Part 2.

- Classes:
- 1. Guitar:
- Fields: serialNumber, price, builder, model,

backWood, topWood

- Methods: createSound
- 2. Inventory:
- Fields: list of guitars
- Methods: addGuitar, searchBySerialNumber
- UML:

Guitar

- serialNumber:String

price : Doublebuilder : Stringmodel : String

- blackWood : String

- topWood :srting

+ createSound(): void

Inventory

- guitar : List<guitar>
- +addGuitar(guitar:Guitar):void
- +searchBySerialNumber(serialNumber: String):Guitar

Part 4.

What is stored in the static heap, stack, dynamic heap?

- Static heap, the class objects and static variables are stored.
- Stack, the method calls, local variables, and object

references are stored.

- Dynamic heap, the objects are stored.

What are objects in the program?

- The objects in the program are *obj1* and *obj2*.

What is the state of obj1, obj2?

- The state of obj1 is empty values for all fields.
- The state of obj2 is the values assigned during its constructor.

Do you access all fields of obj1 in the class Tester.java? Why?

- No.
- Because *obj1*'s fields are private and we can access all fields of *obj1* in its class.

What is the current object when the program runs to the line "obj2.createSound();"?

- It's *obj2*.

In the method main, can you use the keyword "this" to access all fields of obj2? Why?

- No.
- Reason 1: main is a static method.
- Reason 2: main is in Tester class, not in Guitar class.

Memory map:

i	String Pool
	Heap
	Guitar obj 1
Ī	String serialNumber
ļ	int price
	String builder
İ	String model
Ī	String backWood
f	String topWood
	Guitar obj2
	String serialNumber
	int price
	String builder
	String model
	String backWood

String topWood	
Stack	
main()	
Guitar obj 1	
Guitar obj2	