

# Advanced Programming Feedback

## Assignment 1: Airline Scheduling System

### Results

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Section	Tests Failed	Tests Passed
Aircraft	0	16
Crew	0	17
Passenger Numbers	0	8
Route	0	17
Scheduler	0	2
Schedule Competition Score:		148,654,000

### Test Log

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Running from Package. Source:

file:/D:/Marking/AdvProg/A1/Summative/X7d28aa75/File%20submissions/AdvancedProgrammingAssessment1/bin/marker.jar

Testing Solution: .\solution

Starting Tests in section: Aircraft

Running Test: AircraftDAO Data Loading Test

Result: PASS

Running Test: AircraftDAO Presence Test

Result: PASS

Running Test: AircraftDAO Data Correctness Test

Result: PASS

Running Test: AircraftDAO Find Aircraft By Seats Test

Result: PASS

Running Test: AircraftDAO Find Aircraft By Starting Position Test

Result: PASS

Running Test: AircraftDAO Find Aircraft By Tailcode Test

Result: PASS

Running Test: AircraftDAO Find Aircraft By Type Test

Result: PASS

Running Test: AircraftDAO Number of Aircraft Test

Result: PASS

Running Test: AircraftDAO Nonexistent Path Test

Result: PASS

Running Test: AircraftDAO Null Path Test

Result: PASS

Running Test: AircraftDAO Malformed Data Test 1

Result: PASS

Running Test: AircraftDAO Malformed Data Test 3

Result: PASS

Running Test: AircraftDAO Malformed Data Test 2

Result: PASS

Running Test: AircraftDAO Multiple Load Test

Result: PASS

Running Test: AircraftDAO List Removal Test

Result: PASS

Running Test: AircraftDAO Reset Test

Result: PASS

Starting Tests in section: Crew

Running Test: CrewDAO Loading Test

Result: PASS

Running Test: CrewDAO Presence Test

Result: PASS

Running Test: CrewDAO Data Correctness Test

Result: PASS

Running Test: CrewDAO Find Cabin Crew By Home Base & Type Rating Test

Result: PASS

Running Test: CrewDAO Find Cabin Crew By Home Base Test

Result: PASS

Running Test: CrewDAO Find Cabin Crew By Type Rating Test

Result: PASS

Running Test: CrewDAO Find Pilots By Home Base & Type Rating Test

Result: PASS

Running Test: CrewDAO Find Pilots By Home Base Test

Result: PASS

Running Test: CrewDAO Find Pilots By Type Rating Test

Result: PASS

Running Test: CrewDAO Nonexistent Path Test

Result: PASS

Running Test: CrewDAO Null Path Test

Result: PASS

Running Test: CrewDAO Malformed Data Test 1

Result: PASS

Running Test: CrewDAO Malformed Data Test 2

Result: PASS

Running Test: CrewDAO Malformed Data Test 3

Result: PASS

Running Test: CrewDAO Multiple Load Test

Result: PASS

Running Test: CrewDAO List Removal Test

Result: PASS

Running Test: CrewDAO Reset Test

Result: PASS

Starting Tests in section: Passenger Numbers

Running Test: PassengerNumbersDAO Loading Test

Result: PASS

Running Test: PassengerNumbersDAO Presence Test

Result: PASS

Running Test: PassengerNumbersDAO Non-Existant Flight Test

Result: PASS

Running Test: PassengerNumbersDAO Nonexistent Path Test

Result: PASS

Running Test: PassengerNumbersDAO Nonexistent Path Test

Result: PASS

Running Test: PassengerNumbersDAO Multiple Load Test

Result: PASS

Running Test: PassengerNumbersDAO Reset Test

Result: PASS

Running Test: PassengerNumbersDAO Malformed Data Test

Result: PASS

Starting Tests in section: Route

Running Test: RouteDAO Loading Test

Result: PASS

Running Test: RoutesDAO Presence Test

Result: PASS

Running Test: RouteDAO Data Correctness Test

Result: PASS

Running Test: RouteDAO Find Routes By Date Test

Result: PASS

Running Test: RouteDAO Find Routes By Day-Of-Week Test

Result: PASS

Running Test: RouteDAO Find Routes By Departure Airport & Day Test

Result: PASS

Running Test: RouteDAO Find Routes By Departure Airport Test

Result: PASS

Running Test: RouteDAO Nonexistent Path Test

Result: PASS

Running Test: RouteDAO Null Path Test

Result: PASS

Running Test: RouteDAO Malformed Data Test 1

Result: PASS

Running Test: RouteDAO Malformed Data Test 2

Result: PASS

Running Test: RouteDAO Malformed Data Test 3

Result: PASS

Running Test: RouteDAO Malformed Data Test 4

Result: PASS

Running Test: RouteDAO Malformed Data Test 5

Result: PASS

Running Test: RouteDAO Multiple Load Test

Result: PASS

Running Test: RouteDAO List Removal Test

Result: PASS

Running Test: RouteDAO Reset Test

Result: PASS

Starting Tests in section: Scheduler

Running Test: Schedule Generation Test

Result: PASS

Running Test: Scheduler Presence Test

Result: PASS

Done Testing

## Scheduling Competition

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This solution is eligible for the scheduling competition.

Initialising DAOs...

Initialising Scheduler with dates: 2020-07-01 to 2020-08-31

Running Scheduler...

Finished Running Scheduler (took 61191ms)

Quality score of generated schedule: 148,654,000

Quality Score Breakdown:

5,539,840 Points from allocating aircraft larger or smaller than the forecast passenger numbers

207,300 Points from aircraft schedules with short turnarounds

76,520,000 Points from scheduling aircraft to depart from airports other than where they last landed

0 Points from captains and first officers scheduled to fly in the wrong seat

1,900,000 Points from crew members scheduled to fly on aircraft types for which they are unqualified

16,520,000 Points for crew departing a UK airport without enough rest after their previous UK landing

13,610,000 Points for crew members not having a long break during each week in lieu of a weekend

1,075,500 Points for crew members not having enough rest before departing a UK airport other than their home base

973,500 Points for crew members not having enough rest after landing at a UK airport other than their home base

16,198,000 Points for flying to an airport outside the UK without an upcoming return flight

15,689,000 Points for flying from an airport outside the UK without having landed there recently

420,860 Points for crew members working more than their monthly limit

Competition Run Complete