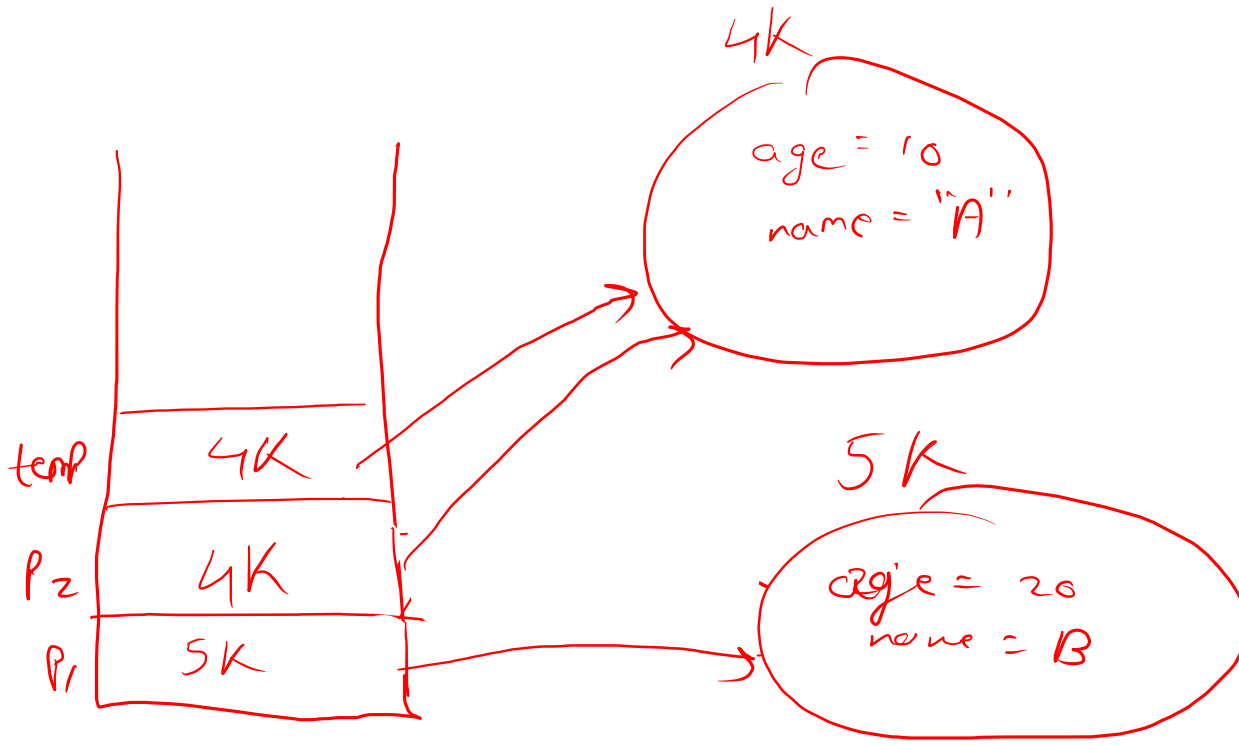


```
Person p1 = new Person();
p1.age = 10;
p1.name = "A";
p1.sayHi(); → 10, A

Person p2 = new Person();
p2.age = 20;
p2.name = "B";
p2.sayHi(); → 20, B

Person temp = p1;
p1 = p2;
p2 = temp;

p1.sayHi(); → 20, B
p2.sayHi(); → 10, "A"
```



```

Person p1 = new Person();
p1.age = 10;
p1.name = "A";
p1.sayHi();

```

```

Person p2 = new Person();
p2.age = 20;
p2.name = "B";
p2.sayHi();

```

```

swap(p1, p2);

```

```

p1.sayHi();
p2.sayHi();

```

```

}

```

```

static void swap(Person a, Person b){

```

```

    Person t = a;

```

```

    a = b;

```

```

    b = t;

```

```

}

```

func ends:

~~sw~~ [ f 44  
b 54  
a 44 ]

[ p2 54  
b1 44 ]

a: 20  
n: B

a: 10  
n: A

but values remain unchanged in main as

Person a & Person b are different references than p1 & p2

Static Data member :- Static variable.

- Belongs to class.
- Common for all objects.
- Should be changed using  $\text{ClassName} \cdot \text{variable}$  <sup>dot operator</sup> = 69
- Can be changed using object but is a bad practice.

```
static class BankAccount {  
    int anum;  
    int money;  
    static int roi;  
  
    void announce(){  
        System.out.println(this.anum + ", " + this.money + ", " + this.roi);  
    }  
}  
  
public static void main(String[] args) throws NumberFormatException, IOException {  
    BankAccount a1 = new BankAccount();  
    a1.anum = 10;  
    a1.money = 100;  
    a1.roi = 4;  
    a1.announce();  
  
    BankAccount a2 = new BankAccount();  
    a2.anum = 11;  
    a2.money = 110;  
    a2.roi = 5;  
    a2.announce();  
    a1.announce();  
}
```

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## Static Data member :-

- Belongs to class.
- Common for all objects.
- Should be changed using `ClassName`.<sup>dot operator</sup> variable = 69
- Can be changed using object but is a bad practice.

```
static class BankAccount {  
    int anum;  
    int money;  
    static int roi;  
  
    void announce(){  
        System.out.println(this.anum + ", " + this.money + ", " + this.roi);  
    }  
}  
  
public static void main(String[] args) throws NumberFormatException, IOException {  
    BankAccount a1 = new BankAccount();  
    a1.anum = 10;  
    a1.money = 100;  
    a1.roi = 4;  
    a1.announce();  
  
    BankAccount a2 = new BankAccount();  
    a2.anum = 11;  
    a2.money = 110;  
    a2.roi = 5;  
    a2.announce();  
    a1.announce();  
}
```

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