**Phase I Source Project Report for Kingdomino: Team Domino Dynasty**

University of Maryland Global Campus

UMGC CMSC 495 6380 Capstone in Computer Science (2238)

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KINGDOMINO

WEEK 5

PROJECT REPORT

Table of Contents

[Summary 1](#_Toc145696223)

[Timeline & Schedule 1](#_Toc145696224)

[Problems Encountered 2](#_Toc145696225)

[Task List / Schedule 2](#_Toc145696226)

[Github Learning Curve 3](#_Toc145696227)

[Different Java Version / IDE / System Configurations 3](#_Toc145696228)

[Re-evaluation of Decisions 4](#_Toc145696229)

[Using Java 4](#_Toc145696230)

[Building a Text-Based Foundation First 4](#_Toc145696231)

[2D vs. 3D 4](#_Toc145696232)

# Summary

Our project team has currently completed phase 1 of our product and have an executable JAR file ready for review. Although we have encountered a few problems along the way, our members’ attention to detail and ability to be flexible have afforded us success at every milestone. This report contains an overview of our project timeline, problems faced, and re-evaluation of our decisions thus far.

# Timeline & Schedule

For Phase 1 of our project, we completed all 23 group and individual tasks. Below is a list of all tasks and assignees. Tasks designated “everyone” were done by everyone; tasks designated as “framework team” were done by Alan and William. Other individual tasks were completed by the assignee as shown.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **KINGDOMINO: PHASE 1 TASKS (COURSE START TO 29 AUG)** | | | | |
| **LAYING THE GROUNDWORK BY COMPLETING THE FRAMEWORK** | | | | |
| **#** | **Task** | | **Assignee** | **Deadline** |
| **1 -** | **Create and submit project plan** | | Alan | 29-Aug |
| **1.a** |  | Draft project plan | Alan | 25-Aug |
| **1.b** |  | **Gather team input and incorporate feedback** | **EVERYONE** | **26-Aug** |
| **1.c** |  | Submit final draft to message board | Alan | 27-Aug |
| **1.d** |  | Receive professor's feedback and resubmit | Alan | 28-Aug |
| **1.e** |  | **Submit project plan to assignment folder** | **EVERYONE** | **29-Aug** |
|  |  |  |  |  |
| **2 -** | **Create timeline** | | Alan | 26-Aug |
| **2.a** |  | Incorporate project milestones from project manager | Alan | 26-Aug |
|  |  |  |  |  |
| **3 -** | **Create task list** | | Alan | 26-Aug |
| **3.a.** |  | Capture milestones and assign to team members based on project manager guidance | Alan | 26-Aug |
|  |  |  |  |  |
| **4 -** | **Begin text-based game framework** | | Framework team | 22-Aug |
| **4.a** |  | Implement gameplay logic | Framework team | 22-Aug |
| **4.b** |  | Ability to 2-4 player selection | Framework team | 22-Aug |
| **4.c** |  | Ability to name players | Framework team | 22-Aug |
| **4.d** |  | Remove number of dominos based on number of players | Framework team | 22-Aug |
| **4.e** |  | Implement modified game play rules for 2 player game | Framework team | 22-Aug |
| **4.f** |  | Ensure game board captures domino placement, land types, and crown numbers | Framework team | 22-Aug |
| **4.e** |  | Implement domino placement rules | Framework team | 22-Aug |
| **4.f** |  | Properly calculate final scores | Framework team | 22-Aug |
|  |  |  |  |  |
| **5 -** | **Begin graphic asset creation** | | Michael | 22-Aug |
| **5.a** |  | Create domino graphics | Michael | 22-Aug |
| **5.b** |  | Create logo graphics | Michael | 22-Aug |
| **5.c** |  | Create fonts | Michael | 22-Aug |
| **5.d** |  | Create starter tiles for initial castle placement | Michael | 22-Aug |
|  |  |  |  |  |
| **6 -** | **Begin sound asset creation** | | Jenna | 22-Aug |
| **6.a** |  | Create title music sample | Jenna | 22-Aug |
| **6.b** |  | Create various sounds for gameplay | Jenna | 22-Aug |
|  |  |  |  |  |
| **7 -** | **Begin testing strategy and documentation creation** | | Alan Jenna | 29-Aug |
| **7.a** |  | Start working on draft test plan | Jenna | 29-Aug |
| **7.b** |  | Start working on draft project design | Alan | 29-Aug |

# Problems Encountered

Below is a list of the problems we encountered while developing our project.

## Task List / Schedule

We originally used a task list generator that was tied to our Discord chat group. However, we found that the task list was not very detailed and was not very user friendly. In order to ensure that everyone had a clear picture of the tasks and deadlines, we created an Excel-based task list which was shared through UMGC’s Office 365 application. This allowed us all better collaborative functionality.

## Github Learning Curve

Github has proved to be a powerful collaboration tool and has likely saved us a lot of time and wasted effort. However, in the beginning, most of us did not have experience with using Github. We had to quickly become knowledgeable on the website and figure out how we would utilize it for our group project. Some important features, like not being able to accidentally wipe out an entire folder of programming files with a single click of a button, is locked behind a paywall. We continue to remain vigilant to avoid any mistakes while we make updates to our project.

## Different Java Version / IDE / System Configurations

Our team struggled a bit in the beginning with how to share and collaborate since each of us had varying levels of experience with the various Java development applications available. However, we have since found a way to make it work such that each of us can continue using the integrated development environment (IDE) of our choice. Different versions of java and individual system configurations also posed a challenge in the beginning. We had trouble compiling a version of the JAR executable that would run on each of our systems. We identified the problem as incompatible versions of Java and settings in our IDEs; once fixed, this was no longer an issue.

# Re-evaluation of Decisions

The decisions we have made thus far have allowed us to stay on target. Thus far, we have reached all of our milestones for Phase 1. Below is a list of the decisions we have made thus far and a re-evaluation of each.

## Using Java

Our team felt that Java would be the best language to develop in since it was the language that we each had at least some familiarity with. While we understood that Java generally is not the programming language of choice for developing games, each of us were very interested in taking on the challenge.

## Building a Text-Based Foundation First

In the beginning, we made the decision to first build a text-based version of the game before building the GUI. Our thinking was that if we built the text-based game, it would contain all the logic and class structure needed to develop a GUI-based version of the game. We felt that the little time lost developing a text-based version first would be made up by the ease at which we would be able to overlay the GUI version of it. We are happy with the progress thus far and are on track to meet our goals for the later phases.

## 2D vs. 3D

We contemplated building a 3D version of the game in the beginning. However, after considering the amount of time it might take to model objects, deal with programming in 3D space, etc., we decided that we likely would not have the time to develop a 3D game in the time we have for this project. Thus, we set our sights on developing a 2D version instead.