

File Edit Selection View Go Run Terminal Help ← → Dagnino_Gerardo_TSP TSP Backtracking

EXPLORER DAGNINO_GERARDO_TSP .vscode TSP Include Scripts activate activate.bat activate.fish Activate.ps1 deactivate.bat f2py.exe fonttools.exe meson.exe ninja.exe numpy-config.exe pip.exe pip3.13.exe pip3.exe pyftmerge.exe pyftsubset.exe python.exe pythown.exe tbx.exe wheel.exe share .gitignore pyenv.cfg Dagnino_Gerardo_TSP.py req.txt

Dagnino_Gerardo_TSP.py x Dagnino_Gerardo_TSP.py > Python > [grado] 3 import matplotlib.pyplot as plt 4 from matplotlib.figure import Figure 5 from matplotlib.backends.backend_tkagg import 6 7 #Grafo de 8 nodos, mediante un diccionario 8 grafo = { 9 'A': {'B': 1, 'C': 4, 'D': 7}, 10 'B': {'A': 1, 'C': 2, 'E': 5}, 11 'C': {'A': 4, 'B': 2, 'D': 1, 'F': 3}, 12 'D': {'A': 7, 'C': 1, 'F': 2, 'G': 6}, 13 'E': {'B': 5, 'F': 4, 'H': 3}, 14 'F': {'C': 3, 'D': 2, 'E': 4, 'H': 1}, 15 'G': {'D': 6, 'H': 2}, 16 'H': {'E': 3, 'F': 1, 'G': 2} 17 } 18 19 #resolver el problema del viajero mediante 20 class TSPBacktracking: 21 def __init__(self, grafo): 22 self.grafo = grafo 23 self.mejorRuta = None #Inicializar 24 self.mejorCosto = float('inf') #Iniciar PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS File "C:\Users\gzdag\Documents\GitHub\Algoritmos\dibujarGrafo(plot_frame)" ^~~~~~ NameError: name 'plot_frame' is not defined (TSP) PS C:\Users\gzdag\Documents\GitHub\Algoritmos\dibujarGrafo(plot_frame) NameError: name 'plot_frame' is not defined (TSP) PS C:\Users\gzdag\Documents\GitHub\AlgorithmAnalysisClass\dagnino_Gerardo_TSP> python .\Dagnino_Gerardo_TSP.py (TSP) PS C:\Users\gzdag\Documents\GitHub\AlgorithmAnalysisClass\dagnino_Gerardo_TSP> python .\Dagnino_Gerardo_TSP.py

Resolviendo TSP con Backtracking

Grafo del Problema del Viajero (TSP)

The diagram shows a complete graph with 8 nodes labeled A through H. The edges and their weights are: A-B (1), A-C (4), A-D (7), B-C (2), B-E (5), C-D (1), C-F (3), C-G (2), D-F (2), D-G (6), E-F (4), E-H (3), F-G (1), F-H (4), G-H (2). Node H is also connected to node E.

Resultado: Ruta: H-> F -> E -> B -> A -> C -> D -> G -> H | Costo: 24

H Calcular Mejor Ruta

The screenshot shows a Python IDE interface with the following details:

- File Menu:** File, Edits, Selection, View, Go, Run, Terminal, Help.
- Search Bar:** Search term: Dagnino_Gerardo_TSP
- Left Sidebar (EXPLORER):** Shows project structure:
 - DAGNINO_GERARDO_TSP (selected)
 - srccode
 - TSP
 - Include
 - Lb
 - Scripts
 - activate.bat
 - \$ activate.fish
 - Activate.ps1
 - deactivate.bat
 - f2py.exe
 - fonttools.exe
 - meson.exe
 - ninja.exe
 - numpy-config.exe
 - pip.exe
 - pip3.13.exe
 - pip3.exe
 - pytmerge.exe
 - pytusobset.exe
 - python.exe
 - pythonw.exe
 - txbe.exe
 - wheel.exe
 - share
 - .gitignore
 - pyenv.cfg
- Code Editor:** Displays a Python script named `Dagnino_Gerardo_TSP.py`. The code implements a backtracking algorithm for the Traveling Salesman Problem (TSP). It includes functions for initializing the graph, calculating costs, and exploring nodes. A specific function `encontrar_mejor_ruta` is highlighted in yellow.
- Terminal:** Shows command-line output from a terminal window titled "Python". The commands run are:

```
File "C:\Users\gda\Documents\GitHub\AlgorithmAnalysisClass\Gagnino_Gerardo_TSP\Gagnino_Gerardo_TSP.py", line 101, in <module>
    dibujarGrafo(plot_fame)
(TSP) PS C:\Users\gda\Documents\GitHub\AlgorithmAnalysisClass\Gagnino_Gerardo_TSP> python .\Dagnino_Gerardo_TSP.py
(TSP) PS C:\Users\gda\Documents\GitHub\AlgorithmAnalysisClass\Gagnino_Gerardo_TSP> python .\Dagnino_Gerardo_TSP.py
(TSP) PS C:\Users\gda\Documents\GitHub\AlgorithmAnalysisClass\Gagnino_Gerardo_TSP> python .\Dagnino_Gerardo_TSP.py
NameError: name 'plot_fame' is not defined
```
- Bottom Status Bar:** Lines 19, Col 1 (1863 selected), Spaces: 4, UTF-8, Python, TSP (3.13.0), 05:29 p.m., 22/11/2023.

The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows the project structure for "DAGNINO_GERARDO_TSP".
- Code Editor:** Displays the Python script "Dagnino_Gerardo_TSP.py". The code implements a Traveling Salesman Problem (TSP) solution using Backtracking and visualizes it using matplotlib and Tkinter.
- Terminal:** Shows the command-line output of running the script, which includes a stack trace for a NameError.
- Status Bar:** Provides information such as line 75, column 51, spaces 4, UTF-8 encoding, Python 3.13.0, and the date/time 05:30 p.m. 22/11/2025.

```
File "C:\Users\gzagd\Documents\GitHub\AlgorithmAnalysisClass\Dagnino_Gerardo_TSP\dagnino_gerardo_tsp.py", line 101, in <module>
    dibujarGrafo(plot_frame) ...
(TSP) PS C:\Users\gzagd\Documents\GitHub\AlgorithmAnalysisClass\Dagnino_Gerardo_TSP> python .\Dagnino_Gerardo_TSP.py
(TSP) PS C:\Users\gzagd\Documents\GitHub\AlgorithmAnalysisClass\Dagnino_Gerardo_TSP> python .\Dagnino_Gerardo_TSP.py
(TSP) PS C:\Users\gzagd\Documents\GitHub\AlgorithmAnalysisClass\Dagnino_Gerardo_TSP> python .\Dagnino_Gerardo_TSP.py
NameError: name 'plot_frame' is not defined
```

This screenshot is identical to the one above, showing the same code editor, terminal output, and status bar. The difference is that the graphical output of the TSP solution is visible in the background, showing a window titled "Grafo del Problema del Viajero (TSP)" displaying a network graph with nodes and edges.