

Coursework Report – 5COSC019C Object Oriented Programming

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Have you submitted the video with the demonstration of your system? ☒ Yes

Video Link: https://drive.google.com/file/d/1y6F7BBI3IiJ8xyTBzlAN09i_8gkJvQr_/view?usp=sharing

Phase 1 – Design and classes implementation

Task	Did you attempt the task?	Student's comments (To which extent you implemented the task? Have you encountered any problems or issue?)
Design a UML Use Case Diagram of your system (submitted in a separate file).	Yes	Made the Use Case Diagram which covers the main functionalities of the system.
Design a UML Class Diagram of your system (submitted in a separate file).	Yes	Made the Class Diagram which contains all the attributes, methods, and relationships between classes.
Implementation Class Person	Yes	Implemented the Person class as the super class of the doctor and patient classes. Used inheritance and encapsulation.
Implementation Class Doctor	Yes	Implemented the Doctor class as the child class of the Person class. Used inheritance and encapsulation.
Implementation Class Patient	Yes	Implemented the Patient class as the child class of the Person class. Used inheritance and encapsulation.
Implementation Class Consultation	Yes	Implemented the Consultation class. Used encapsulation.
Implementation Interface WestminsterSkinConsultationManager	Yes	Implemented the WestminsterSkinConsultationManager class and interface. Used abstraction.

Phase 2 – Console menu implementation

Task	Did you attempt the task?	Student's comments (To which extent you implemented the task? Have you encountered any problems or issue?)
Add a doctor in the system with all the relative information (max 10 doctors)	Yes	Completed. A maximum of 10 doctors are allowed.
Delete a doctor from the system selecting the medical licence number. Display a message to confirm he/she has been removed and the total number of doctors in the centres.	Yes	Completed. The selected doctor will be removed, and the removed doctor's information will be displayed along with the number of doctors in the centre.
Print on the screen the list the doctors in the centre with all the relative information. The list should be ordered alphabetically.	Yes	Completed. All the doctors in the centre will be displayed with all the related information, sorted by their last name.
Save in a file entered by the user so far. The user should be able to load back the information running a new instance of the application.	Yes	Completed. The doctors can be saved in a text file. And can be able to load the doctors back from the text file when running the program again.

Phase 3 – GUI Implementation

Task	Did you attempt the task?	Student's comments (To which extent you implemented the task? Have you encountered any problems or issue?)
Doctor list visualisation. Sorting alphabetically.	Yes	Completed. All the doctors are displaying in a table with the related information. Can sort the doctors by their first name, last name, and the added order.
The user can select a doctor and add a consultation.	Yes	Completed. The user can select a doctor from a combo-box and add a consultation.
In the consultation the user can add all the patient details.	Yes	Completed. The user can add all the validated patient details.
The user can select the date/time of the consultation considering that a doctor cannot have more than one consultation at the time.	Yes	Completed. The user can select the consultation date/time and a doctor cannot have more than one consultation at one specific time.

The user can enter and save the cost for the consultation. (£25 per hour and only the first one £15).	Yes	Completed. The cost is calculated by the difference between the starting and the ending time. The first consultation of a patient is £15 while the remaining consultations are £25.
The user can add some notes (text information or images). This information has been encrypted.	Yes	Completed. The user can add textual notes or an image. The information is encrypted.

Phase 4 – Testing and system validation

Task	Did you attempt the task?	Student's comments (To which extent you implemented the task? Have you encountered any problems or issue?)
Test plan. (Submitted in a separate file).	Yes	Completed. 90 Test cases have been written in a separate file which contains all the validations.
Implementation of an automated unit test for each scenario in the console menu.	Yes	Completed. All the inputs in the console have been validated and tested using JUnit.
Error Handling across all the code, input validation and code quality.	Yes	Completed. All the errors have been handled, all the inputs have been properly validated upon many scenarios, and code comments and optimization have been done properly.