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Mares Plane Simulator

Software Design Document

Overview

The purpose of this program is to simulate an airport scheduling planes as they take off for the day. This program will output the queue for each time slot during the day so the user can see the progression throughout the day. Only planes that are currently scheduled will be shown on the schedule. Planes that have already taken off and planes that have yet to request a takeoff time will not be shown on the schedule. A list of the actual take off times for each plane will be printed to an output file, for easy reading and to keep a log of what time the planes actually took off.

Design

Files and Reason for Class

For this project I chose to create several separate Python files. The number of files might be excessive but to me it made more sense to, break each function/class into their own file. The reason I made a separate class for the incoming requests is so that it would be easier to read the information. Instead of having to know that index 0 in the array is the index that holds the name of the plane, the function get_name() is much more explicit. The same is used for all the rest of the information stored in the class

Input File

The reason for using an input file entered on the command line, is it allows the program to be run on numerus files, without the program having to be modified to change the file name parameter. This way the end user does not need to modify the program at all, and it can remain a "black box".