**CMSC203 Assignment 2 Design**

Class: CMSC203 CRN 20984

 Program: Assignment 2

Instructor: Ahmed Tarek

 Summary of Description: a program that displays the following information:

the patient’s information, information about all three of the procedures, each procedure is displayed tab-separated, the total charges of the three procedures displayed in commas separated with two decimal points.

 Due Date: 09/18/2023

 Integrity Pledge: I pledge that I have completed the programming assignment independently.

 I have not copied the code from a student or any source.

**Part1: Pseudo Code:** Here is a pseudo code for Assignment 2 program:

1. Start
2. Create a class named "Patient".
3. Define private fields (firstName, middleName, lastName, streetAddress, city, state, zipCode, phoneNumber,emergencyContactName, emergencyContactPhone)
4. Create Constructors for the Patient Class
5. Implement Accessors and Mutators for the Patient Class
6. Implement Helper Methods for the Patient Class
7. Override the "toString" Method for the Patient Class.
8. Create a class named "Procedure".
9. Define private fields (procedureName, procedureDate, practitionerName, procedureCharges)
10. Create Constructors for the Procedure Class
11. Implement Accessors and Mutators for the Procedure Class
12. Override the "toString" Method for the Procedure Class
13. Create the PatientDriverApp Class:
14. In the PatientDriverApp Class:
15. Define a "main" method.
16. Create an instance of the Patient class, initialized with patient data.
17. Create three instances of the Procedure class using different constructors, each representing a medical procedure.
18. Display patient information using the "displayPatient" method.
19. Display procedure information using the "displayProcedure" method for each procedure.
20. Calculate the total charges of the procedures using the "calculateTotalCharges" method and display it.
21. Display student information including name, MC number, and due date.
22. Define a "displayPatient" method that takes a patient object and displays patient information.
23. Define a "displayProcedure" method that takes a procedure object and displays procedure information.
24. Define a "calculateTotalCharges" method that takes three procedure objects and return the total charges.
25. Stop

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| **Test Case #** | **Input** |  | **Expected Output** | **Actual Output** | **Did the test pass?** |
| 1 | Jenny Elaine Santori  123 Main Street MyTown CA 01234  Bill Santori 777-555-1212  Physical Exam  7/20/2019  Dr. Irvine  3250.0  X-ray  7/20/2019  Dr. Jamison  5500.43  Blood Test  /20/2019  Dr. Smith 1400.75 |  | Total Charges: $10,151.18  Student Name: Julie Taylor  MC#: MC777777  Due Date: 06/12/2023 |  |  |
| 2 | Valerie  ZinaChidinma  Ralph-Opara  11131 Cedarwood Drive  Rockville  Maryland  20852  Uche Ralph-Opara  201-917-6078  Hip Replacement  Dr. Balton  09/30/2015  17,500  Physical Exam  09/30/2015  Dr. Calvin  5000.56  Eye Test  09/30/2015  Dr Maximus  200.89 |  | Total Charges: $22,701.45  Student Name: Valerie Ralph-Opara  MC#: MC21131388  Due Date: 06/12/2023 |  |  |
| 3 | Adrian  Richard  Montgomery  12223 Upstate  Delaware 09457  Eftrat Montgomery 509-890-8687  Eye Test  05/24/2005  Dr. Frank  179.07  Cardiology Scan  05/24/2005  Dr. Masime  650.70  Blood Test  05/24/2005  Dr Dan  2000.64 |  | Total Charges: $2,830.41  Student Name: Adrian Montgomery  MC#: MC21180383  Due Date: 06/12/2023 |  |  |
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