

Program 01:

HEAP and STACK Diagram for CustomerDemo.java

HEAP MEMORY

1000x : CustomerObject, name :2000x, id :2- 5
2000x : StringObject, "Ravi"
3000x : CustomerObject, name :4000x ,id :3 9
4000x : StringObject, "Rahul"

In Java, String objects are never eligible for Garbage Collector so, Garbage Collector can't delete String Object.

STACK MEMORY

main_stack

val : 100
C : 1000x

m1_stack

cust : ~~4000x~~ 3000x

m1 method execution is over so it will be deleted (Stack Frame will be deleted) from Stack Memory

HEAP and STACK Diagram for Employee.java

HEAP MEMORY

1000x : EmployeeObject, id : ~~400-200~~ 500
2000x : EmployeeObject, id : ~~400~~ 400
3000x : EmployeeObject, id : ~~400-900~~ 500
4000x : EmployeeObject, id : ~~400~~ 900

Output : 400
500
500
500

STACK MEMORY

main_stack

val : 200
e1 : 1000x
e2 : 3000x

update_stack

e : ~~4000x~~ 2000x

switchEmployeees_stack

e1 : 3000x
e2 : ~~4000x~~ 4000x
temp : 900