

```
public class Profile {  
    public static void main(String[] args) {  
  
        Profile p = new Profile();  
        p.create();  
        p.update(); //Instance Method is called when Object Created  
        Profile.delete(); //Static Method is called by Class Name  
    }  
}
```

```
    public void create(){  
        int id1 = 101;  
        System.out.println("Create Id: " + id1);  
    }
```

```
    public void update(){  
        int id2 = 201;  
        System.out.println("Update Id: " + id2);  
    }
```

```
    public static void delete(){  
        int id3 = 301;  
        System.out.println("Delete Id: " + id3);  
    }  
}
```

Console:

*Create Id: 101
Update Id: 201
Delete Id: 301*

Stack Memory

```
create() //method ref  
Id1 // datatype ref  
update() //method ref  
Id2 //datatype ref  
  
p // object ref
```

Heap Memory

```
Objects  
p.create(); = 101  
p.update(); = 201  
Profile.delete(); = 301
```

| Variable Type | Scope |
|-------------------|--|
| Instance Variable | Through out the Class except Static Methods |
| Static Variable | Throughout the Class |
| Local Variable | With in the Block in which it is declared |

Stack Area

1. Instance Method
2. Instance Variables
3. Local Variables
4. Reference Variables. [int **a** = 10] [Test **t** = new Test();] [int[] **a**;] [enum **e**]

Note: Memory is allocated when Method is called to Object Creation.

Heap Area

1. Static Variables
2. Static Methods
3. Objects Created by User.

Note: Memory is allocated when new Objects are Created.

We have **Garbage Collector** to destroy the unused objects to free up memory.