

## Index

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Assume we have the following units:

$$Cost = \frac{distance}{speed} = \frac{m}{\frac{m}{s}} = \frac{m * s}{m} = s = time$$

Take this into account :

“Notes:

The order of the actions is determined by the destination state whose identifier is the lowest, that is, if different (partial) destinations can be reached at a given point (intersection), they will be visited in increasing numerical order”.

## Understanding Data Input

**address:** zone of Albacete we are in .

**distance:** idk

**initial:** initial state

**final:** goal state

**intersections:** a list of dictionaries with attributes **identifier**, **longitude** and **latitude**

**segments:** a list of dictionaries with attributes **origin**, **destination**, **distance** and **speed**

I just added to the attributes of intersection a list of dictionaries containing destinations where I can go and its respective cost. It would be like this.

**intersections:** a list of dictionaries with attributes **identifier**, **longitude**, **latitude** and **whereto**.

Where **whereto** is a list of dictionaries.

## Establishing Data Structure

### Functions

Function	Input	Output
search	(Problem, State)	return listOfActions

testGoal	(State)	return boolean
sucesor	(Node)	return Node

search: can be only one function that prompts the user for a number between 0 and 2 being

0: depth-first

1: breadth-first

2: random

I don't really see the idea of search being an abstract class.

Procedures

Search (abstract)

Procedures	Input
initializeOpen()	(initial)

## Classes

State
-accumulatedCost: float
initializeOpen()

Node
-state: State
-parent: pointer

Problem

Action

BreadthFirst <b>inherits</b> Seach

DepthFirst <b>inherits</b> Seach

## Scrum

Tasks	Agus	Jesús
-Implement DepthFirst -Implement BreadthFirst -Implement RandomSearch -Define Problem -Define Node -Define State -Define Action		