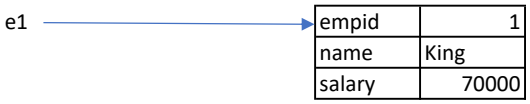
STEP BY STEP EXECUTION - PROGRAM - PASS BY REFERENCES

Method Area(local references) **Heap**




```
public static void main(String[] args) {
        // TODO Auto-generated method stub
        Employee e1=new Employee(1,"King",78000);
```

this line executes Right to Left.
1.the object is allocated on heap
2. the constructor from Employee class is invoked
3. the memory of object is initialized
4. then the control is back in main function and the reference e1 is assigned to object on heap

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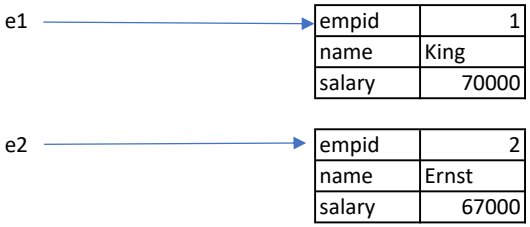


```
public static void main(String[] args) {
        // TODO Auto-generated method stub
        Employee e1=new Employee(1,"King",78000);
        Employee e2=new Employee(2,"Ernst",67000);
```

second object is also created as above steps. Now there are 2 objects

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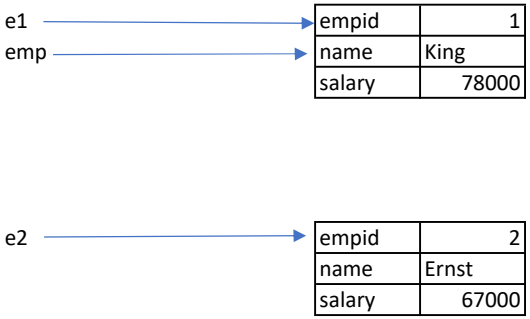


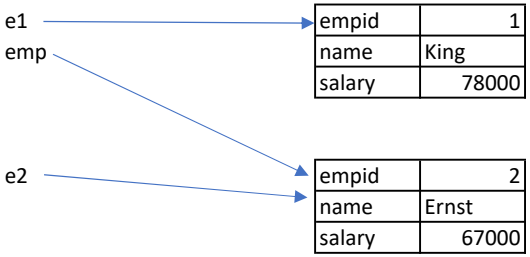

```
public static void main(String[] args) {
        // TODO Auto-generated method stub
        Employee e1=new Employee(1,"King",78000);
        Employee e2=new Employee(2,"Ernst",67000);
        PrintToScreen.printDetails(e1);
```

this line invokes the staticmethod printDetails() of PrintToScreen
the reference e1 is passed to method. The control shifts to PrintToScreenClass

```
public static void printDetails(Employee emp)
    {
        System.out.println(emp.toString());
    }
```

reference e1 is copied in the reference variable emp. The scope of reference e1 is in main()

the scope of reference emp is in printDetails(). It will display details of object(1,King,78000)




```
public static void main(String[] args) {
        // TODO Auto-generated method stub
        Employee e1=new Employee(1,"King",78000);
        Employee e2=new Employee(2,"Ernst",67000);
        PrintToScreen.printDetails(e1);
        PrintToScreen.printDetails(e2);
```

this line invokes the staticmethod printDetails() of PrintToScreen
the reference e2 is passed to method. The control shifts to PrintToScreenClass

```
public static void printDetails(Employee emp)
    {
        System.out.println(emp.toString());
    }
```

reference e2 is copied in the reference variable emp. The scope of reference e2 is in main()
the scope of reference emp is in printDetails().It will display details of object(2,Ernst,67000)