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graph c:\users\henry\downloads\henry-ki-main\henry-ki-main\graph.py

Classes

builtins.object

Graph
Vertex

class **Graph**(builtins.object)
Graph(csv_content: list[list[str]])

Methods defined here:

__init__(self, csv_content: list[list[str]])
Initialize self. See help(type(self)) for accurate signature.

__repr__(self) -> str
Return repr(self).

__str__(self) -> str
Return str(self).

a_star(self, start: str, target: str) -> list[graph.Vertex]
TODO check a star for correctness
perform a_star search on graph with given start and end node.
returns the path as list of vertices.
https://en.wikipedia.org/wiki/A*_search_algorithm

djikstra(self, start: str, target: str) -> list[graph.Vertex]
perform djikstra search on graph with given start and end node.
returns the path as list of vertices.
https://en.wikipedia.org/wiki/Dijkstra%27s_algorithm

greedy(self, start: str, target: str) -> list[graph.Vertex]
perform greedy search on graph with given start and end node.
returns the path as list of vertices.

Data descriptors defined here:

__dict__
dictionary for instance variables

__weakref__
list of weak references to the object

Data and other attributes defined here:

__annotations__ = {'heuristics': dict[str, float], 'nodes': list[str], 'vertices': list[graph.Vertex]}

class **Vertex**(builtins.object)
Vertex(start: str, end: str, cost: float)

Methods defined here:

__init__(self, start: str, end: str, cost: float)
Initialize self. See help(type(self)) for accurate signature.

__repr__(self) -> str
Return repr(self).

__str__(self)
Return str(self).

Data descriptors defined here:

__dict__
dictionary for instance variables

__weakref__
list of weak references to the object

Data and other attributes defined here:

__annotations__ = {'cost': <class 'float'>, 'end': <class 'str'>, 'start': <class 'str'>}