UNIVERSITY OF WESTMINSTER

INFORMATICS INSTITUTE OF TECHNOLOGY

Informatics Institute of Technology

Department of Computing

Software Development II CW - Test Cases

Module   : 4COSC010C: Software Development II

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Test Cases

Task 1

	Test Case	Expected Result	Actual Result	Pass/Fail
1	(Booths Initialised correctly) After program starts, 100 or VVB	Displays 'empty' for all booths	Displays 'empty' for all booths	**Pass**
2	(Add Patient "Scott" to Booth 5) 102 or APB enter "Scott"	100 or VVB Displays "Scott" for booth 5	Displays "Scott" for booth 5	**Pass**
3	103 or RBP enter "5"	100 or VVB Displays "empty" for Booth 5	Displays "empty" for Booth 5	**Pass**
4	(Adds Patients "Scott, Hillary, Tom , Daniel, Manny, Brent" to Booths 0, 1, 2, 3, 4, 5 accordingly) 104 or VPS	Brent Daniel Hilary Manny Scott Tom	Brent Daniel Hilary Manny Scott Tom	**Pass**
5	(Store organised Array of Patients in a Text File) 105 or SPD	Displays: "Booth.txt file has been created!" File named: Booth.txt	Displays: "Booth.txt file has been created!" File named: Booth.txt	**Pass**
6	(Load created Text file and display Patient Details) 106 or LPD	Displays: Patient: Brent Patient: Daniel Patient: Hilary Patient: Manny Patient: Scott Patient: Tom	Displays: Patient: Brent Patient: Daniel Patient: Hilary Patient: Manny Patient: Scott Patient: Tom	**Pass**

7	(View Remaining Vaccinations after Patients added – initial value: 150, 6 patients added) 107 or VRV	Current level of stock: 144	Current level of stock: 144	**Pass**
8	108 or AVS enters 6	Displays: Current level of stock: 150	Displays: Current level of stock: 150	**Pass**

Task 2

	Test Case	Expected Result	Actual Result	Pass/Fail
1	(Booths Initialised correctly) After program starts, 100 or VVB	Displays 'empty' for all booths	Displays 'empty' for all booths	**Pass**
2	(Adds Patients "Scott, Hillary, Tom , Daniel, Manny, Brent" to Booths 0, 1, 2, 3, 4, 5 accordingly)	Display: All booths are occupied! Please exit this function by entering '6' and continue	All booths are occupied! Please exit this function by entering '6' and continue	**Pass**
3	103 or RBP enter "abc"	Displays "Enter a Valid Integer!"	Displays "Enter a Valid Integer!"	**Pass**
4	(Adds Patients "Scott, Hillary, Tom , Daniel, Manny, Brent" to Booths 0, 1, 2, 3, 4, 5 accordingly) 104 or VPS	Brent Daniel Hilary Manny Scott Tom	Brent Daniel Hilary Manny Scott Tom	**Pass**
5	(Store organised Array of Patients in a Text File) 105 or SPD	Displays "Booth.txt file has been created!" File named: Booth.txt	Displays "Booth.txt file has been created!" File named: Booth.txt	**Pass**

6	(Load created Text file and display Patient Details) 106 or LPD	Displays: Patient: Brent Patient: Daniel Patient: Hilary Patient: Manny Patient: Scott Patient: Tom	Displays: Patient: Brent Patient: Daniel Patient: Hilary Patient: Manny Patient: Scott Patient: Tom	**Pass**
7	(View Remaining Vaccinations after Patients added – initial value: 150, 6 patients added) 107 or VRV	Current level of stock: 144	Current level of stock: 144	**Pass**
8	108 or AVS enters 7	Displays: Stock Level of Vaccinations have reached the maximum stock level, Please allocate the vaccines to new patients before adding more! Redirects to 102	Displays: Stock Level of Vaccinations have reached the maximum stock level, Please allocate the vaccines to new patients before adding more! Redirects to 102	**Pass**
9	108 or AVS enters 6	Displays: Current level of stock: 150	Displays: Current level of stock: 150	**Pass**

Task 3A - Array

	Test Case	Expected Result	Actual Result	Pass/Fail
1	(Booths Initialised correctly) After program starts, 100 or VVB	Displays 'empty' for all booths	Displays 'empty' for all booths	**Pass**
2	103 or RBP enter "abc"	Displays "Enter a Valid Integer!"	Displays "Enter a Valid Integer!"	**Pass**

3	(Adds Patients "Scott, Hillary, Tom , Daniel, Manny, Josh") 104 or VPS	Daniel Stone Hillary Clinton Josh Smith Manny Brown Scott Michaels Tom Cruise	Daniel Stone Hillary Clinton Josh Smith Manny Brown Scott Michaels Tom Cruise	**Pass**
5	(Store organised Array of Patients in a Text File) 105 or SPD	Displays "Booth.txt file has been created!" File named: Booth.txt	Displays "Booth.txt file has been created!" File named: Booth.txt	**Pass**
6	(Load created Text file and display Patient Details) 106 or LPD	Displays: Patient: Daniel Stone: Sinopharm Patient: Hillary Clinton: AstraZeneca Patient: Josh Smith: Pfizer Patient: Manny Brown: Pfizer Patient: Scott Michaels: AstraZeneca Patient: Tom Cruise: Sinopharm	Displays: Patient: Daniel Stone: Sinopharm Patient: Hillary Clinton: AstraZeneca Patient: Josh Smith: Pfizer Patient: Manny Brown: Pfizer Patient: Scott Michaels: AstraZeneca Patient: Tom Cruise: Sinopharm	**Pass**
7	(View Remaining Vaccinations after Patients added – initial value: 150, 6 patients added) 107 or VRV	Current level of stock: 144	Current level of stock: 144	**Pass**
8	108 or AVS enters 7	Displays: Stock Level of Vaccinations have reached the maximum stock level, Please allocate the vaccines	Displays: Stock Level of Vaccinations have reached the maximum stock level, Please allocate the vaccines to new	**Pass**

	Test Case	Expected Result	Actual Result	Pass/Fail
		to new patients before adding more! Redirects to 102	patients before adding more! Redirects to 102	
9	108 or AVS enters 6	Displays: Current level of stock: 150	Displays: Current level of stock: 150	**Pass**
10	Sets vaccineData to 25 102(Adds 5 Patients)	"Stock Level of Vaccinations have reached the re-order level, You are advised to add to stock first before allocating vaccines to new patients! "	"Stock Level of Vaccinations have reached the re-order level, You are advised to add to stock first before allocating vaccines to new patients! "	**Pass**
11	Sets vaccineData to 20 102(Adds 5 Patients)	"Stock Level of Vaccinations have reached the minimum level, To proceed Please add to stock first before allocating vaccines to new patients! " Redirected to AVS	"Stock Level of Vaccinations have reached the minimum level, To proceed Please add to stock first before allocating vaccines to new patients! " Redirected to AVS	**Pass**

Task 3B – Classes

	Test Case	Expected Result	Actual Result	Pass/Fail
1	(Booths Initialised correctly) After program starts, 100 or VVB	Displays 'empty' for all booths	Displays 'empty' for all booths	**Pass**
2	103 or RBP enter "abc"	Displays "Enter a Valid Integer!"	Displays "Enter a Valid Integer!"	**Pass**
3	(Adds Patients "Scott, Hillary, Tom , Daniel, Manny, Josh") 104 or VPS	Daniel Stone Hillary Clinton Josh Smith Manny Brown	Daniel Stone Hillary Clinton Josh Smith Manny Brown	**Pass**

		Scott Michaels Tom Cruise	Scott Michaels Tom Cruise	
5	(Store organised Array of Patients in a Text File) 105 or SPD	Displays "Booth.txt file has been created!" File named: Booth.txt	Displays "Booth.txt file has been created!" File named: Booth.txt	**Pass**
6	(Load created Text file and display Patient Details) 106 or LPD	Displays: Patient: Daniel Stone: 45, Paris, 3215, Sinopharm Patient: Hillary Clinton: 65, NY, 231523, AstraZeneca Patient: Josh Smith: 45, Manchester, 46545, Pfizer Patient: Manny Brown: 21, Manchester, 19853, Pfizer Patient: Scott Michaels: 18, Colombo, 213223, AstraZeneca Patient: Tom Cruise: 60, LA, 165165, Sinopharm	Displays: Patient: Daniel Stone: 45, Paris, 3215, Sinopharm Patient: Hillary Clinton: 65, NY, 231523, AstraZeneca Patient: Josh Smith: 45, Manchester, 46545, Pfizer Patient: Manny Brown: 21, Manchester, 19853, Pfizer Patient: Scott Michaels: 18, Colombo, 213223, AstraZeneca Patient: Tom Cruise: 60, LA, 165165, Sinopharm	**Pass**
7	(View Remaining Vaccinations after Patients added – initial value: 150, 6 patients added) 107 or VRV	Current level of stock: 144	Current level of stock: 144	**Pass**
8	108 or AVS enters 7	Displays: Stock Level of Vaccinations have reached the maximum stock level, Please allocate the vaccines	Displays: Stock Level of Vaccinations have reached the maximum stock level, Please allocate the vaccines to new	**Pass**

		to new patients before adding more! Redirects to 102	patients before adding more! Redirects to 102	
9	108 or AVS enters 6	Displays: Current level of stock: 150	Displays: Current level of stock: 150	**Pass**
10	Sets vaccineData to 25 102(Adds 5 Patients)	"Stock Level of Vaccinations have reached the re-order level, You are advised to add to stock first before allocating vaccines to new patients! "	"Stock Level of Vaccinations have reached the re-order level, You are advised to add to stock first before allocating vaccines to new patients! "	**Pass**
11	Sets vaccineData to 20 102(Adds 5 Patients)	"Stock Level of Vaccinations have reached the minimum level, To proceed Please add to stock first before allocating vaccines to new patients! " Redirected to AVS	"Stock Level of Vaccinations have reached the minimum level, To proceed Please add to stock first before allocating vaccines to new patients! " Redirected to AVS	**Pass**

Task 4

	Test Case	Expected Result	Actual Result	Pass/Fail
1	(Booths Initialised correctly) After program starts, 100 or VVB	Displays 'empty' for all booths	Displays 'empty' for all booths	**Pass**
2	103 or RBP enter "abc"	Displays "Enter a Valid Integer!"	Displays "Enter a Valid Integer!"	**Pass**
3	(Adds Patients "Scott, Hillary, Tom , Daniel, Manny, Josh") 104 or VPS	Daniel Stone Hillary Clinton Josh Smith Manny Brown	Daniel Stone Hillary Clinton Josh Smith Manny Brown	**Pass**

		Scott Michaels Tom Cruise	Scott Michaels Tom Cruise	
5	(Store organised Array of Patients in a Text File) 105 or SPD	Displays "Booth.txt file has been created!" File named: Booth.txt	Displays "Booth.txt file has been created!" File named: Booth.txt	**Pass**
6	(Load created Text file and display Patient Details) 106 or LPD	Displays: Patient: Daniel Stone: 45, Paris, 3215, Sinopharm Patient: Hillary Clinton: 65, NY, 231523, AstraZeneca Patient: Josh Smith: 45, Manchester, 46545, Pfizer Patient: Manny Brown: 21, Manchester, 19853, Pfizer Patient: Scott Michaels: 18, Colombo, 213223, AstraZeneca Patient: Tom Cruise: 60, LA, 165165, Sinopharm	Displays: Patient: Daniel Stone: 45, Paris, 3215, Sinopharm Patient: Hillary Clinton: 65, NY, 231523, AstraZeneca Patient: Josh Smith: 45, Manchester, 46545, Pfizer Patient: Manny Brown: 21, Manchester, 19853, Pfizer Patient: Scott Michaels: 18, Colombo, 213223, AstraZeneca Patient: Tom Cruise: 60, LA, 165165, Sinopharm	**Pass**
7	(View Remaining Vaccinations after Patients added – initial value: 150, 6 patients added) 107 or VRV	Current level of stock: 144	Current level of stock: 144	**Pass**
8	108 or AVS enters 7	Displays: Stock Level of Vaccinations have reached the maximum stock level, Please allocate the vaccines to new patients before adding more! Redirects to 102	Displays: Stock Level of Vaccinations have reached the maximum stock level, Please allocate the vaccines to new patients before adding more! Redirects to 102	**Pass**
9	108 or AVS enters 6	Displays:	Displays:	**Pass**

		Current level of stock: 150	Current level of stock: 150	
10	102 or APB (Adds 3 Patients with Vaccine Preference "Pfizer") 103 or RPB (enters to remove booth 5 and 'ext' after) 100 or VVB	Displays: "Booths are currently occupied, We will put the Patient in the Waiting List" "Waiting list: Trent Smith: Pfizer" "booth 5 occupied by Trent Smith"	Displays: "Booths are currently occupied, We will put the Patient in the Waiting List" "Waiting list: Trent Smith: Pfizer" "booth 5 occupied by Trent Smith	**Pass**
10	Sets vaccineData to 25 102(Adds 5 Patients)	"Stock Level of Vaccinations have reached the re-order level, You are advised to add to stock first before allocating vaccines to new patients! "	"Stock Level of Vaccinations have reached the re-order level, You are advised to add to stock first before allocating vaccines to new patients! "	**Pass**
11	Sets vaccineData to 20 102(Adds 5 Patients)	"Stock Level of Vaccinations have reached the minimum level, To proceed Please add to stock first before allocating vaccines to new patients! " Redirected to AVS	"Stock Level of Vaccinations have reached the minimum level, To proceed Please add to stock first before allocating vaccines to new patients! " Redirected to AVS	**Pass**
12	Test case 10 + 107 or VRV	Current level of stock: 147	Current level of stock: 148	**Fail**

Discussion

The general functionalities were tested in all 4 Tasks which includes primarily the main functions as the code has to run flawlessly before accounting for other functionalities. Testing to make sure array was initialised to "empty", along with making sure the Add Patient and Remove Patient function. Considering Add and Remove Patient Functions if User enters a non-Integer value the function would handle it and continue. Testing on the Sorting Algorithmn for incorrect sorts which may arise from user inputs having different cases was tested for. File creation and loading from file was tested to ensure file was getting created correctly. Testing was done to see if the stock of vaccinations reduces when Patients are added to the booths. Further when adding to stock, testing was used to make sure that not more than 150 can be in stock as that was indicated as the upper limit. Testing was done by changing initial stock level to 25 temporarily to test if User is notified when Stock hit Re-order Level. Additional functionality put to automatically direct user to AddStock method if stock reached 15 was also tested by changing initial stock level. Task 2, 3A, 3B and Task 4 (Mostly 3B and 4) was tested to make sure all Getter & Setter methods worked correctly and files correctly display all of patients details, while in task 4 testing was done to make sure Patient was added to the waiting list and the waiting list correctly assigned Patients from waiting list when Patient was removed from booth.

Referrences:

- *Referred to https://www.w3schools.com/ and https://www.javatpoint.com/ to figure out Linked List implementation and use*
- *Referred to https://www.w3schools.com/ for method of Creating a File*
- *Referred to https://www.w3schools.com/ for method of Reading from a File*