

Test cases:

Test Case #	Input	Expected Output	Actual Output	Did the test pass?
1	"Physical Examination", "04/04/2012"  "Endocrine surgery", "06/23/2022", "Connor Bradley", 203.32	Prodecure: X-ray  ProcedureDate=04/04/2012  Pracitioner=Physical Examination  charges=350.67	Prodecure: Endocrine surgery  ProcedureDate=06/23/2022  Pracitioner=Connor Bradley  charges=203.32	Yes
2	"Colonoscopy", "09/15/2023", "Dr. Sarah Johnson", 1250.00  "MRI Scan", "11/30/2023", "Dr. Michael Chen", 875.50  "Dental Implant", "02/07/2024", "Dr. Emily Rodriguez", 3200.75	Prodecure: Colonoscopy  ProcedureDate=09/15/2023  Pracitioner=Dr. Sarah Johnson  charges=1250.0  Prodecure: MRI Scan  ProcedureDate=11/30/2023  Pracitioner=Dr. Michael Chen  charges=875.5  Prodecure: Dental Implant  ProcedureDate=02/07/2024  Pracitioner=Dr. Emily Rodriguez	Prodecure: Colonoscopy  ProcedureDate=09/15/2023  Pracitioner=Dr. Sarah Johnson  charges=1250.0  Prodecure: MRI Scan  ProcedureDate=11/30/2023  Pracitioner=Dr. Michael Chen  charges=875.5  Prodecure: Dental Implant  ProcedureDate=02/07/2024  Pracitioner=Dr. Emily Rodriguez  charges=3200.75	Yes

		charges=3200.75		
3	"Cataract Surgery", "04/20/2024", "Dr. Lisa Wong", 2500.00 "Appendectomy", "07/12/2023", "Dr. David Lee", 8000.25 "Breast Augmentation", "11/18/2023", "Dr. Samantha Patel", 7800.50	Prodecure: Cataract Surgery  ProcedureDate=04/20/2024  Pracitioner=Dr. Lisa Wong  charges=2500.0  Prodecure: Appendectomy  ProcedureDate=07/12/2023  Pracitioner=Dr. David Lee  charges=8000.25  Prodecure: Breast Augmentation  ProcedureDate=11/18/2023  Pracitioner=Dr. Samantha Patel  charges=7800.5	Prodecure: Cataract Surgery  ProcedureDate=04/20/2024  Pracitioner=Dr. Lisa Wong  charges=2500.0  Prodecure: Appendectomy  ProcedureDate=07/12/2023  Pracitioner=Dr. David Lee  charges=8000.25  Prodecure: Breast Augmentation  ProcedureDate=11/18/2023  Pracitioner=Dr. Samantha Patel  charges=7800.5	Yes

UML diagram:

```

class Patient {
- firstName: String
- middleName: String
- lastName: String
- city: String
- state: String
- zipCode: String
- streetAddress: String
- patientNumber: String

```

- emergencyContactFirstName: String
- emergencyContactLastName: String
- emergencyContactNumber: String

- + Patient()
- + Patient(String, String, String)
- + Patient(String, String, String, String, String, String, String, String, String)

- + setFirstName(String)
- + setMiddleName(String)
- + setLastName(String)
- + setCity(String)
- + setState(String)
- + setZipCode(String)
- + setStreetAddress(String)
- + setPatientNumber(String)
- + setEmergencyContactFirstName(String)
- + setEmergencyContactLastName(String)
- + setEmergencyContactNumber(String)

- + getFirstName(): String
- + getMiddleName(): String
- + getLastName(): String
- + getCity(): String
- + getState(): String
- + getZipCode(): String
- + getStreetAddress(): String
- + getPatientNumber(): String
- + getEmergencyContactFirstName(): String
- + getEmergencyContactLastName(): String
- + getEmergencyContactNumber(): String

- + buildFullName(): String
- + buildAddress(): String
- + buildEmergencyContact(): String
- + toString(): String

}

```
class PatientDriverApp {  
  - patient: Patient  
  - p1: Procedure  
  - p2: Procedure  
  - p3: Procedure
```

```

+ main(String[]): void
+ displayPatient(Patient): void
+ displayProcedure(Procedure): void
+ calculateTotalCharges(Procedure, Procedure, Procedure): double
}

class Procedure {
- procedure: String
- date: String
- practitioner: String
- charges: double

+ Procedure()
+ Procedure(String, String)
+ Procedure(String, String, String, double)

+ setProcedure(String): void
+ setDate(String): void
+ setPractitioner(String): void
+ setCharges(double): void

+ getProcedure(String): String
+ getDate(String): String
+ getPractitioner(String): String
+ getCharges(double): double

+ toString(): String
}

```

Screenshots:

Patient info:

Name: James Landon Lancaster  
Address: 742 Maple Grove Lane Springville Ohio 45321  
Emergency Contact: Jenny Springs 283-432-9485

Prodecure: Colonscopy  
ProcedureDate=03/23/2022  
Pracitioner=Dr. Ivy  
charges=203.0

Prodecure: X-ray  
ProcedureDate=04/04/2012  
Pracitioner=Physical Examination  
charges=350.67

Prodecure: Endocrine surgery  
ProcedureDate=06/23/2022  
Pracitioner=Connor Bradley  
charges=203.32

Total Charges: 756.99

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Patient info:

Name: James Landon Lancaster  
Address: 742 Maple Grove Lane Springville Ohio 45321  
Emergency Contact: Jenny Springs 283-432-9485

Prodecure: Colonoscopy  
ProcedureDate=09/15/2023  
Pracitioner=Dr. Sarah Johnson  
charges=1250.0

Prodecure: MRI Scan  
ProcedureDate=11/30/2023  
Pracitioner=Dr. Michael Chen  
charges=875.5

Prodecure: Dental Implant  
ProcedureDate=02/07/2024  
Pracitioner=Dr. Emily Rodriguez  
charges=3200.75

Total Charges: 5326.25

Student name: Alexander Nguyen  
MC#: 21171610  
Due Date: 07/01/2024

Patient info:

Name: James Landon Lancaster  
Address: 742 Maple Grove Lane Springville Ohio 45321  
Emergency Contact: Jenny Springs 283-432-9485

Prodecure: Cataract Surgery  
ProcedureDate=04/20/2024  
Pracitioner=Dr. Lisa Wong  
charges=2500.0

Prodecure: Appendectomy  
ProcedureDate=07/12/2023  
Pracitioner=Dr. David Lee  
charges=8000.25

Prodecure: Breast Augmentation  
ProcedureDate=11/18/2023  
Pracitioner=Dr. Samantha Patel  
charges=7800.5

Total Charges: 18300.75

Student name: Alexander Nguyen  
MC#: 21171610  
Due Date: 07/01/2024

Lessons learned:

- A. The highlights were instantly knowing how to implement the mutators and accessors right away.
- B. I learned how to use classes and toStrings efficiently.
- C. I struggled with the tedium of getter and setters, then having the output look clean and spaced correctly.