

The given script is a command-line-based contact book program written in Python. It allows users to create, update, delete, and list contacts stored in a CSV file. Here's how the script works:

The script imports the necessary modules (csv, datetime, os, and re) and sets up the CSV file name.

The script defines several functions:

`create_contact()`: Prompts the user to enter contact information (username, email, phone numbers, and address) and validates the input. If the input is valid, it adds the contact to the CSV file.

`update_contact()`: Prompts the user to enter the username of the contact to update. It then allows the user to select a field to update (username, address, email, or phone numbers) and performs the update if the input is valid.

`delete_contact()`: Prompts the user to enter the username of the contact to delete. If the contact exists, it removes the contact from the CSV file.

`list_contacts()`: Lists all contacts stored in the CSV file, displaying their username, email, phone numbers, address, and insertion date.

`user_menu()`: Displays a menu for the user to choose an operation (create, update, delete, list contacts, or exit). It calls the corresponding functions based on the user's choice.

The script calls the `user_menu()` function to start the program.

Documentation:

The given script provides a simple command-line interface for managing contacts in a CSV file. It allows users to perform the following operations:

Create contact: Users can enter a username, email, phone numbers (comma-separated), and address for a new contact. The script validates the input and adds the contact to the CSV file.

Update contact: Users can enter the username of the contact they want to update. The script retrieves the contact information and allows the user to choose a field to update (username, address, email, or phone numbers). The script validates the input and updates the contact information in the CSV file.

Delete contact: Users can enter the username of the contact they want to delete. If the contact exists, the script removes it from the CSV file.

List contacts: The script displays a list of all contacts stored in the CSV file, showing their username, email, phone numbers, address, and insertion date.

The script handles input validation for email addresses and phone numbers. It also checks for duplicate usernames and ensures they are unique.

To use the script, run it in a Python environment or execute the Python file. You'll be presented with a menu where you can choose the desired operation by entering the corresponding number. Follow the prompts to create, update, delete, or list contacts.