

## **Phase 2 Report**

Main approach to writing the project was viewing available information on implementing 2D games in Java and choosing appropriate methods.

Since no one had experience with Java game development before, the initial UML diagram went through significant revision.

1. Grid class was changed into GridManager, which deals appropriately with different types of grids, instead of dividing each type into a separate class.
2. Instead of the MapScreen class connecting everything together, like was initially planned, Game became an executable class.
3. Unexpected additions were KeyInput class, responsible for receiving key inputs, and GamePanel class, which was managing visual output.

The biggest challenge was figuring out the way of implementation that would work for this specific project. Since no one had experience with Java game development before, it was difficult to find the starting point. Available examples and tutorials online looked complicated at first as a whole, but became more understandable when divided into small feature sets. Step-by-step approach helped to deal with revising initial design and deeper understanding of individual libraries available for Java development.

Minor challenges like figuring out Maven and execution of code were encountered by some group members.

One of the measures we took to enhance the quality of the code was modularizing and giving descriptive names to methods and instances, which helped individual group members to navigate code already written by someone else.