Preparation for the summer internship and the "Preliminary project report"

Here are some tasks you might want to focus on during the first phase of your dissertation work (i.e., for the first three group meetings), to best prepare for your summer internships and submit a meaningful preliminary project report.

- Python programming language, numpy and pandas library
- Background reading on unsupervised and supervised machine learning (ML) algorithms
- Overview and hands-on experience of Scikit learn library
- Explore Simple Binary classification (supervised learning) on financial data with Scikit learn and PyTorc/Tensorflow for deep learning
- Explore the use of K-means/clustering (unsupervised learning) as a way to understand data
- Literature review on your project topic
- Review econometrics for time series
- Explore CSV and JSON data processing and handling
- Explore the use of ML techniques for time series (through, e.g., literature review)
- Study and experiment with restful APIs (flask)
- Handling missing data in time series
- Machine learning explainability/explainable machine learning (for time series problems)
- Trend and behaviour change detection (e.g., spot when correlation which was present is not there anymore)