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Person.java

```
public class Person{ //Open class
	//Create private instance variables
	private String name;
	private int age;
	private char gender;

	public Person(){//Open constructor
		//let variables be unassigned, or similar for data type
		name = "unassigned";
		age=0;
		gender= 'u';
	}//Close constructor

	public Person(String Name, int Age, char Gender){//Open overloaded constructor
		//set instance variables to given arguments
		this.setName(Name);
		this.setAge(Age);
		this.setGender(Gender);
	}//Close overloaded constructor

	public void setName(String Name){//open setter for name
		//change name variable
		this.name = Name;
	}//close name setter
```

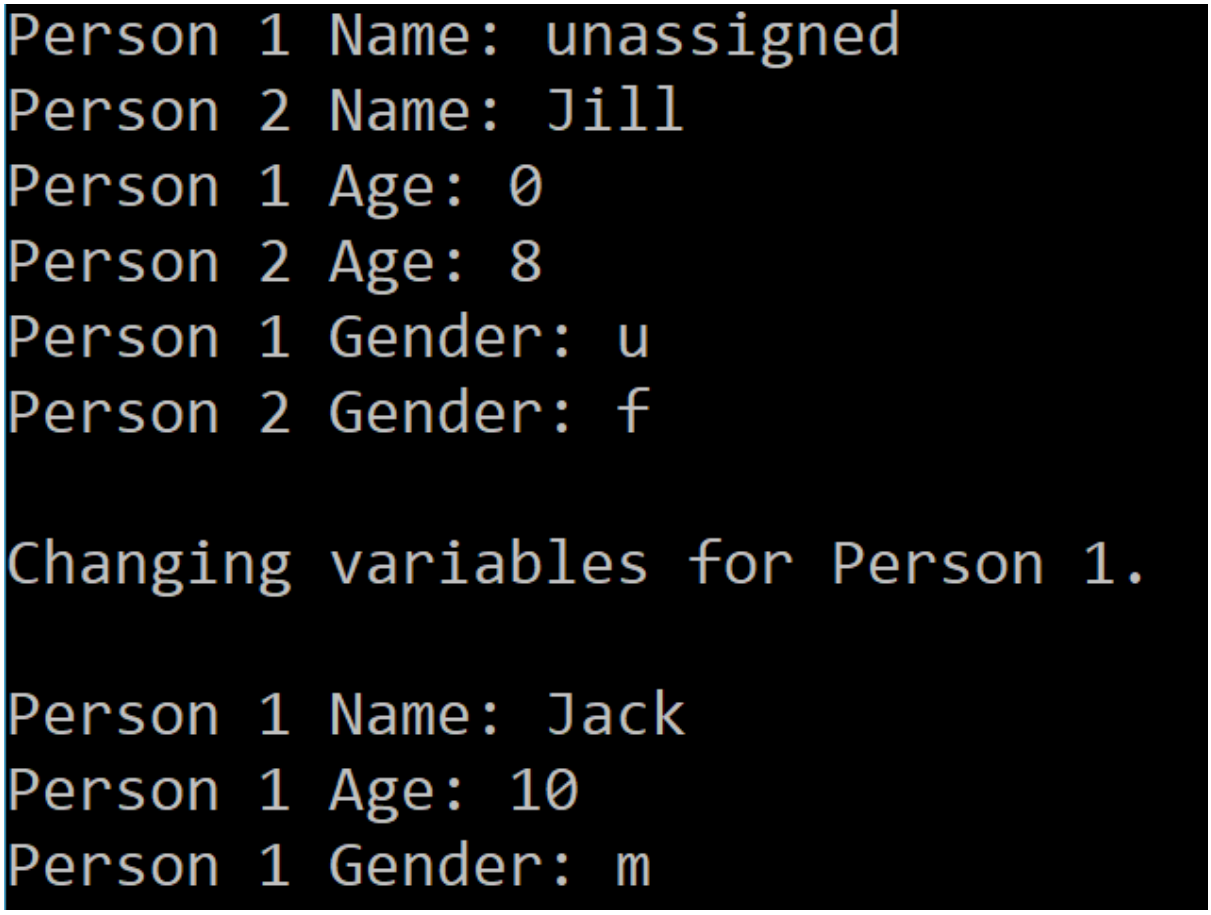
```
	public void setAge(int Age){//open age setter
		//change age variable
		this.age = Age;
	}//close age setter
	public void setGender(char Gender){//open gender setter
		//change gender variable
		this.gender = Gender;
	}//close gender setter

	public String getName(){//open name getter
		return this.name;
	}//close name getter
	public int getAge(){//open age getter
		return this.age;
	}close age getter
	public char getGender(){//open gender getter
		return this.gender;
	}//close gender getter
}//close class
```

PersonTest.java

```
public class PersonTest{//open class
	public static void main(String[] args){//open main method
		//create 2 person opjects, one with normal, one with overload constructor
		Person p1 = new Person();
		Person p2 = new Person("Jill",8,'f');
		//print initial variables from each object
		System.out.println("Person 1 Name: "+p1.getName());
```

```
                System.out.println("Person 2 Name: "+p2.getName());
                System.out.println("Person 1 Age: "+p1.getAge());
                System.out.println("Person 2 Age: "+p2.getAge());
                System.out.println("Person 1 Gender: "+p1.getGender());
                System.out.println("Person 2 Gender: "+p2.getGender());
                //change variables for person object 1
                System.out.println("\nChanging variables for Person 1.");
                p1.setName("Jack");
                p1.setAge(10);
                p1.setGender('m');
                //print out new variables
                System.out.println("\nPerson 1 Name: "+p1.getName());
                System.out.println("Person 1 Age: "+p1.getAge());
                System.out.println("Person 1 Gender: "+p1.getGender());
        }//close main method
}//close class
```




PersonError.java

```
public class PersonError{//open class
	public static void main(String[] args){//open main method
		//create person object, and try to print variables without using getter methods
		Person p1 = new Person();
		System.out.println(p1.name + " "+p1.age+" "+p1.gender);
	}//close main method
}//close class
```

```
PersonError.java:4: error: name has private access in Person
                System.out.println(p1.name + " "+p1.age+" "+p1.gender);
                                   ^
PersonError.java:4: error: age has private access in Person
                System.out.println(p1.name + " "+p1.age+" "+p1.gender);
                                                ^
PersonError.java:4: error: gender has private access in Person
                System.out.println(p1.name + " "+p1.age+" "+p1.gender);
                                                          ^
3 errors
```

After changing instance variables to public:

```
unassigned 0 u
```