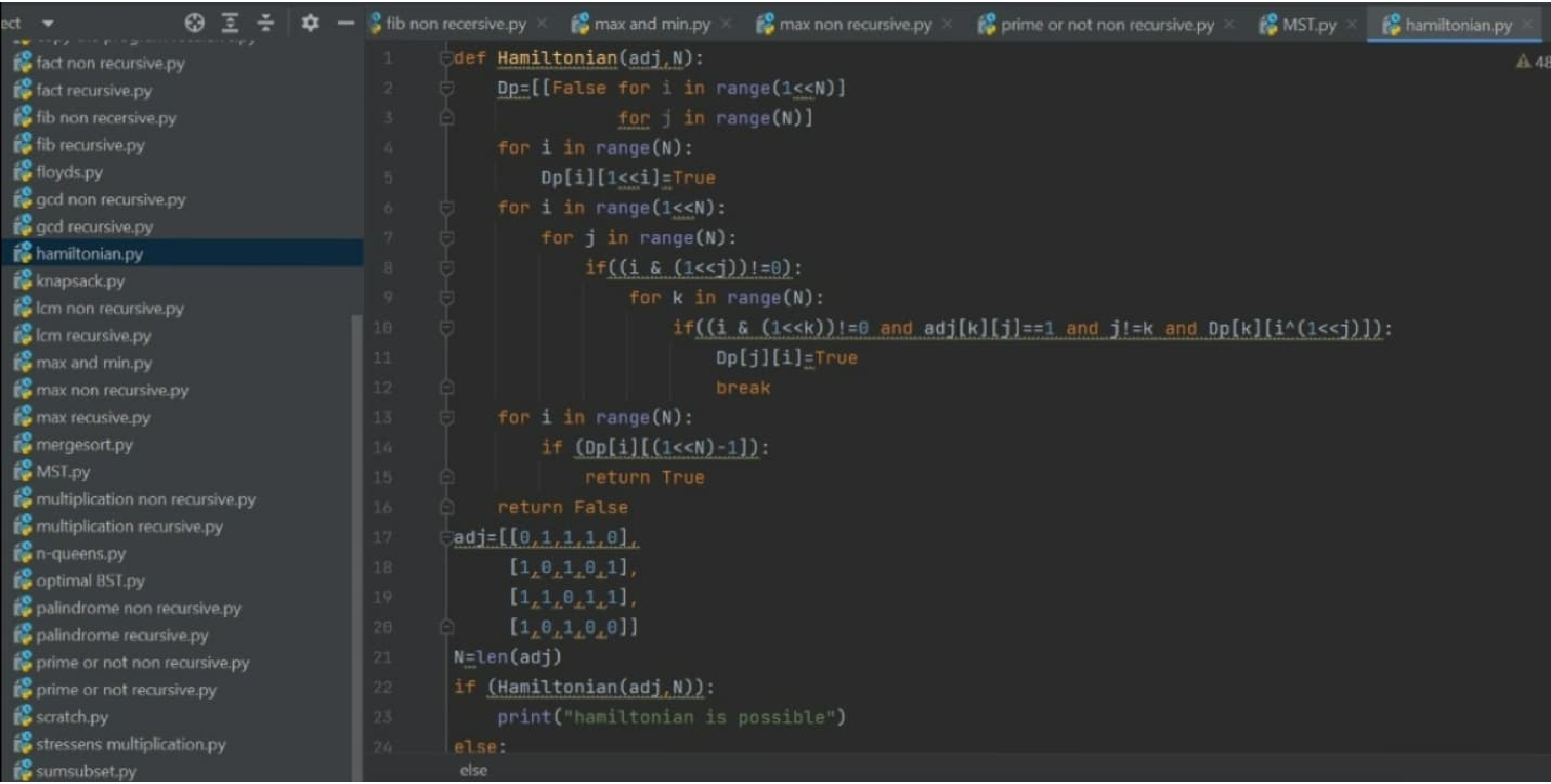
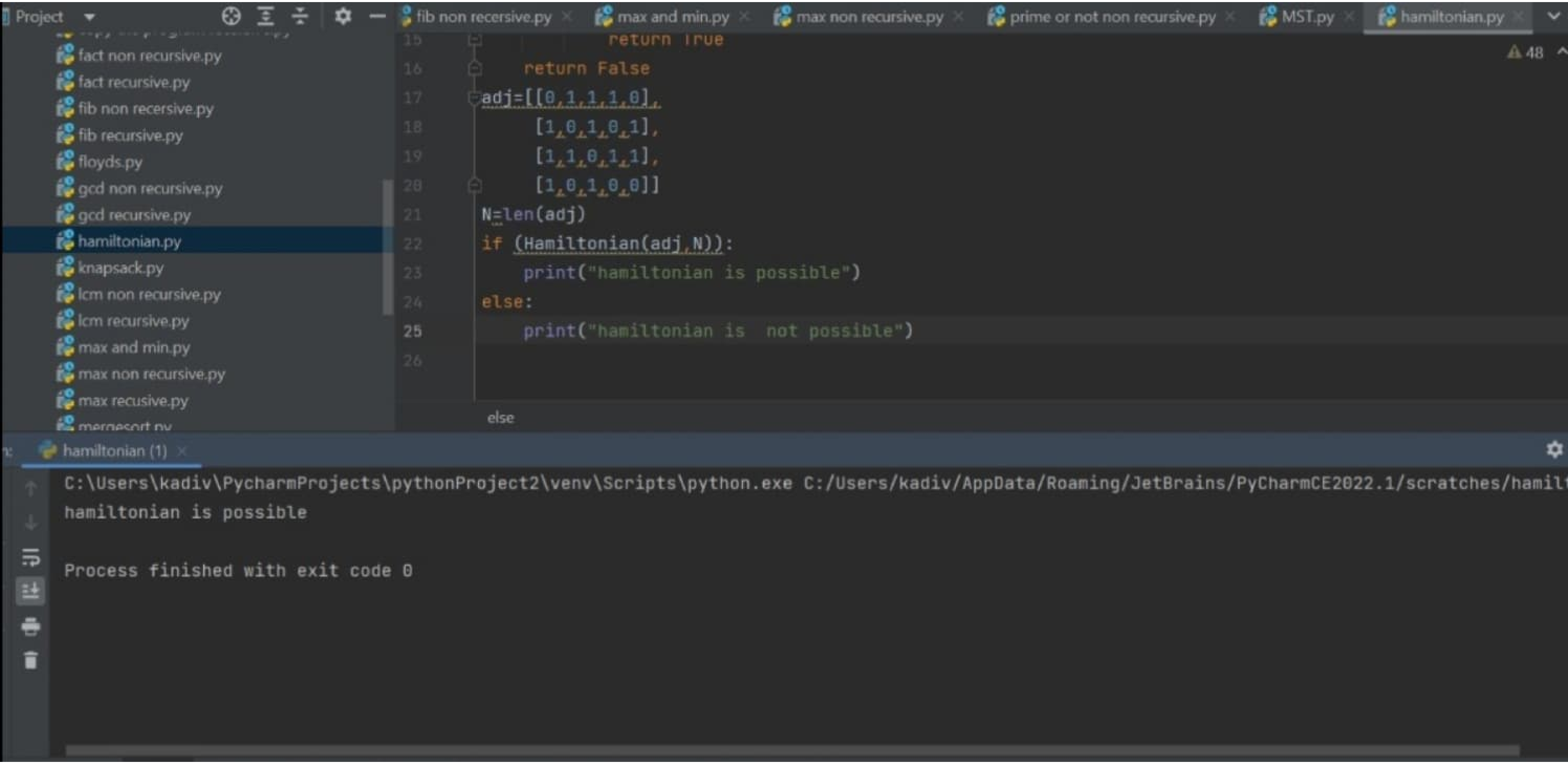


```python
def Hamiltonian(adj,N):
    Dp=[[False for i in range(1<<N)]
               for j in range(N)]
    for i in range(N):
        Dp[i][1<<i]=True
    for i in range(1<<N):
        for j in range(N):
            if((i & (1<<j))!=0):
                for k in range(N):
                    if((i & (1<<k))!=0 and adj[k][j]==1 and j!=k and Dp[k][i^(1<<j)]):
                        Dp[j][i]=True
                        break
    for i in range(N):
        if (Dp[i][(1<<N)-1]):
            return True
    return False
adj=[[0,1,1,1,0],
     [1,0,1,0,1],
     [1,1,0,1,1],
     [1,0,1,0,0]]
N=len(adj)
if (Hamiltonian(adj,N)):
    print("hamiltonian is possible")
else:
```



```
            return True
    return False
adj=[[0,1,1,1,0],
     [1,0,1,0,1],
     [1,1,0,1,1],
     [1,0,1,0,0]]
N=len(adj)
if (Hamiltonian(adj,N)):
    print("hamiltonian is possible")
else:
    print("hamiltonian is  not possible")
```

```
C:\Users\kadiv\PycharmProjects\pythonProject2\venv\Scripts\python.exe C:/Users/kadiv/AppData/Roaming/JetBrains/PyCharmCE2022.1/scratches/hamil
hamiltonian is possible

Process finished with exit code 0
```