**Practice Enterprise 2**

# Route Planning / Green Routing :

## Overview

* Route plannen van cargo tot thuis van klant
* Groene routes vergelijken

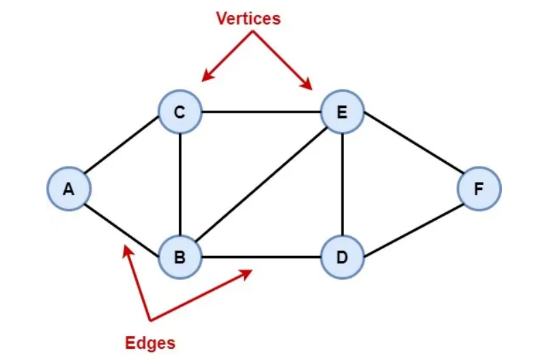
## Find out how to start coding

* Base of a code found in : <https://www.101computing.net/air-flight-route-planner/>
* Basics of Graph data structure in : <https://python.plainenglish.io/graph-data-structure-theory-and-python-implementation-ee8c9795eae7>
* Base of Dijkstra’s shortest path algorithm in : <https://www.bogotobogo.com/python/python_Dijkstras_Shortest_Path_Algorithm.php>
* Greenest route planning in : <file:///C:/Users/vegam/Downloads/Green_Paths_software_metapaper_pre-print.pdf>
* basic python dijckstra <https://pythonalgos.com/dijkstras-algorithm-in-5-steps-with-python/>

## Extra’s

* Prioriteiten geven voor snel vertrekkende vliegtuigen en grote hoeveelheden pakketjes
* Limiteren van wegen
* Limiteren van totale tijd
* Hoge prioriteit

## Graph data structure

* Non-linear data structure
* Nodes and edges
* Powerful modeling tool to solve real-world problems
* Nodes referred to as vertices
* Formal representation of graph: G = (V (set of vertices), E(set of edges))
* Graph can have following form (undirected):
* In an undirected graph, movement can go to both sides
* A picture containing clock

  Description automatically generatedDirected graph is as follows:

## Dijkstra’s shortest path algorithm