Basic Functionality					
Test No.	Test Case	Actions	Expected Result	Actual Result	Pass/Fail
1	View all seats. (Array filled with test names by pressing 'T')	Press 'V'	View's all seats on the train along with their test names.	All seats displayed correctly.	Pass
2	Check to see if the train seats are initialised correctly.	Press 'V' once the program starts.	Displays all seats as "e" (empty).	All seats displayed as "e" (empty).	Pass
3	Add a customer to a specific seat.	Press 'A', Enter name "Bob", Enter seat "4", Press 'V'	"Bob" is displayed in seat 4.	"Bob" allocated and displayed at sea 4.	Pass
4	Add a customer to a seat via automatic assignment.	Press 'A', Enter name "Mary", Enter "0", Press 'V'	"Mary" is automatically allocated to the next empty seat (seat 1 in this case).	"Mary" is allocated to and displayed in seat 1.	Pass
5	Quit the program.	Press 'Q'	The program shuts down.	The program quits.	Pass
6	Display all empty seats.	Press 'E'	Only empty seats are displayed.	All empty seats displayed, (Seats 2,3,5,6,7,8).	Pass
7	Delete customer from seat by their seat number.	Press 'D', Enter seat "4", Press 'V'	"Bob" no longer displayed; seat 4 displays "e" (empty).	Seat 4 displays "e" (empty).	Pass
8	Delete customer from seat by customer name.	Press 'D', Enter "0", Enter name "Mary", Press 'V'	"Mary" no longer displayed; seat 1 displays "e" (empty).	Seat 1 displays "e" (empty).	Pass
9	Find seat number by customer name (Test names entered).	Press F, Enter "Robert"	Displays that "Robert" is booked in seat 5.	Displays that "Robert" is in seat 5.	Pass
10	Store program data into file (Ran with test data from 'T', having deleted one result).	Press 'S', Enter file name "train", Press 'Q'	Creates a text file in root directory called "train.txt", containing the occupants of the train.	"train.txt" text file is created and occupants saved as contents.	Pass
11	Load program data from file (Ran with test data, as above).	Start program, Press 'L', Enter file name "train", Press 'V'	Loads the contents of the "train.txt" text file, and displays all occupants in their seats.	Contents loaded and displayed correctly.	Pass
12	View seats ordered by passenger name (Ran with test data from 'T').	Press 'O'	Views all occupied seats ordered alphabetically by customer name.	All occupied seats correctly displayed in alphabetical order of customer names.	Pass
13	Clear the train from all customers.	Press 'C', Press 'V'	Removes all passengers from train, displaying all seats as "e" (empty).	All customers removed; train displays "e" (empty) for all seats.	Pass
14	Re-print menu commands.	Press 'P'	Displays all possible menu commands.	All possible menu commands displayed.	Pass

Error/Exception Handling					
Test No.	Test Case	Actions	Expected Result	Actual Result	Pass/Fail
15	Entering commands in both upper and lower case.	Press 'V', Press 'v'	Both commands work, viewing all seats on the train.	Both commands work the same, displaying all seats.	Pass
16	Entering an incorrect command (Character not mapped to anything).	Press 'J'	A prompt displaying "Incorrect command".	The console displayed "Incorrect command".	Pass
17	Add customer to a seat that is already taken by another customer (Using test data from 'T').	Press 'A', Enter name "Bob", Enter seat "2"	A prompt displays that the seat is already taken by another customer.	The console displayed that "seat 2 is already taken by Mary".	Pass
18	Enter a letter when asked to enter a seat when adding a customer.	Press 'A', Enter name "Bob", Enter seat "K"	A prompt displays that the user has entered an invalid input.	The console displayed that an incorrect input value has been entered.	Pass
19	Add a customer using automatic assignment when the train is already fully booked (No empty seats remaining.)	Press 'A', Enter name "Bob", Enter seat "0"	A prompt displays that the train is already fully booked, with all seats keeping their previous occupants.	The console displayed that the train is fully booked already, and the customer has not been added and hasn’t replaced anyone.	Pass
20	View all empty seats when the train is fully booked.	Press 'E'	The program displays a prompt that there are no empty seats remaining.	A message displayed that there are not empty seats remaining.	Pass
21	Enter a letter when asked to enter a seat while deleting a customer by seat number.	Press 'D', Enter seat "k"	The program displays that an invalid input has been entered.	The program displayed that an invalid input was entered.	Pass
22	Delete customer by seat, when seat is already empty (Tested on a fully empty train 'C').	Press 'D', Enter seat "1"	The program displays a prompt that the seat is already empty.	A prompt displayed that the seat is already empty.	Pass
23	Delete customer by name, but the customer is not booked in any seat (Tested on a fully empty train 'C').	Press 'D', Enter seat "0", Enter name "Bob"	The program displays that the customer "Bob" is not booked on any seat.	The console displays that "Bob"cannot be removed as they do not currently occupy a seat.	Pass

24	Find seat number by customer name, but the customer isn't booked into any seat (Tested with an empty train 'C').	Press 'F', Enter name "Bob"	The program displays that the customer is not booked into any seat.	The console displayed that "Bob" isn't currently booked into any seat.	Pass
25	Store program data into a file, but the file already exists and contains another trains data.	Press 'S', Enter file name "train"	The program overwrites the existing file by clearing the original content and saving the current program data.	The original file was overwritten with the current program data.	Pass
26	Load program data from file, but the file name provided doesn't exist.	Press 'L', Enter file name "NoFile"	The program displays an input output error, showing that the file cannot be found.	An error is diplayed that the file cannot be found, and the program continues running.	Pass
27	View seats in alphabetical order of customer name, but the train is completely empty.	Press 'O'	The program displays that the train is empty, and there are no customers to order by.	The program displayed that the train was empty, with no passengers to sort by.	Pass