Object Modifications:

Modify your *Person* class to add *hitPoints*, *maxDamage*, and *defenseAbility* attributes. All of these values are private int variables.

You must have accessor methods for each of the new attributes.

You must also modify the constructors of all of your classes (super and sub) to reflect the addition of the three new variables as all *Person* objects will need access to those variables.

You also need to add a new method to the *Person* class called *hpReduction* will which receives an int variable for damage as a parameter and lower the *Person's hitPoints* by that damage amount.

You also need to modify your *SuperCitizen* class to add an additional instance variable called *superName*. (*SuperHeroes and SuperVillains* have an alias and a superhero/villain name. Clark Kent is Superman, Peter Parker is Spiderman, etc…

- name:"Clark Kent",job:"Journalist",hitPoints:100,maxDamage:20, defenseAbility:40,superName:"Superman",superPower:"Invincibility & Super Strength",cape:true,powerLevel:10,catchphrase:"Up, up, & away!"

Driver Program:

You will create 3 arrays of Strings. The first array will be filled with 10+ different first names. The second array is to be filled with 10+ different last names. The third array is to be filled with 10+ different occupations.

You will be creating a driver program called ***GothamLikeAdventureTown***.

1. ***GothamLikeAdventureTown*** will fill an ArrayList of *Persons* called *dailyPlanetStreet* with 50 various persons randomly. Only one of the 50 is a SuperHero and one of the 50 will be a *SuperVillain*. The rest of the ArrayList is to be filled with random *NormalCitizens*.

   When you are creating a *NormalCitizen*, you will be instantiating them with a random first and last name and jobs chosen from the arrays of first names and last names and occupations.

   SuperHero's parameter list should be the following:

name, job, hitPoint, maxDamage, defenseAbility, superName, superPower, cape, powerLevel, catchPhrase

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The *SuperHero* and *SuperVillain* can be instantiated similarly to the following:

```
SuperHero superMan = new SuperHero("Clark Kent", "Journalist", 100, 20, 30, "Superman", "Invincibility & Super Strength", true, 10, "Up, up, & away!");
```

You will now set up a simulation of life in ***GothamLikeAdventureTown***:

2. You will declare a second and third ArrayList of *Persons* called *safetyLand* and *unfortunatelyFatallyWoundedPeople*.
   You will randomly permanently remove NormalCitizens from dailyPlanetStreet and add them to the *unfortunatelyFatallyWoundedPeople* list or relocate those individuals to *safetyLand* as follows:

   Step 1: If a *SuperVillain* is adjacent to a *NormalCitizen* on:

   a. Both Sides: Randomly choose one of the two and remove that individual permanently from the ArrayList *dailyPlanetStreet* and move them to *unfortunatelyFatallyWoundedPeople*.
   b. One Side: The individual next to *SuperVillain* will be permanently removed from dailyPlanetStreet and added to the list of *unfortunatelyFatallyWoundedPeople*.
   c. No Sides: Nobody will be permanently removed from *dailyPlanetStreet* on that turn.

   After each individual is permanently moved to *unfortunatelyFatallyWoundedPeople* the *SuperVillain* will state their *evilPlan* and the *SuperHero* will state their *catchPhrase*.

   Note that the *SuperHero* and *SuperVillain* will not interact with each other until all *NormalCitizens* have been removed from *dailyPlanetStreet*.

   Step 2: After/If an individual is removed from the *dailyPlanetStreet*:

- Randomly select a *Person* or a *NormalCitizen* from the list and relocate them to *safetyLand*.

   Step 3: The *SuperHero* will move to a new location within the ArrayList of Persons in an attempt to “protect” the citizens.

   These 3 steps will be repeated until only the *SuperHero* and the *SuperVillain* remain on (*in*) *dailyPlanetStreet*.