

Part 2

- Classes
 1. Guitar
 - + Fields: serialNumber, price, builder, model, backWood, topWood
 - + Methods: createSound
 2. Inventory:
 - + Fields: list of guitar
 - + Methods: addGuitar, searchBySerialNumber

- UML:

Guitar
<ul style="list-style-type: none">- serialNumber: String- price: Double- builder: String- model: String- backWood: String- topWood: String
+ createSound(): void

Inventory
<ul style="list-style-type: none">- guitars: 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.