MazeGame step 4.py

```python
1   '''
2   Add abilty to craft items in the game
3   '''
4
5   import json
6
7   # Load game data from JSON file
8   def load_game_data(filename):
9       with open(filename, "r") as file:
10          return json.load(file)
11
12  game_data = load_game_data("game_data.json")
13  rooms = game_data["rooms"]
14  current_room = game_data["start"]
15  inventory = []
16  constructed_items = {"Magic Staff": ["Crystal Shard", "Wooden Stick", "Enchanted Core"]}
17
18  def display_room():
19      print(f"You appear to be in the {current_room}")
20      print(rooms[current_room].get("Desc", "No description available."))
21
22      if "Item" in rooms[current_room]:
23          print(f"There is a {rooms[current_room]['Item']} in the room")
24      else:
25          print("The room is empty")
26
27      if inventory:
28          print(f"You have {len(inventory)} items: {', '.join(inventory)}")
29      else:
30          print("You have no items!")
31
32  def handle_movement(direction):
33      global current_room
34      if direction in rooms[current_room]:
35          current_room = rooms[current_room][direction]
36          print(f"You moved {direction}")
37      else:
38          print("You can't go that way.")
39
40  def handle_item_interaction(action, item):
41      global current_room
42      if action == "Get":
43          if "Item" in rooms[current_room] and rooms[current_room]["Item"].lower() ==
    item.lower():
44              if item not in inventory:
45                  inventory.append(item)
46                  del rooms[current_room]["Item"]
47                  print(f"{item} retrieved!")
```

```python
            else:
                print(f"You already have the {item}.")
        else:
            print(f"Can't find {item}.")
    elif action == "Drop":
        if item in inventory:
            inventory.remove(item)
            rooms[current_room]["Item"] = item
            print(f"You dropped {item}.")
        else:
            print(f"You don't have {item}.")
    elif action == "Craft":
        for crafted_item, components in constructed_items.items():
            if item == crafted_item and all(comp in inventory for comp in components):
                for comp in components:
                    inventory.remove(comp)
                inventory.append(crafted_item)
                print(f"You have successfully crafted {crafted_item}!")
                return
        print(f"You don't have the necessary components to craft {item}.")

def main():
    global current_room
    while True:
        display_room()
        user_input = input("Enter command\n").strip().split(" ")

        if not user_input:
            continue

        action = user_input[0].title()
        argument = " ".join(user_input[1:]).title() if len(user_input) > 1 else ""

        if action == "Exit":
            print("Goodbye!")
            break
        elif action == "Go" and argument in ["North", "South", "East", "West", "Up",
    "Down", "Out", "In"]:
            handle_movement(argument)
        elif action in ["Get", "Drop", "Craft"] and argument:
            handle_item_interaction(action, argument)
        elif action == "Passcode" and argument == "8915" and current_room == "Library":
            print("Lock unlocked!")
        else:
            print("Invalid command.")

if __name__ == "__main__":
    main()
```