HOMEWORK #8 - File Manipulation and Email
CHALLENGING VERSION

PART I - UNIQUE RANDOM NUMBERS

Complete PART I of the regular homework, but with these twists:

- In addition to storing the IDs that have been used, store who they have been assigned to (by ldap).
- Prompt the user for their ldap when the program begins
- If the user has already been assigned an ID, just return their ID without generating a new one for them.
- After a user gets their random ID, the program should email a confirmation email to the user with their program ID.
- How you store the data is up to you (.txt, .csv, .xls)

(Obviously this is not a secure way of generating random IDs...but its an exercise after all!)

PART II - GELATO

Complete PART II of the regular homework, but with these twists:

- Add a column called 'SENT' and when an email gets sent, mark that row as 'YES'
- Add a column called 'ERRORS'
- Validate the data - before sending an email, do the following:
    - **Valid Score:**
        - Check to make sure that the student's score is between 0 and 100.
        - If not, then add the text 'INVALID SCORE' to the ERRORS column of the row
    - **Valid LDAP/Name:**
        - Check to make sure that the student's ldap is 1 word and that their name is at least 2 words.
        - If not, then add the text 'INVALID LDAP' or 'INVALID NAME' to the ERRORS column of that row
    - **Unique Row**
        - Check to make sure that a single LDAP has only 1 row in the file.
        - If not, then add the text 'NON-UNIQUE' for each offending row in the ERRORS column
    - Only send emails for those rows without errors.
    - If errors are found, send an email to yourself with the specific errors and row numbers that those errors occur on.
- If the script gets run again, it should only send emails to students who haven't already gotten an email (as indicated in the SENT column)

Make a few errant rows of each type to show me that your script works.

PART III

Complete PART III of the regular homework.