

Fleet Management System Project – PTM 2 Course

Group Members:

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Agent – Shir & Ido

The agent is installed on each plane in the FlightGear Simulator.

The main goal of the agent is to communicate with the client and the server.

Agent <-> Client – The agent connects to the plane and sends flight commands.

Agent <-> Server – The agent connects to the plane and gets flight information.

Works on MVC architecture.

Front-End – Omer & Talia

The front-end team will build a desktop application that is responsible for the visual part.

The main goal of the front-end is to create a GUI that contains four main features: Fleet-Overview, Monitoring, Teleoperation, and Time-Capsule.

The Communication protocol – TCP/IP.

Works on MVVM architecture and communicates with the agent and the server.

Back-End – Oriya & Neta & Shahar

The back-end team will build the server-side for the application.

The main goal of the back-end team is to ensure data integrity and consistency.

The data will be transmitted from the agent and the application to tables and algorithms that are appropriate for the requests that will be required.

Works on MVC architecture and communicates with the agent and the application.

Agent Features:

1. Real-time data transfer – this feature transfers real-time data on the relevant flights.
2. Communication with the simulator –
 - a. As a client – sends flight commands to the plane.
 - b. As a server – gets flight information from the plane.
3. Debugger – works with CLI pattern and can debug using SSH.

Front-End Features:

1. GUI – there are four main features in the GUI: Fleet-Overview, Monitoring, Teleoperation, and Time-Capsule.
2. From data to visual – transforms the information received from the server into a visual display.
3. Joystick - the joystick is available with 2 main features: Monitoring (without control option) and Teleoperation (with control option).

Back-End Features:

1. System logic – responsible for all the algorithms, calculations, and formulas to extract the data that's required in the application.
2. Data organization – plan, create and extract tables for the flight's data, using ORM.

Action Items:

1. JIRA – **done**.
2. Github.
3. Server (AWS/google).
4. MYSQL.