CS1580: LAB 11

This lab is to make you familiar with READING from and WRITING to Files.

For this assignment you are inviting your extended families and friends to your home for Thanksgiving.

- The input file contains the list of family details, each family separated by a period and each detail about the individual family separated by a semi-colon.
- An example line from the input file:

  Aunt; Dolores Umbridge;3

  - *where*, Aunt is the **relationship** with the host,
  - Dolores Umbridge is the **name** and
  - 3 is the **number of people** in his household
- The file "**input.txt**" is available on Blackboard.
- You will read these details from the file, store them as a structure and print an invitation for all families within the file, "**Invites.dat**".
- You have to calculate number of turkeys needed for the dinner. (Assume that 7 people can consume 1 turkey and you cannot buy part of turkey from market. You have to buy a full Turkey). Then print this information in another file named "**MealPlan.dat**".
- Finally, you will also calculate the total number of guests attending the dinner and print it.
- You will need functions to write the invitations.
- It is highly recommended that you use structures to store the family details

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THANKSGIVING DINNER INVITATION

Dearest **uncle Scott Fitzgerald**, we cordially invite you and your family to the Thanksgiving Dinner on November 22nd, hosted by the **your_last_name** s. We hope to see you soon.

THANKSGIVING DINNER INVITATION

Dearest **aunt Dolores Umbridge**, we cordially invite you and your family to the Thanksgiving Dinner on November 22nd, hosted by the **your_last_name** s. We hope to see you soon.

THANKSGIVING DINNER INVITATION

Dearest **friend Ricardo Morales,** we cordially invite you and your family to the Thanksgiving Dinner on November 22nd, hosted by the **your_last_name** s. We hope to see you soon.

THANKSGIVING DINNER INVITATION

Dearest **brother Sheldon Cooper,** we cordially invite you and your family to the Thanksgiving Dinner on November 22nd, hosted by the **your_last_name** s. We hope to see you soon.

THANKSGIVING DINNER INVITATION

Dearest **sister Cercei Lannister,** we cordially invite you and your family to the Thanksgiving Dinner on November 22nd, hosted by the **your_last_name** s. We hope to see you soon.

SAMPLE OUTPUT IN MEALPLAN.DAT FILE

Total Guest Invited: 15.

#Turkey Needed for Dinner are: 3

Happy Thanks Giving!

HINTS

```
// open a file in write mode.
ofstream outfile1, outfile2;
outfile.open("Invites.dat");
outfile.open("MealPlan.dat2");
 // close the opened file.
outfile.close();

// open a file in read mode.
ifstream infile;
infile.open("input.txt");
// close the opened file.
infile.close();
```

MULTIPLE FILES

You need to create three files for this assignment.

- functionHeader.h
- functionDef.cpp
- lab11.cpp

SUBMISSION

- Make a new directory named Lab10 under cs1580 folder and go into that directory
- cd SDRIVE/cs1580/
  - mkdir lab11
  - cd lab11
  - create the required files
- Write and Compile your code: (fg++ *.cpp –o lab11)
- Run your program: (lab11)
- Submit the program with SAMPLE INPUT only

  Section F from 4:00 p.m. to 5:50 p.m.: (cssubmit 1580 f 11)

  Section G from 6:00 p.m. to 7:50 p.m.: (cssubmit 1580 g 11)

YOUR PROGRAM WILL BE GRADED BASED ON:

- Use of meaningful variable names/ indentations/ commenting / Header Comments
- Use of functions and write pre and post conditions for each prototype.
- Use of multiple files
- Use return even in void functions.
- Readability and correctness of the program and output
- Following lab instructions