

ArrayLists DB assignment

Part 1:

Look at the us-500.csv file and review the personal information stored for each individual. Design a class around this information called `PersonalInfo`. The class should have fields so that each piece of data in the file can be stored.

For example:

```
public class PersonalInfo {  
  
    String firstName;  
  
    String lastName;  
  
    Address address; //create an Address class that will be made up of Street, City,  
State, County (read from file)  
  
    ArrayList<String> phoneNumbers; //by default, two phone numbers are listed for  
each person in file. Storing these numbers as an ArrayList allows for the possibility  
that you will find more phone numbers for them.  
  
    ArrayList<String> emailaddress; //one email address was provided with data,  
possibly you'll find more.  
  
    ArrayList<String> website;  
  
}
```

Companies purchase and maintain lists such as these so that they have a file of potential and/or current customers. Advertisers and other companies will pay for these lists, particularly if there is other data included. For example, some people would like all of the addresses of registered republicans in NY, or all of the people between the ages of 25-35 that live in MA, or all the people that have visited a certain website. Depending on what you think would be interesting data to collect, add fields to your `PersonalInfo` class that you might collect on these people. Create accessor and mutator methods for above class so that you have access to all fields.

Create a class `myDatabase` that extends an `ArrayList<PersonalInfo>`

Add methods: `findPeopleFromState(String state)` that returns an `ArrayList<PersonalInfo>` containing all the individuals that live in 'state'.

Add methods that use the information that you added to your `PersonalInfo`, including ways to modify these fields as information is found. For example, if you are storing individuals' ages, have a method `setAge()` and `findPeopleInAgeRange()` as described below.

//sets the age of the Person that has the fName and lName listed.

```
public void setAge(String fName, String lName, int age)
```

//returns a list of PersonalInfo files of people between the ages of startAge and endAge.

```
public ArrayList<PersonalInfo> findPeopleInAgeRange(int startAge, int endAge)
{
}
```

You don't have to write methods that would update or search every data field available, concentrate on searches you find interesting and write methods for these.

Part 2: Consider the video we watched at the beginning of class and the propensity for data to be collected and used for business or other purposes. Work with your partner to consider some other interesting pieces of information that might be collected. Add into your database a field to represent this. The field can be a singular piece of information (e.g. age) or it can be a growing list of information (e.g. social media platforms used)

Update the AddressReader.java file to add in other ways to search for your data.