# Week 1

Day 0 – 06/07/2023:

* Final university grades came out; Achieved remarkable results
* Got acquainted with the business logic of Reservation Management System (RMS)
* Brainstormed ways to enhance the RMS with A.I predictions

Day 1 – 09/07/2023:

* Learned basics of time series forecasting
  + Traditional vs machine learning forecasting models
  + The required data structures for these models

Day 2 – 10/07/2023:

* Learned basics of online (incremental) learning for time series models using ML-River
* Attended a meeting with the business owner of the RMS
  + Acknowledged his requirements and needs for the system
  + Proposed the initial A.I ideas from day zero’s meeting to the business owner
  + Combined both of our ideas to formulate and prioritize the problems that can be solved with A.I

Day 3 – 11/07/2023:

* Documented an in-depth proposal to the most prioritized tasks to be later approved by the managing director

Day 4 – 12/07/2023:

* Attended a meeting with the managing director to discuss the proposed tasks, in which the following happened:
  + Discovered Inapplicability of time-series forecasting models in one of the previously documented tasks
  + Reformulated that task to use non-time series models

Day 5 – 13/07/2023:

* Compared different data analysis tools to choose for the upcoming projects
* Chose Power BI as the data analysis tool, where its data source will be python scripts.
* Attended a meeting with the business owner of the RMS (Reservation Management System) to request the data to come in specific formats from legacy databases.

# Week 2

Day 6 – 16/07/2023:

* Setup project environment
* Learned how to use python as data source for Power BI

Day 7 – 17/07/2023:

* Formulated logical programming steps for the chosen tasks
* Started implementation of both tasks parallelly

Day 8 – 18/07/2023:

* Continued implementation on the dummy data, where we encountered and solved lots of Hijri/Gregorian time-series compatibility issues

Day 9 – 19/07/2023:

* Solved rest of previous time-series issues
* Finished implementation of the dummy data’s final clean representation
* Received real data and encountered new issues related to data cleaning (e.g., false dates in excel files, etc)
* Re-formulated the logical steps of data preparation due to difference between dummy data and real-data

Day 10 – 24/07/2023:

* …