



Arrays

- Like C and C++, Java provides support for two dimensional arrays as well with additional feature as the column dimension can be variant.



Arrays

- E.g.

```
int nums[][] = new int[3][];  
nums[0] = new int[1];  
nums[1] = new int[2];  
nums[2] = new int[3];
```



Garbage Collection

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Garbage Collection

- Whenever an object has served its purpose, it is no longer needed and hence memory for that object needs to be de-allocated.
- This is taken care by Java Runtime System through a mechanism known as Garbage Collection.

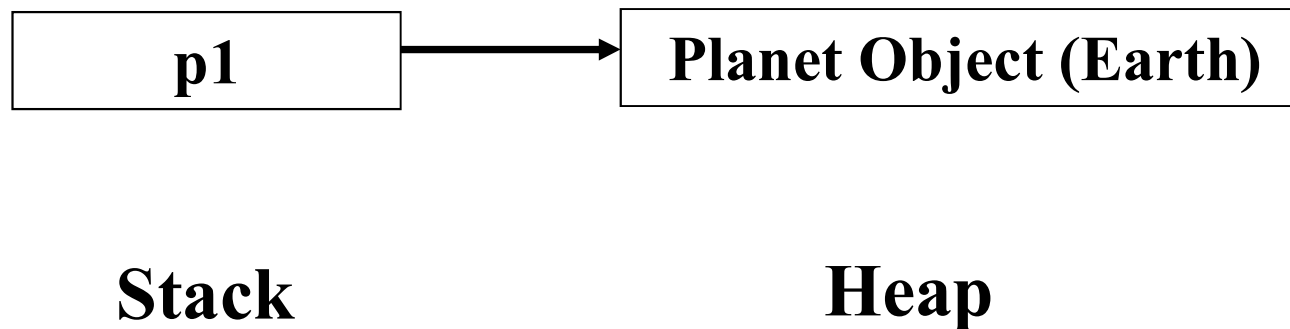


Garbage Collection

- Whenever an object does not have any reference left, the object is marked as unused and becomes eligible for garbage collection.

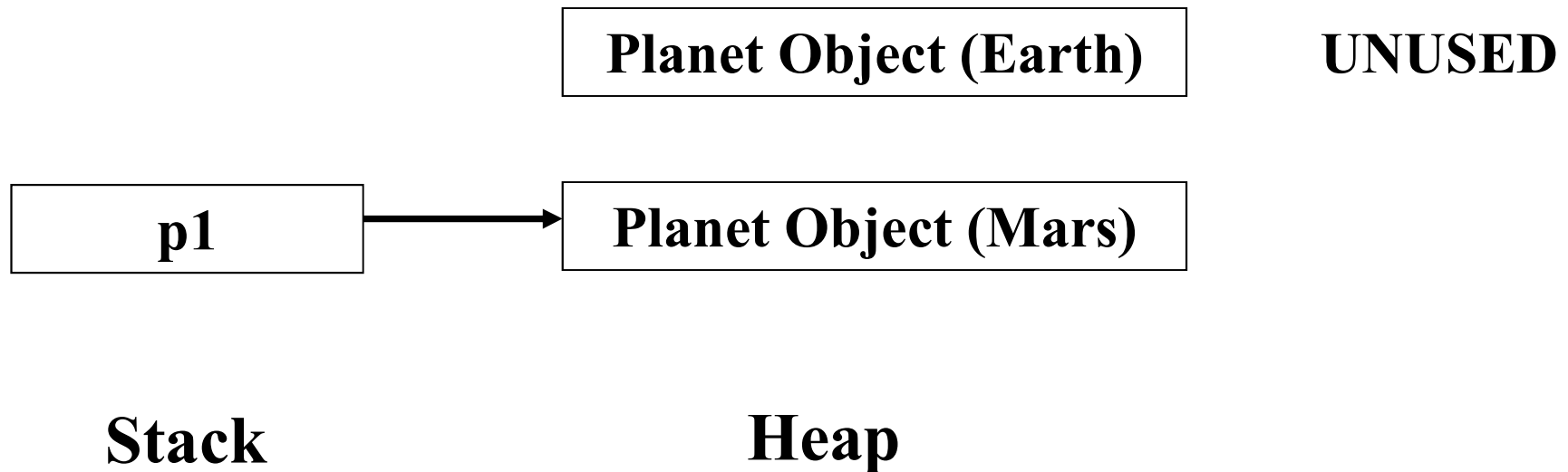
Garbage Collection

```
Planet p1 = new Planet("Earth");
```



Garbage Collection

```
Planet p1 = new Planet("Earth");  
p1 = new Planet("Mars");
```





Garbage Collection

- There is a background process known as Garbage Collector which runs periodically, identifies the objects which are marked as UNUSED and de-allocates memory for those objects.



Lets Summarize

- Memory Mapping
- Parameter Passing
- Arrays
- Garbage Collection