

# Object Oriented Design 2023L

## Stage 1 - Data Loading and Serialization

### Introduction

During the semester you will be developing an application that operates on flight data. Each stage will build on the previously implemented functionalities. When implementing your solutions, keep in mind that the code should be written in a way that allows for easy expansion of the application. This will not only make your work easier, but it is also one of the evaluation criteria.

### Loading data from an FTR file

An FTR file is a text file with the following format:

- Each line of text describes a single object and its associated values.
- All values in a line of text are separated by commas.
- The first value of each object in the file is a string describing the class to which the object belongs.
- Some values are of array type. In this case, the values belonging to the array are enclosed in square brackets and separated by semicolons.

The application should read data from the FTR file (a sample file is provided) and store it in memory in the form of objects of the appropriate classes.

The values of each object class are described in the FTRFormat.pdf file.

The code should be easily modifiable in case, for example, a new class or a completely new data source appears.

### Serialization to a JSON file

After loading the data, the application should save the data to a JSON file in a format corresponding to the classes defined in the program.

The code should be easily modifiable in case, for example, a new data format appears.

### Deadline

All source files must be uploaded to the git repository by 28.02.2024 23:59.

The project should be presented to the instructor during the classes on 29.02.2024.