

# NNguyễn - Assignment 2

## Test plan/screenshots

### Running from command line/IDE

#### Case 1

✓ Passed!

```
+ Assignment2 git:(main) x cd /Users/nick/Documents/NguyenN_Vault/Code/learning-java/cmsc-203/Assignment2 ; /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-20.jdk/Contents/Home/bin/java -agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:53417 --enable-preview -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/nick/Library/Application\ Support/Code/User/workspaceStorage/721ea899966370c1379937832a9efa77/redhat.java/jdt_ws/Assignment2_5d5a2dd7/bin PatientDriverApp
Patient Info:
  Name: Nicholas Hoang Nguyen
  Address: 123 Sample Street Germantown Maryland 20874
  Emergency Contact: John Green 301-532-6273

  Procedure: IV
  Procedure Date: 2023-09-11
  Practitioner: Dr. Berry
  Charge: 600

  Procedure: Physical Exam
  Procedure Date: 2023-09-11
  Practitioner: Dr. Berry
  Charge: 600

  Procedure: X-ray
  Procedure Date: 2023-09-11
  Practitioner: Dr. Nguyen
  Charge: 500

Total charges: $1700

Student Name: Nicholas Nguyen
MC#: M21131538
Due Date: 2023-09-25
```

#### Case 2

✓ Passed!

```
+ Assignment2 git:(main) x cd /Users/nick/Documents/NguyenN_Vault/Code/learning-java/cmsc-203/Assignment2 ; /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-20.jdk/Contents/Home/bin/java -agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:53423 --enable-preview -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/nick/Library/Application\ Support/Code/User/workspaceStorage/721ea899966370c1379937832a9efa77/redhat.java/jdt_ws/Assignment2_5d5a2dd7/bin PatientDriverApp
Patient Info:
  Name: Nick Theo Smith
  Address: 123 Sample Street Rockville Maryland 20874
  Emergency Contact: John Green 301-532-6273

  Procedure: IV
  Procedure Date: 2023-09-11
  Practitioner: Dr. Berry
  Charge: 600

  Procedure: Physical Exam
  Procedure Date: 2023-09-11
  Practitioner: Dr. Berry
  Charge: 600

  Procedure: X-ray
  Procedure Date: 2023-09-11
  Practitioner: Dr. Nguyen
  Charge: 500

Total charges: $1700

Student Name: Nicholas Nguyen
MC#: M21131538
Due Date: 2023-09-25
```

#### Case 3

✓ Passed!

```
+ Assignment2 git:(main) x cd /Users/nick/Documents/NguyenN_Vault/Code/learning-java/cmssc-203/Assignment2 ; /usr/bin/env /Library/Java/Java
VirtualMachines/jdk-20.jdk/Contents/Home/bin/java -agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:53812 --enable-prev
iew -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/nick/Library/Application\ Support/Code/User/workspaceStorage/721ea899966370c1379937832
a9efa77/redhat.java/jdt_ws/Assignment2_5d5a2dd7/bin PatientDriverApp
Patient Info:
Name: Nick Theo Smith
Address: 123 Sample Street Rockville Maryland 20874
Emergency Contact: John Green 301-532-6273

Procedure: IV
Procedure Date: 2023-09-11
Practitioner: Dr. Berry
Charge: 600

Procedure: Heart Transplant
Procedure Date: 2024-01-05
Practitioner: Dr. Berry
Charge: 600

Procedure: EEG
Procedure Date: 2023-10-06
Practitioner: Dr. Nguyen
Charge: 500

Total charges: $1700

Student Name: Nicholas Nguyen
MC#: M21131583
Due Date: 2023-09-25
```

Case 4

✓ Passed!

```
+ Assignment2 git:(main) x cd /Users/nick/Documents/NguyenN_Vault/Code/learning-java/cmssc-203/Assignment2 ; /usr/bin/env /Library/Java/Java
VirtualMachines/jdk-20.jdk/Contents/Home/bin/java -agentlib:jdwp=transport=dt_socket,server=n,suspend=y,address=localhost:54073 --enable-prev
iew -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/nick/Library/Application\ Support/Code/User/workspaceStorage/721ea899966370c1379937832
a9efa77/redhat.java/jdt_ws/Assignment2_5d5a2dd7/bin PatientDriverApp
Patient Info:
Name: Timothy K. Wang
Address: 123 Sample Street Williamsburg Virginia 20874
Emergency Contact: John Green 301-532-6273

Procedure: IV
Procedure Date: 2023-09-11
Practitioner: Dr. Berry
Charge: 800

Procedure: Physical Therapy - work on lower body
Procedure Date: 2024-01-05
Practitioner: Dr. Berry
Charge: 200

Procedure: Psychiatrist - discuss new meds
Procedure Date: 2023-10-06
Practitioner: Dr. Nguyen
Charge: 100

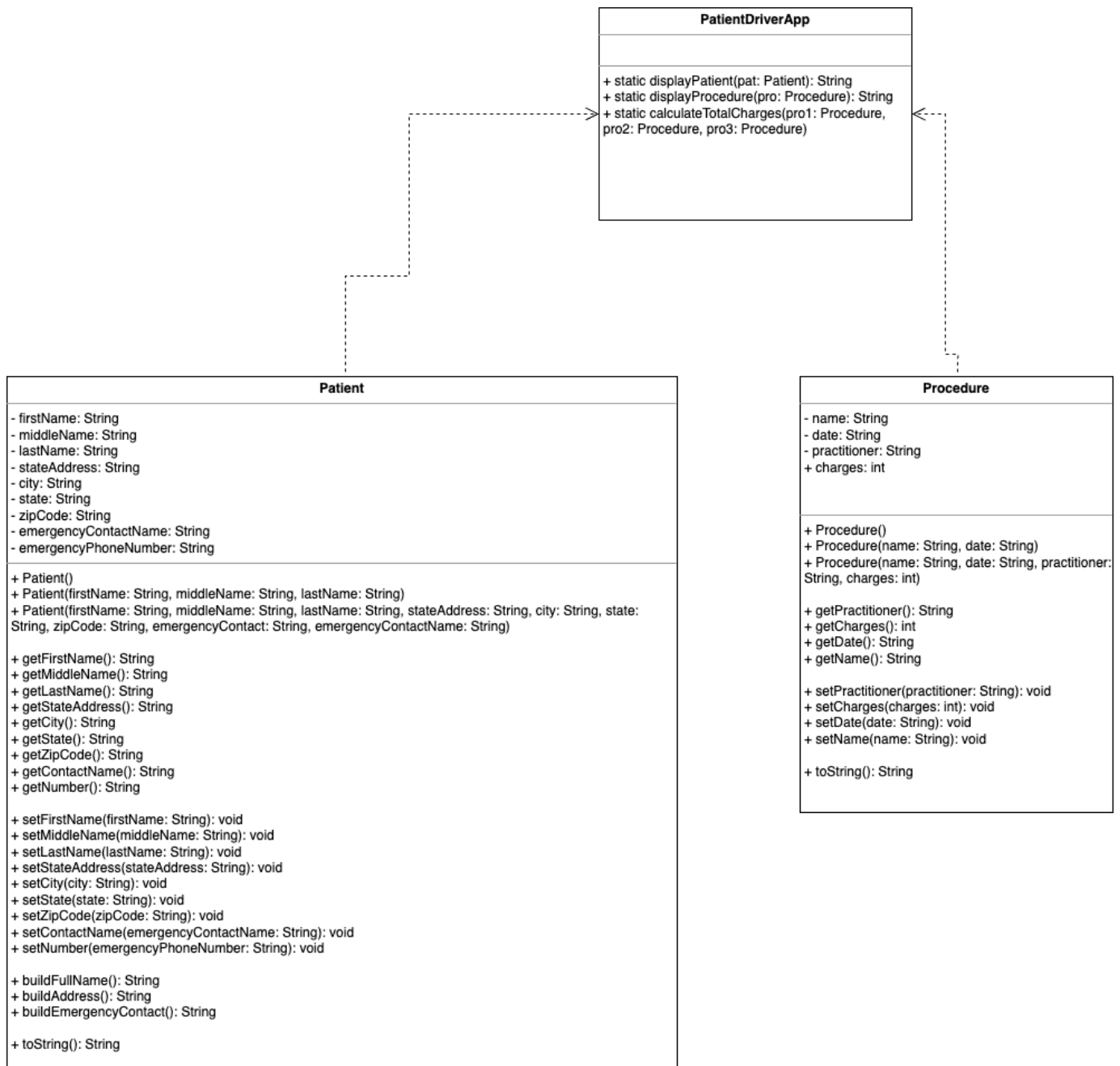
Total charges: $1100

Student Name: Nicholas Nguyen
MC#: M21131583
Due Date: 2023-09-25
```

In Github

learning-java / cmssc-203 / Assignment2 / src /			Add file	...
nick-nugat assignment 2 actually complete			7c8bc92 · now	History
Name	Last commit message	Last commit date		
..				
▸ Patient.java	assignment 2 actually complete	now		
▸ PatientDriverApp.java	assignment 2 actually complete	now		
▸ Procedure.java	assignment 2 actually complete	now		

UML diagram



## Pseudocode

### Patient

- instance variables for first name, middle name, last name, state address, city, state, zip code, emergency contact name, and emergency phone number
- no-arg constructor
- parameterized constructor with first name, middle name, and last name
- parameterized constructor with all attributes
- getters and setters for every attribute
- buildFullName() method that returns full name (uses getter methods)
- buildAddress() method that returns complete address with address, city, state, and zip code variables (uses getter methods)
- buildEmergencyContact() method that returns contact name and number (uses getter methods)
- toString() method (uses build methods)

### Procedure

- instance variables for name, date, practitioner, and charges

- no-arg constructor
- parameterized constructor with name and date variables
- parameterized constructor with all variables
- getters and setters for all variables
- toString() method using getters

## PatientDriverApp

- main method
  - `Patient` object
  - three `Procedure` objects
  - print info using display methods and calculate total charges method (implemented after)
- displayPatient() method with `Patient` object parameter that returns `Patient` class toString()
- displayPatient() method with `Procedure` object parameter that returns `Procedure` class toString()
- calculateTotalCharges() with three `Procedure` parameters that returns the sum of the procedure charges with the getCharges() method from its class

## Questions to answer

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

I had a pretty good learning experience with this project. I learned that persistence really helps in figuring out code. Although it may be frustrating debugging code, the feeling when you finally figure out the problem(s) is great.

### 🕒 What have you learned?

I learned how to properly write a program using multiple classes. I also learned how to implement overloaded constructors (this is something I did in my AP Java course, but I was glad to get more practice in).

### 🕒 What did you struggle with?

I struggled with getting my code to compile. Using command line to get my code to compile didn't seem to work properly, so I ended up running it with the help of Visual Studio Code. By default, running my code through VS Code compiles every `.java` file, the `.class` files landing in the `bin` directory.