

Airport Security Black Box Test Plan

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Introduction

The Airport Security program is a simulation of an airport terminal with a specified number of passengers and security checkpoints with the aim of determining average passenger waiting and processing times. The black box test plan describes tests for correctly functioning simulations and simulations with invalid parameters.

The program can be run by running the *AirportSecurityUI* class as a java application. If using Eclipse, this can be done by opening *AirportSecurityUI*, right clicking > Run As > Java Application.

Test ID	Description	Expected Results	Actual Results
Test 1: testNoPassengers (Max Richgruber)	Preconditions: SecurityCheckpointViewer.java is run Enter 0 into the # Passengers field Enter 8 into the # Security Checkpoints Enter 15 in % Trusted Travelers Enter 30 in % Fast Track Travelers Enter 55 in % Ordinary Travelers Press the Start button	A pop-up window appears saying <i>"There must be at least one passenger."</i>	A pop-up window appears saying "There must be at least one passenger."
Test 2: testNoCheckpoints (Max Richgruber)	Preconditions: SecurityCheckpointViewer.java is run Enter 20 into the # Passengers field Enter 20 into the # Security Checkpoints Enter 15 in % Trusted Travelers Enter 30 in % Fast Track Travelers Enter 55 in % Ordinary Travelers Press the Start button	A pop-up window appears saying <i>"Number of checkpoints must be at least 3 and at most 17."</i>	A pop-up window appears saying "Number of checkpoints must be at least 3 and at most 17."
Test 3: testInvalidPercentages (Max Richgruber)	Preconditions: SecurityCheckpointViewer.java is run Enter 20 into the # Passengers field Enter 8 into the # Security Checkpoints Enter 30 in % Trusted Travelers Enter 30 in % Fast Track Travelers Enter 30 in % Ordinary Travelers Press the Start button	A pop-up window appears saying <i>"Percents must sum to 100."</i>	A pop-up window appears saying "Percents must sum to 100."

<p>Test 4: testHighPassengerVolume</p> <p>(Max Richgruber)</p>	<p>Preconditions: AirportSecurityUI is run</p> <p>Enter 500 into the # Passengers field Enter 8 into the # Security Checkpoints Enter 10 in % Trusted Travelers Enter 30 in % Fast Track Travelers Enter 60 in % Ordinary Travelers</p> <p>Press the Start button</p>	<p>The average wait time field Displays 24.78 minutes and the average process time field displays 1.91 minutes</p>	<p>The average wait time field displays 24.78 minutes and the average process time field displays 1.91 minutes</p>
<p>Test 5: testLowPassengerVolume</p> <p>(Max Richgruber)</p>	<p>Preconditions: SecurityCheckpointViewer.java is run</p> <p>Enter 10 into the # Passengers field Enter 3 into the # Security Checkpoints Enter 10 in % Trusted Travelers Enter 30 in % Fast Track Travelers Enter 60 in % Ordinary Travelers</p> <p>Press the Start button</p>	<p>The average wait time field displays 2.82 minutes and the average process time field displays 1.64 minutes</p>	<p>The average wait time field displays 2.82 minutes and the average process time field displays 1.64 minutes</p>

	Enter 60 in % Ordinary Passengers Run simulation		
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Document Revision History

Date	Author	Change Description
October 2018	Max Richgruber	<ul style="list-style-type: none">• Added test cases-Completed tests