

MazeGame big.py

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1  '''
2  Expanded version of the Maze Game with additional features
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  enemies = {"Dark Sorcerer": "Magic Staff"} # Enemy that can be defeated with a specific item
18
19  def display_room():
20      print(f"You appear to be in the {current_room}")
21      print(rooms[current_room].get("Desc", "No description available.))
22
23      if "Item" in rooms[current_room]:
24          print(f"There is a {rooms[current_room]['Item']} in the room")
25      else:
26          print("The room is empty")
27
28      if "Enemy" in rooms[current_room]:
29          print(f"A {rooms[current_room]['Enemy']} is here! Be careful!")
30
31      if inventory:
32          print(f"You have {len(inventory)} items: {' '.join(inventory)}")
33      else:
34          print("You have no items!")
35
36  def handle_movement(direction):
37      global current_room
38      if direction in rooms[current_room]:
39          current_room = rooms[current_room][direction]
40          print(f"You moved {direction}")
41      else:
42          print("You can't go that way.")
43
44  def handle_item_interaction(action, item):
45      global current_room
46      if action == "Get":
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47     if "Item" in rooms[current_room] and rooms[current_room]["Item"].lower() ==
item.lower():
48         if item not in inventory:
49             inventory.append(item)
50             del rooms[current_room]["Item"]
51             print(f"{item} retrieved!")
52         else:
53             print(f"You already have the {item}.")
54     else:
55         print(f"Can't find {item}.")
56 elif action == "Drop":
57     if item in inventory:
58         inventory.remove(item)
59         rooms[current_room]["Item"] = item
60         print(f"You dropped {item}.")
61     else:
62         print(f"You don't have {item}.")
63 elif action == "Craft":
64     for crafted_item, components in constructed_items.items():
65         if item == crafted_item and all(comp in inventory for comp in components):
66             for comp in components:
67                 inventory.remove(comp)
68                 inventory.append(crafted_item)
69                 print(f"You have successfully crafted {crafted_item}!")
70                 return
71         print(f"You don't have the necessary components to craft {item}.")
72
73 def handle_combat():
74     global current_room
75     if "Enemy" in rooms[current_room]:
76         enemy = rooms[current_room]["Enemy"]
77         if enemy in enemies and enemies[enemy] in inventory:
78             print(f"You defeated the {enemy} with your {enemies[enemy]}!")
79             del rooms[current_room]["Enemy"]
80         else:
81             print(f"The {enemy} attacks! You need a {enemies.get(enemy, 'proper
weapon')}} to defeat it!")
82
83 def main():
84     global current_room
85     while True:
86         display_room()
87         if "Enemy" in rooms[current_room]:
88             handle_combat()
89
90         user_input = input("Enter command\n").strip().split(" ")
91
92         if not user_input:
93             continue
94
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95     action = user_input[0].title()
96     argument = " ".join(user_input[1:]).title() if len(user_input) > 1 else ""
97
98     if action == "Exit":
99         print("Goodbye!")
100         break
101     elif action == "Go" and argument in ["North", "South", "East", "West", "Up",
102 "Down", "Out", "In"]:
103         handle_movement(argument)
104     elif action in ["Get", "Drop", "Craft"] and argument:
105         handle_item_interaction(action, argument)
106     elif action == "Passcode" and argument == "8915" and current_room == "Library":
107         print("Lock unlocked!")
108     else:
109         print("Invalid command.")
110
111 if __name__ == "__main__":
112     main()
```