<Project 1 Part 2> Black Box Test Plan

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Introduction

This test plan ensures that the all of Project 1 Part 2's requirements have been met. The project is tested by running SimulationViewer as a Java application.

Test ID	Description	Expected Results	Actual Results
Test 1: Non-Integer Shopping Cart Test Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: abc Number of Checkout Registers: 7 **Click: Start** *Check Results* **Click: OK** Close GUI window.	A pop up window with the dialog: "The number of shopping carts must be an integer." appears.	A pop up window with the dialog: "The number of shopping carts must be an integer." appears.
Test 2: Negative Shopping Cart Test Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: -1 Number of Checkout Registers: 7 **Click: Start** *Check Results* **Click: OK** Close GUI window.	A pop up window with the dialog: "There must be at least one shopping cart in the simulation." appears.	A pop up window with the dialog: "There must be at least one shopping cart in the simulation." appears.
Test 3: Lower Boundary Register Test Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: 5 Number of Checkout Registers: 3 **Click: Start** *Check Results*	Simulation proceeds, displaying the appropriate number of shopping carts and registers.	Simulation proceeds, displaying the appropriate number of shopping carts and registers.

	Close GUI window.		
Test 4: Upper Boundary Register Test Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: 5 Number of Checkout Registers: 12 **Click: Start** *Check Results* Close GUI window.	Simulation proceeds, displaying shopping carts and registers.	Simulation proceeds, displaying shopping carts and registers.
Test 5: Invalid Register Test Lower Bound Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: 5 Number of Checkout Registers: 2 **Click: Start** *Check Results* **Click: OK** Close GUI window.	A pop up window with the dialog "Number of registers must be between 3 and 12 inclusive." appears.	A pop up window with the dialog "Number of registers must be between 3 and 12 inclusive." appears.
Test 6: Invalid Register Test Upper Bound Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: 5 Number of Checkout Registers: 13 **Click: Start** *Check Results* **Click: OK** Close GUI window.	A pop up window with the dialog "Number of registers must be between 3 and 12 inclusive." appears.	A pop up window with the dialog "Number of registers must be between 3 and 12 inclusive." appears.
Test 7: Quit Button Exits Window Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. **Click: Quit** *Check Results*	The GUI window closes.	The GUI window closes.

Test 8: SpecialHandlingCarts 1 Register Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: 100 Number of Checkout Registers: 4 **Click: Start** *Check Results* Close GUI window.	No SpecialHandlingCarts entered the first 3 lines.	No SpecialHandlingCarts entered the first 3 lines.
Test 9: SpecialHandlingCarts 2 Registers Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: 200 Number of Checkout Registers: 8 **Click: Start** *Check Results* Close GUI window.	No SpecialHandlingCarts entered the first 6 lines.	No SpecialHandlingCarts entered the first 6 lines.
Test 10: SpecialHandlingCarts 3 Registers Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: 300 Number of Checkout Registers: 12 **Click: Start** *Check Results* Close GUI window.	No SpecialHandlingCarts entered the first 9 lines.	No SpecialHandlingCarts entered the first 9 lines.
Test 11: RegularShoppingCarts Not in Express Line Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: 300 Number of Checkout Registers: 12 **Click: Start** *Check Results* Close GUI window.	No RegularShoppingCarts entered the first line.	No RegularShoppingCarts entered the first line.
Test 12: ExpressCarts Choose Smallest Line	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded.	ExpressCarts enter the shortest line, even if it is not the Express Line.	ExpressCarts enter the shortest line, even if it is not the Express Line.

Brian Morris	Number of Shopping Carts: 300 Number of Checkout Registers: 12 Animation Speed: Slow (All the way left) **Click: Start** *Check Results* Close GUI window.		
Test 13: Simulation Complete Results Displayed Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: 300 Number of Checkout Registers: 12 Animation Speed: Fast (All the way right) **Click: Start** *Check Results* Close GUI window.	The simulation runs and completes. Average Wait Time and Average Checkout Time are displayed and non-zero. Progress bar is full.	The simulation runs and completes. Average Wait Time and Average Checkout Time are displayed and non-zero. Progress bar is full.
Test 14: Appropriate Colors and Labels Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. *Check Results*	The Legend is ordered as followed: Green – ExpressCart Blue – RegularShoppingCart Red - SpecialHandlingCart	The Legend is ordered as followed: Green – ExpressCart Blue – RegularShoppingCart Red - SpecialHandlingCart
Test 15: Animation Speed Slider Adjusts Appropriately Brian Morris	**Preconditions:** SimulationViewer has been run as a Java application and the GUI has loaded. Number of Shopping Carts: 300 Number of Checkout Registers: 12 **Click: Start** Number of Shopping Carts: 300 Number of Checkout Registers: 12 Animation Speed: Fast (All the way right) **Click: Start** *Check Results* Number of Shopping Carts: 300 Number of Checkout Registers: 12 Animation Speed: Slow (All the way left	The simulation processes much quicker. The simulation processes much slower.	The simulation processes much quicker. The simulation processes much slower.

	Click: Start *Check Results* Close GUI window.		

Document Revision History

Date	Author	Change Description
03/02/2017	Brian Morris	• Added 15 test cases.