

# CECS 277 LAB COLLECTIONS

**OBJECTIVE:** Gain some firsthand experience using a Java collection class.

**INTRODUCTION:** Please remember the coding standards [here](#).

We will use the Person class for this exercise. The Person.java code can be found [here](#). I want you to see some of the work that you have to do when using your own classes in these Collection objects.

**PROCEDURE:**

1. Create the HairColor enumeration with all of the necessary colors in it.
2. Build the Person class using the code found [here](#).
3. Create the following Persons:

Last Name	First Name	Hair Color
Sunshine	Sue	Blonde
Wilberforce	Bob	Grey
Quinones	Jose	Black
Gonzalez	Alex	Brown
Nottingham	Cathy	Blonde
Weiss	Jerry	Bald

4. Your hash map will map from a single instance of Person to an **ArrayList** of Person. That way, an individual Person can have any number of friends. Build that hash map, and set up the following friendships:
  - a. Sue is friends with Bob, Jose, Alex, and Cathy
  - b. Cathy is friends with Bob and Alex
  - c. Bob is friends with Alex, Jose, and Jerry
5. After storing these relationships, create a set of Person and populate that set by using the keySet method on your HashMap.
  - a. Use a for loop to go through each member of that set.
  - b. For each iteration of the for loop, retrieve the list of friends for that person from the HashMap.
  - c. Go into an **inner** for loop and display all of the friends of the person in the outer for loop.

**WHAT TO TURN IN:**

- HairColor.java – your enumeration class of all likely hair colors.
- CollectionsRunner.java – your main program that populates the HashMap and extracts from it.
- Console.txt – your sample output.

**SAMPLE OUTPUT:**

```
Friends of: Person- Name: Sunshine, Sue hair color: BLONDE
           Person- Name: Wilberforce, Bob hair color: GREY
           Person- Name: Quinones, Jose hair color: BLACK
           Person- Name: Gonzalez, Alex hair color: BROWN
           Person- Name: Nottingham, Cathy hair color: BLONDE
Friends of: Person- Name: Nottingham, Cathy hair color: BLONDE
```

## CECS 277 LAB COLLECTIONS

Person- Name: Wilberforce, Bob hair color: GREY  
Person- Name: Gonzalez, Alex hair color: BROWN  
Friends of: Person- Name: Wilberforce, Bob hair color: GREY  
Person- Name: Gonzalez, Alex hair color: BROWN  
Person- Name: Quinones, Jose hair color: BLACK  
Person- Name: Weiss, Jerry hair color: BALD