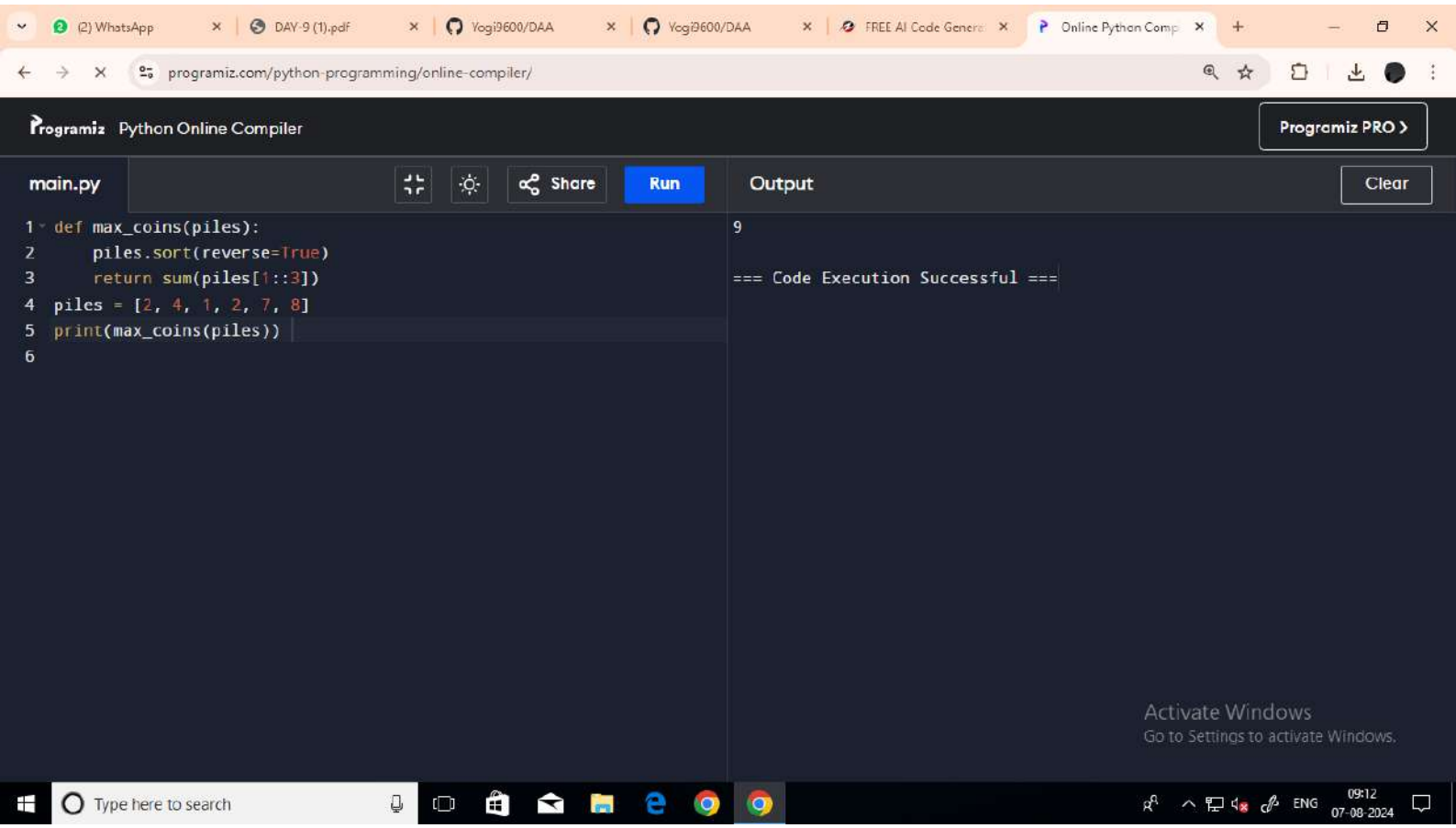
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Clear
def max_coins(piles):
piles.sort(reverse=True)
return sum(piles[1::3])
piles = [2, 4, 1, 2, 7, 8]
print(max_coins(piles))
9
=== Code Execution Successful ===
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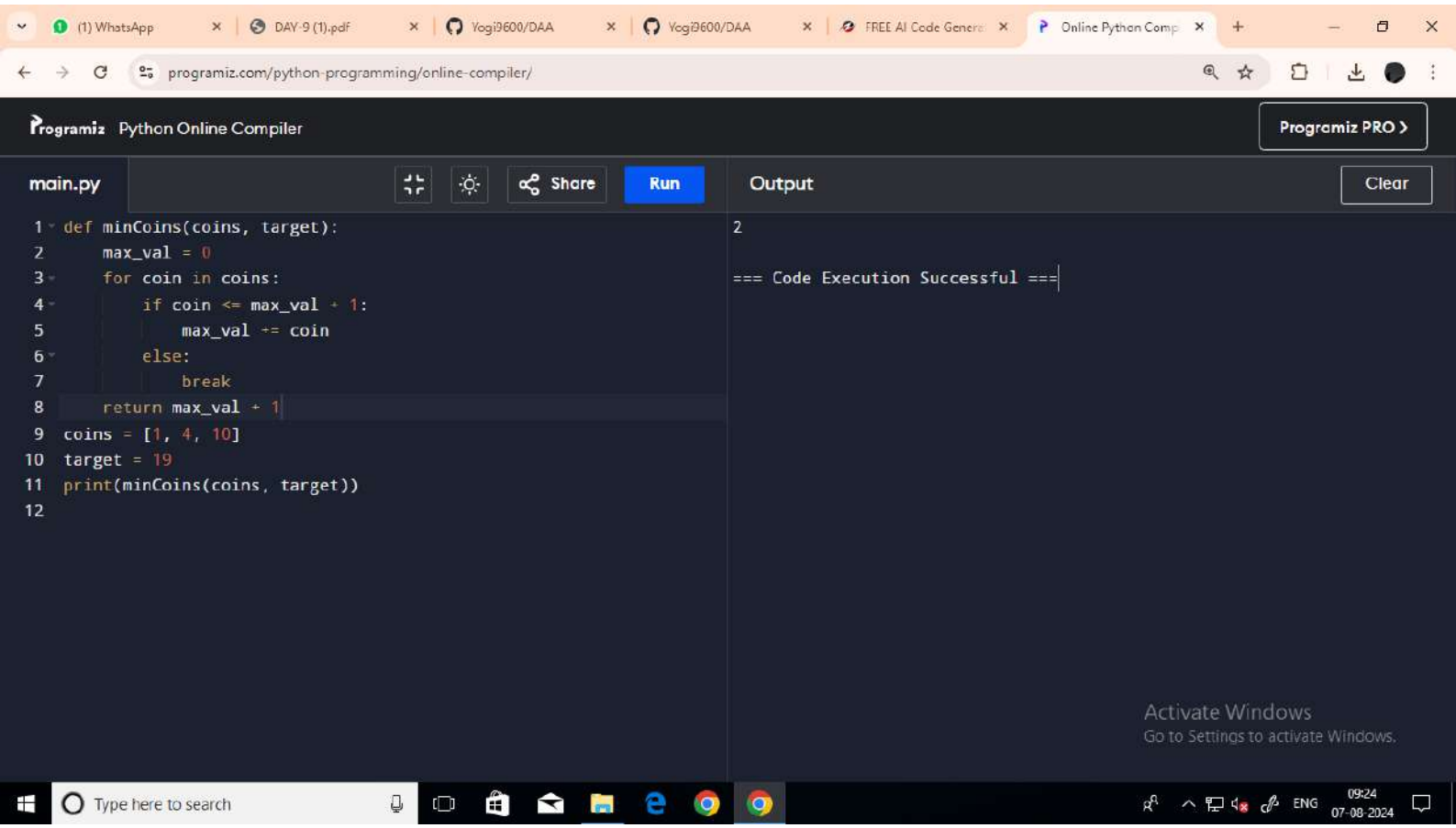
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Clear
def minCoins(coins, target):
max_val = 0
for coin in coins:
if coin <= max_val + 1:
max_val += coin
else:
break
return max_val + 1
coins = [1, 4, 10]
target = 19
print(minCoins(coins, target))
2
=== Code Execution Successful ===
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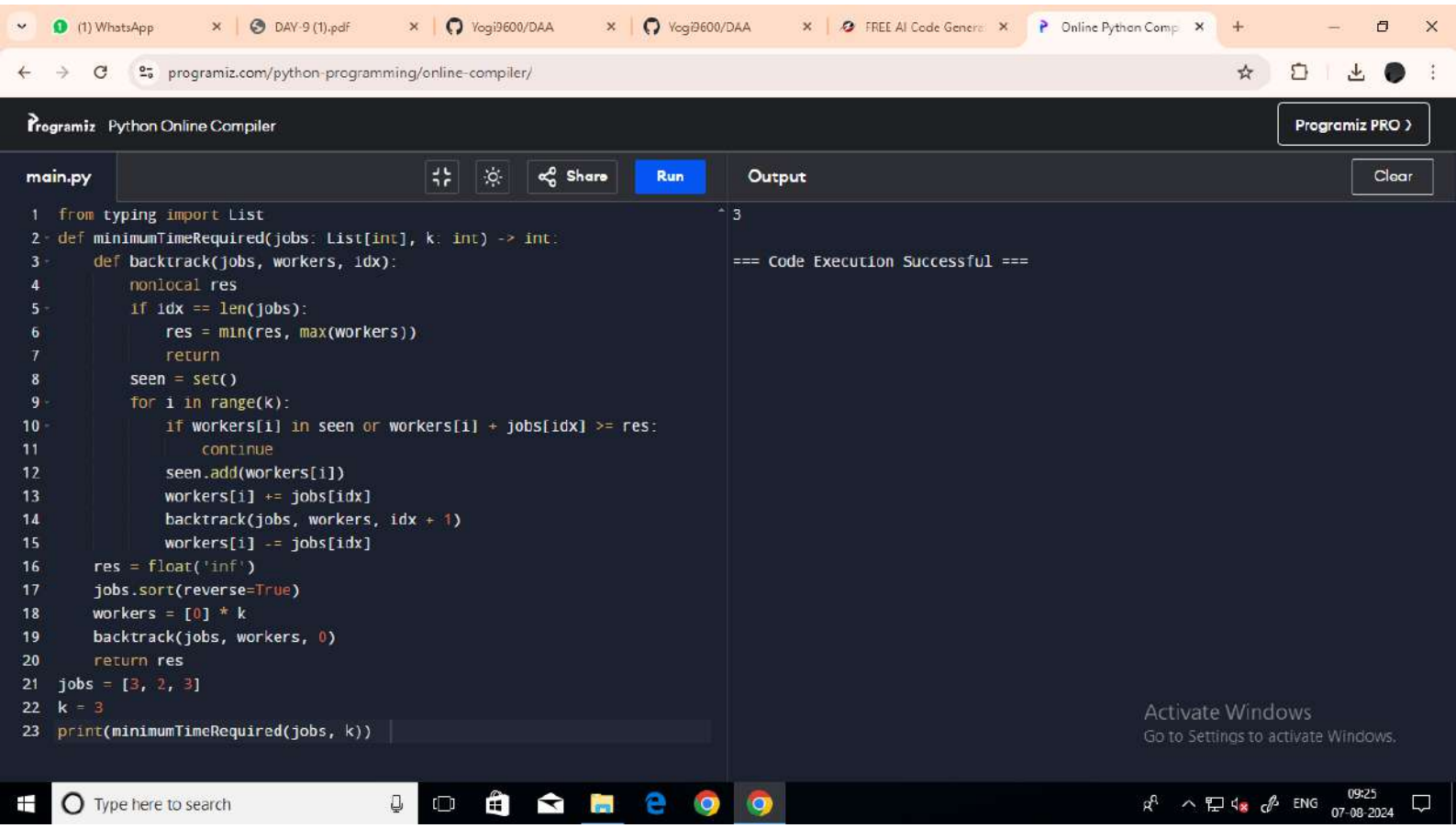
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main.py
Share
Run
Output
Clear
from typing import List
def minimumTimeRequired(jobs: List[int], k: int) -> int:
def backtrack(jobs, workers, idx):
nonlocal res
if idx == len(jobs):
res = min(res, max(workers))
return
seen = set()
for i in range(k):
if workers[i] in seen or workers[i] + jobs[idx] >= res:
continue
seen.add(workers[i])
workers[i] += jobs[idx]
backtrack(jobs, workers, idx + 1)
workers[i] -= jobs[idx]
res = float('inf')
jobs.sort(reverse=True)
workers = [0] * k
backtrack(jobs, workers, 0)
return res
jobs = [3, 2, 3]
k = 3
print(minimumTimeRequired(jobs, k))
3
=== Code Execution Successful ===
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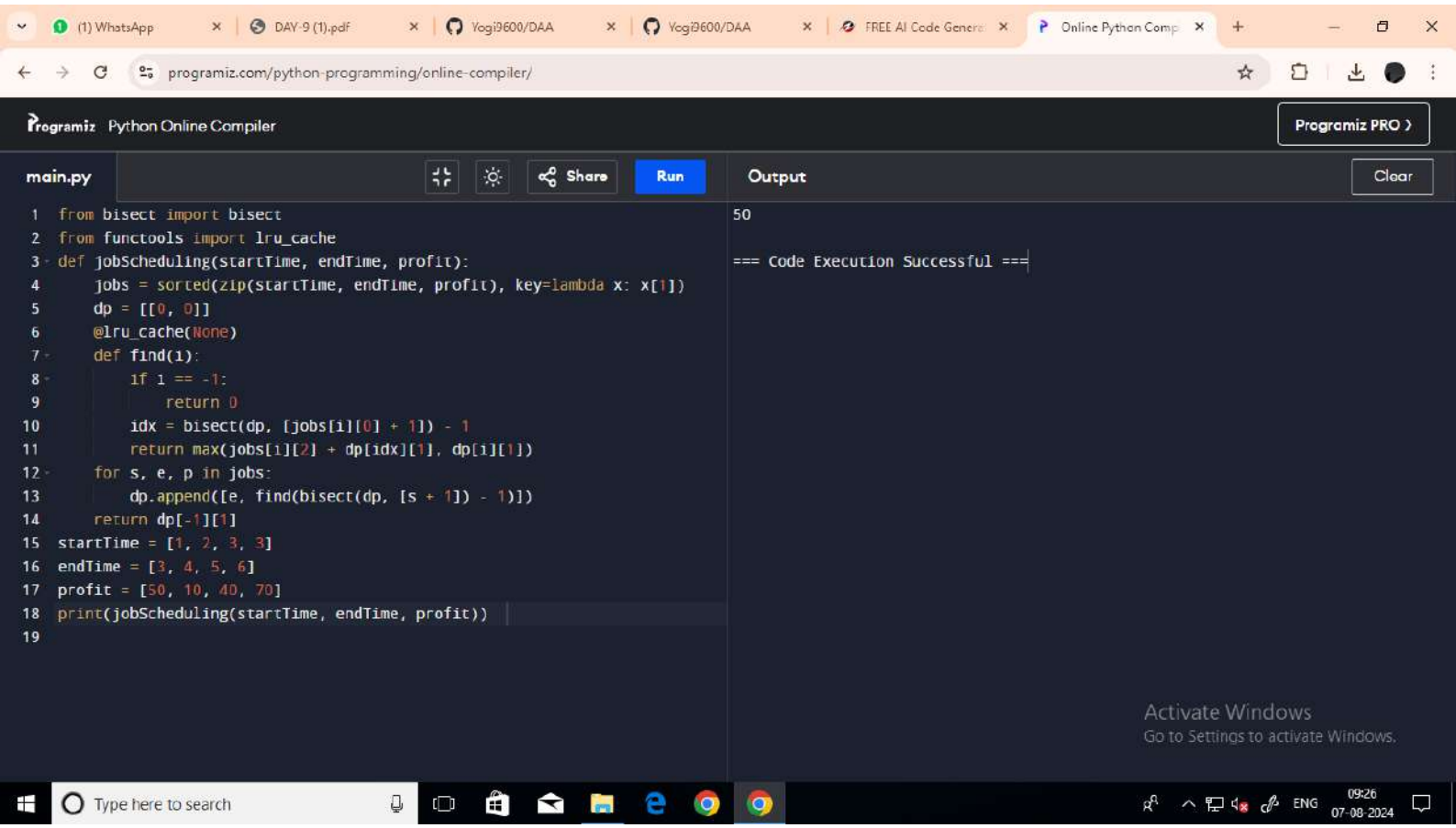
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from bisect import bisect
from functools import lru_cache
def jobScheduling(startTime, endTime, profit):
jobs = sorted(zip(startTime, endTime, profit), key=lambda x: x[1])
dp = [[0, 0]]
@lru_cache(None)
def find(i):
if i == -1:
return 0
idx = bisect(dp, [jobs[i][0] + 1]) - 1
return max(jobs[i][2] + dp[idx][1], dp[i][1])
for s, e, p in jobs:
dp.append([e, find(bisect(dp, [s + 1]) - 1)])
return dp[-1][1]
startTime = [1, 2, 3, 3]
endTime = [3, 4, 5, 6]
profit = [50, 10, 40, 70]
print(jobScheduling(startTime, endTime, profit))
50
=== Code Execution Successful ===
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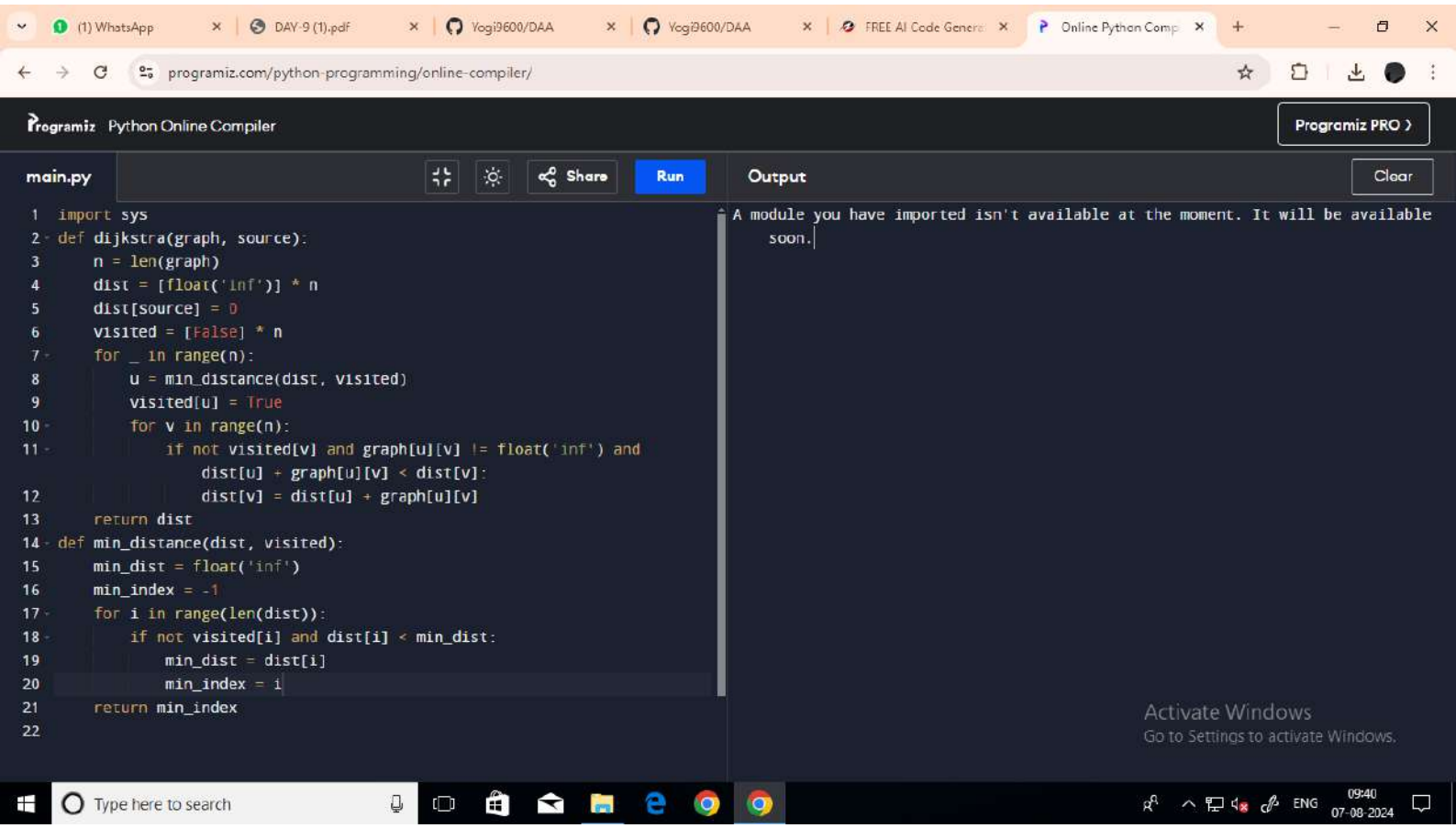
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Clear
import sys
def dijkstra(graph, source):
n = len(graph)
dist = [float('inf')] * n
dist[source] = 0
visited = [False] * n
for _ in range(n):
u = min_distance(dist, visited)
visited[u] = True
for v in range(n):
if not visited[v] and graph[u][v] != float('inf') and
dist[u] + graph[u][v] < dist[v]:
dist[v] = dist[u] + graph[u][v]
return dist
def min_distance(dist, visited):
min_dist = float('inf')
min_index = -1
for i in range(len(dist)):
if not visited[i] and dist[i] < min_dist:
min_dist = dist[i]
min_index = i
return min_index
A module you have imported isn't available at the moment. It will be available soon.
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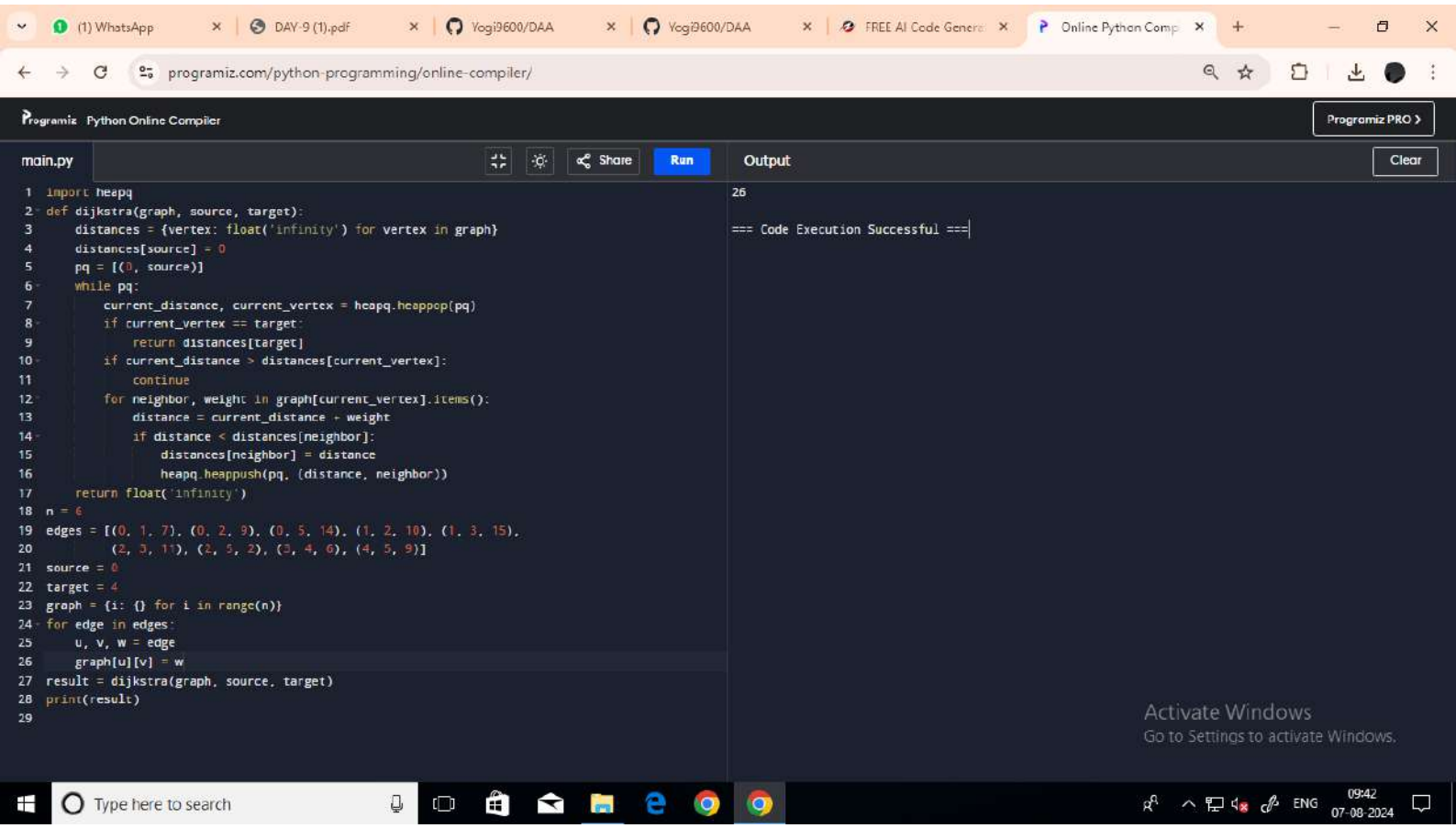
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main.py
Share
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Output
Clear
import heapq
def dijkstra(graph, source, target):
distances = {vertex: float('infinity') for vertex in graph}
distances[source] = 0
pq = [(0, source)]
while pq:
current_distance, current_vertex = heapq.heappop(pq)
if current_vertex == target:
return distances[target]
if current_distance > distances[current_vertex]:
continue
for neighbor, weight in graph[current_vertex].items():
distance = current_distance + weight
if distance < distances[neighbor]:
distances[neighbor] = distance
heapq.heappush(pq, (distance, neighbor))
return float('infinity')
n = 6
edges = [(0, 1, 7), (0, 2, 9), (0, 5, 14), (1, 2, 10), (1, 3, 15),
(2, 3, 11), (2, 5, 2), (3, 4, 6), (4, 5, 9)]
source = 0
target = 4
graph = {i: {} for i in range(n)}
for edge in edges:
u, v, w = edge
graph[u][v] = w
result = dijkstra(graph, source, target)
print(result)
26
=== Code Execution Successful ===
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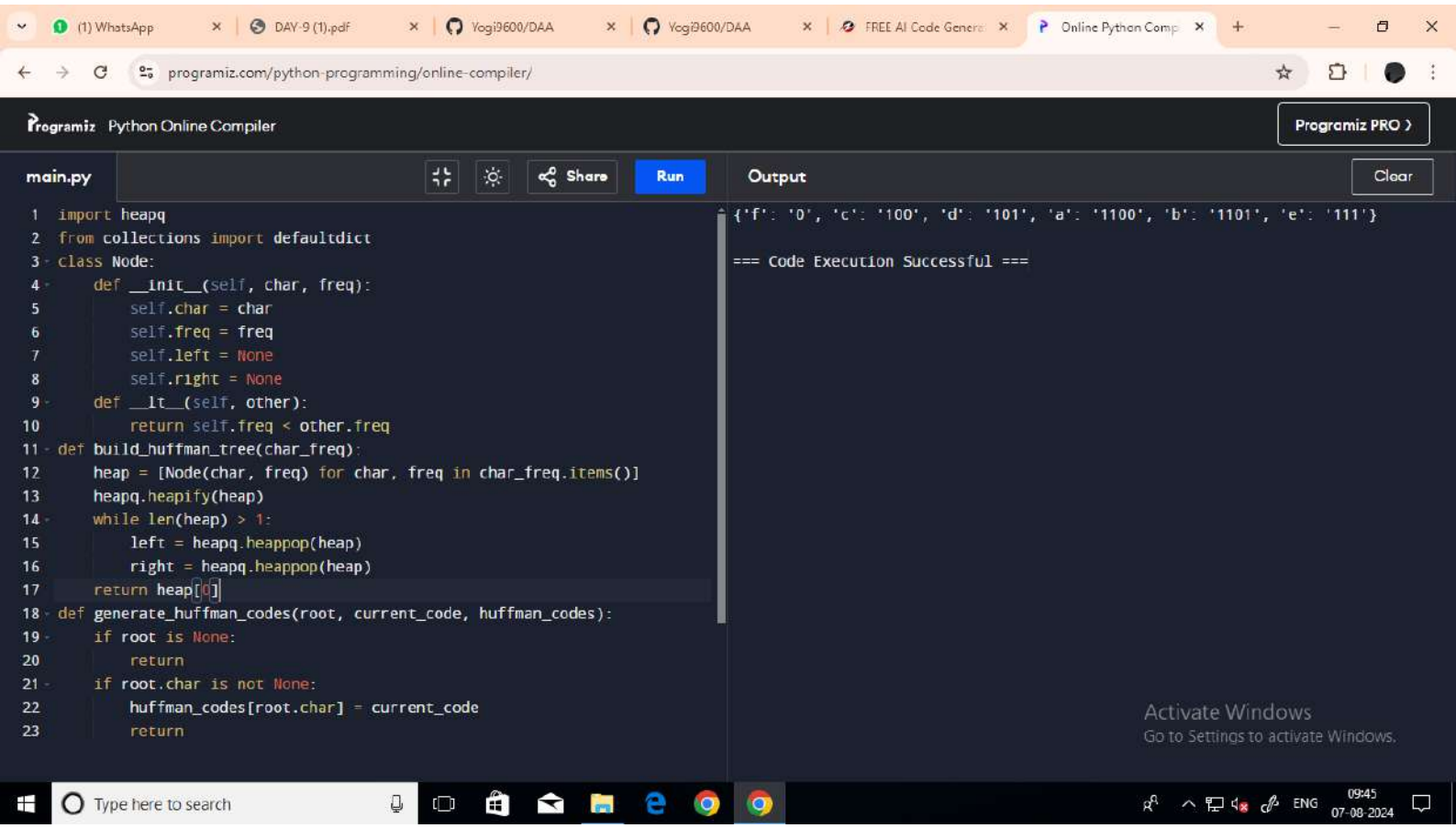
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main.py
Share
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Output
Clear
import heapq
from collections import defaultdict
class Node:
def __init__(self, char, freq):
self.char = char
self.freq = freq
self.left = None
self.right = None
def __lt__(self, other):
return self.freq < other.freq
def build_huffman_tree(char_freq):
heap = [Node(char, freq) for char, freq in char_freq.items()]
heapq.heapify(heap)
while len(heap) > 1:
left = heapq.heappop(heap)
right = heapq.heappop(heap)
return heap[0]
def generate_huffman_codes(root, current_code, huffman_codes):
if root is None:
return
if root.char is not None:
huffman_codes[root.char] = current_code
return
{'f': '0', 'c': '100', 'd': '101', 'a': '1100', 'b': '1101', 'e': '111'}
=== Code Execution Successful ===
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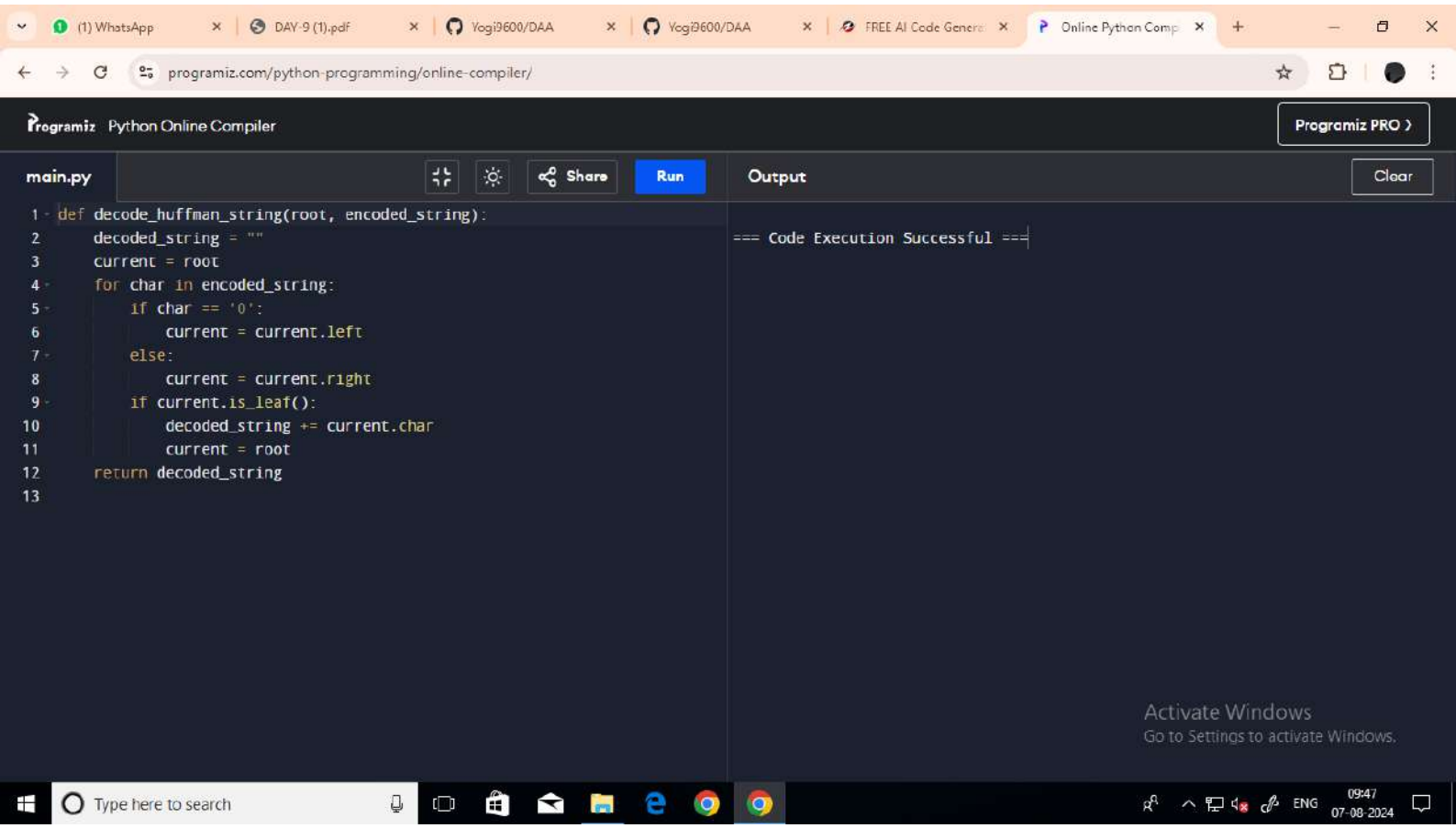
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Share
Run
Output
Clear
def decode_huffman_string(root, encoded_string):
decoded_string = ""
current = root
for char in encoded_string:
if char == '0':
current = current.left
else:
current = current.right
if current.is_leaf():
decoded_string += current.char
current = root
return decoded_string
=== Code Execution Successful ===
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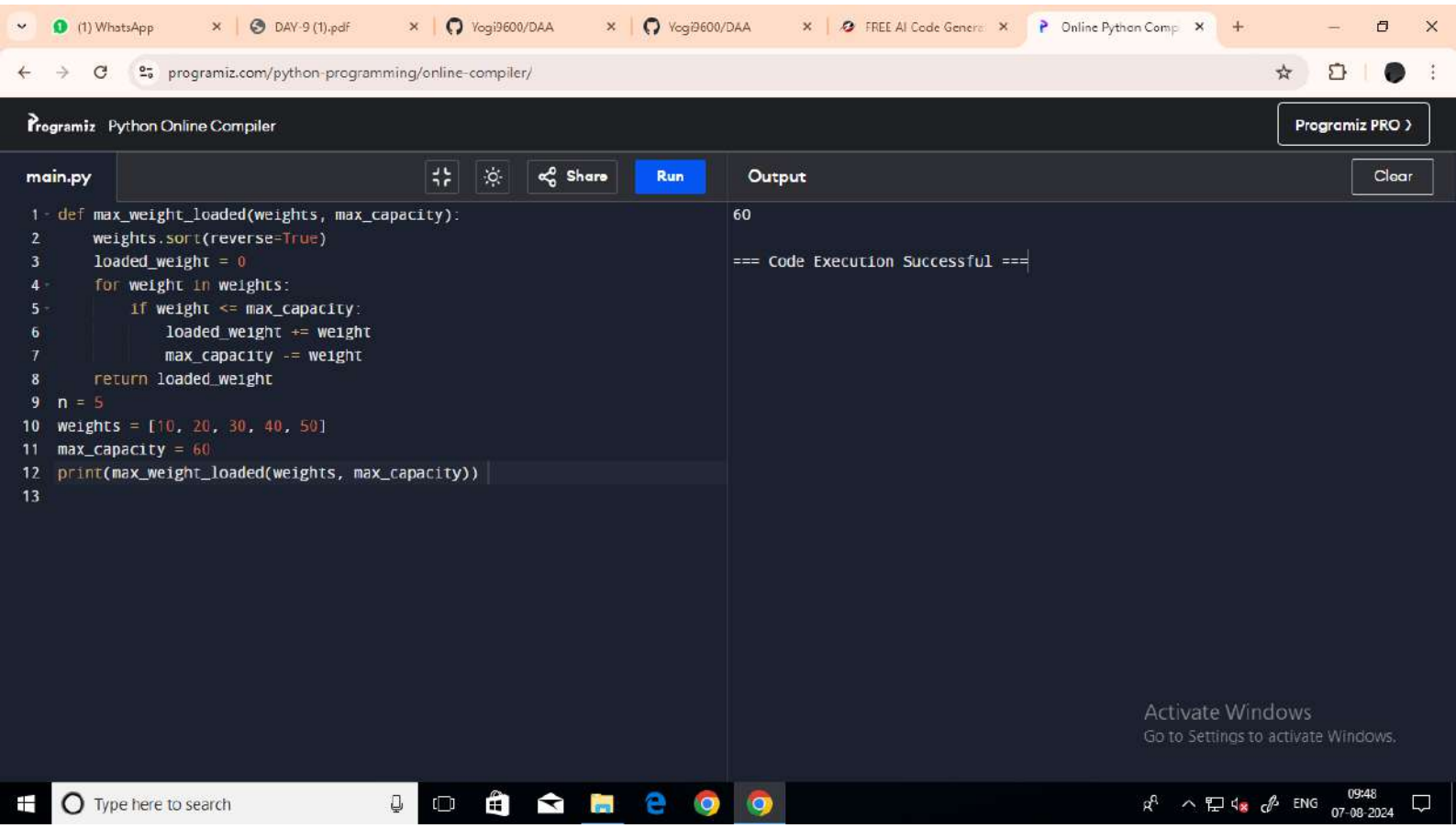
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main.py
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Output
Clear
def max_weight_loaded(weights, max_capacity):
weights.sort(reverse=True)
loaded_weight = 0
for weight in weights:
if weight <= max_capacity:
loaded_weight += weight
max_capacity -= weight
return loaded_weight
n = 5
weights = [10, 20, 30, 40, 50]
max_capacity = 60
print(max_weight_loaded(weights, max_capacity))
60
=== Code Execution Successful ===
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main.py

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```python
def min_containers(weights, max_capacity):
    containers = 0
    current_weight = 0
    for weight in weights:
        if current_weight + weight <= max_capacity:
            current_weight += weight
        else:
            containers += 1
            current_weight = weight
    if current_weight > 0:
        containers += 1
    return containers
n = 7
weights = [5, 10, 15, 20, 25, 30, 35]
max_capacity = 50
print(min_containers(weights, max_capacity))

```

Output | Clear

```
4

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


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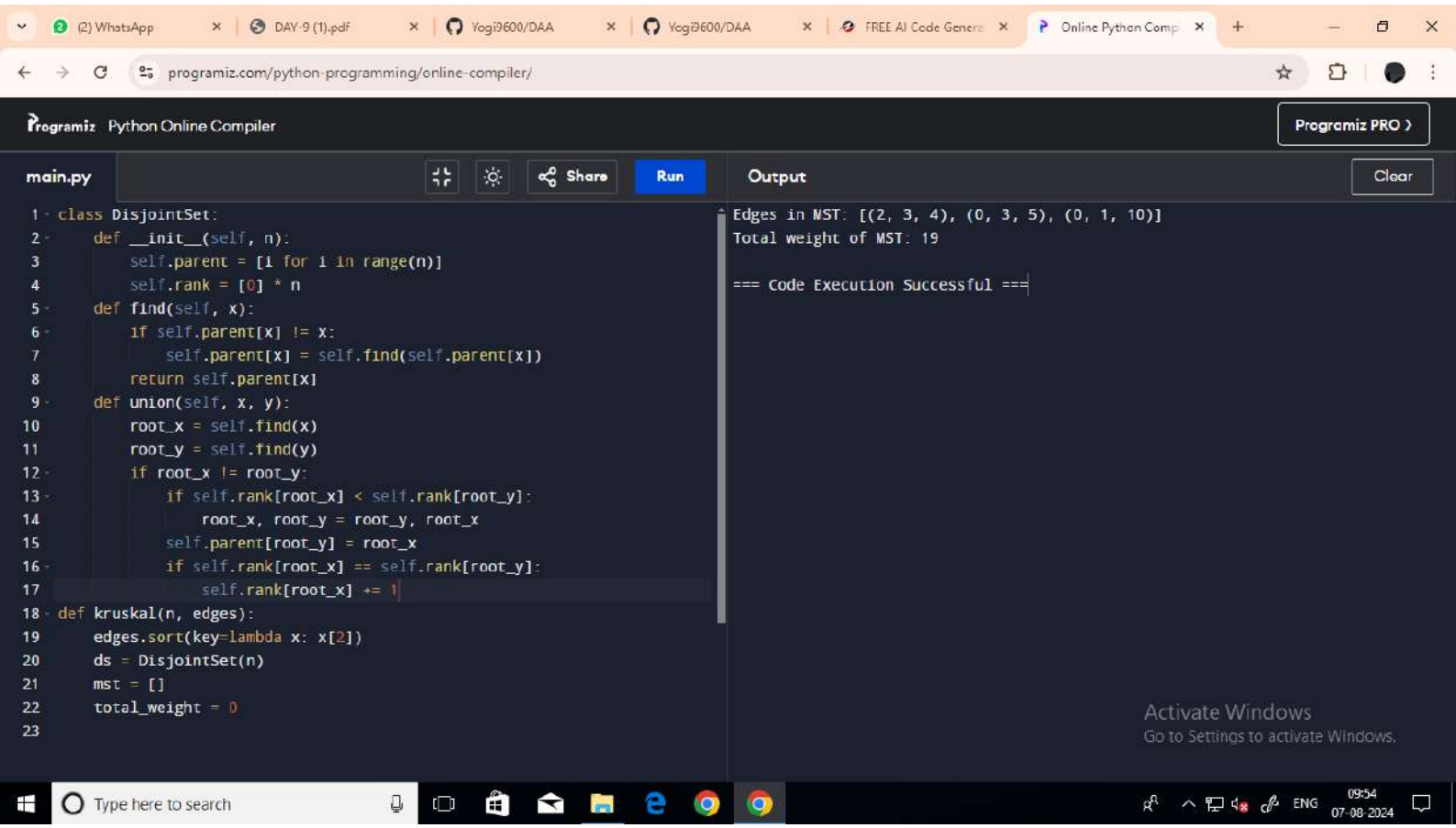
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main.py
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class DisjointSet:
def __init__(self, n):
self.parent = [i for i in range(n)]
self.rank = [0] * n
def find(self, x):
if self.parent[x] != x:
self.parent[x] = self.find(self.parent[x])
return self.parent[x]
def union(self, x, y):
root_x = self.find(x)
root_y = self.find(y)
if root_x != root_y:
if self.rank[root_x] < self.rank[root_y]:
root_x, root_y = root_y, root_x
self.parent[root_y] = root_x
if self.rank[root_x] == self.rank[root_y]:
self.rank[root_x] += 1
def kruskal(n, edges):
edges.sort(key=lambda x: x[2])
ds = DisjointSet(n)
mst = []
total_weight = 0
Edges in MST: [(2, 3, 4), (0, 3, 5), (0, 1, 10)]
Total weight of MST: 19
=== Code Execution Successful ===
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main.py

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```python
from collections import defaultdict
def find(parent, i):
    if parent[i] == i:
        return i
    return find(parent, parent[i])
def kruskal_mst(n, edges, given_mst):
    result = []
    edges.sort(key=lambda x: x[2])
    parent = [i for i in range(n)]
    rank = [0] * n
    for edge in edges:
        if edge in given_mst:
            continue
        if x_root != y_root:
            result.append(edge)
            union(parent, rank, x_root, y_root)
    return result
n = 4
edges = [(0, 1, 10), (0, 2, 6), (0, 3, 5), (1, 3, 15), (2, 3, 4)]
given_mst = [(2, 3, 4), (0, 3, 5), (0, 1, 10)]
new_mst = kruskal_mst(n, edges, given_mst)
print(new_mst)

```

Output

Clear

```
ERROR!
Traceback (most recent call last):
  File "<main.py>", line 1
    from collections import defaultdict
IndentationError: unexpected indent

=== Code Exited With Errors ===
```


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