Bilkent University

Department of Computer Engineering

Object Oriented Software Engineering Project

CS 319 Project: Civilizational Wars

Analysis Report

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Contents

1. Introduction 1
2. Proposed System 1
3. Overview 1
4. Functional Requirements 2
5. Non-functional Requirements 2
6. Pseudo Requirements 2
7. System Models 2
8. Scenarios 2
9. Use-Case Model 2
10. Object and Class Model 3
11. Dynamic Models 3
12. User Interface 3
13. Glossary 3
14. References 3

Analysis Report

CS 319 Project: Civilizational Wars

# Introduction

This project will be a 2D platform game. There will be some main characters, with which the player should be able to pass different levels of the game by controlling them. Different levels will have distinctive maps, where the player will encounter with some different enemies.

By writing this report as a group we aimed to convey some general and detailed information about the analysis of this game, specifically, functional, non-functional requirements, and use-case model diagram.

# Proposed System

## Overview

The game will consist of 3 distinctive maps, each of which will represent different periods of timeline. The aim of playing this game is to finish all the levels, without losing all lives given at the beginning of the game. While playing the game according to his/her gameplay, in order to motivate the player there will be some surprise boxes that contain different functional equipments like shield, health, weapon and etc. However, it will not be easy to finish the level, even if the player have come to the end of the map, because there will be a boss enemy, which will have considerably much powerful techniques of fighting and more health level than the other normal enemies encountered during the level.

## Functional Requirements

* The player will be able to control the game character using some hotkeys from the keyboard.
* In the settings of the game:

- the control hotkeys can be modified for proving comfort for the player

- music of the game can be turned on or off

- difficulty of the level can be changed

* The game can be paused using the pause button on the game screen.
* The levels can be saved so that the player will be able to continue where he/she left the game by loading it from the game menu.
* By choosing the help section on the menu, the player can get information about how to play the game - default controls of the game.
* In the about part, there will be references and the names of the group members who participated in the project.

## Non-functional Requirements

* The gameplay will be easy to adapt
* The graphics will be smooth as possible
* The game itself will be sufficiently responsive with small delays.

## Pseudo Requirements

1. The game will be implemented using Java swing/FX libraries.
2. Some textures will be created by …

## System Models

### Scenarios

A hyperlink is here.

### Use-Case Model

A code segment is below:

for (i=1; i<=5; i++)

System.out.println(“report to write”);

If you need to inline code, use “this” style.

### Object and Class Model

[Table 1](#bookmark) is an example table.

Table 1 An example table

|  |  |
| --- | --- |
| Key | Value |
| key | Value |

### Dynamic Models

### User Interface

# Glossary

Glossary for any domain-specific terms you use in your report.

# References

1. Object-Oriented Software Engineering, Using UML, Patterns, and Java, 2nd Edition, by Bernd Bruegge and Allen H. Dutoit, Prentice-Hall, 2004, ISBN: 0-13-047110-0.