

Part 2:

Guitar
<p>-SerialNumber: String</p> <p>-price: int</p> <p>-builder: String</p> <p>-model: String</p> <p>-backWood: String</p> <p>-topWood: String</p>
<p>//constructors</p> <p>+ Guitar()</p> <p>+ Guitar(String SerialNumber, int price, String builder, String model, String backWood, String topWood)</p> <p>//getters</p> <p>+ getSerialNumber(): String</p> <p>+ getPrice(): int</p> <p>+ getBuilder(): String</p> <p>+ getModel(): String</p> <p>+ getBackWood(): String</p> <p>+ getTopWood(): String</p> <p>//setters</p> <p>+ setSerialNumber(String SerialNumber): void</p> <p>+ setPrice(int price): void</p> <p>+ setBuilder(String builder): void</p> <p>+ setModel(String model): void</p> <p>+ setBackWood(String backWood): void</p> <p>+ setTopWood(String topWood): void</p> <p>//other logic methods</p> <p>+ createSound(): void</p>

Inventory
List (array) of guitars
<p>//logic methods</p> <p>addNewGuitar(): void</p> <p>searchGuitarbySerialNumber(): void</p>

Part 4:

Static heap: class object static variables

Stack: method, local variables, object references

Dynamic heap: objects

objects in program: obj1, obj2
state of obj1: empty values for all fields
state of obj2: all values are assigned

Cannot access all fields of obj1 in class Tester.java because the fields is private.
The current object when the program runs to the line "obj2.createSound();" is obj2
In the method main, cannot use the keyword "this" to access all fields of obj2 because obj2's fields is private.