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Technical Document Evaluation
Course: CMPS 4113: Software Engineering

Rea. Document

Draft

Format: Scale 1-10 4

Title page Had logo!

Revision History

Table of Contents

Font/ Spacing/ Margins consistent

Use of Headers

Section names and numbers proper

Every section has text

Captions and descriptions for figures and tables X now

Necessary citations/references more

Page numbering fix

Content Scale 1-10 5

Introduction
o Motivation/purpose/Scope
 Overview of document

All relevant material/complete

Organization Not much. here to go!
Risks go in plan.

Creative

Correct spelling/grammar

Lots of work this weekend!

Name/Group Spray Works

Semester: Spring 2024

Final Grade: 15/20

Format Scale 1-10

Title page missing logo now?!

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Organization Better... But still could be improved.

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Correct spelling/grammar

GOOD! Like added content!

Turn this in with ORIG DOC +
THIS RUBRIC.

~~Requirements Specification Document for Ethics Game~~

not on page 187



Requirements Specification Document

vers 1.0

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February 28, 2024

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1 Introduction

1.1 Purpose

The purpose of this document is to detail specifics regarding an ethics game, called Ethics Game, developed for Dr. Stringfellow for submission on Week 15 of the Spring Semester in 2024. This document is intended for all future users of the Ethics Game. The document will conceptualize the game by highlighting high-level technical and functional requirements. This document will not provide a detailed overview of implementation details such as level modification since these are currently unimagined.

1.2 Scope

This Requirements Specification Document compiles the known requirements for the Ethics Game. The Ethics Game will

- Contain 10 base levels.
- Feature the ACM Code of Ethics and Professional Conduct as randomized, in-game questions.
- Feature ethics jargon and computer ethics history to demonstrate relevance to the topic.
- Include modifiable game levels allowing different questions.
- Gamify content to prevent boredom during mastery of ACM Code of Ethics and Professional Conduct.
- Allow customizable in-game difficulty.
- Encourage player interactivity through 2D movement and sporadic questions.

The Ethics Game will not

- Feature advertisements
- Send user data to remote servers.
- Collect and store unnecessary data about host machine.

1.3 Revision History

- Mon Feb 19, 2024 - Version 1
- Wed Feb 28, 2024 - Version 2

not help
or title
just

1.3 Overview of document
Action 2 will describe.

1.4 Users

The audience for this game will be Midwestern State University Computer Science students and faculty, however it can still be enjoyed by ~~any~~ ^{any} ~~player~~ ^{player}. The use cases for the Computer Ethics Game follow:

- Display questions regarding computer ethics (Actor: Player) System: Ethics Game
- Modify game level attributes (Actor: Player) System: Ethics Game ?
- Load game (Actor: Player) System: Ethics Game
• Edit Questions (Professor)

1.5 Real World Scenarios

Below are examples of user interaction with the Ethics Game.

- Avoiding fraud: Player John is posed a multiple-choice question and must select correctly to proceed with the game.
- Adjusting questions: Dr. Stringfellow wishes to personalize the questions for her students and modifies the question set using the in-game editor.
- Gauging mastery: A student screenshots the statistics screen with a percentage of 80.

1.6 Overview

This document will continue by enumerating the contextual information about the Ethics Game and requirements.

2 Overall Description

This section will enumerate the contextual information regarding the Ethics Game.

2.1 Environment

2.1.1 Development

The developers will be using Godot 4.2 whose source code is hosted on GitHub, a public Git forge. It is licensed under permissive license MIT. Godot is cross-platform compatible~~✓~~ Linux and Windows. Games in Godot are capable of operating on Android, iOS, Linux, macOS, and Windows. The developer environment must consist of a 64-bit CPU, a graphics card supporting Vulkan 1.0 or OpenGL 3.3, 2 GB of DDR4 RAM, 150 MB of storage, and Linux kernel at least 4.5 or at least Windows 7.

2.1.2 Degree *+ Target*

The target device must contain at least 100 MB of RAM as specified by Godot's documentation and must be one of the following operating systems: *Android, iOS, Linux, macOS, and Windows*.

2.2 Product Perspective

The context of the Ethics Game is as follows.

2.2.1 User Interfaces

UI
The displays will consist of:

- Game levels
- Level Editor
- Settings: key bindings and volume modification.
- Statistics Screen
- Tutorial

Section 3!

2.2.2 Software Interfaces

External software operating in tandem:

- Libcurl integration to fetch images from remote server.
- MySQL database housing question bank: SQL Server Management Studio as RDBMS

2.3 User Characteristics

The expected background of the intended user is:

- Any entity unfamiliar with ACM Code of Ethics and Professional Conduct OR
- Any instructor searching for a method to teach morality regarding code.

2.4 Assumptions and Dependencies

2.4.1 Assumptions

- no leading sentence.*
- Program game within 9 weeks.
 - All development software will have no runtime issues.
 - Scope of Ethics Game will not change.
 - Team members will not face issues with time.

2.4.2 Dependencies

- Each team member must become familiar with Godot prior to game development.
- Primary user, Dr. Stringfellow, cannot test the Ethics Game until a prototype is finished.
- Question database must be designed prior to allowing adding custom questions.

3 Specific Requirements

The details of the requirements follows *interface, functional and nonfunctional* are described in the following sections.

3.1 External Interface Requirements

3.1.1 Game Level

The player will be shown a 2D top-down game level and must navigate through the level while occasionally being prompted a question in a text box with multiple formats: true or false, matching, multiple choice, or fill in the blank.

3.1.2 Level Editor

The player will navigate to the level editor from the welcome screen. The player will then select the level to modify the questions and be prompted to input his questions into a text box.

3.1.3 Settings: key bindings and volume modification

The player will navigate to this screen by first pressing “ESC” then the “Settings” button. The player will be able to remap keys by first selecting the appropriate action then hitting a key on the keyboard. The volume will allow drag and number input.

3.1.4 Statistics Screen

The player will navigate to the Statistics Screen from the welcome screen. Aggregate statistics such as accuracy represented as percent and absolute will be shown here.

3.1.5 Tutorial

This screen is unconditional given the player has never loaded the game. The screen will disappear when the respective close window box is clicked.

3.2 Functional Requirements

The four categories follow.

3.2.1 Interaction

The game shall be interactive. The player will move with the QWERTY keyboard WASD and answer prompted computer ethics questions.

3.2.2 Educational Content and Difficulty

- Game Difficulty - The game shall include three difficulties to allow different grade levels to effectively test their computer ethics knowledge.
 - References - The game shall include an introductory screen that provides references to different websites for players to freshen their knowledge of computer ethics.
 - Variety - The game shall question randomly for each run to keep the gameplay refreshing and engaging for the player.
- Non functional*
- The game shall allow the user to select a different grade level. would be functional.*
- allow user to answer a generated*

3.2.3 User Experience

- Feedback - The game shall provide accurate feedback to the player's responses.
- Score - The game shall score the player's performance to encourage learning, *compute and display*.
- Save System - The game shall include an automated save system to prevent loss of progress.
- Settings - The game shall provide a setting menu to allow players to view and change the control scheme along with the volume level.

3.2.4 Level Editor

The game shall include the ability to modify existing levels by modifying existing levels by moving objects, NPCs, *player spawn, and the environment.*

3.2.5 Sprite Work/Graphics

The game shall display graphics for the little figure representing the player, NPCs, and environment.

3.3 Audio

The game shall depict sounds such as flipping a switch, pressing a button, or sound effects for walking and the environment. The game shall have a soundtrack to prevent frustration from complete silence.

3.4 Non-Functional Requirements

Four categories for nonfunctional requirements follow:

3.4.1 Fault Tolerance

Robustness

The game will continue to run even during error preventing unneeded disruptions to the user experience.

3.4.2 Reliability

The game shall have no downtime since it is not dependent on a remote server.

3.4.3 Maintainability

The game should be easy to update and enhance without causing save corruption.

3.4.4 Usability

The game shell contains intuitive interfaces grandmothers could expertly use.

just make
these bullet
within 1 section
A section has to
be more than 1 sentence

4 References

- Logo Source - <https://looka.com>
- ACM Code of Ethics and Professional Conduct - <https://www.acm.org/code-of-ethics>
- Godot requirements - https://docs.godotengine.org/en/stable/about/system_requirements.html
- Figure 4.3 IEEE Std 930-1998 SRS standard - Software Engineering - David C. Kuhn's

5 UML Diagram

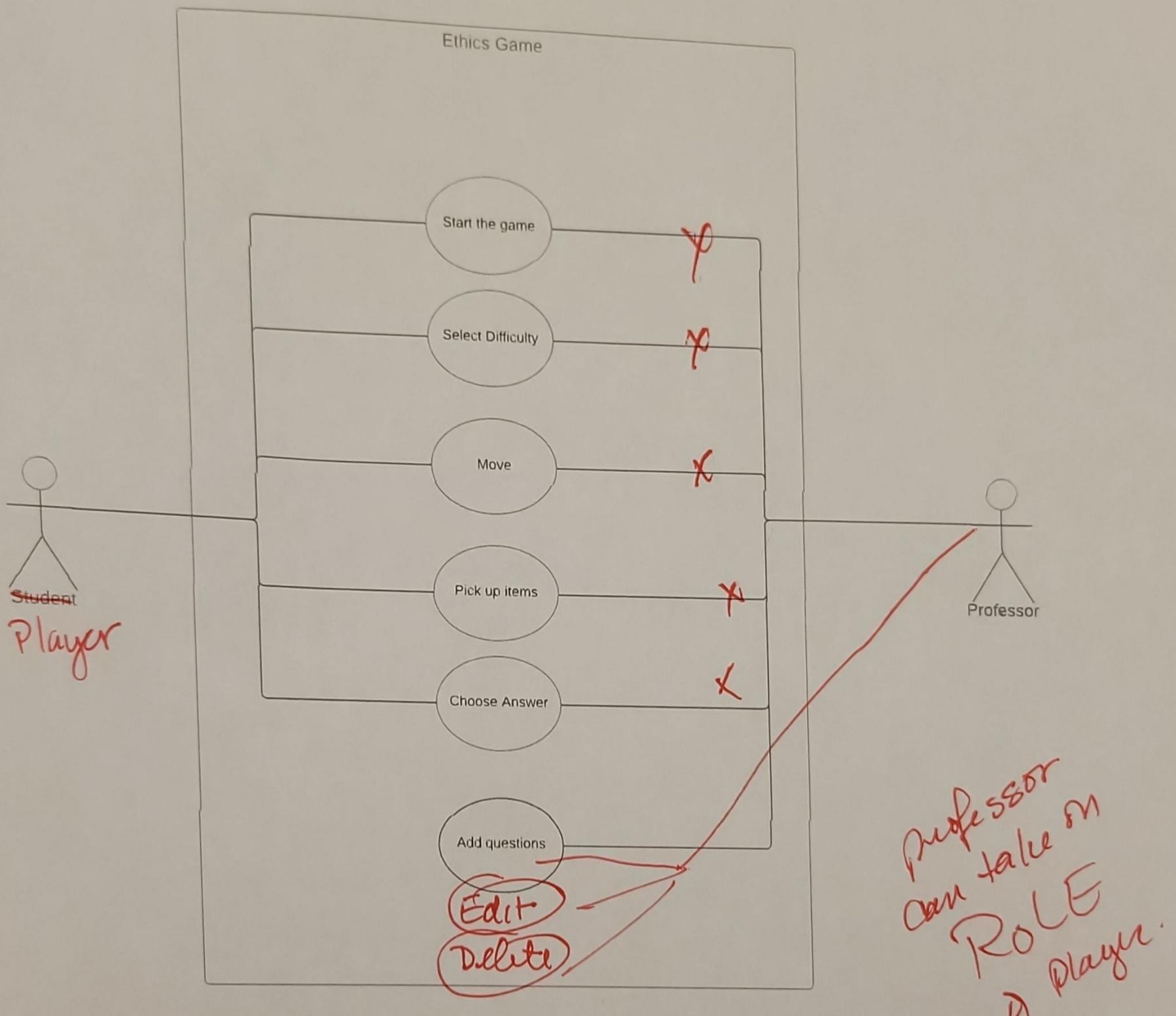


Fig.1. Use Case Diagram .

where is this described in text?