**Course**: CPSC310

**Name**: Tyler Brennan

**Date**: September 27, 2021

**Homework Assignment 1**

YES I have followed the academic honesty rules as outlined in the course syllabus.

YES I have carefully reviewed the details of the assignment.

YES I have organized my printed assignment as outlined in the homework handout.

YES I have submitted an identical copy of the assignment on Moodle.

YES I have unit tested and integration tested my solutions.

YES I have documented and commented my code.

YES My code compiles without errors.

YES My code runs without errors and behaves as expected.

**Solution Overview**

userInput

userSerial()

userPrice()

userModel()

userBrand()

userType()

userTopWood()

userBottomWood()

inventorySystem

addItem()

removeItem()

getItem()

getItemSerial()

getItemPrice()

getItemModel()

getItemBrand()

getItemType()

getItemTopWood()

getItemBottomWood()

printSearch()

toString()

guitar

getSerial()

getPrice()

getModel()

getBrand()

getType()

getTopWood()

getBottomWood()

printWood()

printType()

printBrand()

woodSelection()

typeSelection()

brandSelection()

woodLen()

typeLen()

brandLen()

toString()

**Assumptions and Comments**

I assumed that serial numbers are unique and are integers

I assumed that there was not criteria for a guitar model, so I left the input as a string

I assumed that Rick only sells the top 10 brands, the specifically stated wood types, and 2 guitar types (acoustic, and electric)

**Errors**

N/A

“I have read and understood the syllabus for this class. I agree to adhere to all of the policies and procedures set forth in the syllabus and to any instructions given out during class or later posted to the course website. In particular, I understand and agree to follow all health and safety rules and procedures related to COVID-19, and I understand that the course can be moved online at any point of the semester at the discretion of the instructor. I understand that the course syllabus is subject to change by the instructor at any time and that I can find the latest version on Moodle.”

Date: 9/28/21

Signature: Tyler Brennan

“In accordance with Article II of the Trinity College Student Integrity Contract, I hereby pledge that the papers, exams, and other academic exercises I submit for this course will represent my own work; that I will properly acknowledge and attribute any and all information and ideas that I have used from other sources; and that no collaboration unauthorized by the instructor of the course will occur in the course of its completion.”

Date: 9/28/21

Signature: Tyler Brennan

OUTPUT

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 2

Please enter the specific information for the item you want to add:

Serial number: 1

Price: 1

Model: 1

Brand:

1) Gibson

2) Fender

3) Ibanez

4) Paul Reed Smith

5) Epiphone

6) Jackson

7) ESP

8) Yamaha

9) Rickenbacker

10) Gretsch

Select a brand by using its index: 1

Type:

1) acoustic

2) electric

Select a type by using its index: 1

Top Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a top wood type by using its index: 1

Bottom Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a bottom wood type by using its index: 1

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 2

Please enter the specific information for the item you want to add:

Serial number: 1

Price: ^Ctylers-mbp-5:Homework1 tylerbrennan$ javac \*.java

tylers-mbp-5:Homework1 tylerbrennan$ java GuitarTester

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 2

Please enter the specific information for the item you want to add:

Serial number: 1

Price: 1

Model: 1

Brand:

1) Gibson

2) Fender

3) Ibanez

4) Paul Reed Smith

5) Epiphone

6) Jackson

7) ESP

8) Yamaha

9) Rickenbacker

10) Gretsch

Select a brand by using its index: 1

Type:

1) acoustic

2) electric

Select a type by using its index: 1

Top Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a top wood type by using its index: 1

Bottom Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a bottom wood type by using its index: 1

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 2

Please enter the specific information for the item you want to add:

Serial number: 1

Sorry that serial numnber was already used, please enter another: 2

Price: 1

Model: 1

Brand:

1) Gibson

2) Fender

3) Ibanez

4) Paul Reed Smith

5) Epiphone

6) Jackson

7) ESP

8) Yamaha

9) Rickenbacker

10) Gretsch

Select a brand by using its index: 1

Type:

1) acoustic

2) electric

Select a type by using its index: 1

Top Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a top wood type by using its index: 1

Bottom Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a bottom wood type by using its index: 1

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 3

Please enter the serial number of the item you want to remove: 2

Item has been removed:

Serial Number: 2

Price: $1.0

Model: 1

Brand: Gibson

Type: acoustic

Top Wood: rosewood

Bottom Wood: rosewood

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 3

Please enter the serial number of the item you want to remove: 2

This item does not exist

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 4

Enter the serial number of the item you wish to modify: 1

1) Serial number

2) Price

3) Model

4) Brand

5) Type

6) Top Wood

7) Bottom Wood

8) Quit

Which aspect of this item would you like to modify: 2

Price: 100

1) Serial number

2) Price

3) Model

4) Brand

5) Type

6) Top Wood

7) Bottom Wood

8) Quit

Which aspect of this item would you like to modify: 8

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 5

List of guitars:

Serial Number: 1

Price: $100.0

Model: 1

Brand: Gibson

Type: acoustic

Top Wood: rosewood

Bottom Wood: rosewood

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 2

Please enter the specific information for the item you want to add:

Serial number: 2

Price: 1

Model: 1

Brand:

1) Gibson

2) Fender

3) Ibanez

4) Paul Reed Smith

5) Epiphone

6) Jackson

7) ESP

8) Yamaha

9) Rickenbacker

10) Gretsch

Select a brand by using its index: 1

Type:

1) acoustic

2) electric

Select a type by using its index: 1

Top Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a top wood type by using its index: 1

Bottom Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a bottom wood type by using its index: 1

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 2

Please enter the specific information for the item you want to add:

Serial number: 3

Price: 2

Model: 2

Brand:

1) Gibson

2) Fender

3) Ibanez

4) Paul Reed Smith

5) Epiphone

6) Jackson

7) ESP

8) Yamaha

9) Rickenbacker

10) Gretsch

Select a brand by using its index: 2

Type:

1) acoustic

2) electric

Select a type by using its index: 2

Top Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a top wood type by using its index: 2

Bottom Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a bottom wood type by using its index: 2

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 2

Please enter the specific information for the item you want to add:

Serial number: 4

Price: 1

Model: 2

Brand:

1) Gibson

2) Fender

3) Ibanez

4) Paul Reed Smith

5) Epiphone

6) Jackson

7) ESP

8) Yamaha

9) Rickenbacker

10) Gretsch

Select a brand by using its index: 1

Type:

1) acoustic

2) electric

Select a type by using its index: 1

Top Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a top wood type by using its index: 1

Bottom Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a bottom wood type by using its index: 1

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 1

1) Serial number

2) Price

3) Model

4) Brand

5) Type

6) Top Wood

7) Bottom Wood

Which attribute would you like to search by: 2

Price: 1

These guitars match your search:

Serial Number: 2

Price: $1.0

Model: 1

Brand: Gibson

Type: acoustic

Top Wood: rosewood

Bottom Wood: rosewood

Serial Number: 4

Price: $1.0

Model: 2

Brand: Gibson

Type: acoustic

Top Wood: rosewood

Bottom Wood: rosewood

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 1

1) Serial number

2) Price

3) Model

4) Brand

5) Type

6) Top Wood

7) Bottom Wood

Which attribute would you like to search by: 6

Top Wood:

1) rosewood

2) alder

3) mahogany

4) cedar

Select a top wood type by using its index: 2

HIT

These guitars match your search:

Serial Number: 3

Price: $2.0

Model: 2

Brand: Fender

Type: electric

Top Wood: alder

Bottom Wood: alder

1) Search

2) Add an item

3) Remove an item

4) Modify an entry

5) Display inventory

6) Quit

Please select what you want to do: 6