

GROUP #5: “NullPointerException”

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Potential Objects and Classes

1. System
2. Electoral packages
3. Ecuadorian
4. Citizens
5. Montgar
6. Constituencies
7. CNE
8. Cne
9. Mixto
10. Género
11. Information
12. Storage
13. Vote
14. Shipping
15. DPEX

Classes and objects.

<i>Objects</i>	<i>Classes</i>
“cne”	DPEX
“Mixto”	Packages
“Género”	Storage
	User
	Constituency
	Consular Office
	Shipping
	PackageType
	Vote
	Voter

UML Diagram

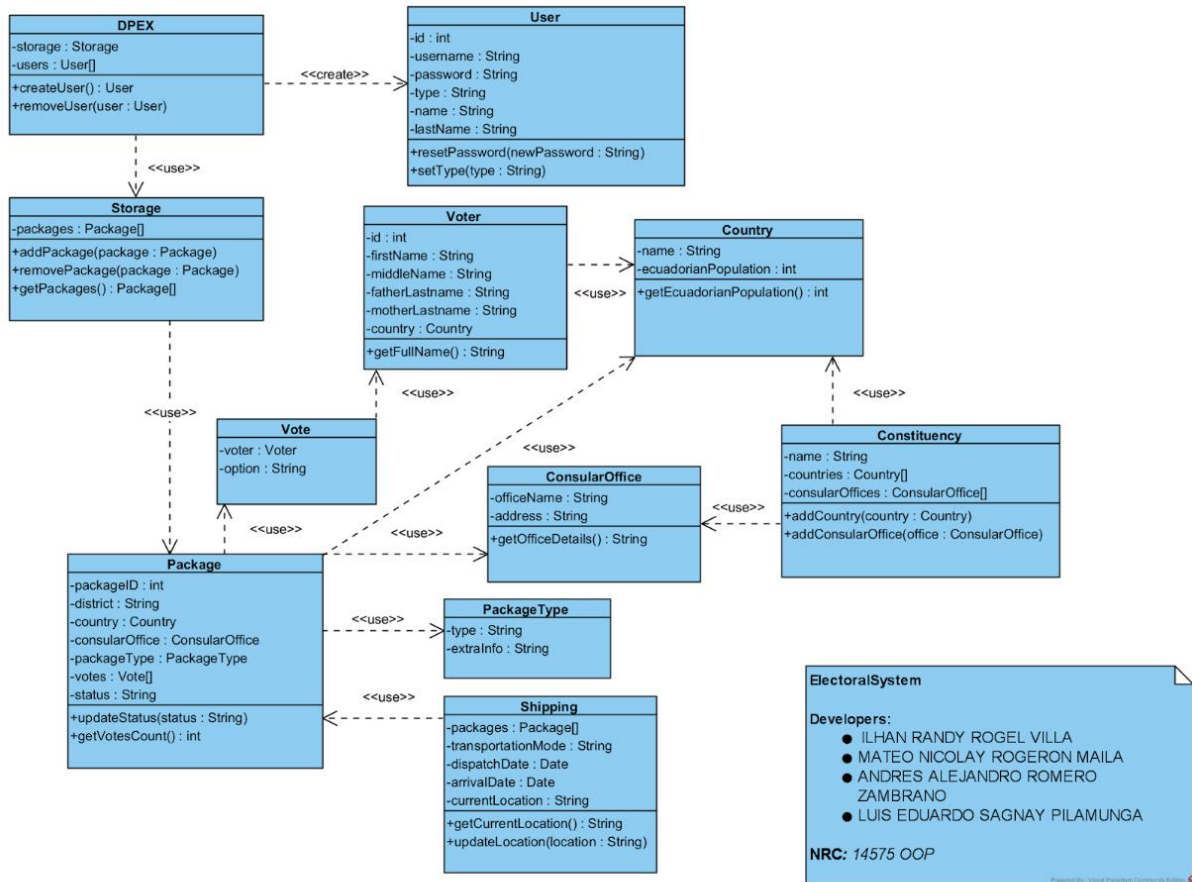


Figure 1. Classes diagram

Code

```
1 public class DPEx{
2     private Storage storage;
3     private User[] users;
4
5     public User createUser();
6     public void removeUser(User user);
7 }
```

```
1 public class Storage{
2     private Package[] packages;
3
4     public void addPackage(Package package);
5     public void removePackage(Package package);
6     public Package[] getPackages();
7 }
```

```
1 public class Package{
2     private int packageId;
3     private String district;
4     private Country country;
5     private ConsularOffice consularOffice;
6     private PackageType packageType;
7     private Vote[] votes;
8     private String status;
9
10    public void updateStatus(String status);
11    public int getVotesCount();
12 }
```

```
1 public class User{
2     private int id;
3     private String username;
4     private String password;
5     private String type;
6     private String name;
7     private String lastName;
8 }
```

```

1 public class Vote{
2     private Voter voter;
3     private String option;
4 }

```

```

1 public class Voter{
2     private int id;
3     private String firstName;
4     private String middleName;
5     private String fatherLastName;
6     private String motherLastName;
7     private Country country;
8
9     public String getFullName();
10 }

```

```

1 public class ConsularOffice{
2     private String officeName;
3     private String address;
4
5     public String getOfficeDetails();
6 }

```

```

1 public class PackageType{
2     private String type;
3     private String extraInfo;
4 }

```

```

1 public class Shipping{
2     private Package[] packages;
3     private String transportationMode;
4     private Date dispatchDate;
5     private Date arrivalDate;
6     private String currentLocation;
7
8     public String getCurrentLocation();
9     public void updateLocation(String location);
10 }

```

```

1 public class Country{
2     private String name;
3     private int ecuadorianPopulation;
4
5     public int getEcuadorianPopulation();
6 }

```

```

1 public class Constituency{
2     private String name;
3     private Country[] countries;
4     private ConsularOffice[] consularOffices;
5
6     public void addCountry(Country country);
7     public void addConsularOffice(ConsularOffice office);
8 }

```