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

1. Static heap

All the static variables is stored in a HEAP area Classes and all of the data apply to classes (not instance data) is stored in the Permanent Generation section of the Heap. These variables (like all java variables) will hold either primitive values or object references.

1. Stack

Stack memory is used for storing local variables and function calls and has a fixed size. It is fast and efficient, but can only be used for storing short-lived data.

1. Dynamic heap

The heap in Java is a memory area used for dynamic allocation where objects and class instance are stored.

What are objects in the program ?

Part 1 : Car

Part 2: Guitar, Inventory

Part 3: Guitar

What is the state of obj1, obj2 ?

State Obj1 :

serialNumber: null

price: 0

builder: null

model: null

backWood: null

topWood: null

State Obj2 :

serialNumber: G123

price: 2000

builder: Sony

model: Model123

backWood: hardWood

topWood: softWood

set price = 3000 of obj1

get price of obj1: 3000

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

No, because we call the default Constructor -> Fields are initialized to default values.

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

The current object when program run is obj2

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

If you try to use this in the main() method, **you will get a compilation error.**

**Reason:**

+ this **refers to the current instance of a class**.

+ However, main() is a **static method**, which means it belongs to the **class**, not an instance.

+ Since static methods do not belong to any instance, there is **no "current object"** for this to refer to.