# SuiteShare User Guide

*“It’s sweet to share money!”*

*Ayush Subramanian, Rishyendra Medamanuri, Pratham Patel*

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# 1. Introduction

Welcome to the SuiteShare User Guide! This guide provides detailed instructions on how to use the project effectively. The code is aimed to assist users in managing finances by adding, removing, managing, and viewing debts amongst a group of users. Whether you're a beginner or an experienced user, this guide will help you understand the code structure and make the most of its features.

# 2. Getting Started

## 2.1 System Requirements

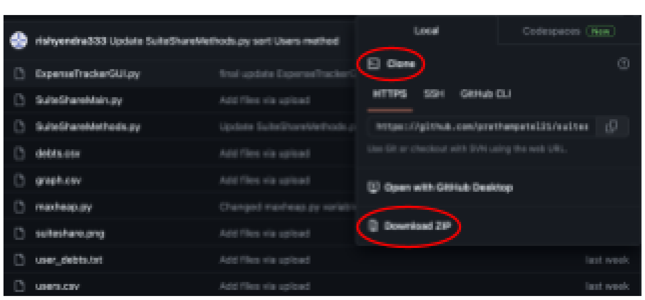
Before running the code, please ensure that your system meets the following minimum requirements:

- Operating System: Windows 10, macOS 10.13 (High Sierra) or later, or a Linux distribution with a kernel version of 3.10 or above.
- Storage: Sufficient disk space to store the code and any required dependencies.
- Python: Python 3.6 or later installed.

## 2.2 Installation

To use the code, follow these steps to set up your development environment:

1. Download the code package or clone the code repository from the provided source. You can find the code package on the code hosting platform GitHub linked in the *6. User Resources* section.



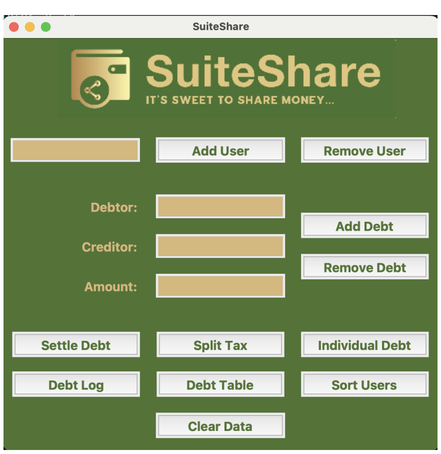
2. Extract the code package to a directory of your choice on your computer.
3. Open a terminal or command prompt and navigate to the directory where the code is located.
4. (Optional) Create a virtual environment to isolate the code and its dependencies from your system's Python installation. This step is recommended to maintain a clean development environment and make sure to use tools such as conda when doing this.
5. Install the required dependencies (*pandas* and *networkX*) onto your computer using the appropriate commands in the terminal. If the dependencies are missing, visit *6. User Resources* to find details regarding the installation of these dependencies.
6. Once the dependencies are installed, you can run the code using the appropriate command.

## 3. User Interface

The user interface of SuiteShare is designed to provide an intuitive and seamless experience for users. This section will introduce the main components and functionality of the user interface.

### 3.1. Main Menu

Upon launching SuiteShare, you will be presented with the main menu. The main menu serves as the starting point for accessing various features and functionalities of the application. It provides a clear overview of the available options and allows you to navigate to different sections of the application.



## 3.2. Navigation

SuiteShare offers a user-friendly navigation system that enables easy movement between different sections and windows. The main menu of the program is split up into three main sections:

- The uppermost section consists of a user-entry box where the user can add people to the program and then proceed to click either the add or remove user button to do the respective action.
- The middle section consists of three user entry boxes where the user can enter the debtor, creditor, and the amount that is owed. Conveniently located to the right of the entry boxes, the user can click either the add or remove debt button to do the respective action.
- The lowermost section consists of various buttons that allow the user to use the split tax feature, display the data in different formats, and clear all of the data.

Please refer to section *4. Functionality* to learn more about the features of the program.

## 3.3. Input Controls

SuiteShare incorporates various input controls to enable user interaction and data input. These controls are designed to collect user inputs, configure settings, and initiate actions. Here are the input controls that you will encounter:

- Text Fields: Text fields allow users to enter text or numeric values. They can be used for providing input, searching, or editing existing debt information.
- Buttons: Buttons are interactive elements that perform specific actions when clicked. They are all labeled with descriptive text or icons that indicate their purpose.

# 4. Functionality

SuiteShare offers several key features to manage shared expenses among a group of users. These features are described in detail below.

## 4.1 Adding and Removing Users

To add a new user to your shared expense group, click on the first entry box in the top-left corner of the window and enter the user’s name. Once you have entered this information, click "Add User" to save the new user to the system so that you can accurately track their debts.

To remove a user from your group enter the user’s name into the entry box and then click the "Remove User" button. You will then be prompted to confirm this action before the user is permanently deleted from your group.

## 4.2 Adding and Removing Debts

To add new debts to the system, enter the Debtor (person who owes the money), Creditor (person who needs the money), and the amount owed into the respective text entry boxes on the left side of the window. Once you have entered this information, click "Add Debt" to save the new debt into the built-in directed graph where all of the future debts will be stored.

To pay off/remove a debt from a person, follow the same process as adding a debt but instead click the “Remove Debt” button. The system will then automatically get rid of the debt by looking at the directed graph and then performing the necessary calculations to update the total debt of all the users.

## 4.3 Displaying Debt Information

After users and debts have been either added or removed, it is important for the users to visualize their debts and see them on the screen. SuiteShare offers three main methods that users can use to display their debts by clicking on the respective buttons.

1. **Debt Log:** Displays all added and removed debts into a log that shows the debtor, creditor, amount, and a timestamp of when the debt was added or removed. Negative amounts mean that the specific debt was paid off to the creditor and positive amounts mean that the money is still owed.
2. **Debt Table:** Displays all debts in an adjacency matrix so that debtors and creditors can all be seen. The user names in the first columns represent the debtors and the user names in the first row represent the creditors. The values in the table show the amount that each user owes to others.
3. **Sort Users:** Sorts users by the total debt that they owe and provides an incentive for users to pay off their debts. Debts of negative values will go on the top meaning that they are owed that amount, and debts of positive values will go towards the bottom meaning that those debts are owed to others.
4. **Individual Debt:** To display the debts of a single user, enter the user's name into the entry box that you will be prompted with when clicking the "Individual Debt" button. A log of all the debts associated with that user will then be displayed and a total debt amount will also be shown at the bottom.

### 4.4 Split Tax Feature

The "Split Tax" feature in SuiteShare allows you to split the tax on a shared expense evenly among all users. To use this feature, click the "Split Tax" button and follow the prompts that the system gives you. After all of the information has been entered, SuiteShare will automatically calculate the tax owed by each user, update the directed graph, and add all of the debts to the displayed table.

### 4.5 Settling Debt and Clearing Data

To settle a debt of a specific user in the system, click the "Settle Debt" button and enter the user's name. SuiteShare will automatically remove all associated debts of that user and all of the data tables will be updated.

To clear all data from the system, click on the "Clear Data" button in the main menu. You will then be prompted to confirm this action before all data is permanently deleted from the system.

Additionally, SuiteShare offers an automatic save and load feature. The save feature saves any changes to the data to the corresponding data file. The load feature loads the saved data whenever the SuiteShare program is launched.

## 5. Troubleshooting

SuiteShare is an application that is still in development, so issues may occur. Common issues and their resolutions will be discussed as well as frequently asked questions.

### 5.1 Common Issues

Oftentimes, users will encounter the issue of SuiteShare not launching due to missing files in the folder containing the SuiteShare program. The solution to this issue is to ensure that all the files provided in the SuiteShare zip file are within the folder containing the SuiteShare program.

SuiteShare is case-sensitive, so a user's name must be entered as it appears in the *Debt Table*. For example, if a user named "Bob" is added using the *Add User* function, you would reference this user as "Bob" from this instance; "bob" and "boB" are examples of incorrect references to the added user "Bob".

## 5.2 Frequently Asked Questions

***Q:*** ***How do I share the data with other members of my "suite" or group?***

**A:** A pressing limitation of SuiteShare is the restriction of data entry and management to just one individual or one device. This issue can be resolved by the debt manager (the individual running the program) sharing the data files with members of their group, allowing everyone to have access to the data. In the instance that the debt manager doesn't want to release all of their group members' data with the entirety of the group, the manager can subset the data table since it is in the malleable format of a CSV file and then share the subsetted information to just one individual.

***Q:*** ***I accidentally cleared the data. How do I find the lost information?***

**A:** Data is not backed-up in the SuiteShare application, so lost data can not be retrieved. A simple solution to this is to download a copy of the data file provided in a CSV format and store it elsewhere. Then, if you accidentally clear the data in the SuiteShare application, simply replace the data files in the SuiteShare application folder with the downloaded files that contained your previous data.

***Q:*** ***If I close the application, will my data be saved?***

**A:** YES! SuiteShare hosts an efficient auto-save and auto-load feature that allows any changes to automatically be saved. If you close and then relaunch the application, all of your data will be accurate and automatically loaded into the program.

## 6. User Resources

Github project link:
https://github.com/prathampatel21/suiteshare

Documentation for downloading *pandas*:
https://pandas.pydata.org/docs/getting_started/install.html

Documentation for downloading *networkX*:
https://networkx.org/documentation/stable/install.html

SuiteShare demonstration video:
https://drive.google.com/file/d/1icjgaqz06ATVBkYUZ1UBBycLE90puQKP/view?usp=sharing

## 7. Customer Support

Suiteshare is a program developed by three rising college freshmen. Therefore, there are currently no live support options. If you have any questions regarding the program, please contact the developers through their emails listed below. We will get back to you as soon as possible and thank you for your patience.

**Ayush Subramanian**: subramanian23a@ncssm.edu

**Pratham Patel**: patel23pratham@ncssm.edu

**Rishyendra Medamanuri**: medamanuri23r@ncssm.edu