

# COMP2511 ASSIGNMENT 2

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## 1 CRC Cards

ShipmentPlanner	
Main Class which gathers commands and finds a path using them	Graph Printer CommandParser Pair Heuristic

CommandParser	
Parse commands incoming on the command line and return the parsed request	Command

Printer	
Prints the output of a provided path with cost and nodes expanded	Pair Node

Command	
Stores the command string	

RefuellingCommand	
Stores the time needed to refuel and name of the city in question	

TimeCommand	
Stores the time needed to travel from one city to another and both cities	

ShipmentCommand	
Stores the names of the cities in question in which a shipment is required	

Graph	
Stores a list of nodes	Node Edge
Stores a list of edges	
Provides various methods in which nodes and edges can be related to each other in the form of a graph	

AMGraph	
Provides a fast adjacency matrix implementation of the graph	Node Edge
Stores a list of nodes	
Stores a list of edges	
Provides various methods in which nodes and edges can be related to each other in the form of a graph	

AStarShipmentPathFinder		
Find the optimum path using shipments on a graph using A* with a heuristic	Graph	
	Pair	
	Node	

ZeroHeuristic		
Provide a baseline heuristic for the A* search	Heuristic	

EnhancedHeuristic		
Provide a faster and more optimised heuristic for the A* search		

Heuristic		
A heuristic for the A* search		

Node		
Stores a single value		

Edge		
Stores a to and from node with an associated cost	Node	

Pair		
Stores two terms with order being important		

## 2 Class Diagram

