

Full Flow Test Case Table

Step	Action / Input	Expected Output / Notes	Output
1	Run program first time (empty files)	Program shows “No saved city data found. Starting fresh.” and “No saved distance data found. Starting fresh.”	Expected Output
2	Add City → Colombo	“City added successfully!”; listCities() shows 1. Colombo	Expected Output
3	Add City → Kandy	“City added successfully!”; listCities() shows 1. Colombo, 2. Kandy	Expected Output
4	Add City → Galle	“City added successfully!”; listCities() shows 1. Colombo, 2. Kandy, 3. Galle	Expected Output
5	Add Distance → Colombo ↔ Kandy = 115	“Distance updated successfully!”; matrix[Colombo][Kandy] = 115	Expected Output
6	Add Distance → Colombo ↔ Galle = 120	Distance matrix updated; Colombo ↔ Galle = 120	Expected Output
7	Add Distance → Kandy ↔ Galle = 180	Distance matrix updated; Kandy ↔ Galle = 180	Expected Output
8	View Distance Table	Prints 3x3 table with correct distances	Expected Output
9	Add Delivery → From Colombo → Galle, Vehicle: Van, Weight: 500	“Delivery added successfully!”; delivery count = 1	Expected Output
10	Add Delivery → From Kandy → Colombo, Vehicle: Truck, Weight: 800	Delivery added; count = 2	Expected Output
11	Add Delivery → From Galle → Kandy,	Delivery added; count = 3	Expected Output

	Vehicle: Lorry, Weight: 1500		
12	View Deliveries	Shows all 3 deliveries with calculated cost, fuel, time	Expected Output
13	Generate Report	Total Deliveries = 3, Total Cost = sum of 3 deliveries, Average Cost = total / 3	Expected Output
14	Exit Program	Program saves cities.txt and distance.txt automatically	Expected Output
15	Run Program Again	Program loads 3 cities and distance matrix from files; message shows number of cities loaded	Expected Output
16	List Cities	Shows 1. Colombo, 2. Kandy, 3. Galle	Expected Output
17	View Distance Table	Shows same distance table as before	Expected Output
18	View Deliveries	Still empty because deliveries are not saved in files	Expected Output
19	Add New City → Matara	“City added successfully!”; total cities = 4	Expected Output
20	Add Distance → Colombo ↔ Matara = 160	Distance updated successfully	Expected Output
21	Add Delivery → Matara → Galle, Vehicle: Van, Weight: 400	Delivery added; count = 1	Expected Output
22	View Deliveries	Shows only 1 delivery	Expected Output
23	Generate Report	Total Deliveries = 1, Cost = calculated for this delivery	Expected Output