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?

In Java, an object is an instance of a class. It represents a real-world entity with state (data) and behavior (methods). Objects are the building blocks of object-oriented programming (OOP).

What is the item variable storing?

Item is a reference variable of type Item, meaning it can hold an object of any class that extends

Why must you cast to call the method inputVase()/outputVase()?

We must cast item to Vase, Statue, or Painting to call their specific methods like inputVase() and outputVase() because item is declared as an Item type, and Item does not have these methods.

What is the error thrown when you cast it wrong?

If we cast an object incorrectly, it will throw a ClassCastException at runtime.

What methods can you call if you don’t cast the item variable?

If don't cast the item variable, we can only call methods that are defined in the Item class (the parent class of Vase, Statue, and Painting).