

TASK:7

Operators

```
def move(subject, x1, x2):  
    return f"Move {subject} from {x1} to {x2}"
```

```
def push_box(x1, x2):  
    return f"Push box from {x1} to {x2}"
```

```
def climb_box(x, direction):  
    return f"Climb box at {x} {direction}"
```

```
def have_banana(x):  
    return f"Have banana at {x}"
```

Initial State

```
initial_state = {  
    'monkeyAt0': True,  
    'monkeyLevel': 'Down',  
    'bananaAt1': True,  
    'boxAt2': True  
}
```

Goal State

```
goal_state = {  
    'GetBanana': True,  
    'at': 1  
}
```

Planning Algorithm

```
def plan_actions(initial_state, goal_state):  
    actions = []
```

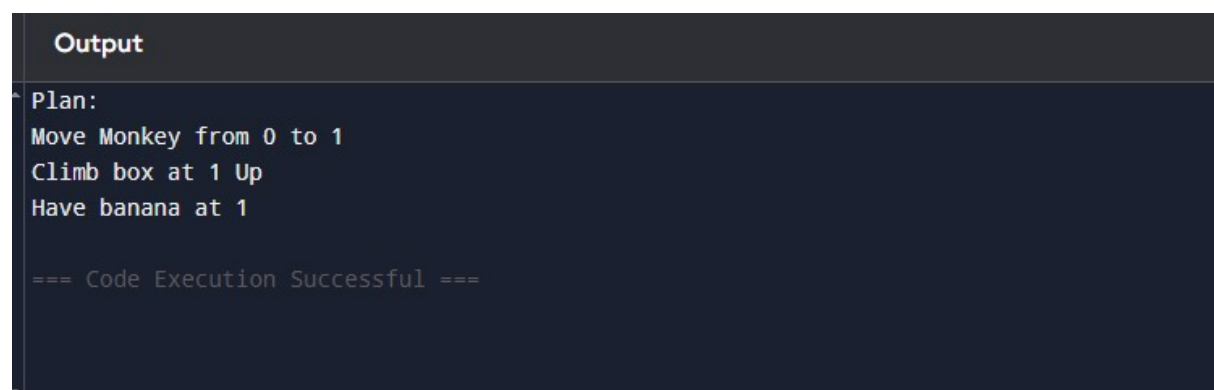
```
# Example planning algorithm to achieve the goal state
if initial_state.get('monkeyAt0') and initial_state.get('bananaAt1'):
    actions.append(move('Monkey', 0, 1))
    actions.append(climb_box(1, 'Up'))
    actions.append(have_banana(1))

return actions

# Execute the planning algorithm
actions = plan_actions(initial_state, goal_state)

# Print the actions in the plan
print("Plan:")
for action in actions:
    print(action)
```

OUTPUT:



```
Output
Plan:
Move Monkey from 0 to 1
Climb box at 1 Up
Have banana at 1

=== Code Execution Successful ===
```