## Sprint Week 1 – Summer 2025

Project Kick Off: June 13th | Project Due Date: June 27th

Group Members: Laura Wiseman, Noah Devine, Christopher Meadus

**Objective:** To build two separate Java applications: a Spring Boot API connected to a MySQL database, and a CLI application that consumes the API through HTTP requests.

## What went well:

- Our group communicated effectively and delegated tasks clearly. Each team member contributed to specific components (e.g., API endpoints, domain classes, CLI logic, testing).
- We successfully implemented all API CRUD operations and established relationships between key entities like Airport, City, Passenger, and Aircraft.
- The CLI application connected well with the API and returned data accurately using Java's HttpClient.
- We wrote meaningful unit tests using JUnit 5 and Mockito, which provided confidence in our application's stability.

## What was challenging:

- Setting up and managing the data relationships between entities (e.g., Airports and Cities, Passengers and Aircraft) was more complex than expected, especially ensuring they serialized correctly in JSON.
- There was a learning curve with structuring the CLI to consume multiple endpoints and display data in a user-friendly format.
- Interpreting Question 3 ("What airports do aircraft take off from and land at?") was unclear at first. This caused a slight delay in progress.

## **Areas for improvement:**

- Earlier planning of data models and relationships would have helped us avoid some late structural changes.
- Better error handling and user prompts in the CLI could make it more usable for someone not familiar with the project.

Overall, this sprint was a productive learning experience that improved our understanding of Java back-end development, HTTP communication, and project organization.