Software Requirements Specification

for

Around the World

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The Adventure Game is an interactive computer game, in which the user explores interconnected rooms, collecting certain weapons and potions to be able to fight and defeat their corresponding monster, as well as puzzles that the user must solve to be able to move from room to room and all of this is possible through the user inputting the corresponding input into the system. The user can move rooms, solve puzzles, collect weapons and potions, save, and load current progress.

1.2 Document Conventions

When writing this document, we emphasized if there was important information by inputting exclamation mark (!). For the requirements, REQ was used to a abbreviate requirement which is followed by a dash, a number, Room name, and the room number, to show the room requirements. We also used <> specify that information goes there. Such as in requirement, <INSERT P1 PUZZLE> is below the description of a room to notify that the puzzle one is in that room. With the math problems, there are signs are the + sign is for addition, the − sign is for subtraction, the x sign is for multiplication, and the / sign is for division.

1.3 Intended Audience and Reading Suggestions

The document begins with the introduction, which includes the purpose, the document conventions, the project scope. This information is intended for the project manager, who will read the introduction to get a better understanding of what needs to be done with the project. The next section of this document is the overall description and system features which will be show to many, but it is really intended to the group in charge of coming up with models, diagrams and how the system will be built upon. The Documentation writers will be in charge of getting the defined rooms which include the room number, description, exits, as well as the weapons and puzzles for the system. The next section is the External interface requirement and other nonfunctional requirements, which is intended for the group in charge of the hardware and software.

1.4 Project Scope

The goal is to deliver a functional game which runs on the users input and has rooms with puzzles and monster as well as objects for the user to pick up or drop. There is also a score system, for each monster user defeats, they receive 10 points, for every puzzle, 10 points, and in the end that score is multiplied by the users remaining health which starts at 100 and goes down to 0. There will 30 rooms, which the user will go from room to room. The user is able to pick up and drop items which there will be a max of 5 items in the whole map, which has a max capacity of 3 being pick up by user, so if user tries to pick another item, they will have a choice to keep current items or switch one held item with the one the user wants to pick up. There will be 5 monsters in 5 rooms. One item corresponds to one monster to be able to defeat it. User can run to escape and find item or fight and will lose 10 points every time they use a wrong item. When user enter correct item for the corresponding monster the monster will be defeated, and user get points. The game should be able to run in both Windows and Mac operating systems. The deadline for this entire project is until May 5. There are smaller deadlines for each month until May. Any questions pertaining to the game

needs to be stated to the corresponding group and client immediately rather than waiting until its deadline. Any problems with the game that needs change, will have to be sent to the client be confirmed.

1.5 References

There are currently no references for this document.

2. Overall Description

2.1 Product Perspective

This Adventure Game is a completely new, self-contained program that is being created for gaming purposes.

2.2 Product Features

This Adventure Game allows users to play the game through the use of input text commands. Players will be able to move around the map and play the game by inputting different text commands that will determine their different actions. These different actions can include moving from room to room, picking up weapons and potions, dropping weapons and potions, completing puzzles, and fighting monsters.

2.3 User Classes and Characteristics

We anticipate this game will consists of 6 different classes:

- Player (!!! Important)
    The player will be able to move around from room to room with user input. The player will be able to pick up and remove items with a max capacity of 3 items. The player will be able to input answers to puzzles and items to be able to defeat monsters. User will have health that starts at 100 and will go down with each incorrect answer from the puzzle and monsters. When user has 0 health, game ends and displays "You have died, Do you wish to play again?" and allows to enter to play again or to quit completely.
- Room (!!! Important)
    A room will allow player to enter and to leave and will be connected with other rooms, so one room will connect with another room. In these rooms, there will be monsters or puzzles and on some there can be items to be picked up.
- Monster (!!! Important)
    Monster will be in rooms, and if the player decides to fight the monster, the player will input an item that will defeat the monster, if incorrect, them the monster will attack and remove health from the player. Player will be asked to input an item until monster is defeated or until player runs away. There is only one item that can defeat each corresponding monster.
- Puzzle (!!! Important)
    A puzzle will be in some rooms, and when a player enters the room, they will encounter the puzzle and the player objective is to compete the puzzle to be able to

advance to the next room. They can input TIP, to let the system display the TIP, and there is only one tip per puzzle. Each time player gets the puzzle wrong, they loose health.

- Inventory (!!! Important)

   The player has an inventory, in which it can hold on to only 3 items which can be found in some rooms. If they have 3 items, system will allow them to exchange for an item they have, so they get the new item and the old item is removed and dropped in that room.

- Score (!!! Important)

   Player has a score that increases through the rooms. For each puzzle and monster that is passed, player will increase their score by 10 points, so if one puzzle and one monster is passed score will be increase by 20. Since to finish the game all monsters and puzzles must be cleared, the health of the player also affects the score in the end. So, if the player has only 80 health remaining, then that 80 health is multiplied by the score that they got and that is the final score.

2.4 Operating Environment

This game will be available to play on any operating system or hardware platform that can handle the Java Runtime Environment and SQLlite.

2.5 Design and Implementation Constraints

This game will include the use of a database, so the developers must have access to the database in order to embed it into the program.

The program should also make good use of coding standards in order to assure that the team receiving this code can understand what each method and class does.

2.6 User Documentation

Help.txt and ReadMe.txt

2.7 Assumptions and Dependencies

There is currently no available assumptions or dependencies to list.

3. System Features

3.1 ROOMS

3.1.1 Description and Priority

There are 15 different cities that can be explored in this game; each city has 2 different rooms. This allows for 30 different Rooms that the player will be able to

visit throughout the game. 10 rooms will contain a puzzle for the player to solve, 5 rooms will contain a monster for the player to solve, and 5 rooms will contain a potion or weapon that will help the user in defeating the different monsters.

3.1.2   Stimulus/Response Sequences

SOUTH

EAST

NORTH

WEST

3.1.3   Functional Requirements

REQ-1: ATLANTA: ROOM 1

1

Atlanta: Room 1

Visited: true/false

"Woah— that portal is quick! You look around at your surroundings, but you do not know where you are. You start to notice a place called the "World of Coca-Cola". You then remember that your best friend visited this attraction when she went on vacation to: ATLANTA! You are in Atlanta. Huh, well that is not the first place I would have visited, but I guess it is a pretty normal start. You notice an open portal that will take you to the next location. Type SOUTH to go into the next room."

REQ-2: ATLANTA: ROOM 2

2

Atlanta: Room 2

Visited: true/false

"Alright, so you are at the second location, but it is still Atlanta. I guess it would not hurt to keep looking around the city. You continue walking around, and you notice a restaurant called "The Varsity". The smell of chili and onion rings entices you, but the place looks packed— and you do not have any time to waste. You then notice that there is a puzzle to complete:"

<INSERT P1 PUZZLE> <IF REQUESTED, INSERT P1 TIP>

"You now notice an open portal that will take you to the next location. Type EAST to go into the next room, or type NORTH to go back to the previous room."

REQ-3: ROME: ROOM 1

3

Rome: Room 1

Visited: true/false

"You get blasted into the next location, but you're definitely not in Atlanta anymore. The Leaning Tower of Pisa? You are in Rome! You then notice that there is an available potion to pick up:"

<INSERT PO1 POTION>

"You now notice an open portal that will take you to the next location. Type NORTH to go into the next room, or type WEST to go back to the previous room."

REQ-4: ROME: ROOM 2

4

Rome: Room 2

Visited: true/false

"You are teleported into the next room and immediately smell the aroma of pizza. Gosh! Why are there so many temptations for unhealthy food choices at these locations? Since you smell pizza, you assume that you're still in Rome. You notice the pattern that there are two rooms in each city. Anyways, you then notice that there is a puzzle to complete:"

<INSERT P3 PUZZLE> <IF REQUESTED, INSERT P3 TIP>

"You now notice an open portal that will take you to the next location. Type EAST to go into the next room, or type SOUTH to go back to the previous room."

REQ-5: PARIS: ROOM 1

5

Paris: Room 1

Visited: true/false

"You are brought into the next room and immediately notice that you are in the presence of The Eifel Tower! You have always wanted to come to Paris! You then notice that there is a monster to fight:"

<INSERT M3 MONSTER> <IF REQUESTED, INSERT M3 TIP>

"You now notice an open portal that will take you to the next location. Type SOUTH to go into the next room, or type WEST to go back to the previous room."

REQ-6: PARIS: ROOM 2

6

Paris: Room 2

Visited: true/false

"You get teleported into the next location and immediately notice that you are at the Le Louvre museum. You have always wanted to come to this museum. With paintings like the Mona Lisa and Liberty Leading the People, it is labeled as the most exquisite museum in the world! But, again, you do not have much time to waste. You then notice an open portal that will take you to the next location. Type EAST to go into the next room, or type NORTH to go back to the previous room."

REQ-7: ORLANDO: ROOM 1

7

Orlando: Room 1

Visited: true/false

"You are teleported into the next room. Why does it overwhelmingly smell like churros? Also, is that Mickey Mouse in front of the Cinderella castle? Oh my gosh, you are at Disney World in Orlando! You have always wanted to go to Disney World— I guess today really is your lucky day! You then notice that there is a puzzle to complete:"

<INSERT P7 PUZZLE> <IF REQUESTED, INSERT P7 TIP>

"You now notice an open portal that will take you to the next location. Type NORTH to go into the next room, or type WEST to go back to the previous room."

REQ-8: ORLANDO: ROOM 2

8

Orlando: Room 2

Visited: true/false

"You get brought into the next room and immediately smell the strong aroma of fish. You know that Orlando is close to the beach, but that is not any reason for it to smell so much like the ocean. You then notice a massive tank filled with two Orca whales. You are at Sea World? Personally, you do not agree with Sea World's treatment of their animals, so you decide that it is time to leave. You then notice an open portal that will take you to the next location. Type EAST to go into the next room, or type SOUTH to go back to the previous room."

REQ-9: MEXICO CITY: ROOM 1

9

Mexico City: Room 1

Visited: true/false

"You are blasted into the next room and immediately trip and fall onto the ground. While lying on the ground, some dogs come to lick and sniff you. You love dogs, so maybe the fall was worth it. However, why are there so many stray dogs? You get up and notice that you are smack dab in the middle of the Zocalo plaza in Mexico City. Well that definitely explains all of the stray dogs. You then notice that there is a puzzle to complete:"

<INSERT P4 PUZZLE> <IF REQUESTED, INSERT P4 TIP>

"You now notice an open portal that will take you to the next location. Type SOUTH to go into the next room, or type WEST to go back to the previous room."

REQ-10: MEXICO CITY: ROOM 2

10

Mexico City: Room 2

Visited: true/false

"You are teleported into the next location and know exactly where you are. All of the greenery and brightly colored buildings let you know that you are at the Frida Kahlo Museum. You have always wanted to come to this museum, so you are ecstatic! You then notice that there is an available weapon to pick up:"

<INSERT W3 WEAPON>

"You now notice an open portal that will take you to the next location. Type EAST to go into the next room, or type NORTH to go back to the previous room."

REQ-11: SYDNEY: ROOM 1

11

Sydney: Room 1

Visited: true/false

"You are teleported into the next location and are placed right in front of a massive building with beautiful architecture. You then hear the beautiful sound of live opera and notice the accents of those around you. That is when you realize that you are at the Sydney Opera House! You then notice an open portal that will take you to the next location. Type SOUTH to go into the next room, or type WEST to go back to the previous room."

REQ-12: SYDNEY: ROOM 2

12

Sydney: Room 2

Visited: true/false

"You are brought into the next room and are immediately aware that you are at the Sydney Zoo. You have heard that there are so many different kinds of animals there, so you begin to explore around the zoo. You then notice that there is a monster to fight:"

<INSERT M5 MONSTER> <IF REQUESTED, INSERT M5 TIP>

"You now notice an open portal that will take you to the next location. Type SOUTH to go into the next room, or type NORTH to go back to the previous room."

REQ-13: BERLIN: ROOM 1

13

Berlin: Room 1

Visited: true/false

"You are teleported into the next location and are shocked to find a massive wall standing right in front of you. You notice that the wall is covered in graffiti, and there are tons of tourists around you. Oh yeah, this is definitely the Berlin Wall Memorial. You then notice that there is a puzzle to complete:"

<INSERT P2 PUZZLE> <IF REQUESTED, INSERT P2 TIP>

"You now notice an open portal that will take you to the next location. Type SOUTH to go into the next room, or type NORTH to go back to the previous room."

REQ-14: BERLIN: ROOM 2

14

Berlin: Room 2

Visited: true/false

"You are teleported into the next location and are placed right in front of a huge nightclub. There are easily hundreds of people standing in line just to get into the club, but almost all of them get rejected and turned away. You know exactly where you are: Berghain. You remember hearing online that Berghain is the hardest club to get accepted into in the whole world. You are not even going to try to get into this club, so you start walking away. You then notice an open portal that will take you to the next location. Type WEST to go into the next room, or type NORTH to go back to the previous room."

REQ-15: CHICAGO: ROOM 1

15

Chicago: Room 1

Visited: true/false

"You get teleported into the next room and immediately notice a huge silver bean statue in front of you. Yeah, you are definitely at Millennium Park in Chicago. You have never really cared to visit this city, but it will not hurt to explore around. You then notice that there is an available potion to pick up:"

<INSERT PO2 POTION>

"You now notice an open portal that will take you to the next location. Type NORTH to go into the next room, or type EAST to go back to the previous room."

REQ-16: CHICAGO: ROOM 2

16

Chicago: Room 2

Visited: true/false

"You are blasted into the next room. You open your eyes and find yourself in the presence of bright lights, clubs, and the Chicago River. You ask a tourist where exactly you are, and they tell you that you are at the Chicago Riverwalk. You had never heard of this place before, but it certainly a beautiful sight to see. Maybe you misjudged this city too unfairly. You then notice that there is a puzzle to complete:"

<INSERT P8 PUZZLE> <IF REQUESTED, INSERT P8 TIP>

"You now notice an open portal that will take you to the next location. Type WEST to go into the next room, or type SOUTH to go back to the previous room."

REQ-17: NEW YORK: ROOM 1

17

New York: Room 1

Visited: true/false

"You were teleported into the next room and do you hear all that loud noise, are those horns? Yelp- you're in the streets of New York! You might want to go visit some places here, but wait… Is that steam coming from the sewer? It's moving!"

<INSERT M4 MONSTER> <IF REQUESTED, INSERT M4 TIP>

"You now notice an open portal that will take you to the next location. Type EAST to go into the next room, or type SOUTH to go back to the previous room."

REQ-18: NEW YORK: ROOM 2

18

New York: Room 2

Visited: true/false

"You are blasted into the next room. You open your eyes and find yourself in the presence of an empty home. It is tiny, but cozy. You don't know this place or who's home, so you must go. Here you are outside of the home on the streets of New York City. It is still loud and you then you notice that there is a door to the next open portal that will take you to the next location. Type EAST to go into the next room, or type SOUTH to go back to the previous room."

REQ-19: TOKYO: ROOM 1

19

Tokyo: Room 1

Visited: true/false

"You are blasted into the next room. You are on the highest mountain in Japan. Look at all the beautiful buildings. This place is amazing, but it is time to get down. How do you get down? Just complete the puzzle and you shall be set free."

<INSERT P6 PUZZLE 9 MONSTER> <IF REQUESTED, INSERT P6 9 TIP>

"You now notice an open portal that will take you to the next location. Type WEST to go into the next room, or type EAST to go back to the previous room."

REQ-20: TOKYO: ROOM 2

20

Tokyo: Room 2

Visited: true/false

"You are blasted into the next room. Now that we are off that high mountain, let's go for a walk. As you go for a walk you notice you are in a wood-like area. How did you get here? Is that a weapon that we can use to protect ourselves during this time? Let's pick it up to keep safe."

<INSERT W1 WEAPON> <IF REQUESTED, INSERT W1 TIP>

"You now notice an open portal that will take you to the next location. Type SOUTH to go into the next room, or type WEST to go back to the previous room."

REQ-21: RIO DE JANEIRO: ROOM 1

21

Rio de Janeiro: Room 1

Visited: true/false

"You are blasted into the next room. How beautiful is this room? Look at all the colors. It is so nice here. What a beautiful sight. It is warm outside. The water from the beach is so beautiful. Yes, you're in Rio de Janeiro. Even though we are in Rio de Janeiro, we are at the capital of Rio de Janeiro."

<INSERT P10 PUZZLE> <IF REQUESTED, INSERT P10 TIP>

"You now notice an open portal that will take you to the next location. Type SOUTH to go into the next room, or type WEST to go back to the previous room."

REQ-22: RIO DE JANEIRO: ROOM 2

    22

    Rio de Janeiro: Room 2

    Visited: true/false

    "You are blasted into the next room. You are on the beach walking around and enjoying the water. This is a great sight. There is a door on the beach? It is opening for your next portal. Type SOUTH to go into the next room, or type WEST to go back to the previous room."

REQ-23: MOSCOW: ROOM 1

    23

    Moscow: Room 1

    Visited: true/false

    "You are blasted into the next room. You are in the woods. This is creepy and scary. Why are the trees moving like that? Is something out there? It's nothing out there. That was close. Wait… There is something out there. It's coming straight too you."

    <INSERT M1 MONSTER> <IF REQUESTED, INSERT M1 TIP>

    "You now notice an open portal that will take you to the next location. Type EAST to go into the next room, or type WEST to go back to the previous room."

REQ-24: MOSCOW: ROOM 2

    24

    Moscow: Room 2

    Visited: true/false

    "You are blasted into the next room. There are no more trees. But it is colorful and bright at night. Am I in Moscow? How great is this! The buildings are beautiful at night. I love it here! Let's go into this room to see what it looks like. It's the next portal. Type WEST to go into the next room, or type EAST to go back to the previous room."

REQ-25: SAN FRANCISCO: ROOM 1

25

San Francisco: Room 1

Visited: true/false

"You are blasted into the next room. The air is clean here. You are in San Francisco. Let's go look at the Golden Gate Bridge. You are at the bridge and then you notice that there is a door to the next open portal that will take you to the next location. Type EAST to go into the next room, or type WEST to go back to the previous room."

REQ-26: SAN FRANCISCO: ROOM 2

26

San Francisco: Room 2

Visited: true/false

"You have been blasted into the next room. The atmosphere here is so great. Let's go eat. There is a restaurant with the famous Dungeness Crab. Let's go there. That was good and now it's time to get ready to transport to another room, but first, how do you look?"

<INSERT P5 PUZZLE> <IF REQUESTED, INSERT P5 TIP>

"You now notice an open portal that will take you to the next location. Type SOUTH to go into the next room, or type EAST to go back to the previous room."

REQ-27: HONG KONG: ROOM 1

27

Hong Kong: Room 1

Visited: true/false

"You are blasted into the next room. You open your eyes and find yourself in the presence of a river. You are in Hong Kong and you are at the Pearl River. This place has history. The buildings are very historic. There is a door to the next open portal that will take you to the next location. Type WEST to go into the next room, or type SOUTH to go back to the previous room."

REQ-28: HONG KONG: ROOM 2

28

Hong Kong: Room 2

Visited: true/false

"You are blasted into the next room. This place is nice, but you might not come here again. Maybe we should leave. It's not that much here, but historical buildings and impressive skylines. There is a portal that is opening to take you to your next location. Type SOUTH to go into the next room, or type WEST to go back to the previous room."

REQ-29: CAIRO: ROOM 1

29
Cairo: Room 1
Visited: true/false
"You have been teleported into another room. This room is for the historic and scientific people. This is a museum. How neat? This room will teach you a lot. There is something coming from around the corner. It is coming at us, with a distinct walk."

<INSERT M2~~1~~ MONSTER> <IF REQUESTED, INSERT M2~~1~~ TIP>

"You now notice an open portal that will take you to the next location. Type EAST to go into the next room, or type WEST to go back to the previous room."6

REQ-30: CAIRO: ROOM 2

30
Cairo: Room 2
Visited: true/false
"You are blasted into the next room. It is dry here. It is a lot of dirt. There are museum's everywhere. We are in Cairo. This place has a lot of pyramids. Did you know that it is the capital of the Pyramids? Do you want to go back to the previous room? If so, type EAST to go back to the previous room."

Add puzzle 9 here

3.2 PUZZLES

3.2.1 Description and Priority

There are 10 different puzzles scattered around the map that the player can complete. There are Multiplication Problems, Word Scrambles, Riddles, Spelling, and True/False Questions.

3.2.2 Stimulus/Response Sequences

The user can input the different answers to their specified questions.

They can also say TIP to receive a tip on how to solve their puzzle.

If User enters an incorrect answer to the puzzle, the following text is displayed "The answer to the question was incorrect, all of a sudden you feel your life drain a bit. You lost 5 health point." User will keep losing 5 health points every time the user enters an incorrect answer. When the user solves the puzzle, the following text will show "Congratulations, you solved the puzzle, you may go to the next room." The user will move into the next room.

When the user inputs the correct answer, they will receive 10 points that will go into their game score.

3.2.3 Functional Requirements

REQ-31: PUZZLE 1

        <P1>

        Problem: "What is 6 / (2 x (1 + 2))?"

        Answer: "1"

        Tip: "PEMDAS -Parentheses, Exponents, Multiplication and Division (from left to right), Addition and Subtraction (from left to right)."

REQ-32: PUZZLE 2

        <P2>

        Problem: "What is (7 + 24) / (8 x 5 - 9)?"

        Answer: "1"

Tip: "PEMDAS -Parentheses, Exponents, Multiplication and Division (from left to right), Addition and Subtraction (from left to right)."

REQ-33: PUZZLE 3

<P3>

Problem: "Unscramble the following letters: liujus arecas"

Answer: "Julius Caesar"

Tip: "A Roman General"

REQ-34: PUZZLE 4

<P4>

Problem: "Unscrambled the following letters: panshis"

Answer: "Spanish"

Tip: "A Language"

REQ-35: PUZZLE 5

<P5>

Riddle: "If you drop me, I'm sure to crack but give me a smile and I'll always smile back. What am I?"

Answer: "Mirror"

Tip: "Reflective surface"

REQ-36: PUZZLE 6

<P6>

Riddle: "People make me, save me, change me, raise me. What am I?"

Answer: "Money"

Tip: "Something people work for"

REQ-37: PUZZLE 7

<P7>

Question: "Which word is the correct spelling?"

Options:

A. concencus   C. concensus

B. consencus   D. consensus

Answer: "consensus"

Tip: "consencus is not spelled correctly."

REQ-38: PUZZLE 8

<P8>

Question: "Which word is the correct spelling?"

Options:

A. bureacracy   C. bureaucracy

B. buraecracy   D. bureuacracy

Answer: "bureaucracy"

Tip: "bureuacracy is not spelled correctly."

REQ-39: PUZZLE 9

<P9>

Question: "The highest mountains in Japan are the Japanese Andes."

Answer: "False"

Tip: "Is it True or False?"

REQ-40: PUZZLE 10

<P10>

Question: "Rio de Janeiro is the capital of Brazil."

Answer: "False"

Tip: "Is it True or False?"

3.3 MONSTERS

3.3.1 Description and Priority

There are 5 different monsters placed around the map for the player to defeat. Each monster must be defeated with a specific weapon or potion that was previously made available to them at some point in the game.

3.3.2 Stimulus/Response Sequences

The player needs to input the name of the potion or weapon that they want to use in order to defeat the monster. If they input the correct potion or weapon, they defeat the monster.

When user enter room which contains a monster, System will output, "Monster found" and state the monsters name and description, and the system will ask the user if they want to "FIGHT" or RUN". If user enter "RUN", they will be taken to the previous room, and if the user enters "FIGHT", The system will output, "what item doe you wish to use". The user will have to choose the item, and after users' choice, if the item is not the corresponding item for that specific monster, then monster attacks the user and user will lose 10 points from health which the starting health is 100 points; System will keep displaying "FIGHT" or "RUN", and user can either fight the monster until correct item is inputted or user can run and find the correct item. Every time user choices is the wrong weapon, they will be attacked by monster and lose 10 points. When user enter correct item, system will output, "Congratulations you defeated" and the monsters name and "You are able to move to the next room" and 10 points will be added to the users score.

They can also say TIP to receive a tip on which room to find the weapon or potion that they need in order to defeat their monster.

3.3.3 Functional Requirements

REQ-41: MONSTER 1

<M1>

Bear

Description: "A huge white Russian bear appears. It terrorizes the village for years."

Tip: "It is dangerous to fight him in close-range. The Japanese shotgun could defeat him."

Wrong Item Choice: "Wrong choice, they bear runs to you and slashes you with his claw." Health: -10

Right Item Choice: "You take out the shotgun and shoot, you miss, but scare away the Russian bear. You see him run away into the distance." Score +10

REQ-42: MONSTER 2

\<M2\>

Mummy

Description: "A 3000-year-old mummy appears. Melee attacks cannot kill him. He can reattach the linen to protect his body."

Tip: "Use the flamethrower you saw in San Francisco."

Wrong Item Choice: "Wrong choice, the Mummy seem to be unharmed and hits you with his sturdy linen." Health: -10

Right Item Choice: "You take out the flamethrower and shoot, after a couple seconds you stop and just see a pile of ash on the ground." Score +10

REQ-43: MONSTER 3

\<M3\>

Wizard

Description: "A wizard who can neutralize any physical attacks by his magic appears."

Tip: "The anti-spell potion you got in Rome might work."

Wrong Item Choice: "Wrong choice, the wizard is unharmed and throws a small fire spell to you." Health: -10

Right Item Choice: You take and throw the anti-spell potion at the wizard, the wizard tries to cast magic but fails, does not know what to do but run away." Score +10

REQ-44: MONSTER 4

\<M4\>

Sewage Monster

Description: "A sewage monster that escaped from a lab appears. It lives in the sewage system under the city. He gets his strength from the toxic sewage."

Tip: "Try the purifying potion you picked up in Chicago."

Wrong Item Choice: "Wrong choice, the sewage monster is unharmed and spits sewage at you." Health: -10

Right Item Choice: You take and throw the purifying potion at the sewage monster; you see the sewage dissolve back into the rest and flows away." Score +10

REQ-45: MONSTER 5

<M5>

Crocodile

Description: "A giant crocodile that eats anyone who tries to cross the river appears."

Tip: "Remember that sword that you saw in Mexico City?"

Wrong Item Choice: "Wrong choice, the crocodile is unharmed and slaps you with his tail." Health: -10

Right Item Choice: You take out the sword, you notice something the crocodile seem worried, you slash the sword, and the crocodile runs back into the water and you see him no longer." Score +10

3.4 INVENTORY

3.4.1   Description and Priority

There 3 different weapons and 2 different potions that are scattered around the map. These inventory items can be used to fight the monsters. The player will only be able to keep 3 items in their inventory at a time, so they can pick up and drop items as they please.

3.4.2   Stimulus/Response Sequences

PICK UP

When user inputs "PICK UP", a text will show, "You have picked up" and the name of the item that was picked up following the description of the item.

DROP

When the user inputs "DROP" a text will show, "You have dropped" and the name of the item that was dropped.

When the user tries to pick up a fourth item, a question for the user will show, "You have 3 items on you already, would you like to switch with an item from your inventory?". The user has the option to choose, "YES", or "NO". If users choice is, "YES", they will have will have to choose an item to swab with. If Users choice is, "No", text will be shown, "You decided to keep your 3 items."

3.4.3   Functional Requirements

REQ-46: WEAPON 1

<W1>

Shotgun

Description: "Smoothbore shoulder weapon designed to fire a number of pellets or shot."

REQ-47: WEAPON 2

<W2>

Flamethrower

Description: "A device that expels from a nozzle a burning stream of liquid or semiliquid fuel under pressure."

REQ-48: WEAPON 3

<W3>

Sword

Description: "A bladed melee weapon intended for cutting or thrusting that is longer than a knife or dagger, consisting of a long blade attached to a hilt."

REQ-49: POTION 1

<PO1>

Anti-Spell Potion

Description: "Gives immunity to magically spell for 15 seconds."

REQ-50: POTION 2

<PO1>

Purifying Potion

Description: "A potion that can remove up to three different types of attacks/spells at the same time."

3.5 SAVE AND LOAD

3.5.1   Description and Priority

User will be able to save their progress when they decide to enter "SAVE" and their progress will be saved when playing the adventure game. When user starts the game the system will have two options, one to start new game or to load game, if there is a game to load, system will display, "Loading saved game, please wait" and load the previous game. If there is no saved game, the system will display, "Sorry, there is no saved progress to load" and will display the two options, "Start New Game", and "Load Game".

3.5.2   Stimulus/Response Sequences

SAVE

When user inputs save, system will display, "Do you want to save your game?", and if user enter "Y", then the game will be saved, but if the user enters, "No", then the game will resume. If the user enters "Y", then system will display, "Do you want to continue (C) or quit (Q)", and if the user enters "Q", they will end the game, but if they enter "C", then they will continue to play the game.

LOAD

When the game starts, the user will have two options, "Start New Game", and "Load Game", the user can either enter "NEW" to enter a new game, or enter "LOAD" to load the previous game, and the user can only have one saved game, there can no more than one saved game, and if the user saves the game multiple times, it overwrites the previous saved game, so there can be only one game to load.

3.6 SCORE

3.6.1   Description and Priority

Score is increased throughout the game. For every monster defeated, score is increased by 10 points. For every puzzle passed, score is increased by 10 points. Health is also a factor for the final score, so the total amount of points received by monsters and puzzles is multiplied by the remaining health. Score will be show at the end of the game, and the system will display, "Congratulations, You Won, Your Score is "+ score.

4. External Interface Requirements

4.1 User Interfaces

The user interface will be manageable and constant for the players. The game uses common terminology understood by most of the players. The game will display information of each room such as available exits their next destinations, items, monsters, and a command will be always available for the players to access the help system any time. A message to confirm the player actions will be displayed after each input from the players. In case the players' choice is not available, an error message will be displayed, "Command not available, please enter known command". The players will be prompted to enter a new choice.

4.2 Hardware Interfaces

This game is mainly played on PC or Mac. There will be no extra hardware components beside standard PC or laptops with standard keyboards, mouse, and internet connection for update in the future.

4.3 Software Interfaces

This game runs on Windows and Mac OS. Java will be the main programming language and SQLite for database.

4.4 Communications Interfaces

The players will use email to contact for help, legal issue, and questions about the game.
Any updated version will be provided on the website for player to download.
This game is offline game which does not require internet connected except for download updated versions.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

Game Launch
When the adventure game is about to be launched, the time it takes to launch should not take more than 1 minute from clicking run on the java IDE. Having a longer wait time can cause the user to lose interest in the adventure game and see the game in a negative view.

User-Input
When the user is asked for their input, the system should respond to the user within 5 seconds of the user entering their input.

Saving Progress
When the user wants to save their progress, the system should take no more than 5 seconds to save the game of the user.

Loading Progress
When the user wants to load previous progress, the system should not take no more than 5 seconds to load the previous progress of the user.

5.2 Safety Requirements

Long Hours
System should warn the user after around two hours, does not need to be 120 minutes exactly but close to 120 minutes straight of interacting with the system. System will show a question to the user, "!!!WARNING!!! – You have been playing for some time, would you like to save your progress and continue playing later. (Y or N)" User will have to respond, if user's choice is "Y", the system will save the current progress and program will close. If user inputs "N", System will continue. This warning is for the user to take a break, save their progress and play another time. User can sometimes forget about the time and keep playing, with a warning about playing for some time the user can be reminded about the current time. This is to avoid the user from having eye strain from looking at a computer screen for a long period of time.

5.3 Security Requirements

Privacy
The system will not ask user for any sensitive information such as real name, SSN, Bank account information, the user decides what input he/she wants to input. None of the input the user inputs will be stored and sold to other companies for money.

Security
The system will run in the users preferred operating system with the system not having the ability to change file and storing or sending sensitive information anywhere other than the users OS.

5.4 Software Quality Attributes

Reliability
The system should never crash after it has completed the testing phase. Everything should be able to run and have the user interact with the system without a problem.

Reusability
The system should be able to be reused with only the data being changed such as the locations of the rooms with their corresponding puzzle and monsters and items.

Portability
The system should be able to run in multiple operating systems including Windows and MAC.

6. Other Requirements

There is no other requirement other than the one stated above.

Appendix A: Glossary

Java - Class-based, object-oriented programming language

IDE - Integrated development environment is a software application that provides comprehensive facilities to computer programmers for software development.

OS – Operating System is system software that manages computer hardware, software resources, and provides common services for computer programs.

Appendix B: Map Model and User Documentation
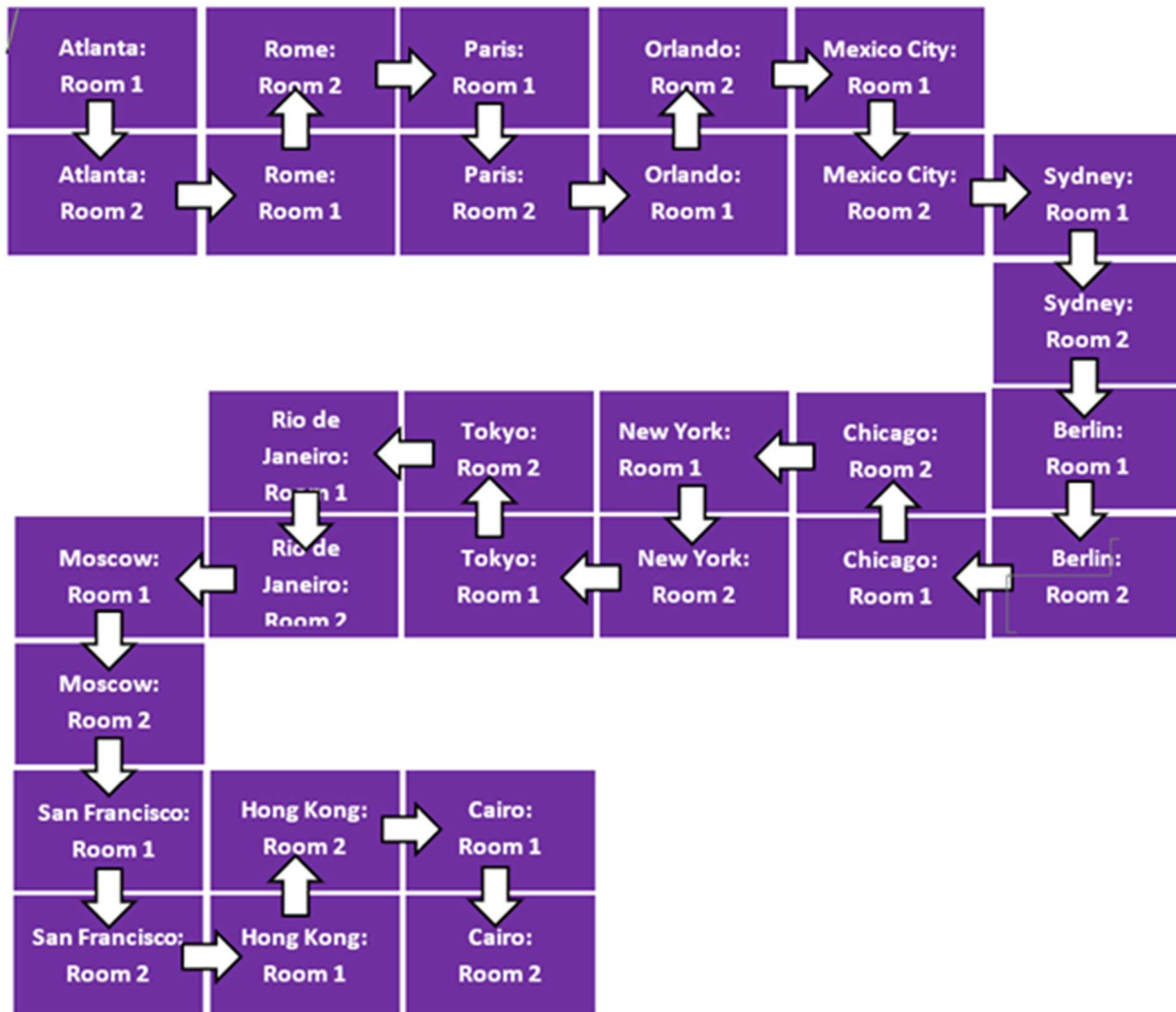
README

Around The World Version 1.0 - 02/28/2021

USAGE NOTES:
- This game supports Windows 7 or newer and Mac OS.
- This is an offline game, thus internet is not required to play.
- Internet is only required to download patches, and new versions.
- Using keyboard to enter the commands only.

INSTALLATION:
- Download the game on website.
- Unzip the file.
- Run the .exe file.

Contact:
- Voice: 123-456-7890
- Website: www.aroundtheworld.com
- Email: team2@gga.edu

HELPME

- The player must input the exact words that are displayed to move forward.
- Ex: typing "N" is not the same as "North"
- The player can only defeat monsters by using corresponding weapons.
- The player can revisit any room to collect items.
- Try to use tips to solve puzzles.
- The player can save his process before going to a room.

    The player can quit anytime during the game by entering "x"

Appendix C: Issues List

Database
More information is needed for the Database such as what database will be used, the format of the Database and how will it be integrated into the system.