

Coursework Test Plan – 5COSC019W Object Oriented Programming

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Tests will be performed on my personal machine - MacBook Pro 14 running macOS.

Lets begin by testing:

Phase 2 - Console Menu

Test Case	Expected Result	Actual Result	Pass/Fail
User inputs 1 to engage Add a Doctor function	Prompt the user with name of doctor input	Prompts the user with name of doctor input	✓
Can the user input a name that is not a string	Program denies the integer input and prompts to try again	Program outputs: Name must not contain any digits. Enter a valid name:	✓
Can the user enter a name with a dash (-) in between	Program accepts a name with - as it is possible for a human to have a name that is formatted like that	Program accepts the name	✓
Can the user enter a name with any other invalid character	Program denies input with a point or colon for example	Program accepts input	✗
Can the age input be a negative number	Program prints an error and prompts user to enter valid age	Program prints an error and prompts user to enter valid age	✓
Can the age input be a floating point number	Program prints an error and prompts user to enter valid age	Program prints an error and prompts user to enter valid age	✓
Can the age input be	Program prints an	Program prints an	✓

a string	error and prompts user to enter valid age	error and prompts user to enter valid age	
Can the age input be less than 18 or over 100	Program prints an error and prompts user to enter valid age	Program prints an error and prompts user to enter valid age	✓
Can the gender input be an integer	Program throws an invalid gender error and prompts to enter M or F	Program throws an invalid gender error and prompts to enter M or F	✓
Can the gender input be a string other than capital M or F	Program throws an invalid gender error and prompts to enter M or F	Program throws an invalid gender error and prompts to enter M or F	✓
Can the medical licence number input take a string	Program tells user to be a valid medical licence number it must be a number and prompts to retry	Program tells user to be a valid medical licence number it must be a number and prompts to retry	✓
Can the medical licence number input take a negative integer	Program tells user a negative number is invalid and prompts again	Program accepts the negative input	✗
Can the specialisation input contain any integers	Program denies the integer input and prompts to try again with appropriate error message	Program denies the integer input and prompts to try again with appropriate error message	✓
Does the specialisation input accept strings	Program accepts a string input and proceeds to add the doctor to the system	Program accepts a string input and proceeds to add the doctor to the system	✓
User inputs 2 to engage Remove a Doctor feature	Program prompts the user to enter medical licence number to remove a specific doctor	Program prompts the user to enter medical licence number to remove a specific doctor	✓
Can the user remove a doctor with a medical licence number that does not exist	Program denies request and prints the doctor can not be found	Program denies request and prints the doctor can not be found	✓

Can the user remove a doctor with a medical licence number that does exist	Program notifies that the specific doctor has been removed and prints number of remaining doctors in the clinic	Program notifies that the specific doctor has been removed and prints number of remaining doctors in the clinic	✓
Does the Print list of Doctors function display all doctors in an alphabetical order by their surname	Prints all doctor information ordered by surname and the total number of doctors in the clinic	Prints all doctor information ordered by surname and the total number of doctors in the clinic	✓
Does the Save to File feature work	Saves all doctors in a "doctors.txt" file and all the related information is stored correctly	Saves all doctors in a "doctors.txt" file and all the related information is stored correctly	✓
Does the Read from File feature work	Program reads the "doctor.txt" file and can interact with the newly added doctors	Program reads the "doctor.txt" file and can interact with the newly added doctors	✓
Does the Exit option work	Program exits	Program exits as expected	✓
Does the Open GUI display a window with relevant buttons	Display doctors, Show booked consultations and Book Consultation buttons appear in a window that is inside the operating system	Display doctors, Show booked consultations and Book Consultation buttons appear in a window that is inside the operating system	✓

Phase 3 - Graphical User Interface

Test Case	Expected Result	Actual Result	Pass/Fail
Does the Display Doctors button work correctly	If there are any doctors they are displayed in a Excel style table with all the relevant information	Doctors are displayed in a Excel style table with all the relevant information	✓
What does the Display Doctors show	Opens a window notifying the user	Opens the window but shows empty	✓

if there are no doctors in the system	there are no doctors in the system to show	columns for name, age, specialisation etc.	
User clicks on Book Consultation button	Opens a new window with a combo box containing the available doctors and a continue button. Prompts to select a doctor.	Opens a new window with a combo box containing the available doctors and a continue button. Prompts to select a doctor.	✓
Does the Continue button work as expected	Prompts user to input relevant fields	There are missing fields for patient info and notes. However still includes Date, Time and Cost inputs.	✓
Can the user enter a date that does not follow the format dd/mm/yy	Program throws an error and displays to the user the input is wrong.	Program throws an error but that is not visible to the user. Program only continues if all fields are correct.	✓
Can the user enter a time that is not an integer	Program does not allow to continue with invalid input and shows an error to user	Program does not allow to continue with invalid input however does not show an error to the user	✓
Can the user enter a time that is not valid for example 1689	Program disallows the input and prompts to try again	Program accepts input	✗
Can the user enter a cost that is not an integer	Program does not continue with an invalid input and shows error to the user	Program does not allow to continue with invalid input however does not show an error to the user	✓
If all inputs are valid, does the program correctly book an appointment	Displays to the user the booking is successful	Displays to the user the booking is successful and shows all relevant information added	✓
Does the Show Booked Consultations button correctly open a new window and display	Opens a new window that has a table with the style of an Excel spreadsheet and contains all the	Opens a new window that has a table with the style of an Excel spreadsheet and contains all the	✓

relevant information	information about the booking and the correct doctor that was selected	information about the booking and the correct doctor that was selected	
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