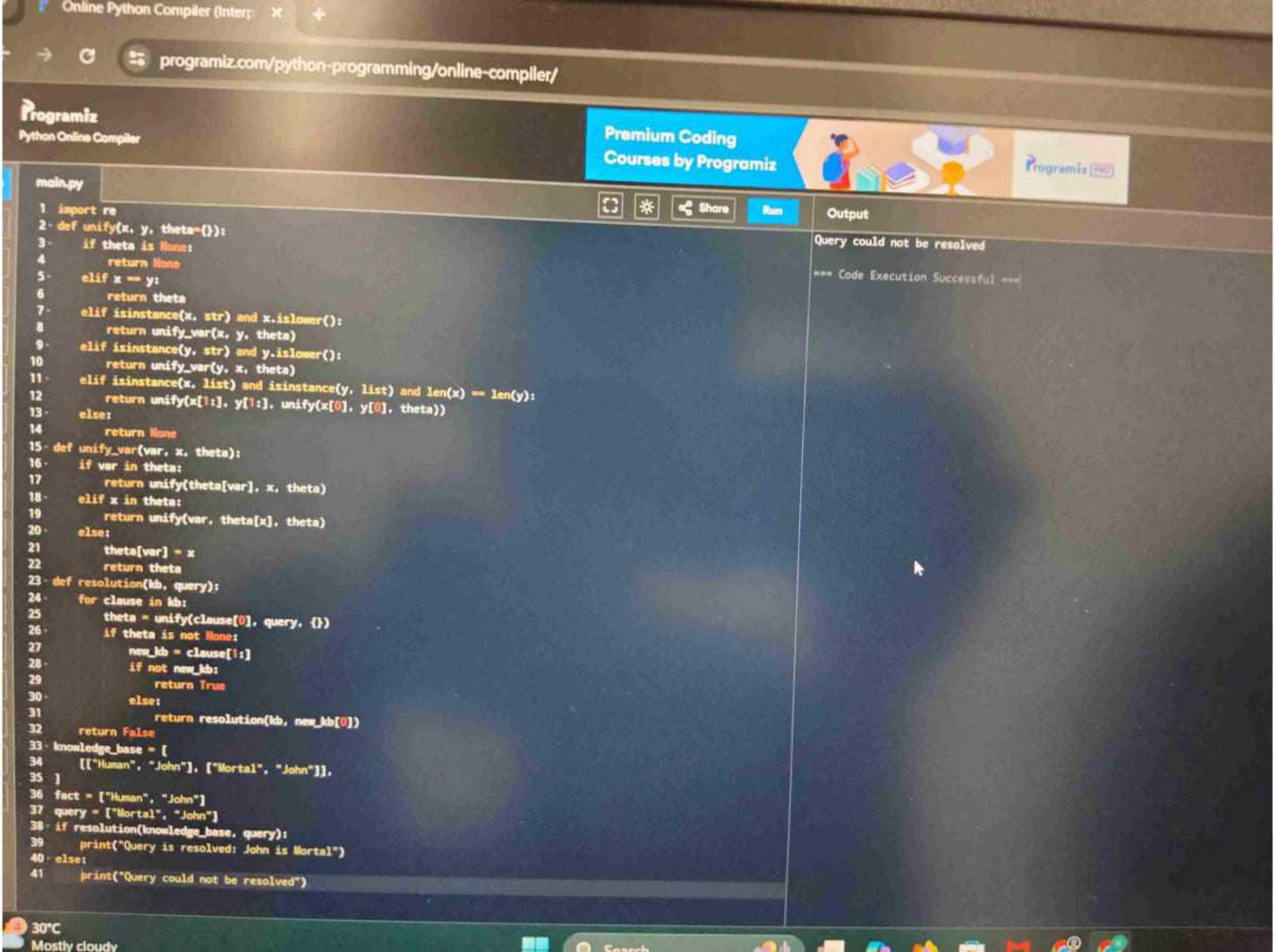
Online Python Compiler (Interp
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main.py
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import re
def unify(x, y, theta={}):
if theta is None:
return None
elif x == y:
return theta
elif isinstance(x, str) and x.islower():
return unify_var(x, y, theta)
elif isinstance(y, str) and y.islower():
return unify_var(y, x, theta)
elif isinstance(x, list) and isinstance(y, list) and len(x) == len(y):
return unify(x[1:], y[1:], unify(x[0], y[0], theta))
else:
return None
def unify_var(var, x, theta):
if var in theta:
return unify(theta[var], x, theta)
elif x in theta:
return unify(var, theta[x], theta)
else:
theta[var] = x
return theta
def resolution(kb, query):
for clause in kb:
theta = unify(clause[0], query, {})
if theta is not None:
new_kb = clause[1:]
if not new_kb:
return True
else:
return resolution(kb, new_kb[0])
return False
knowledge_base = [
[["Human", "John"], ["Mortal", "John"]],
]
fact = ["Human", "John"]
query = ["Mortal", "John"]
if resolution(knowledge_base, query):
print("Query is resolved: John is Mortal")
else:
print("Query could not be resolved")
Query could not be resolved
=== Code Execution Successful ===
30°C
Mostly cloudy
Search