

WalletCLi - User Guide

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1. Introduction

Welcome to **WalletCLi**!

WalletCLi is a text-based (Command Line Interface) expenses/loan application that caters to NUS students and staffs who prefer to use a desktop application for managing their expenses and loans.

WalletCLi allows its users to record their daily expenses and loans. It enables easy creation, editing and deletion. Users can also pre-set their budget, and **WalletCLi** will automatically track your current expenses to ensure that its users' expenses stay within their stated budget. Expenses and loans can be efficiently managed via our intuitive category system.






WalletCLi is optimized for those who prefer to work with a Command Line Interface (CLi) and/or are learning to work more efficiently with CLi tools. Additionally, unlike traditional expenses/wallet applications, **WalletCLi** utilizes minimal resources on the user's machine while still allowing users to manage their expenses and keep track of their loans swiftly and efficiently.

2. About this User Guide

This user guide provides a quick start guide for you to easily setup install **WalletCLi**, documentation of all various features **WalletCLi** offers, frequently asked questions and a summary of the available commands. To navigate between the different sections, you could use the table of contents above.

For ease of communication, this document will refer to expenses/loans/contacts that you might add to the application as *data*.

Additionally, throughout this user guide, there will be various icons used as described below.

	This is a tip. Follow these suggested tips to make your life much simpler when using WalletCLi !
	This is a note. These are things for you to take note of when using WalletCLi .
	This is a sign-post dictating important information. These are information that you will surely need to know to use WalletCLi efficiently.
	This is a sign-post informing caution. Please take note of these items and exercise some care.
	This is a rule. Ensure that you follow these rules to ensure proper usage of WalletCLi .

3. Features

This section displays the features that you can expect from **WalletCLi**.

Expenses System

- Add records of your expenses.
 - You may include records of your past expenses or any impending expenses.
- Manage these records by editing or deleting them.
- Tag and view your expenses with predefined categories
- Include recurring expenses. Recurrence rate can be either daily, weekly or monthly.
 - **WalletCLi** will automatically duplicate and fill up the records up to the end of the current month.

Loan System

- **WalletCLi** allows you to add loans that is referenced to a contact.
- After you have settled the loans, you can mark it as settled.
- If there are any changes to your loans, you can also edit your loans via the loan ID.
- **WalletCLi** also allows you to delete loans whether it is settled or unsettled.

Contact System

- **WalletCLi** allows you to add contact details such as phone number so that you can tag your loans to them.

Notification and Reminder System

- **WalletCLi** will show you a list of unsettled loans after it starts up and will start an auto-reminder every 30 minutes by default.
- You can set the timings for the auto-reminder. Likewise, you can turn the reminders off or on when you need to.
- **WalletCLi** will also keep track of your budget and expenses, and notify you when your expenses are close to the budget you set. Likewise, when you exceed your budget, **WalletCLi** is capable to notify you as well.

4. Quick Start

This section guides you through the installation of **WalletCLi** and provides a few sample commands you may try.

1. Ensure you have Java version 9 or later installed in your Computer.
2. Download the latest jar file from <https://github.com/AY1920S1-CS2113T-W17-2/main/releases>
3. Copy the file to the folder you want to use as the home folder for the application.
4. Open command prompt (cmd) in the folder chosen above.
5. Start the app by running the jar file with the following command:
`run java -jar {jar file name}`

6. You should see the GUI appear in a few seconds.

```
C:\Users\final\Downloads\WalletCli>java -jar WalletCli-v1.3.jar
No saved expenses found.
No saved expenses found.
No saved contacts found.
No saved loans found.
Hello from
Wallet
Hello! Welcome to the WalletCli Application!
What can I do for you?
Turning off auto reminders because all loans have been settled!
```

Figure 1: GUI screen upon starting **WalletCLI**



Commands are not case-sensitive.

7. Type the command in the command box and press **Enter** to execute it.
For example, typing **help** pressing **Enter** will open the help window.
8. Here are some other commands you can try:
 - **budget \$1000 01/2019**: **WalletCLI** takes note of this budget and reminds you when you are close to or have exceeded the budget for January 2019.
 - **List expense**: List all expenses in **WalletCLI**
 - **List expense /sortby date**: List all expenses in order of date specified in the expenses
 - **Bye**: Exits the application
9. Refer to Section 4, Features for details of each command.

5. Commands

This section explains the commands that you can use to interact with the different features and systems of **WalletCLI**.

Command Format

- Words in UPPER_CASE are the parameters to be supplied by you. For example, in /r DAILY, DAILY is a parameter which can be used as the recurrence rate.
- Items in square brackets are optional. For example, in add expense <DESCRIPTION> <AMOUNT> <CATEGORY> [/on <date>] [/r <RECURRENCE RATE>], /on <DATE>, /r <RECURRENCE RATE> is a parameter that may be omitted.

Identifiers and Parameters

Identifiers in **WalletCLI** are designed to be short and easy to memorise. Once you are familiarised with them, you will be intuitive to use the parameters. The table of Identifiers and Parameters and their descriptions below is useful for your reference as you jump right into grasping the system.

Identifier	Parameter	Description	Format	Example
/sortby	LEND	Sorts loans based on user lending money	Text	/sortby lend
	BORROW	Sorts loans based on user borrowing money	Text	/sortby borrow
	DATE	Sorts expenses or loans by date specified in expenses or loans	Text	/sortby date
	CATEGORY	Sorts expense or loans by their specified category	Text	/sortby category
/on	DATE	Date of expense	Text	/on 20/01/2019
/r	RECURRING	Frequency of expenses	Text	/r daily
/d	DESCRIPTION	Description of a <i>Loan</i>	Text	/d interest rate 10%
	DETAILS	Details of contact	Text	/d friend
/p	PHONE NUMBER	New contact phone number (Edit Feature)	Text	/p 91234567
/a	AMOUNT	New loan amount (Edit feature)	Number	/a 1000
/n	NAME	New name of Contact (Edit feature)	Text	/n David



While the table shows you all the identifiers and parameters that **WalletCLI** uses, some commands do not make use of identifiers nor parameters. The view command is one such exception that makes use of keywords that must be typed in a specific order.

5.1 Viewing help: *help*

There are different help sections included in **WalletCLI** that can help you if you are unsure of the command syntax. Access any of the sections by keying in its index or enter 0 to exit the help shell.

Format: help

```
help
Need help? The following help sections are available:
1.General
2.Expense
3.Loans
4.Contacts
5.Command History

Note the following when reading help sections:
<> indicates required parameters for command
[] indicates optional parameters for command

Key in help section number (enter 0 to exit):
1
```

Figure 5.1.1: Help section

5.2 Listing data: *list*

You can list and view your current Contacts, Loans and Expenses in **WalletCLI** depending on your command.

Format for listing data by specific date: list <DATE>

Examples:

- list 02/03/2019

Shows a list of every expenses and loans by the specified date in each data added

```
list 02/03/2019
Here are the expenses in your list:
+-----+-----+-----+-----+-----+-----+
| ID | Description | Category | Date | Amount | Recurring |
+-----+-----+-----+-----+-----+-----+
| 1 | dinner | FOOD | 2019-03-02 | $40.00 | No |
+-----+-----+-----+-----+-----+-----+
Total amount spent: $40.00
Here are the loans in your list:
+-----+-----+-----+-----+-----+-----+-----+-----+
| ID | Settled | Description | Amount | Date | Borrow/Lend | Contact Name | Contact Number |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | No | lunch | $100.00 | 2019-03-02 | Borrow from | Mary | 12345678 |
+-----+-----+-----+-----+-----+-----+-----+-----+
```

Figure 5.2.1: Listing loans and expenses related to date 2nd March 2019.

Format for listing all data: list all [</sortby <PARAMETER>>]

Examples:

- list all /sortby date

Shows a list of every expenses and loans sorted by the dates specified in each data added

```
list all
Here are the loans in your list:

-----
| ID | Settled | Description | Amount | Date | Borrow/Lend | Contact |
|----|-----|-----|-----|-----|-----|-----|
| 1 | No | lunch | $100.00 | 2019-01-01 | Borrow from | Mary |
| 2 | No | oh no | $40.00 | 2018-12-03 | Borrow from | Mary |
-----

Here are the contacts in your list:

-----
| ID | Name | Phone | Detail |
|----|-----|-----|-----|
| 1 | Mary | 12345678 | friend |
-----

Here are the expenses in your list:

-----
| ID | Description | Category | Date | Amount | Recurring |
|----|-----|-----|-----|-----|-----|
| 1 | dinner | FOOD | 2019-01-01 | $40.00 | No |
| 2 | phone bills | BILLS | 2019-01-01 | $80.00 | No |
| 3 | train ticket | TRANSPORT | 2019-01-04 | $10.00 | No |
| 4 | groceries | SHOPPING | 2019-05-04 | $10.00 | No |
| 5 | sweets | FOOD | 2019-10-02 | $10.00 | No |
-----

Total amount spent: $150.00
list all /sortby date
Here are the loans in your list:

-----
| ID | Settled | Description | Amount | Date | Borrow/Lend | Contact |
|----|-----|-----|-----|-----|-----|-----|
| 2 | No | oh no | $40.00 | 2018-12-03 | Borrow from | Mary |
| 1 | No | lunch | $100.00 | 2019-01-01 | Borrow from | Mary |
-----

Here are the contacts in your list:

-----
| ID | Name | Phone | Detail |
|----|-----|-----|-----|
| 1 | Mary | 12345678 | friend |
-----

Here are the expenses in your list:

-----
| ID | Description | Category | Date | Amount | Recurring |
|----|-----|-----|-----|-----|-----|
| 1 | dinner | FOOD | 2019-01-01 | $40.00 | No |
| 2 | phone bills | BILLS | 2019-01-01 | $80.00 | No |
| 3 | train ticket | TRANSPORT | 2019-01-04 | $10.00 | No |
| 4 | groceries | SHOPPING | 2019-05-04 | $10.00 | No |
| 5 | sweets | FOOD | 2019-10-02 | $10.00 | No |
-----

Total amount spent: $150.00
```

Figure 5.2.2: Listing all data before and after sorting them by date.



Notice that both expenses and loans are sorted by date? That is because expense and loans are able to accept the /sortby date parameter by their own too.

Format for listing Loans: `list loan [</sortby <PARAMETER>>]`

Examples:

- `list loan`

Shows a list of loans input in **WalletCLI** sorted by lending loans (As a user you specified that you lent money)

```
list loan
Here are the loans in your list:
```

ID	Settled	Description	Amount	Date	Borrow/Lend	Contact Name	Contact Number
1	Yes	dinner	\$100.00	2019-09-21	Borrow from	Mary	81234567

Figure 5.2.3: Listing loans

Format for listing Recurring Expenses: `list recurring [</sortby <PARAMETER>>]`

Examples:

- `list recurring /sortby date`

```
list recurring
Here are the recurring expenses in your list:
```

ID	Description	Category	Date	Amount	Recurring
14	phone bills	BILLS	2019-11-01	\$80.00	MONTHLY
25	train ticket	TRANSPORT	2019-11-04	\$10.00	MONTHLY
32	groceries	SHOPPING	2019-11-04	\$10.00	MONTHLY
34	sweets	FOOD	2019-11-02	\$10.00	MONTHLY

Total amount spent: \$110.00

```
list recurring /sortby date
Here are the expenses in your list:
```

ID	Description	Category	Date	Amount	Recurring
14	phone bills	BILLS	2019-11-01	\$80.00	MONTHLY
34	sweets	FOOD	2019-11-02	\$10.00	MONTHLY
25	train ticket	TRANSPORT	2019-11-04	\$10.00	MONTHLY
32	groceries	SHOPPING	2019-11-04	\$10.00	MONTHLY

Total amount spent: \$110.00

Figure 5.2.4: Listing recurring loans before and after calling sorting

Format for listing Expenses: `list expense [</sortby <PARAMETER>>]`

Examples:

- `list expense /sortby category`

Shows a list of expenses in **WalletCLI** sorted to each of their specific categories.

```
list expense
Here are the expenses in your list:
```

ID	Description	Category	Date	Amount	Recurring
1	dinner	FOOD	2019-01-01	\$40.00	No
2	phone bills	BILLS	2019-01-01	\$80.00	No
3	train ticket	TRANSPORT	2019-01-04	\$10.00	No
4	groceries	SHOPPING	2019-05-04	\$10.00	No
5	sweets	FOOD	2019-10-02	\$10.00	No

Total amount spent: \$150.00

```
list expense /sortby Category
Here are the expenses in your list:
```

ID	Description	Category	Date	Amount	Recurring
2	phone bills	BILLS	2019-01-01	\$80.00	No
1	dinner	FOOD	2019-01-01	\$40.00	No
5	sweets	FOOD	2019-10-02	\$10.00	No
4	groceries	SHOPPING	2019-05-04	\$10.00	No
3	train ticket	TRANSPORT	2019-01-04	\$10.00	No

Total amount spent: \$150.00

Figure 5.2.5: List of expenses from default to category sorting



We only have a total of 5 categories available for use, and they are **food**, **bills**, **transport**, **shopping** and **others**.

Format for listing Contacts: `list contact`

Examples:

- `list contact`

Shows a list of contacts in **WalletCLi**

```
list contact
Here are the contacts in your list:
-----
| ID | Name           | Phone           | Detail |
-----
| 1  | Lauren        |                 |        |
| 2  | Ben           |                 | brother|
| 3  | Jane          | 90181829       |        |
| 4  | Ryan Tang     | (+65)81731829  |        |
-----
```

Figure 5.2.6: Listing contacts



The default results of ***list*** command are sorted by the date you added the data into **WalletCLi**.

5.3 Adding Data: *add*

You can either add Contacts, Loans or Expenses to **WalletCLi** depending on your command.

Format for adding Contacts: `add contact <NAME> [/d <DETAILS>] [/p <PHONE NUMBER>]`

Examples:

- `add contact Mary /p 8728 1831 /d sister`
Adds a single contact that consists of the name Mary, a description of Mary being your sister and her phone number, i.e. number 1728 1831.

```
add contact Mary /p 8728 1831 /d sister
Got it. I've added this contact:
[ID: 5]Mary sister 8728 1831
```

Figure 5.3.1: Adding contacts



WalletCLi does not check if the phone number input is just only digits, thus allowing you to input phone number in your preferred format e.g. (+65)8543 2124, 98765432, 6543-2315



The optional parameters (/p and /d) do not need to be keyed in a particular order. E.g. `add contact Mary /d sister /p 8728 1831` will produce the same output as shown in the figure above.



If you keyed in /p and /d without any arguments, **WalletCLi** will leave the phone and details as empty.

Format for adding Loans: add loan <DESCRIPTION> <AMOUNT> <DATE> </l or /b> </c
CONTACT ID>

Examples:

- add loan lunch \$100 21/09/2019 /b /c 2
Adds a single loan; you borrowed 100 dollars for lunch on the 21st September 2019.
And by default, it will be indicated that the loan has not been settled.

```
add loan lunch $100 21/09/2019 /b /c 2
Got it. I've added this loan:
```

ID	Settled	Description	Amount	Date	Borrow/Lend	Contact Name	Contact Number
2	No	lunch	\$100.00	2019-09-21	Borrow from	Gerald	972700278

Figure 5.3.2: Adding loans

Format for adding Expenses: add expense <DESCRIPTION> \$<AMOUNT> <CATEGORY> [/on
<date>] [/r <RECURRENCE RATE>]

Examples:

- add expense textbooks \$500 shopping
Adds a single expense of textbooks worth 500 dollars today and place them under
the shopping category as a one-time expense.

```
add expense textbooks $500 shopping
Got it. I've added this expense:
```

ID	Description	Category	Date	Amount	Recurring
6	textbooks	SHOPPING	2019-11-02	\$500.00	No

Figure 5.3.3: Adding a non-recurring expense

- add expense Phone Bill \$30 Bills /on 10/10/2019 /r monthly
Adds a single monthly recurring expense of bills worth 10 dollars starting from the 1st
of February 2019.

```
add expense Phone Bill $30 Bills /on 10/10/2019 /r monthly
Got it. I've added this expense:
```

ID	Description	Category	Date	Amount	Recurring
4	Phone Bill	BILLS	2019-10-10	\$30.00	MONTHLY

Figure 5.3.3: Adding a recurring expense



Omitting the date sets the default expense as today (The day you key in your expenses)



WalletCLi does not dictate your expenses, thus allowing the same descriptions to exist in the user's expenses and loans.

5.4 Editing Data: *edit*

You can either edit your Contacts, Loans or Expenses to **WalletCLi** depending on your command.




Format for editing Contacts: edit contact <CONTACT ID> [</n NEW NAME>] [</d NEW DETAILS>] [</p NEW PHONE NUMBER>]

Examples:

- edit contact 5 /n John /p 81727183 /d brother 123@abc.com
Edits a single contact by changing the name to John, updating his phone number, i.e. number 81727183 and changing the details to John's email as well as indicating him as brother.

```
edit contact 5 /n John /p 81727183 /d brother 123@abc.com
Successfully edited this contact:
[ID: 5]John brother 123@abc.com 81727183
```

Figure 5.4.1: Edit contact

	WalletCLI does not check if the phone number input is just only digits, thus allowing you to input phone number in your preferred format e.g. (+65)8543 2124, 98765432, 6543-2315
	The optional parameters (/n, /p and /d) do not need to be keyed in any particular order. E.g. edit contact 5 /d brother 123@abc.com /p 81727183 /n John will produce the same output as shown in the figure above.
	If you keyed in /p and /d without any arguments, WalletCLI will remove the phone and details respectively from the contact. E.g. edit contact 5 /p

Format for editing Loans: edit loan <LOAN ID> </d NEW DESCRIPTION> </a NEW AMOUNT> </t NEW DATE> [</l or /b>] [</c> ID OF CONTACT]

Examples:

- edit loan 1 /d dinner /a 10.50 /t 10/10/2019 /c 1
Edits a single loan by changing the description to "dinner", changing the amount to \$10.50, changing the date to 2019-10-10 a and change the contact with an ID of 1, who in this case is Mary.

```
edit loan 1 /d dinner /a 10.50 /t 10/10/2019 /c 1
Edit: Contact found! [ID: 1]Mary 1234@gmail.com 81234567
Successfully edited this loan:
```

ID	Settled	Description	Amount	Date	Borrow/Lend	Contact Name	Contact Number
1	Yes	dinner	\$10.50	2019-10-10	Borrow from	Mary	81234567

Figure 5.4.2: Edit loan

Format for editing Expenses: edit expense <EXPENSE ID> [/d <DESCRIPTION>] [/t <DATE>] [/a <AMOUNT>] [/c <CATEGORY>] [/r <RECURRENCE RATE>]

Examples:

- edit expense 2 /a 4.50 /c food /r daily
add expense Phone Bill \$30 Bills /on 10/10/2019 /r monthly
Got it. I've added this expense:

ID	Description	Category	Date	Amount	Recurring
4	Phone Bill	BILLS	2019-10-10	\$30.00	MONTHLY

```
edit expense 4 /a 10 /c food /r daily
Successfully edited this expense:
```

ID	Description	Category	Date	Amount	Recurring
4	Phone Bill	FOOD	2019-10-10	\$10.00	DAILY

Figure 5.4.3: Example of editing an expense



Use ***list*** command to view your loans, expenses or contacts first to retrieve the ID before editing.

5.5 Deleting Data: *delete*

You can either delete your Contacts, Loans or Expenses to **WalletCLI** depending on your command.

Format for deleting Contacts: `delete contact <CONTACT ID>`

Examples:

- `delete contact 5`

```
delete contact 5
Noted. I've removed this contact:
[ID: 5]John brother 123@abc.com 81727183
```

Figure 5.5.1: Delete contact

Format for deleting Loans: `delete loan <LOAN ID>`

Examples:

- `delete loan 1`

```
delete loan 1
Noted. I've removed this loan:
```

ID	Settled	Description	Amount	Date	Borrow/Lend	Contact Name	Contact Number
1	Yes	dinner	\$10.50	2019-10-10	Borrow from	Mary	81234567

Figure 5.5.2: Delete loan

Format for deleting Expenses: `delete expense <EXPENSE ID>`

Examples:

- `delete expense 2`



Use ***list*** command to view your loans, expenses or contacts first to retrieve the ID before deleting.

5.6 Completing Loans: *done*

You can mark your loans as settled in **WalletCLI**.

Format: `done loan <LOAN ID>`

Examples:

- `done loan 2`

```
This loan is now settled:
```

ID	Settled	Description	Amount	Date	Borrow/Lend	Contact Name	Contact Number
2	Yes	lunch	\$100.00	2019-09-21	Borrow from	Gerald	972700278

Figure 5.6.1: Marking loan as settled

5.7 Setting Budget: *budget*

You can set your budget for each month in **WalletCLI**.




Format: `budget <AMOUNT> <MONTH/YEAR>`

Examples:

- Budget \$400 02/2019

```
budget $400 02/2019
400.0 dollars is the budget set for February 2019
Note that to update your budget, simply set the budget for the same month and year again.
```

Figure 5.7.1: Setting budget for February 2019

	Setting <AMOUNT> to \$0 will remove the budget entry for the specified month/year.
	It is best to set your budget first before adding expenses. However, if you already have expenses, WalletCLI will ask you if you would like your newly set budget to deduct from your existing expenses!
	Budget involves only expenses, loans are not part of your budget!

5.8 Viewing Statistics: *view*

You can view your budget or statistics for each month in **WalletCLI**.

Format for viewing schedules: view budget <MONTH/YEAR>

Examples:

- view budget 02/2019

```
view budget 02/2019
This is the budget left for February 2019
$400.0
```

Figure 5.8.1: Viewing budget for February 2019

Examples:

- ```
view stats
Please wait while we draw the pie chart...
```

```
%%%%@@@@
%%%%%%%%@@@@@@
%%%%%%%%%%%%@@@@@@@@
%%%%%%%%%%%%%%%%@@@@@@@@@
%%%%%%%%%%%%%%%%%%%%%%%%@@@@@@@@@@
%%%%%%%%%%%%%%%%%%%%%%%%%%%%@@@@@@@@@@@
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%@@@@@@@@@@@@@
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@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@@@@@@@@@@@@
@@@@@@@@@@
```

| ID | Settled | Description | Amount   | Date       | Borrow/Lend | Contact Name | Contact Number |
|----|---------|-------------|----------|------------|-------------|--------------|----------------|
| 3  | No      | lunch       | \$100.00 | 2019-09-21 | Borrow from | Gerald       | 972700278      |

```
Stopping thread...
```

Figure 5.9.2: Turning off reminders

Format for setting frequency: `reminder set <TIME IN SECONDS>`

Examples:

- `reminder set 3600`

```
reminder set 3600
Got it. I've set reminders to notify every 3600 seconds

Stopping thread...

Reminder to settle your loans soon!

+----+-----+-----+-----+-----+-----+-----+-----+
| ID | Settled | Description | Amount | Date | Borrow/Lend | Contact Name | Contact Number |
+----+-----+-----+-----+-----+-----+-----+-----+
| 3 | No | lunch | $100.00 | 2019-09-21 | Borrow from | Gerald | 972700278 |
+----+-----+-----+-----+-----+-----+-----+-----+
```

Figure 5.9.3: Setting reminders in intervals of 1800 seconds

## 5.10 Viewing command history: *history*

You can view the history of previously executed commands in **WalletCLi**.

Format: `history`

```
history
Command History from earliest to latest:
add loan lunch $100 21/09/2019 /b /c 2
edit loan 1 /d dinner /a 10.50 /t 10/10/2019 /c 1
delete loan 1
done loan 2
add loan lunch $100 21/09/2019 /b /c 2
```

Figure 5.10.3: Setting reminders in intervals of 1800 seconds

## 5.11 Undo previous command: *undo*

You can undo the previous command executed in **WalletCLi**.

Format: `undo`

```
add loan For business start up $1000 21/09/2019 /b /c 1
Got it. I've added this loan:

+----+-----+-----+-----+-----+-----+-----+-----+
| ID | Settled | Description | Amount | Date | Borrow/Lend | Contact Name | Contact Number |
+----+-----+-----+-----+-----+-----+-----+-----+
| 4 | No | For business start up | $1000.00 | 2019-09-21 | Borrow from | Mary | 81234567 |
+----+-----+-----+-----+-----+-----+-----+-----+

list loan
Here are the loans in your list:

+----+-----+-----+-----+-----+-----+-----+-----+
| ID | Settled | Description | Amount | Date | Borrow/Lend | Contact Name | Contact Number |
+----+-----+-----+-----+-----+-----+-----+-----+
2	Yes	lunch	$100.00	2019-09-21	Borrow from	Gerald	972700278
3	No	lunch	$100.00	2019-09-21	Borrow from	Gerald	972700278
4	No	For business start up	$1000.00	2019-09-21	Borrow from	Mary	81234567
+----+-----+-----+-----+-----+-----+-----+-----+

undo
Reverting back to previous state...
list loan
Here are the loans in your list:

+----+-----+-----+-----+-----+-----+-----+-----+
| ID | Settled | Description | Amount | Date | Borrow/Lend | Contact Name | Contact Number |
+----+-----+-----+-----+-----+-----+-----+-----+
| 2 | Yes | lunch | $100.00 | 2019-09-21 | Borrow from | Gerald | 972700278 |
| 3 | No | lunch | $100.00 | 2019-09-21 | Borrow from | Gerald | 972700278 |
+----+-----+-----+-----+-----+-----+-----+-----+
```

Figure 5.11.1: Undo add loan command

## 5.12 Redo previous command: *redo*

You can redo the previous command executed in **WalletCLi**.

Format: `redo`

```
undo
Reverting back to previous state...
list loan
Here are the loans in your list:

+----+-----+-----+-----+-----+-----+-----+-----+
| ID | Settled | Description | Amount | Date | Borrow/Lend | Contact Name | Contact Number |
+----+-----+-----+-----+-----+-----+-----+-----+
| 2 | Yes | lunch | $100.00 | 2019-09-21 | Borrow from | Gerald | 972700278 |
| 3 | No | lunch | $100.00 | 2019-09-21 | Borrow from | Gerald | 972700278 |
+----+-----+-----+-----+-----+-----+-----+-----+
```



```
redo
Moving forward to later state...
list loan
Here are the loans in your list:
```

| ID | Settled | Description           | Amount    | Date       | Borrow/Lend | Contact Name | Contact Number |
|----|---------|-----------------------|-----------|------------|-------------|--------------|----------------|
| 2  | Yes     | lunch                 | \$100.00  | 2019-09-21 | Borrow from | Gerald       | 972700278      |
| 3  | No      | lunch                 | \$100.00  | 2019-09-21 | Borrow from | Gerald       | 972700278      |
| 4  | No      | For business start up | \$1000.00 | 2019-09-21 | Borrow from | Mary         | 81234567       |

Figure 5.12.1 and Figure 5.12.2: Redo Command

## 5.13 Export: *export*

You can export expenses or loans from **WalletCLI** into csv files. It will be stored under your home folder (mentioned in Section 4. Quick Start). The file names will be "exportedLoans.csv" and "exportedExpenses.csv" for loans and expenses respectively. Sample files can be found at this link: <https://github.com/AY1920S1-CS2113T-W17-2/main/tree/master/sample%20csvs>

|                  |                    |
|------------------|--------------------|
| data             | 26/10/2019 4:50 PM |
| exportedExpenses | 26/10/2019 5:39 PM |
| exportedLoans    | 26/10/2019 5:39 PM |
| importExpenses   | 26/10/2019 1:56 PM |
| importLoans      | 26/10/2019 1:56 PM |
| WalletCLI-v1.3   | 26/10/2019 3:49 PM |

Figure 5.13.1: Exported Files **WalletCLI** Home directory

Format for expenses: `export expenses <MONTH/YEAR>`



MONTH/YEAR has to be keyed in the format of MM/yyyy. It is to indicate the month in which you want to retrieve expenses.

Example:

- `export expenses 10/2019`  
Exports expense records for October 2019.

```
export expenses 10/2019
Export success! File saved to -> C:\Users\final\Downloads\WalletCli\exportedExpenses.csv
```



Figure 5.13.2: Exporting Expenses

|   | A           | B           | C          | D          | E        | F     | G         |
|---|-------------|-------------|------------|------------|----------|-------|-----------|
| 1 | Month       | Oct-19      |            |            |          |       |           |
| 2 | Budget Left | \$1,466.90  |            |            |          |       |           |
| 3 | Total Spent | \$33.10     |            |            |          |       |           |
| 4 | S/N         | Description | Amount(\$) | Date       | Category | Recur | Frequency |
| 5 | 1           | shirt       | 17         | 7/10/2019  | SHOPPING | no    |           |
| 6 | 2           | supper      | 13.5       | 9/10/2019  | FOOD     | yes   | MONTHLY   |
| 7 | 3           | phone bill  | 2.6        | 30/10/2019 | BILLS    | no    |           |

Figure 5.13.3: Exported expense file viewed in Excel

```
"Month","10/2019"
"Budget Left","$1466.9"
"Total Spent","$33.1"
"S/N","Description","Amount($)","Date","Category","Recur","Frequency"
"1","shirt","17.0","07/10/2019","SHOPPING","no",""
"2","supper","13.5","09/10/2019","FOOD","yes","MONTHLY"
"3","phone bill","2.6","30/10/2019","BILLS","no",""
```

Figure 5.13.4: Exported expense file viewed in Notepad

|                                                                                   |                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | “Budget Left” indicates the budget left for the month. <b>WalletCLI</b> will not export the budget left for the month if no budget is not specified in the application.                                                                                                                                         |
|  | The amount at “Total Spent” is the sum of the amount spent from the exported expense records. Adding the amount at “Total Spent” to the amount at “Budget Left” does not give the original budget set for the month, since expense records for the month may have been deleted previously from the application. |

Format for loans: export loans

```
export loans
Export success! File saved to -> C:\Users\final\Downloads\WalletCli\exportedLoans.csv
```

Figure 5.13.5: Exporting Loans

| S/N | Description | Amount(\$) | Created Date | Name      | Phone         | Other Details | Lend/Borrow | Settled |
|-----|-------------|------------|--------------|-----------|---------------|---------------|-------------|---------|
| 1   | lunch       | 30         | 1/10/2019    | Lauren    |               |               | lend        | yes     |
| 2   | dinner      | 15.5       | 2/10/2019    | Ben       |               | brother       | borrow      | no      |
| 3   | breakfast   | 1.5        | 15/10/2019   | Jane      | 90181829      |               | borrow      | yes     |
| 4   | supper      | 25         | 23/10/2019   | Ryan Tang | (+65)81731829 |               | lend        | no      |

Figure 5.13.6: Exported loan file viewed in Excel

```
"S/N","Description","Amount($)","Created Date","Name","Phone","Other Details","Lend/Borrow","Settled"
"1","lunch","30.0","01/10/2019","Lauren","","","lend","yes"
"2","dinner","15.5","02/10/2019","Ben","","brother","borrow","no"
"3","breakfast","1.5","15/10/2019","Jane","90181829","","borrow","yes"
"4","supper","25.0","23/10/2019","Ryan Tang","(+65)81731829","","lend","no"
```

Figure 5.13.7: Exported loan file viewed in Notepad

## 5.14 Import: *import*

You can create expenses or loan records in csv files and import them from your home directory (mentioned in Section 4. Quick Start) into **WalletCLI**. Sample files can be found at this link and you can try importing them into **WalletCLI**: <https://github.com/AY1920S1-CS2113T-W17-2/main/tree/master/sample%20csvs>

|                  |                    |
|------------------|--------------------|
| data             | 26/10/2019 4:50 PM |
| exportedExpenses | 26/10/2019 5:39 PM |
| exportedLoans    | 26/10/2019 5:39 PM |
| importExpenses   | 26/10/2019 1:56 PM |
| importLoans      | 26/10/2019 1:56 PM |
| WalletCLI-v1.3   | 26/10/2019 3:49 PM |

Figure 5.13.1: Sample Files in Home Directory

Format: import <loans OR expenses> <FILENAME>

Example:

- import loans importLoans.csv  
Importing loans from sample csv file, importLoans.csv.

```
import loans importLoans.csv
Got it. I've added this contact:
[ID: 5]Lauren
Got it. I've added this loan:
[ID: 5][Settled][Lend] i>?lunch Amount:$30.0 Date:01 Oct 2019[Contact: [ID: 5]Lauren]
Got it. I've added this contact:
[ID: 6]Ben brother
Got it. I've added this loan:
[ID: 6][Not Settled][Borrow] dinner Amount:$15.5 Date:02 Oct 2019[Contact: [ID: 6]Ben brother]
Got it. I've added this contact:
[ID: 7]Jane 90181829
Got it. I've added this loan:
[ID: 7][Settled][Borrow] breakfast Amount:$1.5 Date:15 Oct 2019[Contact: [ID: 7]Jane 90181829]
Got it. I've added this contact:
[ID: 8]Ryan Tang (+65)81731829
Got it. I've added this loan:
[ID: 8][Not Settled][Lend] supper Amount:$25.0 Date:23 Oct 2019[Contact: [ID: 8]Ryan Tang (+65)81731829]
```

Figure 5.13.2: Importing Loans

|                                                                                   |                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Key in just the filename and csv extension for FILENAME e.g. marExpenses.csv                                                                                                                                                                   |
|  | When importing loans, <b>WalletCLI</b> will create a new contact in the application based on the contact information detected in each row of the csv file. <i>Merging of duplicate contact records will be implemented in future releases.</i> |

### 5.14.1 Expense csv Format

This section explains how expenses records should be formatted in csv (comma-separated values) before importing into **WalletCLI**.

| A          | B          | C    | D        | E   | F       |
|------------|------------|------|----------|-----|---------|
| shirt      | 7/10/2019  | 17   | SHOPPING |     |         |
| supper     | 9/10/2019  | 13.5 | FOOD     | yes | MONTHLY |
| phone bill | 30/10/2019 | 2.6  | BILLS    |     |         |

Figure 5.14.1.1: Expense Records CSV in Excel View




```
shirt,07/10/2019,17,SHOPPING
supper,09/10/2019,13.5,FOOD,yes,MONTHLY
phone bill,30/10/2019,2.6,BILLS
```

Figure 5.14.1.2: Expense Records CSV in Notepad View

For each row of expense record, it should be formatted in this order:

1. Description
2. Date(dd/MM/yyyy)
3. Amount (digits)
4. Category (in capital letters). The following categories are allowed:
  - a. FOOD
  - b. TRANSPORT
  - c. BILLS
  - d. SHOPPING

- e. OTHERS
5. (Optional) Recurring Record: Indicate a recurring record by keying in yes.
  6. (Optional) Frequency: If record is recurring, key in the frequency in capital letters.  
Choose one of the following:
    - a. DAILY
    - b. WEEKLY
    - c. MONTHLY

|                                                                                   |                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Recurring Record requires a Frequency specified on the same row.                                                                                                                                                                |
|  | The input for Recurring Record should be only yes. Any other values keyed in for Recurring Record and Frequency will be ignored and the record will be treated as a non-recurring expense when importing into <b>WalletCi</b> . |
|  | For Windows Users, if you wrote the csv in Microsoft Excel, do double-check the format of Date in text editors, e.g. Notepad. By default, Excel may store the value of Date in d/MM/yyyy format instead.                        |

### 5.14.1 Loan csv Format

This section explains how loan records should be formatted in csv (comma-separated values) before importing into **WalletCLI**.

|   | A         | B          | C    | D      | E   | F         | G           | H             |
|---|-----------|------------|------|--------|-----|-----------|-------------|---------------|
| 1 | lunch     | 1/10/2019  | 30   | lend   | yes | Lauren    |             |               |
| 2 | dinner    | 2/10/2019  | 15.5 | borrow | no  | Ben       | brother     |               |
| 3 | breakfast | 15/10/2019 | 1.5  | borrow | yes | Jane      |             | 90181829      |
| 4 | supper    | 23/10/2019 | 25   | lend   | no  | Ryan Tang | 123@abc.com | (+65)81731829 |

Figure 5.14.1.1: Loan Records CSV in Excel View



```
lunch,01/10/2019,30,lend,yes,Lauren
dinner,02/10/2019,15.5,borrow,no,Ben,brother
breakfast,15/10/2019,1.5,borrow,yes,Jane,,90181829
supper,23/10/2019,25,lend,no,Ryan Tang,123@abc.com,(+65)81731829
```

Figure 5.14.1.2: Loan Records CSV in Notepad View

For each row of loan record, it should be formatted in this order:




1. Description
2. Date(dd/MM/yyyy)
3. Amount (digits)
4. Type. Choose either of the following:
  - a. lend
    - i. Indicates that you lend someone the money
  - b. borrow
    - i. Indicates that you borrow money from someone
5. Settled (i.e. whether the loan is settled). Choose either of the following:
  - a. Yes
    - i. Indicates loan is settled
  - b. No
    - ii. Indicates loan is not settled
6. Name of Contact

7. (Optional) Contact Details
8. (Optional) Phone Number

|                                                                                   |                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>WalletCLI</b> does not check if the phone number is just only digits, thus allowing you to input phone number in your own preferred format e.g. (+65)8543 2124, 98765432, 6543-2315                            |
|  | If you want to exclude Contact Details but include Phone Number, just leave the Phone Number out. E.g. if you are writing in a text editor, write in this way: breakfast,15/10/2019,1.5,borrow,yes,Jane,,90181829 |

## 5.15: Currency exchange: *currency*

You can switch your current expenses and loans currency in **WalletCLI**.

|                                                                                     |                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | When you switch currency based on a particular country, the expenses and loans with the new converted amount will not be saved in your data, as this currency exchange only changes the amount for your viewing during the entire session when using <b>WalletCLI</b> . |
|  | You can modify your currency exchange rates directly in the currency.txt file!                                                                                                                                                                                          |
|  | Keep in mind that the change in currency in <b>WalletCLI</b> will not change the dollar symbol.                                                                                                                                                                         |

Format: `currency <country>`

Example:

- `Currency south korea`

```
list expense
Here are the expenses in your list:

| ID | Description | Category | Date | Amount | Recurring |

| 1 | dinner | FOOD | 2019-01-01 | $40.00 | No |

Total amount spent: $40.00
currency south korea
Your currency is converted to the country of south korea
You can add or modify your own currency conversion in /currency.txt
list expense
Here are the expenses in your list:

| ID | Description | Category | Date | Amount | Recurring |

| 1 | dinner | FOOD | 2019-01-01 | $34380.00 | No |

Total amount spent: $34380.00
```

Figure 5.15.1: Converting currency

## 6. Future Enhancements [coming in v2.0]

---

Though the current implementation has much flexibility, there is more that can be done to elevate user experience to the next level. These are some possible enhancements:

1. Allowing users to make direct transactions from **WalletCLi** when shopping online.
2. You can create and edit your commands in **WalletCLi**
3. **WalletCLi** can sync with the user's bank account to provide more convenience and more monitoring
4. Users can receive cashback when they save money to further lower their expenses

## 7. FAQ

---

This section provides answers to some frequently asked questions of users.

Q: Where are my data stored?

A: All your data are stored in the /data directory.

Q: How do I transfer my data to another computer?

A: To transfer your data to another computer, you should:

1. Install the app on the other computer
2. Transfer /data from your old **WalletCLi** folder and place it into the new **WalletCLi** folder.

## 8. Command Summary

---

This section provides a quick reference for all commands available in **WalletCLi**.

### 8.1 General Commands

Here is a list of general commands that you might find useful in helping you to use and configure **WalletCLi**:

| Task       | Purpose                         | Command Format            | Example                 |
|------------|---------------------------------|---------------------------|-------------------------|
| Help       | Displays the User guide         | help                      | help                    |
| Exit       | Exits the application           | bye                       | bye                     |
| Set budget | Sets budget for the given month | budget <AMOUNT><br><DATE> | Budget \$400<br>02/2019 |

|                      |                                                            |                                     |                   |
|----------------------|------------------------------------------------------------|-------------------------------------|-------------------|
| Set reminder         | Enable or disable reminders, and change reminder interval. | reminder </on or /off or /t <RATE>> | reminder /t 30min |
| View statistics      | View statistics of expenses for given month                | view stats [<date>]                 | view stats        |
| Redo                 | Redo the previous command executed                         | redo                                | redo              |
| Undo                 | Undo the previous command executed                         | undo                                | undo              |
| View command history | View the command history                                   | history                             | history           |

## 8.2 Viewing Data Commands

Here is a list of commands for viewing your data in **WalletCLi**:

| Task                         | Purpose                                                  | Command Format | Example         |
|------------------------------|----------------------------------------------------------|----------------|-----------------|
| List expenses                | List all expenses in the application                     | list expense   | list expense    |
| List loans                   | List all loans in the application                        | list loan      | list loan       |
| List contacts                | List all contacts in the application                     | list contact   | list contact    |
| List all                     | List all expenses, loans and contacts in the application | list all       | list all        |
| List data with specific date | List all expenses and loans with the specified date      | List <DATE>    | List 01/01/2019 |

## 8.3 Expense Management Commands

Here is a list of commands for managing your expenses in **WalletCLi**:

| Task           | Purpose           | Command Format                                                                                                 | Example                                                |
|----------------|-------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Add expense    | Add an expense    | add expense <DESCRIPTION> <AMOUNT> <CATEGORY> [/on <date>] [/r <RECCURENCE RATE>]                              | add expense bills \$10 bills /on 01/02/2019 /r monthly |
| Edit expense   | Edit an expense   | edit expense <EXPENSE ID> [/d <DESCRIPTION>] [/t <DATE>] [/a <AMOUNT>] [/c < CATEGORY>] [/r <RECCURENCE RATE>] | edit expense 2 /a 4.50 /c food /r daily                |
| Delete expense | Delete an expense | delete expense <EXPENSE ID>                                                                                    | Delete expense 2                                       |

## 8.4 Loan Management Commands

Here is a list of commands for managing your loans in **WalletCLI**:

| Task        | Purpose       | Command Format                                                                                           | Example                                  |
|-------------|---------------|----------------------------------------------------------------------------------------------------------|------------------------------------------|
| Add loan    | Add a loan    | add loan <DESCRIPTION> <AMOUNT> [<date>] </l or /b>                                                      | add loan lunch \$5.00 01/01/2019 /l      |
| Edit loan   | Edit a loan   | edit loan <LOAN ID> </d NEW DESCRIPTION> </a NEW AMOUNT> </t NEW DATE> [</l or /b>] [</c> ID OF CONTACT] | edit loan 0 /d dinner /a \$50.00 /l /c 1 |
| Delete loan | Delete a loan | delete loan <LOAN ID>                                                                                    | delete loan 2                            |

## 8.5 Contact Management Commands

Here is a list of commands for managing your contacts in **WalletCLI**:

| Task           | Purpose          | Command Format                                                                       | Example                                          |
|----------------|------------------|--------------------------------------------------------------------------------------|--------------------------------------------------|
| Add contact    | Add a contact    | add contact <NAME> [</d DETAILS>] [</p PHONE NUMBER>]                                | add contact david /d friends /p 12345678         |
| Edit contact   | Edit a contact   | edit contact <CONTACT ID> [</n NEW NAME>] [</d NEW DETAILS>] [</p NEW PHONE NUMBER>] | edit contact 1 /n notdavid /d sister /p 87654321 |
| Delete contact | Delete a contact | delete contact <CONTACT ID>                                                          | delete contact 2                                 |

## 8.6 Porting Data Commands

Here is a list of commands for exporting or importing data in **WalletCLI**:

| Task            | Purpose                                            | Command Format                        | Example                         |
|-----------------|----------------------------------------------------|---------------------------------------|---------------------------------|
| Export Loans    | Exporting loans to csv                             | export loans                          | export loans                    |
| Export Expenses | Exporting expenses of a month (MM/yyyy) to csv     | export expenses <MONTH/YEAR>          | export expenses 10/2019         |
| Importing data  | Importing data (either loans or expenses) from csv | import <loans OR expenses> <FILENAME> | import expenses marExpenses.csv |

## 8.7 Currency Conversion Commands

Here is a list of commands for converting currencies in **WalletCLI**:



| Task                | Purpose                                                      | Command Format     | Example        |
|---------------------|--------------------------------------------------------------|--------------------|----------------|
| Convert<br>currency | To view expenses and loans<br>amount in different currencies | currency <country> | currency italy |