Coffee Maker Quest Test Plan

Introduction

This is my first test plan ever, hopefully I found most of the defects in this program. It was difficult at first figuring out why I wasn't moving north until I realized it was a defect. Aside from that all of the other test cases went by pretty easily

Requirements

- FUN-ITERATION - At each iteration of the game, the user shall be able enter one of six commands - "N" to go North, "S" to go South, "L" to Look for items, "I" for Inventory, "H" for Help, or "D" to Drink.
- FUN-UNKNOWN-COMMAND - If a player enters a command not specified by FUN-ITERATION, the system shall respond with the phrase "What?".
- FUN-INPUT-CAPS - The system shall be case-insensitive regarding input values; that is, it shall accept capital and lower-case letters and treat them as equivalent.
- FUN-MOVE - The system shall allow a player to move North only if a door exists going North, and South only if a door exists going South.
- FUN-WIN - The player shall win the game if and only if Coffee, Sugar, and Cream have been collected by the player and then drunk.
- FUN-LOSE - The player shall lose the game if and only if the player Drinks but has not collected all the items (Coffee, Sugar, and Cream).
- FUN-INVENTORY - Upon entering "I" for inventory, the player shall be informed of the items that he/she has collected (consisting of Coffee, Sugar, and Cream).
- FUN-LOOK - Upon entering "L" for Look, the player shall collect any items in the room and those items will be added to the player's inventory.
- FUN-HELP - Upon entering "H" for Help, the player shall be shown a listing of possible commands and what their effects are.
- FUN-UNIQ-ROOM - Each room in the house shall have a unique adjective describing it.
- FUN-UNIQ-ROOM-FURNISHING - Each room in the house shall have one and only one unique furnishing visible to the user upon entering the room.

Test Cases

IDENTIFIER: TC-1
TEST CASE: Type "N" in the prompt of the small room with the quaint sofa, we should expect to move into the funny room with the sad record player.
PRECONDITIONS: Be present in the small room with the quaint sofa.
INPUT VALUES: "N"
EXECUTION STEPS: Typing in "N"
OUTPUT VALUES: None
POSTCONDITIONS: The program should place the player in the funny room with the sad record player.

IDENTIFIER: TC-2
TEST CASE: Type "S" in the prompt of the funny room with the sad record player, we should expect to move into the small room with the quaint sofa.
PRECONDITIONS: Be present in the funny room with the sad record player.
INPUT VALUES: "S"
EXECUTION STEPS: Typing in "S"
OUTPUT VALUES: None
POSTCONDITIONS: The program should place the player in the small room with the quaint sofa.

IDENTIFIER: TC-3
TEST CASE: Type "H" in the prompt of any room, we should expect the program to display a list of possible commands and what their effects are.
PRECONDITIONS: None
INPUT VALUES: "H"
EXECUTION STEPS: Typing in "H"
OUTPUT VALUES: None
POSTCONDITIONS: The program should display a list of possible commands and what their effects are.

IDENTIFIER: TC-4
TEST CASE: Type "L" in the prompt of the small room with the quaint sofa, we should expect to find the cream.
PRECONDITIONS: Be present in the small room with the quaint sofa.
INPUT VALUES: "L"
EXECUTION STEPS: Typing in "L"
OUTPUT VALUES: None
POSTCONDITIONS: The program should display the message "You found some creamy cream!".

IDENTIFIER: TC-5
TEST CASE: Type "I" in the prompt of any room when you already have found the cream, but have not found the coffee or the sugar, we should expect the messages, "YOU HAVE NO COFFEE!", "You have some fresh cream", and "YOU HAVE NO SUGAR!".
PRECONDITIONS: have already found the cream in the small room with the sad record player, but not have found the coffee or the sugar.
INPUT VALUES: "I"
EXECUTION STEPS: Typing in "I"
OUTPUT VALUES: None
POSTCONDITIONS: The program should display the messages, "YOU HAVE NO COFFEE!", "You have some fresh cream", and "YOU HAVE NO SUGAR!".

IDENTIFIER: TC-6
TEST CASE: Type "D" in the prompt of any room when you already have found the coffee, cream, and sugar, we should expect the game to end and player will win the game
PRECONDITIONS: have already found the cream in the small room with the sad record player, the coffee in the refinanced room with the tight pizza, and the sugar in the sugar in the rough room with the perfect air hockey table
INPUT VALUES: "D"
EXECUTION STEPS: Typing in "D"
OUTPUT VALUES: None
POSTCONDITIONS: The program should display the messages, "You drink the beverage and are ready to study! You win!" and the game should end.

IDENTIFIER: TC-7
TEST CASE: Type "D" in the prompt of any room where you have none of the inventory items, we should expect the game to end with a failure message and the player losing the game.
PRECONDITIONS: have not already found the coffee, cream, or sugar.
INPUT VALUES: "D"
EXECUTION STEPS: Typing in "D"
OUTPUT VALUES: None
POSTCONDITIONS: The program should display the messages, "You drink the air, as you have no coffee, sugar, or cream. The air is invigorating, but not invigorating enough. You cannot study. You lose!" and the game should end.

IDENTIFIER: TC-8
TEST CASE: Type "A" in the prompt of any room, we should expect the game to not recognize the command and display an error message.
PRECONDITIONS: None
INPUT VALUES: "A"
EXECUTION STEPS: Typing in "A"
OUTPUT VALUES: None
POSTCONDITIONS: The program should display the messages, "What?" and repeat the description of the current room.

IDENTIFIER: TC-9
TEST CASE: Type "n" in the prompt of the small room with the quaint sofa, we should expect to move into the funny room with the sad record player.
PRECONDITIONS: Be present in the small room with the quaint sofa.
INPUT VALUES: "n"
EXECUTION STEPS: Typing in "n"
OUTPUT VALUES: None
POSTCONDITIONS: The program should place the player in the funny room with the sad record player.

IDENTIFIER: TC-10
TEST CASE: Type "s" in the prompt of the funny room with the sad record player, we should expect to move into the small room with the quaint sofa.
PRECONDITIONS: Be present in the funny room with the sad record player.
INPUT VALUES: "s"
EXECUTION STEPS: Typing in "s"
OUTPUT VALUES: None
POSTCONDITIONS: The program should place the player in the small room with the quaint sofa.

IDENTIFIER: TC-11
TEST CASE: Type "h" in the prompt of any room, we should expect the program to display a list of possible commands and what their effects are.
PRECONDITIONS: None
INPUT VALUES: "h"
EXECUTION STEPS: Typing in "h"
OUTPUT VALUES: None
POSTCONDITIONS: The program should display a list of possible commands and what their effects are.

IDENTIFIER: TC-12
TEST CASE: Type "l" in the prompt of the small room with the quaint sofa, we should expect to find the cream.
PRECONDITIONS: Be present in the small room with the quaint sofa.
INPUT VALUES: "l"
EXECUTION STEPS: Typing in "l"
OUTPUT VALUES: None
POSTCONDITIONS: The program should display the message "You found some creamy cream!".

IDENTIFIER: TC-13
TEST CASE: Type "i" in the prompt of any room when you already have found the cream, but have not found the coffee or the sugar, we should expect the messages, "YOU HAVE NO COFFEE!", "You have some fresh cream", and "YOU HAVE NO SUGAR!".
PRECONDITIONS: have already found the cream in the small room with the sad record player, but not have found the coffee or the sugar.
INPUT VALUES: "i"
EXECUTION STEPS: Typing in "i"
OUTPUT VALUES: None
POSTCONDITIONS: The program should display the messages, "YOU HAVE NO COFFEE!", "You have some fresh cream", and "YOU HAVE NO SUGAR!".

IDENTIFIER: TC-14

TEST CASE: Type "d" in the prompt of any room when you already have found the coffee, cream, and sugar, we should expect the game to end and player will win the game

PRECONDITIONS: have already found the cream in the small room with the sad record player, the coffee in the refinanced room with the tight pizza, and the sugar in the sugar in the rough room with the perfect air hockey table

INPUT VALUES: "d"

EXECUTION STEPS: Typing in "d"

OUTPUT VALUES: None

POSTCONDITIONS: The program should display the messages, "You drink the beverage and are ready to study! You win!" and the game should end.

IDENTIFIER: TC-15

TEST CASE: Type "A" in the prompt of any room, we should expect the game to not recognize the command and display an error message.

PRECONDITIONS: None

INPUT VALUES: "A"

EXECUTION STEPS: Typing in "A"

OUTPUT VALUES: None

POSTCONDITIONS: The program should display the messages, "What?" and repeat the description of the current room.

IDENTIFIER: TC-16

TEST CASE: Type "N" in the prompt of the Rough room with the perfect air hockey table and without a door to the north, we should be unable to move further north at this point.

PRECONDITIONS: Be present in the Rough room with the perfect air hockey table.

INPUT VALUES: "N"

EXECUTION STEPS: Typing in "N"

OUTPUT VALUES: None

POSTCONDITIONS: The program should not allow us to move further north without a door present.

IDENTIFIER: TC-17

TEST CASE: Type "N" in the prompt of the small room with the quaint sofa, we should expect to move to the funny room with the sad record player.

PRECONDITIONS: Be present in the small room with the quaint sofa.

INPUT VALUES: "N"

EXECUTION STEPS: Typing in "N"

OUTPUT VALUES: None

POSTCONDITIONS: The program should move the player to the funny room with the sad record player.

IDENTIFIER: TC-18
TEST CASE: Type "N" in the prompt of the funny room with the sad record player, we should expect to move to the refinanced room with the tight pizza.
PRECONDITIONS: Be present in the funny room with the sad record player.
INPUT VALUES: "N"
EXECUTION STEPS: Typing in "N"
OUTPUT VALUES: None
POSTCONDITIONS: The program should move the player to the refinanced room with the tight pizza.

IDENTIFIER: TC-19
TEST CASE: Type "N" in the prompt of the refinanced room with the tight pizza, we should expect to move to the dumb room with the flat energy drink.
PRECONDITIONS: Be present in the refinanced room with the tight pizza.
INPUT VALUES: "N"
EXECUTION STEPS: Typing in "N"
OUTPUT VALUES: None
POSTCONDITIONS: The program should move the player to the dumb room with the flat energy drink.

IDENTIFIER: TC-20
TEST CASE: Type "N" in the prompt of the dumb room with the flat energy drink, we should expect to move to the bloodthirsty room with the beautiful bag of money.
PRECONDITIONS: Be present in the dumb room with the flat energy drink.
INPUT VALUES: "N"
EXECUTION STEPS: Typing in "N"
OUTPUT VALUES: None
POSTCONDITIONS: The program should move the player to the bloodthirsty room with the beautiful bag of money.

IDENTIFIER: TC-21
TEST CASE: Type "N" in the prompt of the bloodthirsty room with the beautiful bag of money, we should expect to move to the rough room with the perfect air hockey table.
PRECONDITIONS: Be present in the bloodthirsty room with the beautiful bag of money.
INPUT VALUES: "N"
EXECUTION STEPS: Typing in "N"
OUTPUT VALUES: None
POSTCONDITIONS: The program should move the player to the rough room with the perfect air hockey table.

Traceability Matrix

- FUN-ITERATION: TC-1
- FUN-UNKNOWN-COMMAND: TC-15
- FUN-INPUT-CAPS: TC-9, TC-8, TC-10, TC-11, TC-12, TC-13, TC-14
- FUN-MOVE: TC-2, TC-16
- FUN-WIN: TC-6
- FUN-LOSE: TC-7
- FUN-INVENTORY: TC-5
- FUN-LOOK: TC-4
- FUN-HELP: TC-3
- FUN-UNIQ-ROOM: TC-10, TC-16, TC-17, TC-18, TC-19, TC-20, TC-21
- FUN-UNIQ-ROOM-FURNISHING: TC-10, TC-16, TC-17, TC-18, TC-19, TC-20, TC-21

Defects Found

IDENTIFIER: D-1
DESCRIPTION: When the player types "n" in the prompt of any room, they are given an error as if they typed an unknown command.
REPRODUCTION STEPS: In any room, type and enter "n"
EXPECTED BEHAVIOR: move to the next room
OBSERVED BEHAVIOR: the error for when and unknown command is displayed, and we do not move to the next room.

IDENTIFIER: D-2
DESCRIPTION: When the player types "N" in the rough room, they are sent back to the beginning.
REPRODUCTION STEPS: In the rough room, type and enter "N"
EXPECTED BEHAVIOR: the player should not be moved to a room because there isn't a door to the north.
OBSERVED BEHAVIOR: The player is sent back to the small room, at the beginning.
NOTES: I'm not too sure if this is intended, but I am reporting it as a defect anyways just in case.

IDENTIFIER: D-3
DESCRIPTION: When the player types "H" in any room, they are not given a list of commands and what each command does.
EXPECTED BEHAVIOR: the player should have displayed a list of commands and what each command does.
OBSERVED BEHAVIOR: the error for when and unknown command is displayed, and we are not given the list of the commands.

Who Worked on What?

I, Jeffrey Xiong, worked on everything myself due to my absence when the assignment was assigned.