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Topics in Languages and Tools - Project 2

Problem

In this project, we are setting out to create a command-line interface to the Google Contacts API. Our interface will allow the user to list the contacts in their account, add new contacts to their account, delete contacts, and search through their contacts.

Implementation Plans

We plan to use bash and awk, along with various command line tools like sed and grep, to implement this project.

The basic workflow will involve prompting the user to login if they haven't logged in recently or at all. This involves making a request to Google, then prompting the user to enter a code, provided by Google, into a web page to authenticate the login request. Once the user enters the code, the script will present the user a menu from which they can select from the following options:

- Show contacts list
- Search for contacts
- Add new contact
- Remove a contact

After selecting the first option, the user will be presented with a list of contact first and last names, from which they can select to view more detailed information.

After selecting the second option, the user will be presented with a list of possible search queries (e.g. first name, last name, phone number, etc.), and after entering a query, they will be presented with a list of matching contacts.

After selecting the third option, the user will be prompted to fill in various pieces of information for the new contact, and then that contact will be added to their database of contacts.

After selecting the fourth option, the user will be prompted to select a contact to delete, will ask for a confirmation, then the contact will be deleted from their contact database.

This will all take place in a single executable which will delegate out to various other helper scripts.