COMP 3700: Project 4-- Dragon Game Part 2

Points: (100 points) -- Deadline: 11:59pm March 29th, 2024

Goals:

- To design a use case diagram to capture the requirements of project 4.
- To use the argoUML tool to create a use case diagram and specify use cases.

1. Overview

Write a few important **use cases**. Remember, these use cases describe how the user interacts with the text-based game (what they do, what the system does in response, etc.). Your use cases should have enough basic details such that someone unfamiliar with the system can understand what is happening in the text-based game. They should not include internal technical details that users are not (and should not) aware of. Make sure that any special rules/features you plan to add are clearly described in your analysis section.

2.1. Create a Use Case Diagram using argoUML

In this project, you must use ArgoUML to draw a use case diagram. When you create a new project, it has a use case diagram created by default, named use case diagram 1.

2.2. Create Use Case Specification in argoUML

You must also use argoUML to document the behavior of each use case in your use case diagram. The specification of a use case should be described in ***the Documentation tab*** of the use case. The specification of each use case should contain the following items:

- **Name.** The name of the use case to which this relates.
- **Goal.** A one- or two-line summary of what this use case achieves for its actors.
- **Actors.** The actors involved in this use case, and any context regarding their involvement. Note: This should not be a description of the actor. That should be associated with the actor on the use case diagram.
- **Pre-condition.** These would be better named "pre-assumptions", but the term used everywhere is pre-conditions. This is a statement of any simplifying assumptions we can make at the start of the use case.
- **Basic Flow.** The linear sequence of steps that describe the behavior of the use case in the "normal" scenario. Where a use case has a number of scenarios that could be normal, one is arbitrarily selected.
- **Alternate Flows.** A series of linear sequences describing each of the alternative behaviors to the basic flow.
- **Post-conditions.** These would be better named "post-assumptions". This is a statement of any assumptions that we can make at the end of the use case.
- **Requirements.** In an ideal world, all of the vision document, use case diagrams, use case specifications and supplementary requirements

specification would form the requirements for a project.

2. Grading Criteria

2.1 (40 points) Use case diagram

1. (10 points) Actors
2. (10 points) Use cases in the diagram.
3. (10 points) Relations among actors and use cases.
4. (10 points) Relations among use cases.

2.2 (50 points) Use case specification

1. (10 points) Name, goal, actors in each use case
2. (20 points) Pre-condition/post-condition in each use case
3. (20 points) Basic Flows/Alternate Flows in each use case

2.3 (10 points) Submission

Please submit your project analysis through the Canvas system (e-mail submission will not be accepted). You just need to submit your analysis document as an ArgoUML compressed project file (*.zargo). The file name should be formatted as: Project4-firstName.zargo
Note: other format (e.g., pdf, doc, txt) will not be accepted.

3. No Late Submission

· Late submissions will not be accepted and will result in ZERO without valid excuses, in which case you should talk to Dr. Li to explain your situation.

· GTA/Instructor will NOT accept any late submission caused by Internet latency.

4. Rebuttal period

· You will be given a period of two business days to read and respond to the comments and grades of your homework or project assignment. The TA may use this opportunity to address any concern and question you have. The TA also may ask for additional information from you regarding your homework or project.

5. Sample Usage

```
        What's your name? Bob


        ============================================================
        |                    Welcome, Bob!                         |
        ============================================================

    1) Start a New Game of Dunstan and Dragons!
    2) View top 10 High Scores
    3) Quit

         Please choose an option: 2

The top 5 High Scores are:

    Win 1337
    CaseyZZZ 625
    JonnieKill 400
    Bob 75
    Daisy 33
    -no more scores to show-


    1) Start a New Game of Dunstan and Dragons!
    2) View top 10 High Scores
    3) Quit


         Please choose an option: 1

 Entering the Dungeon…

 You have:

 intelligence: 20
 time: 25
 money: $11.00

 You are 20 steps from the goal.  Time left: 25.

          1) Move forward(takes time, could be risky…)
          2) Read technical papers (boost intelligence, takes time)
          3) Search for loose change (boost money, takes time)
          4) View character
          5) Quit the game


       Please choose an action: 4
```

```
You have:

intelligence: 20
time: 25
money: $11.00

You are 20 steps from the goal.  Time left: 25.

         1) Move forward(takes time, could be risky…)
         2) Read technical papers (boost intelligence, takes time)
         3) Search for loose change (boost money, takes time)
         4) View character
         5) Quit the game



      Please choose an action: 2

You read through some technical papers.  You gain 3 intelligence, but
lose 2 units of time.

You are 20 steps from the goal.  Time left: 23.

         1) Move forward (takes time, could be risky…)
         2) Read technical papers (boost intelligence, takes time)
         3) Search for loose change (boost money, takes time)
         4) View character
         5) Quit the game


      Please choose an action: 1

You move forward one step, and…

NOTHING HAPPENS!

You spent one unit of time.

You are 19 steps from the goal.  Time left: 22.

         1) Move forward (takes time, could be risky…)
         2) Read technical papers (boost intelligence, takes time)
         3) Search for loose change (boost money, takes time)
         4) View character
         5) Quit the game


      Please choose an action: 1

You move forward one step, and…
```

YOU FIND SOME PAPERS TO GRADE.

You spent two units of time, but gained $3.00!

You are 18 steps from the goal. Time left: 20. You can move forward or backward.

1) Move forward(takes time, could be risky…)
2) Read technical papers (boost intelligence, takes time)
3) Search for loose change (boost money, takes time)
4) View character
5) Quit the game

Please choose an action: **1**

You move forward one step, and…

PUZZLE: It's a riddling imp. I hate riddling imps. But fine, he asks: "Find the product of 8 and 8!"

1) 16
2) 64
3) 256
4) Uh…uh… no?

Choose wisely: **4**

The imp cackles "Oh yes. Yes indeed. Now you die."

TIME HAS FALLEN TO ZERO. YOU DIE.

<Print Score, adjust high scores>