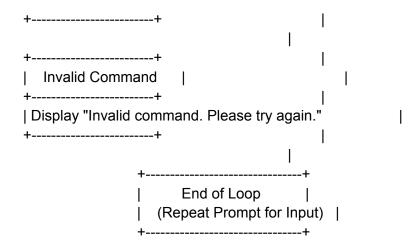
```
Start: Display Welcome
               | Message and Commands List
                   Prompt for Input
                     "move north"
                                          "open door"
| Display key location | | Check if doorUnlocked | | Check if keyLocation is |
| and door status
                                  | | "on your shelf"
                    | +-----+ | | +-----+ |
                | | if (true)
                            || || if (true) || |
                | | Display "You win!" | | | doorUnlocked = true | |
                                 || | Display "Door open"||
                | | End Game
                | +-----+ | | +-----+ |
                | | Display "Door closed" | | Display "Need key" | |
                 "take key"
| Check if keyLocation is "on your shelf"
| | if (true)
| | keyLocation = "on your shelf"
| | Display "You pick up the key."
| | if (false)
| | Display "You already have the key."
   "quit"
| Display "Goodbye"
| End Game
```



Start: showing the welcome message Start:

Displays the welcome message and the list of available commands.

Input:

Asks the player to enter a command.

Commands:

look: Displays the current state of the room, including the key's location and the door's status.

move north: Checks if the door is unlocked.

If doorUnlocked is true, displays a victory message and ends the game.

If doorUnlocked is false, informs the player that the door is closed.

open door: Checks if the player has the key.

If keyLocation is "on your shelf unlocks the door and informs the player.

If keyLocation is not "on your shelf", informs the player they need a key.

take key: on the shelf

If keyLocation is "on the shelf", informs the player.

quit: Displays a goodbye message and ends the game.

Invalid Command: Informs the player that the command is invalid.

End of Loop:

The game repeats the prompt for input until the player chooses to quit.