thursday

Group B: Friday

PETER	BROSTEN	niub21287151	3 Friday
DARIO	GALLEGO RACERO	niub21243062	3 Friday
JUNJIE	JI	niub20108922	3 Friday
EYUEL MELESE	MUSE WOLDESEMBET	niub21231464	3 Friday
JD	O'HEA	niub21236736	3 Friday
HANNAH	GEORGE	niub21310531	4 Friday
SALIH BERK	GÖNENÇ	niub21341633	4 Friday
JULIA	LE	niub21334036	4 Friday
ALESSIA	SIMONE	niub21323886	4 Friday
THORSTEN	KALB	niub21286613	4 Friday