**Overview**

This project will use Python 2.7.4 in order to simulate aircraft take off time slots at an airport. It will read in data from a file specified from the command line. It will output to the command line. It will use a priority queue to see who should go first.

**Design**

This project will have three classes and a main file in order to run the program. The first one is represent the information to schedule. The second class will be a priority queue. And the third one will be the actual scheduler and file reader.

The first class will include variables to describe the planes ID, requested submission time, time slot requested, length of the time requested, actual start time, actual end time. These variables will set from the input file.

The Second class will be a priority queue. It will store all the information from the planes and when they want to leave. As soon as they do take off, it’ll log the time and send it back to the Information class. If an airplane has a higher priority than the current airplane cued up, it will take precedence and take off first.

The final class is the Scheduler. This class is in charge of reporting the information to the user. It is also of the keeping track of time in order to tell the Priority Queue and Information classes.



**Change Log**

10/18/16 – Added Test file

10/21/16 – added Length variables to the Priority Queue class

10/21/16 – added a second array to the Priority Queue class

10/28/16 – updated UML and SDD