**CMSC203 Assignment 2 Design**

Class: CMSC203 31480

 Program: Assignment #2

Instructor: Professor Ashique Tanveer

 Summary of Description: Create a program which takes in information on a patient and their procedure, then calculates the charge of the procedure.

 Due Date: 2/23/2024

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

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

**Part1: UML Diagram – including all three classes:**

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**Test Case:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case #** | **Input** |  | **Expected Output** | **Actual Output** | **Did the test pass?** |
| 1 | "Jack", "Henry", "Adams", "1523 King's Court", "Bethesda", "MD", "20105", "301-835-3825", "Dr. Smith", "301-665-9000"  "Foot Surgery", "9/15/2019", "Dr. Knight", "18432.42" |  | Patient info:  Name: Jack Henry Adams  Address: 1523 King's Court Bethesda MD 20105  Emergency Contact: Dr. Smith 301-665-9000  Procedure: Physical Exam  Procedure Date: 9/15/2019  Practicioner: Dr. Knight  Charge: 1340.34  Procedure: Back Surgery  Procedure Date: 4/22/2020  Practicioner: Dr. C  Charge: 12450.75  Procedure: X-Ray  Procedure Date: 6/25/2020  Practicioner: James Knight  Charge: 4580.25  Total charges: $18,371.34 | Patient info:  Name: Jack Henry Adams  Address: 1523 King's Court Bethesda MD 20105  Emergency Contact: Dr. Smith 301-665-9000  Procedure: Physical Exam  Procedure Date: 9/15/2019  Practicioner: Dr. Knight  Charge: 1340.34  Procedure: Back Surgery  Procedure Date: 4/22/2020  Practicioner: Dr. C  Charge: 12450.75  Procedure: X-Ray  Procedure Date: 6/25/2020  Practicioner: James Knight  Charge: 4580.25  Total charges: $18,371.34 | Yes |
| 2 | "John", "Clark", "Graham", "11th Street", "Atlanta", "GA", "13734", "312-001-0002", "Dr. Jones", "312-553-2324"  "Foot Surgery", "9/15/2019", "Dr. Knight", "18432.42"  "Checkup", "4/22/2020", "Dr. C", "100.00"  "Eye Exam", "6/25/2020", "James Knight", "6341.23" |  | Patient info:  Name: John Clark Graham  Address: 11th Street Atlanta GA 13734  Emergency Contact: Dr. Jones 312-553-2324  Procedure: Foot Surgery  Procedure Date: 9/15/2019  Practicioner: Dr. Knight  Charge: 18432.42  Procedure: Checkup  Procedure Date: 4/22/2020  Practicioner: Dr. C  Charge: 100.00  Procedure: Eye Exam  Procedure Date: 6/25/2020  Practicioner: James Knight  Charge: 6341.23  Total charges: $24,873.65 | Patient info:  Name: John Clark Graham  Address: 11th Street Atlanta GA 13734  Emergency Contact: Dr. Jones 312-553-2324  Procedure: Foot Surgery  Procedure Date: 9/15/2019  Practicioner: Dr. Knight  Charge: 18432.42  Procedure: Checkup  Procedure Date: 4/22/2020  Practicioner: Dr. C  Charge: 100.00  Procedure: Eye Exam  Procedure Date: 6/25/2020  Practicioner: James Knight  Charge: 6341.23  Total charges: $24,873.65 | Yes |
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Eclipse/CMD:   
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Lessons Learned: Provide answers to the questions listed below:

Write about your Learning Experience, highlighting your lessons learned and learning experience from working on this project.   
 This assignment really allowed me to fully understand and internalize how classes work, and I learned a lot about the applications of classes.

What have you learned?

How to properly create classes, accessors, mutators, constructors, etc.

What did you struggle with?

I struggled with figuring out exactly what the relationship between the different fields in classes and the mutators and accessors; however, once I learned how to do it in the patient class, doing everything else became much easier for me.