Coffee Maker Quest

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CS 1632 – DELIVERABLE 1: Test Plan and Traceability

Some of our concerns and difficulties arose from the ambiguity of the requirements. For example, the requirement FUN-MOVE states that player should not move north or south if there is no door leading in each respective direction, but it does not specify if the act of teleporting into a magical land and back to the beginning is considered ‘moving’. In this case, we assumed that player did not ‘move’ unless he was transported to a different room. Consequently, when the player was teleported to the beginning from the northernmost room after trying to move north, we considered the behavior a defect. When the player tried to move south in the starting room, he remained in the same spot despite being teleported to a magical land; we considered this behavior normal.

—TEST CASES—

IDENTIFIER: 1

TEST CASE: Ensure that the directional commands ‘N’ and ‘S’ cause the player to move in their respective directions.

PRE-CONDITIONS: Player starts in small room.

INPUT VALUES: N, S, n, s

EXECUTION STEPS: Input each value in order.

POST-CONDITIONS: Player is back in small room.

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IDENTIFIER: 2

TEST CASE: Ensure that upon entering ‘H’, the player is shown a list of commands

INPUT VALUES: H, h

EXECUTION STEPS: Input each value in order.

POST-CONDITIONS: Program displays a list of commands.

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IDENTIFIER: 3

TEST CASE: Ensure that upon entering a non-letter, the program does not execute any command.

INPUT VALUES: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9

EXECUTION STEPS: Input each value in order.

POST-CONDITIONS: Program displays a “What?” message.

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IDENTIFIER: 4

TEST CASE: Ensure that upon entering a letter not corresponding to the keys in the requirement FUN-ITERATION, the program does not execute any command.

INPUT VALUES: q, Q, w, W, e, E, r, R, t, T, y, Y, u, U, o, O, p, P

EXECUTION STEPS: Input each value in order.

POST-CONDITIONS: Program displays a “What?” message.

IDENTIFIER: 5

TEST CASE: Ensure that the player cannot move north after reaching the northernmost room. As the player moves north, ensure that all rooms have unique adjectives attached to them.

INPUT VALUES: N

PRE-CONDITIONS: Player starts in small room

EXECUTION STEPS: Move north until the player reaches a room with no door leading north (the rough room). Input the command to move north one more time.

POST-CONDITIONS: Player is in rough room

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IDENTIFIER: 6

TEST CASE: Ensure that the player cannot move south after reaching the southernmost room.

As the player moves south, ensure that each room has one, and only one, unique object.

INPUT VALUES: S

PRE-CONDITIONS: Player starts in rough room

EXECUTION STEPS: At the rough room, move south until the player reaches a room with no door leading south (the small room). Input the command to move south one more time.

POST-CONDITIONS: Player is in small room

—TRACEABILITY MATRIX—

FUN-ITERATION: 1, 2

FUN-UNKNOWN-COMMAND: 3, 4

FUN-INPUT-CAPS: 1. 2

FUN-MOVE: 5, 6

FUN-WIN:

FUN-LOSE:

FUN-INVENTORY:

FUN-LOOK:

FUN-HELP: 2

FUN-UNIQ-ROOM: 5

FUN-UNIQ-ROOM-FURNISHING: 6

— DEFECT 1 —

DESCRIPTION: Lowercase n is not a valid command

SUMMARY: When lowercase n is input, the program responds with ‘What?’ instead of moving the player north. This behavior conflicts with the requirement FUN-INPUT-CAPS.

REPRODUCTION STEPS: Input n and hit enter

EXPECTED BEHAVIOR: Player will move north into a new room.

OBSERVED BEHAVIOR: Program responds with “What?”. Player remains in the same room.

— DEFECT 2 —

DESCRIPTION: Neither ‘H’ nor ‘h’ are valid commands.

SUMMARY: When the user input “H” or “h”, the program responds with “What?” instead of showing the user a help page consisting the list of possible commands and their effects.

REPRODUCTION STEPS: User input “H” or “h” and hit enter.

EXPECTED BEHAVIOR: Program should show a list of possible commands and their effects.

OBSERVED BEHAVIOR: Program does not recognize command and displays “What?”. Player remains in the same room.

— DEFECT 3 —

DESCRIPTION: User exits with error code “Exiting with error code 0”

SUMMARY: When the user wins the game, upon showing the user “you win!” the program always displays afterward: “Exiting with error code 0”

REPRODUCTION STEPS: After user collected all 3 items, he/she types “D” and hit enter

EXPECTED BEHAVIOR: Program should display “You drink the beverage and are ready to study!”, “You win!”, and automatically exit the program.

OBSERVED BEHAVIOR: Program displays “You drink the beverage and are ready to study!” and “You win!”, but it also displays “Exiting with error code 0” before quitting the program.

— DEFECT 4 —

DESCRIPTION: User is able to move north in a room without a north door.

SUMMARY: In the rough room with no north door, if the player inputs the command to move north, he is transported to a ‘magical land’ and is returned to the beginning of the game.

REPRODUCTION STEPS: Reach the rough room. Input N.

EXPECTED BEHAVIOR: The player should remain in the rough room.

OBSERVED BEHAVIOR: The program displays “You are in a magical land! But you are returned to the beginning!” The player is teleported back to the small room.