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MET CS 521| MONDAY NIGHTS | FALL 2021

PYTHON FINAL PROJECT

**Problem Statement**

For many members of society, the holiday season is upon us. In most cases, Christmas is coming soon and we are in the mood for spreading joy to each other. At a local café, the management team is planning a secret santa gift swap to take place. To carry out the process, everyone who wishes to participate needs to write their name on a piece of paper and place it into a bag. Once picking a name, you need to inform the manager of who you picked for accountability. Unfourtunely, many members of the café team have swapped their choices with other members, or have picked multiple times from the bag, to get a member whom they are close with. This is a form of cheating.

**What My Program Does**

My Program will take the current list of secret santa pairings for the café, and randomly re assign them to create new pairings.

1. First, we import the RANDOM module so we can use it to re-assign names In a random order.
2. We define a blank list, a\_dictionary, to help keep the names of all members in the secret santa program. This will store the givers and receivers.
3. A Try statement will appear asking the user to enter a password to run the program. If the password is entered correctly, the program will continue to run. If it is wrong, the program will exit.
4. Then, we define the Santa class, which will be the main class of the program.
5. We will take user input for the name, reciptient, and passwordres. Name and Recipient are public and the passwordres is private.
6. Myfunc(self) will print the name of the person running the account, and the name of the café we are running the program for.
7. The \_\_repr\_\_(self) will print that we confirmed the user is authorized to run the program.
8. Resultprint(self) will print the title of the program, letting people know the results will print.
9. listOfName(self) will run the full program.
10. In the listOfName(self) function, we will open the null.txt file, which has the list of current people paired up. The file will be read line by line. The first name in the pairing will be stored as the key variable, and the second name in the pairing will be stored as the value variable. Then, the key and value variables will be append to the a\_dictionary list.
11. For I in data, will check to make sure that the length of a\_dictionary is proper.
12. Then, we create mylist, which will take the values in a\_dictionary and shuffle it.
13. FinalList will be defined to keep the results of the pairings. While mylist isn’t empty, the pairs of names will be appended to finalist. The, all of the pairings will be printed line by line.

**Why It’s useful**

We are aiming to prevent cheating in the secret Santa program. As has happened in the past, we have seen people trying to pick their favorite people, which is unfair to others. By reassigning randomly, we get to prevent cheating and encourage people to get to know others in the café.

