Assignment 4 Design Document

Design Document:

- A design document in which you fully describe your game’s design elements, concept, plan, play and goals. This document should also explain all the classes and text files used by the game. This document may be written in point form or full sentences, and it should be 1000–2000 words long.

Design Elements

□ Load Game Files: The items, characters, location descriptions and action words should be contained in separate text files, which are opened and loaded into the game at the start of the game.

□ Rooms: The game space is represented as a set of rooms, connections between rooms, characters you meet, and items.

□ Items: Items include things you will need to successfully complete the game, such as food, rope, flashlight, etc., as well as items you find that will increase your final score, such as treasure, rugs, coins, batteries, etc.

□ Inventory: Items found can be carried, dropped or used. Carried items are maintained in an inventory accessible with the “inventory,” “invent” or “i” command.

□ Semi Random Action based Events: Sometimes action event outcomes are random. For example, if you throw a rock at a goblin, the goblin might duck or it might get hit.

□ Semi Random Encounters: The player might encounter other characters, such as a thief, goblin, bird, snake, etc. Some are good characters, and many are evil.

Encounters are random and occur at any time or location. Encounters may be triggered by an item in the inventory (e.g., if you have a jewel, you are more likely to encounter the thief).

□ One-way-Out Rooms: The player begins the game at a common location, and proceeds to explore the game world using the input commands and responding to the displayed output. Some rooms have multiple entrances and exits, and some have many ways in, but only one way out (e.g., sliding down a tunnel).

□ Item Interactions with rooms: Sometimes you may encounter a maze, and dropping an inventory item will help you navigate out.

□ Room Descriptions, Long and short: The play proceeds with the player inputting a text command sequence. The game then responds by displaying the outcome. Sometimes the outcome will be a long, descriptive paragraph explaining what is happening. Other times, it will be a description of what the player can see at that location. Usually, the first time visiting a location will trigger a long descriptive output, and subsequent visits will display an abbreviated output (e.g., “You are at the chasm again”).

□ End Game design: The game proceeds until the player either perishes or wins. The player can perish in an interaction with a nasty character, by starvation or thirst, or by falling down a hole or off a cliff. A win is usually indicated by a return to a “safe area” with all the treasures.

Concept

You will need to establish a goal for the main character (e.g., Alice), and you must state this at the beginning of the game.

Your game is to be an adaptation of the book into the form of an adventure game in which your character sees various scenes and characters and can interact with them and with the items found in their vicinity. There is no requirement that your main character (i.e., you, the player) represents Alice, although this is probably the most common choice.

Plan

□ Create Control Class that provides the user with a list of controls from the action words text file

□ Create Actions Class that is called by Control when a valid input has been entered.

 □ Action will check if the Action is allowed, then calls the appropriate methods.

 □ Usr Input: Take flashlight. Action: “take” object involved: “flashlight”

 □ Usr Input: Go north. Action: “north’ object involved: none

Play and Goals

Classes

Game class - contains main and invokes all other classes

> Within Game, necessary classes must include Locations, Items, Characters, Actions, Inventory and Control. You may find more classes are necessary to complete the game.

Control: Control class is the class that reads user input and checks the input against valid Actions. If an Action is allowed, then the methods required to complete the action should be called on the objects involved (e.g., Action: “take”; object involved: “flashlight”). Certain actions will result in changes in the user’s inventory.

Actions: Checks if an action is allowed and returns the result of the check.

Inventory: Certain actions will result in changes in the user’s inventory.

Items: You must have a minimum of 12 items for the main character to interact

Locations:

Some Actions will change the user’s location.

with, which should be taken from the book.	Changes in location will trigger appropriate descriptive outputs based on the room entered and whether it is the first time entering. Reasonable number of locations (rooms), with a minimum of five (5). A common starting point is near the rabbit hole, and the ending point is somewhere in wonderland. Once you descend into the rabbit hole, you are unable to return. Otherwise, the locations (rooms) and how you connect them is your design choice, which MUST be completely documented as part of the design documents for the game. You should create a "safe room" to act as a gathering area for your treasures. Locations should have a minimum of one entrance and one exit (not the same), but at least one room must have more than three (3) exits.

Characters: You must portray a minimum of five (5) characters from the book.

Text Files Used

Locations.txt

```
Near the Rabbit Hole., The ground is soft and the air is thick 
Room 2, A long corridor stretches into the distance. The door b
Room 3, This room is filled with books stacked in towering pile
Room 4, The walls of this room are covered in rich red velvet. 
Room 5, A perfectly symmetrical room with walls painted like th
Room 6, The walls are covered in a patchwork of brightly colore
Room 7, This room is filled with over-sized furniture making you
Room 8, A dimly lit room filled with clocks of every shape and s
Room 9, A room filled with playing cards scattered all over the
Room 10, The walls of this room are made entirely of mirrors cre
Room 11, A dimly lit room with a single light shining down on a
Room 12, The floor is covered in a layer of fine yellow sand. In
Room 13, A room filled with hanging lanterns of every shape and
Room 14, The walls are a dull shade of gray with no discernible
Room 15, This room is filled with oversized mushrooms in various
Room 16, At the end of a long corridor lies a room bathed in a s
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Items.txt

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spoon,  A regular spoon., true
book, It has too many pages to read, true
flower, They smell fresh., true
goldenkey, This key is needed to escape the hall of doors., true
hat, A whimsical and iconic piece that represents the eccentric
catplush, A cuddly version of the mischievous cat that can disap
bottle, Bottle marked "DRINK ME": This bottle makes Alice shrink
cake, Cake marked "EAT ME": This cake makes Alice grow to a very
fan, White Rabbit's Fan: The fan that causes Alice to shrink whe
pocket-watch, Mad Hatter's Watch: A pocket-watch that tells the
card-soldier, The playing cards that serve the Queen of Hearts.,
playing-cards, This i just a stack of playing cards. There might
key, This key is needed to escape the hall of doors., true
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Character.txt

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boris, The slayer of all code, 3, true
cheshire-cat, Intelligent and mischievous inhabitant of the fore
thief, This guy looks shady, 2, false
door, Tiny Door maybe if you give it a golden key you will get o
white-rabbit, White Rabbit: A highly energetic and frequently ta
mad-hatter, Mad Hatter: The host of the Tea Party. An eccentric
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