

## CMSC203 Assignment 2 Implementation (Documentation)

Class: CMSC203 CRN 40438

Program: Assignment #2

Instructor: Dr. Grinberg

Summary of Description: This program displays a patient's full information: their full name, full address, and the name and phone number of their emergency contact, and then displays the three different procedures they underwent: the procedure's name, date, practitioner's name, and cost.

Due Date: 07/03/2023

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

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

Even Estifanos

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

Start the tester class (PatientDriverApp class)

Create an instance object of the patient class with self-made attributes

Create three instance objects of the procedure class with given attributes

Display patient's info using instance methods of patient class

Display the patient's name by using getName()

Display the address of the patient by using getAddress()

Display the city of the patient by using getCity()

Display the state of patient by using getState()

Display the zip code of patient by using getZip()

Display the emergency contact name and their phone using getERContact()

Display patient's 1st procedure info using instance methods of procedure class

Display the name by using getName()

Display the date by using getDate()

Display the practitioner by using getPractitioner()

Display the charges by using getcost()

Display patient's 2nd procedure info using instance methods of procedure class

Display the name by using getName()

Display the date by using getDate()

Display the practitioner by using getPractitioner()

Display the charges by using getcost()

Display patient's 3rd procedure info using instance methods of procedure class

Display the name by using getName()

Display the date by using getDate()

Display the practitioner by using getPractitioner()

Display the charges by using getcost()

Display the total charge by summing the three costs together

Display Student name

Display Student MC ID

Display due date

End tester class (PatientDriverApp class)

## Part2: Comprehensive Test Plan

A good test plan should be comprehensive. This means you should have a few test cases that test when the input is in and out of range, division by 0, incorrect Data type, etc. (Provide valid and invalid input)

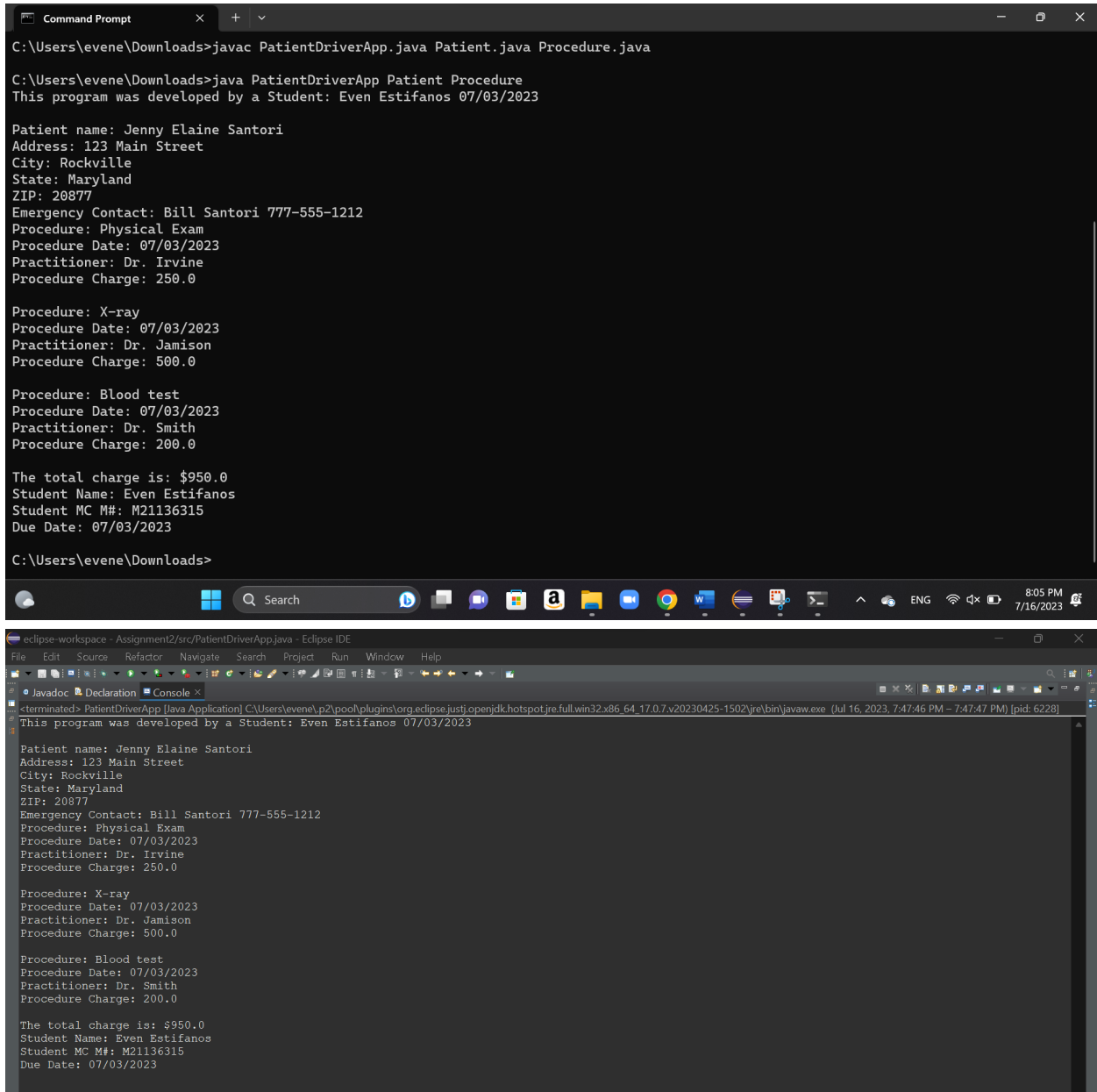
Cases	Input	Expected Output	Actual Output	Pass?
Case 1	Patient name: Jenny Elaine Santori Address: 123 Main Street City: Rockville State: Maryland ZIP: 20877 Emergency Contact: Bill Santori 777-555-1212 Procedure: Physical Exam Procedure Date: 07/03/2023 Practitioner: Dr. Irvine Procedure Charge: 250.0 Procedure: X-ray Procedure Date: 07/03/2023 Practitioner: Dr. Jamison Procedure Charge: 500.0 Procedure: Blood test Procedure Date: 07/03/2023 Practitioner: Dr. Smith Procedure Charge: 200.0	Patient name: Jenny Elaine Santori Address: 123 Main Street City: Rockville State: Maryland ZIP: 20877 Emergency Contact: Bill Santori 777-555-1212 Procedure: Physical Exam Procedure Date: 07/03/2023 Practitioner: Dr. Irvine Procedure Charge: 250.0 Procedure: X-ray Procedure Date: 07/03/2023 Practitioner: Dr. Jamison Procedure Charge: 500.0 Procedure: Blood test Procedure Date: 07/03/2023 Practitioner: Dr. Smith Procedure Charge: 200.0 The total charge is: \$950.0	Patient name: Jenny Elaine Santori Address: 123 Main Street City: Rockville State: Maryland ZIP: 20877 Emergency Contact: Bill Santori 777-555-1212 Procedure: Physical Exam Procedure Date: 07/03/2023 Practitioner: Dr. Irvine Procedure Charge: 250.0 Procedure: X-ray Procedure Date: 07/03/2023 Practitioner: Dr. Jamison Procedure Charge: 500.0 Procedure: Blood test Procedure Date: 07/03/2023 Practitioner: Dr. Smith Procedure Charge: 200.0 The total charge is: \$950.0	Yes
Case 2	Patient name: Jenny Elaine Santori Address: 123 Main Street City: Rockville State: Maryland ZIP: 20877	Invalid Error: Invalid Data type. (Procedure costs should be int or double, not char as shown in input)	Invalid Error: Invalid Data type. (Procedure costs should be int or double, not char as shown in input)	Yes

	<p>Emergency Contact: Bill Santori 777-555-1212</p> <p>Procedure: Physical Exam Procedure Date: 07/03/2023 Practitioner: Dr. Irvine Procedure Charge: '250.0'</p> <p>Procedure: X-ray Procedure Date: 07/03/2023 Practitioner: Dr. Jamison Procedure Charge: '500.0'</p> <p>Procedure: Blood test Procedure Date: 07/03/2023 Practitioner: Dr. Smith Procedure Charge: '200.0'</p>			
Case 3	<p>Patient name: Jenny Elaine Santori Address: 123 Main Street City: Rockville State: Maryland ZIP: 20877</p> <p>Emergency Contact: Bill Santori 777-555-1212</p> <p>Procedure: Physical Exam Procedure Date: 07/03/2023 Practitioner: Dr. Irvine Procedure Charge: 250.0/0</p> <p>Procedure: X-ray Procedure Date: 07/03/2023 Practitioner: Dr. Jamison</p>	<p>Patient name: Jenny Elaine Santori Address: 123 Main Street City: Rockville State: Maryland ZIP: 20877</p> <p>Emergency Contact: Bill Santori 777-555-1212</p> <p>Procedure: Physical Exam Procedure Date: 07/03/2023 Practitioner: Dr. Irvine Procedure Charge: Infinity</p> <p>Procedure: X-ray Procedure Date: 07/03/2023 Practitioner: Dr. Jamison</p>	<p>Patient name: Jenny Elaine Santori Address: 123 Main Street City: Rockville State: Maryland ZIP: 20877</p> <p>Emergency Contact: Bill Santori 777-555-1212</p> <p>Procedure: Physical Exam Procedure Date: 07/03/2023 Practitioner: Dr. Irvine Procedure Charge: Infinity</p> <p>Procedure: X-ray Procedure Date: 07/03/2023 Practitioner: Dr. Jamison</p>	Yes

	Procedure Charge: 500.0/0 Procedure: Blood test Procedure Date: 07/03/2023 Practitioner: Dr. Smith Procedure Charge: 200.0/0	Procedure Charge: Infinity Procedure: Blood test Procedure Date: 07/03/2023 Practitioner: Dr. Smith Procedure Charge: Infinity The total charge is: \$Infinity Student Name: Even Estifanos Student MC M#: M21136315 Due Date: 07/03/2023	Procedure Charge: Infinity Procedure: Blood test Procedure Date: 07/03/2023 Practitioner: Dr. Smith Procedure Charge: Infinity The total charge is: \$Infinity Student Name: Even Estifanos Student MC M#: M21136315 Due Date: 07/03/2023	
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## Part3: Screenshots related to the Test Plan:

### Case 1



```
C:\Users\evene\Downloads>javac PatientDriverApp.java Patient.java Procedure.java

C:\Users\evene\Downloads>java PatientDriverApp Patient Procedure
This program was developed by a Student: Even Estifanos 07/03/2023

Patient name: Jenny Elaine Santori
Address: 123 Main Street
City: Rockville
State: Maryland
ZIP: 20877
Emergency Contact: Bill Santori 777-555-1212
Procedure: Physical Exam
Procedure Date: 07/03/2023
Practitioner: Dr. Irvine
Procedure Charge: 250.0

Procedure: X-ray
Procedure Date: 07/03/2023
Practitioner: Dr. Jamison
Procedure Charge: 500.0

Procedure: Blood test
Procedure Date: 07/03/2023
Practitioner: Dr. Smith
Procedure Charge: 200.0

The total charge is: $950.0
Student Name: Even Estifanos
Student MC M#: M21136315
Due Date: 07/03/2023

C:\Users\evene\Downloads>
```

```
eclipse-workspace - Assignment2/src/PatientDriverApp.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Javadoc Declaration Console x
terminated> PatientDriverApp [Java Application] C:\Users\evene\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.7.v20230425-1502\jre\bin\javaw.exe (Jul 16, 2023, 7:47:46 PM - 7:47:47 PM) [pid: 6228]
This program was developed by a Student: Even Estifanos 07/03/2023

Patient name: Jenny Elaine Santori
Address: 123 Main Street
City: Rockville
State: Maryland
ZIP: 20877
Emergency Contact: Bill Santori 777-555-1212
Procedure: Physical Exam
Procedure Date: 07/03/2023
Practitioner: Dr. Irvine
Procedure Charge: 250.0

Procedure: X-ray
Procedure Date: 07/03/2023
Practitioner: Dr. Jamison
Procedure Charge: 500.0

Procedure: Blood test
Procedure Date: 07/03/2023
Practitioner: Dr. Smith
Procedure Charge: 200.0

The total charge is: $950.0
Student Name: Even Estifanos
Student MC M#: M21136315
Due Date: 07/03/2023
```

## Case 2

```
Microsoft Windows [Version 10.0.22621.1992]
(c) Microsoft Corporation. All rights reserved.

C:\Users\evene>cd C:\Users\evene\Downloads

C:\Users\evene\Downloads>javac PatientDriverApp.java Patient.java Procedure.java
PatientDriverApp.java:37: error: unclosed character literal
    Procedure uno = new Procedure ("Physical Exam", "07/03/2023", "Dr. Irvine", '250.00');
                                         ^
PatientDriverApp.java:37: error: unclosed character literal
    Procedure uno = new Procedure ("Physical Exam", "07/03/2023", "Dr. Irvine", '250.00');
                                         ^
PatientDriverApp.java:38: error: unclosed character literal
    Procedure dos = new Procedure ("X-ray", "07/03/2023", "Dr. Jamison", '500.00');
                                         ^
PatientDriverApp.java:38: error: unclosed character literal
    Procedure dos = new Procedure ("X-ray", "07/03/2023", "Dr. Jamison", '500.00');
                                         ^
PatientDriverApp.java:39: error: unclosed character literal
    Procedure tres = new Procedure ("Blood test", "07/03/2023", "Dr. Smith", '200.00');
                                         ^
PatientDriverApp.java:39: error: unclosed character literal
    Procedure tres = new Procedure ("Blood test", "07/03/2023", "Dr. Smith", '200.00');
                                         ^

6 errors

C:\Users\evene\Downloads>java PatientDriverApp Patient Procedure
Error: Could not find or load main class PatientDriverApp
Caused by: java.lang.ClassNotFoundException: PatientDriverApp

C:\Users\evene\Downloads>
```

eclipse-workspace - Assignment2/src/PatientDriverApp.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Javadoc Declaration Console x

```
<terminated> PatientDriverApp [Java Application] C:\Users\evene\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.7.v20230425-1502\jre\bin\javaw.exe (Jul 16, 2023, 8:07:29 PM - 8:07:32 PM) [pid: 23768]
Exception in thread "main" java.lang.Error: Unresolved compilation problem:
    Invalid character constant

    at PatientDriverApp.main(PatientDriverApp.java:37)
```

## Case 3

```
Command Prompt
C:\Users\evene\Downloads>javac PatientDriverApp.java Patient.java Procedure.java

C:\Users\evene\Downloads>java PatientDriverApp Patient Procedure
This program was developed by a Student: Even Estifanos 07/03/2023

Patient name: Jenny Elaine Santori
Address: 123 Main Street
City: Rockville
State: Maryland
ZIP: 20877
Emergency Contact: Bill Santori 777-555-1212
Procedure: Physical Exam
Procedure Date: 07/03/2023
Practitioner: Dr. Irvine
Procedure Charge: Infinity

Procedure: X-ray
Procedure Date: 07/03/2023
Practitioner: Dr. Jamison
Procedure Charge: Infinity

Procedure: Blood test
Procedure Date: 07/03/2023
Practitioner: Dr. Smith
Procedure Charge: Infinity

The total charge is: $Infinity
Student Name: Even Estifanos
Student MC M#: M21136315
Due Date: 07/03/2023

C:\Users\evene\Downloads>
```

eclipse-workspace - Assignment2/src/PatientDriverApp.java - Eclipse IDE

```
File Edit Source Refactor Navigate Search Project Run Window Help
Javadoc Declaration Console X
<terminated> PatientDriverApp [Java Application] C:\Users\evene\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.7.v20230425-1502\jre\bin\javaw.exe (Jul 16, 2023, 8:15:23 PM - 8:15:23 PM) [pid: 10864]
This program was developed by a Student: Even Estifanos 07/03/2023

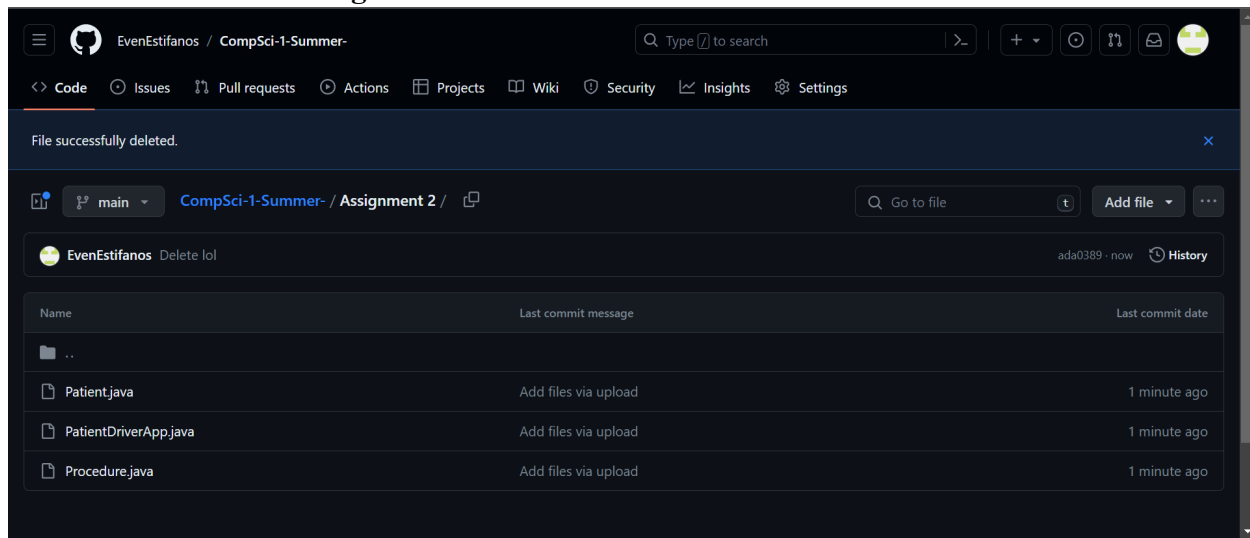
Patient name: Jenny Elaine Santori
Address: 123 Main Street
City: Rockville
State: Maryland
ZIP: 20877
Emergency Contact: Bill Santori 777-555-1212
Procedure: Physical Exam
Procedure Date: 07/03/2023
Practitioner: Dr. Irvine
Procedure Charge: Infinity

Procedure: X-ray
Procedure Date: 07/03/2023
Practitioner: Dr. Jamison
Procedure Charge: Infinity

Procedure: Blood test
Procedure Date: 07/03/2023
Practitioner: Dr. Smith
Procedure Charge: Infinity

The total charge is: $Infinity
Student Name: Even Estifanos
Student MC M#: M21136315
Due Date: 07/03/2023
```

## Github Screenshot of assignment 2



### Lessons Learned <Provide answers to the questions listed above>:

Write about your Learning Experience, highlighting your lessons learned and learning experience from working on this project.

What have you learned?

- Learned how to create classes, and use instance methods and variables. I also learned that there is ways to play around with the test cases and record different responses through the use of the test plan

What did you struggle with?

- Pseudocode - It was difficult to come up with ways to describe certain actions and designing it first was hard

What would you do differently on your next project?

- Submit the assignment on time. I was late so I would probably manage my time better and submit assignment promptly

What parts of this assignment were you successful with, and what parts (if any) were you not successful with?

- Successful with the coding part, unsuccessful/struggled with the design part

Provide any additional resources/links/videos you used to while working on this assignment/project.



**Check List:** <Provide answers to the column Y/N or N/A >:

#		Y/N	Comments
<b>1.</b>	<b>Assignment files:</b>		
	• FirstInitialLastName Assignment# Moss.zip	<b>Yes or No</b>	<b>Yes</b>
	• FirstInitialLastName Assignment#.docx/.pdf	<b>Yes or No</b>	<b>Yes</b>
	• Source java files	<b>Yes or No</b>	<b>Yes</b>
<b>2.</b>	<b>Program compiles</b>	<b>Yes or No</b>	<b>Yes</b>
<b>3.</b>	<b>Program runs with desired outputs related to a Test Plan</b>	<b>Yes or No</b>	<b>Yes</b>
<b>4.</b>	<b>Documentation file:</b>		
	• Comprehensive Test Plan	<b>Yes or No</b>	<b>Yes</b>
	• Screenshots related to the Test Plan	<b>Yes or No</b>	<b>Yes</b>
	• Screenshots of your GitHub account with submitted Assignment# (if required)	<b>Yes or No or N/A</b>	<b>Yes</b>
	• UML Diagram (if required)	<b>Yes or No or N/A</b>	<b>N/A</b>
	• Algorithms/Pseudocode (if required)	<b>Yes or No or N/A</b>	<b>Yes</b>
	• Flowchart (if required)	<b>Yes or No or N/A</b>	<b>N/A</b>
	• Lessons Learned	<b>Yes or No</b>	<b>Yes</b>
	• Checklist is completed and included in the Documentation	<b>Yes or No</b>	<b>Yes</b>