



01. Submission

EPFL

SCHOOL

<u>Content</u> <u>Questions</u> 1

Project submission

Your final project will be submitted as a Jupyter notebook that is well documented and clearly explains all of your analysis. The notebook(s) should be a stand alone unit that documents the workflow of your project from the idea and the data through the analysis to the implementation of your machine learning strategy and a final discussion. Remember the project should showcase all your skills as a data scientist and clearly communicate your observations, discussions and your decisions for your project.

You may re-use the discussions and preliminary results from your proposal, as long as the project remains self-contained.

Submission Checklist

As a reminder, the capstone project will assess whether you have successfully met the learning objectives of the course. For this reason, the final submission must showcase the following points:

DATA PREPARATION

- Collect and import the required data sets
- Demonstrate good understanding of the data and its structure (values, encoding, format, etc.)
- Prepare the data appropriately for the analysis and modeling (data cleaning, manipulation, feature engineering and encoding)

EXPLORATORY DATA ANALYSIS

- Demonstrate a deep understanding of the data specific to the project goals by performing detailed exploratory data analysis including all necessary descriptive statistics and visualization methods
- Discuss insights and potential difficulties to justify the proposed implementation
- Discuss data quality and completeness with respect to the intended project goals

MACHINE LEARNING MODELS

- Identify and discuss suitable machine learning models, baselines, metrics and evaluation strategies
- Tune the different models, analyze their performance
- Discuss the results and potential trade-offs (complexity, interpretability, computational resources) using the appropriate terminology

COMMUNICATION

- Use data to tell a story and discuss the value of the results. Highlight interesting insights through discussion and visualizations
- Document and discuss each step of the analysis to support the approach and implementation

Course ∨ 05. Capstone project	50%
Subject v 02. Submission	0%
Unit V	

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• Present and evaluate findings, discuss results in the context of the project goals

Reminder: Capstone Project process

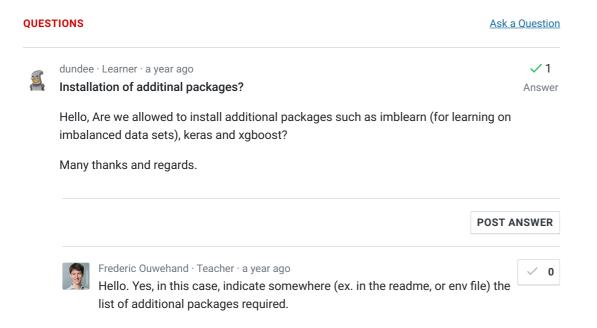
Here is a reminder of the capstone project process

- 1. Write and submit the proposal (done)
- 2. Once your proposal is reviewed and accepted by our team, work on the project itself. Don't hesitate to reach out to us to discuss your choices and intermediate results. However, note that we cannot provide direct help (code related, debugging) during the implementation as this is your final graded project
- 3. **Submit the project**. Note that you can only submit your project once, so make sure it's ready!
- 4. Once your project is reviewed by our team: **book a 1–1 video call for the defense** via the invitation link that we will send you by email
- 5. Finally, **present the project** during the 1 hour-long final defense 1-1

Project defense

The capstone defense will be done online via video conference. Once we have reviewed your capstone project we will send you a link to book the 1–1 with our team. During the project defense you have 30 minutes to present your project and tell its story. Thus it makes sense to structure your project in a way that makes it easy to communicate your main results, highlight interesting insights, discuss problems and your solutions to them and explain your choices and approaches.

After your presentation we will have more detailed discussions about your project. These may range from focusing on a particular approach you implemented to the wider context of your project.





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