# GAM400 Project Brief: *Fractium Framework*

## Team Name: Fractium

# Game/Project Summary

Fractium Framework is set to deliver a minimum viable product of a 2D sprite-based combat system that contains tools for random generation and asset integration. The framework is designed for an appointment-based gameplay experience commonly found in mobile games but on a PC platform. Core systems will include concepts such as stamina systems, time-gating, and a classic RPG-style progression.

# Target Demographic

The main audience of this game is RPG mobile gamers who are looking for a bit more complexity and RPG PC gamers who are looking for a bit more simplicity.

Fractium Framework is designed to appeal to mobile gamers by offering familiar systems with a faster-paced and more complex combat system that would be difficult to experience on a mobile platform.

Fractium Framework is designed to appeal to PC gamers by offering systems that limit prolonged gameplay, mitigating the pressure to play constantly, but keeping the same depth of RPG gameplay with optimal gear and build paths.

# Target Play Time

**Atom**: 2-5 minutes

Players will have completed an atom of gameplay each time they clear a dungeon, send their characters on quests, or log in to claim rewards from completed quests.

**Session**: 20-30 minutes (Expanded to a maximum of 2 hours)

Players will have completed a session of gameplay after having run dungeons until their characters have run out of stamina or health. As players gain more characters and reach the character cap, players will be able to play for a much longer time though they can elect to send characters on quests instead of actively clearing dungeons.

# Game/Project Description:

Fractium Framework is a 2 semester project created in Unity for PC. The first semester is intended to set the narrative foundation for the game and test the core systems that make the game.

**DESIGN**

The team will be focusing on getting the project to a point that can express the design pillars of the game, though it may not be detailed.

Gameplay [by priority]

* Stamina and Health-based “Stamina System” [An artificial system to limit playtime]
* Randomized Characters and Progression
* 3 Character Party System
* Characters have a passive attack chain and a number of active skills.
* Randomized Tiered Loot
* Equipment System with Equipment Progression and Modification

Narrative

* A detailed document containing information about the game’s world that can be used in future semesters to help create coherent content and characters
* A sample of the game’s story playable in the first dungeon

**TECHNOLOGY**

Getting the tools necessary to expand on content will be the main focus of this semester

Gameplay Tech Requirements

* Core Combat System
  + Combat Event System
* Barebones Enemy AI
* [Stretch] Character Autoplay AI

Content Pipeline Tools

* Narrative Dialogue Parsing using Excel
* Character Template System for Randomization
  + Ability to add new traits to a pool easily
  + Ability to add new attack chains and skills to a pool
* Enemy Template System for Randomization
  + Ability to add new enemy types to a pool
  + Ability to add new modifiers to a pool

**ART & AUDIO**

Because the aim of this semester is to create the necessary framework for the game, content-focused work like art and audio will be as minimal as possible.

Art

* Whitebox Linear Environments
* Placeholder Rectangles for Characters and Enemies
* Icons for Equipment and Resources

Audio

* Basic Feedback Sounds (Attack Impacts, Button Clicks, etc)
* Placeholder BGM

# Risks

Though we are prepared to cut down on as many aspects of the project as possible to achieve a minimum viable product, there are still a few major risks to consider.

**Risk Area**: Core Gameplay is flawed

**Description**: There is a possibility that what we envision as the core gameplay loop is underwhelming and unengaging. It may be due to factors such as how long progression takes, or not feeling like meaningful progression is made.

**Mitigation**: We will be pushing out playable builds as soon as possible in order to playtest the core of the game. This will be happening constantly throughout all stages of development in order to hammer out the kinks in the core of the game.

**Risk Area**: Progression

**Description**: Because the game is designed to follow a mobile game styled progression, progression is stretched over multiple days instead of a number of hours. This makes it difficult to show the games’ progression and test it.

**Mitigation**: In order to track progression in a tangible and clear way, keeping an excel sheet that notes resource gains & costs and numbers related to progression can be maintained. Using these numbers, it will be possible to show the state players should be at different points of time, clearly expressing progression. In addition to this for the submitted versions of the game, we will include cheats to progress time.

**Risk Area**: Scope

**Description**: Even though we have anticipated this and have cut down on as much as possible to deliver a game, it is still possible that there is simply too much work that hasn’t been considered, causing an inability to meet deadlines.

**Mitigation**: By maintaining a priority in what needs development first, it will be possible to cut down on aspects of the game as necessary to deliver a minimum viable product.

# Team Members:

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Primary Role | Secondary Role | Tertiary Role |
| Keonwoo Ryoo | Systems Designer | Gameplay Programmer | Tool Developer |
| Justice Mealer | Narrative Designer | UI/UX Designer |  |

## Research:

Keonwoo: Focused on system architecture, use of random generation, and content pipelines

Justice: Focused on Narrative World Building and leaving a solid foundation to be used by others in the future.

# System Survey / Project Plan:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| System | Owner | Duration | Start Date | Due Date |
| Template Objects for Actors | Keonwoo | 2d | Week 02 | Week 02 |
| Combat Event System Framework | Keonwoo | 7d | Week 03 | Week 03 |
| Action System [Characters & Enemies] | Keonwoo | 10d | Week 04 | Week 05 |
| Dungeon System [Progression & Rewards] | Keonwoo | 5d | Week 05 | Week 06 |
| Narrative & UI Tools (\*as necessary) | Keonwoo | 5d | Week 06 | Week 07 |
| Content Pipeline Tools | Keonwoo | 12d | Week 07 | Week 09 |
| Playtesting and Polish | Keonwoo | 7d | Week 09 | Week 10 |
| Demo Tutorial Creation | Keonwoo | 7d | Week 10 | Week 11 |
| [Stretch] Equipment & Inventory Systems | Keonwoo | 7d | Week 11 | Week 12 |

# Content Survey / Project Plan:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Content | Owner | Duration | Start Date | Due Date |
| World Building Document | Justice | 7d | Week 02 | Week 03 |
| Story Outline | Justice | 2d | Week 03 | Week 03 |
| Character Outline | Justice | 2d | Week 03 | Week 03 |
| Combat UI Design | Justice | 7d | Week 04 | Week 04 |
| Dungeon Menu UI Design | Justice | 3d | Week 05 | Week 05 |
| Menu UI Design | Justice | 3d | Week 05 | Week 06 |
| Main Story Dialogue | Justice | 12d | Week 06 | Week 08 |
| Tutorial Dialogue | Justice | 7d | Week 09 | Week 10 |
| UI Clean Up | Justice | 5d | Week 10 | Week 11 |
| Dialogue Clean Up | Justice | 5d | Week 11 | Week 12 |

# Milestone Deliverables

## Alpha Milestone – Pre-Production Exit [Week 5]

At this point, the game should have a basic working combat system where players can use their characters’ attack chains and skills. This includes the UI for the Combat System which may be basic but functional.

The Narrative for the game should have a finished document by this point that can be used to build out a main story + any side content in the future, providing guidelines for adding onto it.

Goals

* Basic attacks and skills
* Hit feedback [Health bars, Visual Effects, Audio Feedback]
* Basic Combat UI
* Narrative Document

Stretch Goals

* Able to change attack chains and skills
* Smart Enemy AI
* UI for Dungeons

## Beta Milestone – First Playable [Week 9]

The core loop of the game should be completed at this point. Players will be able to progress through a single dungeon and gain rewards at the end. The player will then be reset back to the start of the dungeon and be allowed to use these rewards to upgrade their characters. All the UI for menus should be in by this point so the game is completely navigable.

STRETCH GOALS

* Implemented Equipment System
* Rewards give randomized equipment

## Final Milestone – Production Exit

The final product of the game will be a short demo that puts together all the systems.

The game will start with a small exposition explaining the premise of the game followed by a tutorial battle through a short dungeon. The tutorial dungeon should have dialogue between a couple characters (in addition to the tutorial dialogue) that gives an idea on how those characters would interact and how the game’s story would function in a later release.

The player will then be placed in the main hub of the game where they can follow a simplified loop of the game.

* Able to enter a single dungeon that has scaling difficulty and obtain rewards.
* Use rewards to upgrade character stats
* Recruit new randomized characters for resources
* Send characters on quests to obtain resources

STRETCH GOALS

* Equipment Upgrades and Modification
* Skill Modification System