

Budget Bunny

Project Specifications Document

Revision History

Revision	Date	Author(s)	Description
0.1	04/10/2016	Kiefer Yap	Created the document

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1 Support Specifications

This document is empty at first, but will grow as project features are implemented. Screenshots and specific use cases will be specified during the implementation phase. The localization word list is located in the project's database dump, in the */BudgetBunny/Scripts/output/budget_bunny.sql* file.

1.1 Hardware

iOS Devices: iPhone and iPad

Device Capabilities: None

1.2 Software

iOS Version: iOS 8.1 to 9.3

Device Orientations: Landscape, Portrait, Landscape (Inverted)

Language Support: English, Japanese, Chinese

1.3 Development Environment

XCode Version: XCode 7.3

2 Use Case Diagram

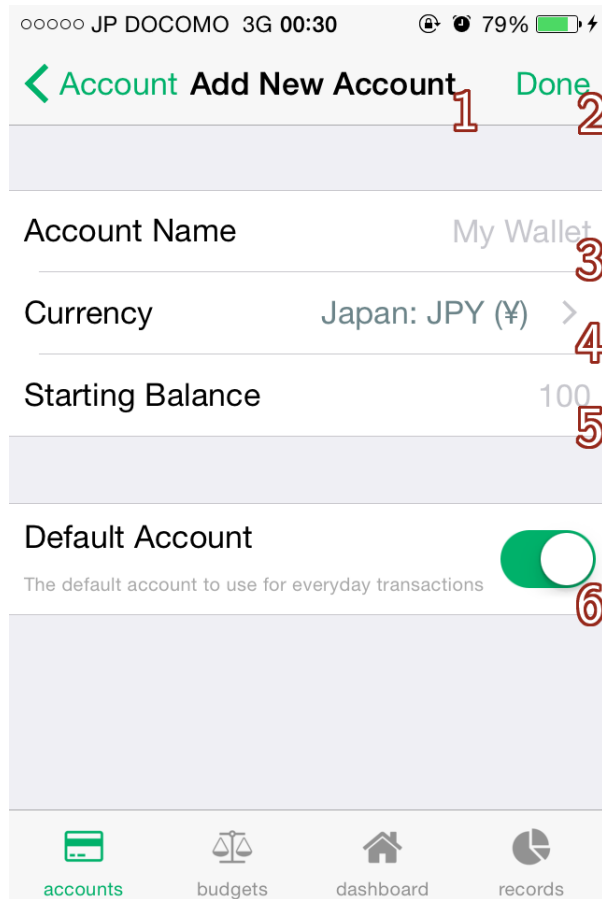
3 Database Schema

4 Application Screens and Use Cases

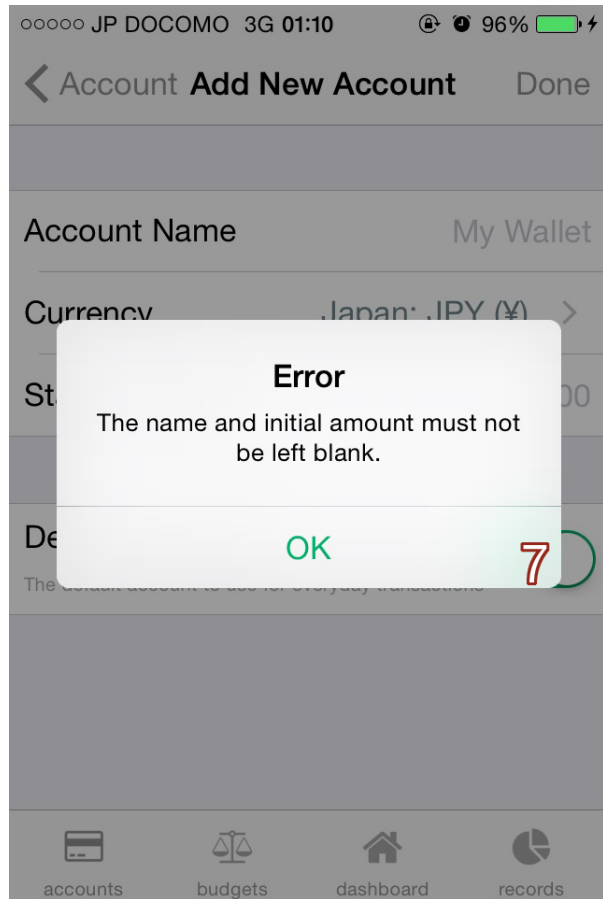
4.1 Adding a New Account

The Add New Account screen enables users to add a new account by specifying the account's name, currency used and starting balance. The user can also specify whether or not to use this account as the default account to use for everyday transactions.

4.1.1 Application Screenshots



(a) Add New Account Screen



(b) Error Scenario

Figure 1: Add New Account Screenshots

Screen Component	Type	Description
1. Screen Title	Label Title	Localization Key: MENULABEL_ADD_ACCOUNT
2. Done Button	Button	<p>When tapped, the app checks on whether or not both the Account Name and the Initial Amount have been filled.</p> <p>If both textfields have been filled, then all fields (that is: account name, currency, initial amount, is default) will be saved into the core data. If not, then an error will pop up, prompting the user to have both textfields filled up.</p> <p>Localization Key: BUTTON_DONE</p>
3. Account Name Cell	Table Cell	<p>This table cell consists of two UI elements: A label and a textfield.</p> <p>Tap anywhere in the cell and the textfield will be placed in focus, bringing up a QWERTY keyboard. Tap anywhere outside the cell to dismiss the keyboard.</p> <p>The textfield has a character limit of 25 characters.</p> <p>Localization Keys: LABEL_NAME, TEXTFIELD_NAME_PLACEHOLDER</p>
4. Currency Cell	Table Cell	<p>This table cell consists of two label UI elements.</p> <p>When this table cell is tapped, the cell will be briefly filled with a light green background, then fade out as the screen transitions to the Currency Selection screen. The default currency depends on the user's device locale.</p> <p>Localization Key: LABEL_CURRENCY</p>

Screen Component	Type	Description
5. Initial Amount Cell	Table Cell	<p>This table cell consists of two UI elements: A label and a textfield.</p> <p>Tap anywhere in the cell and the textfield will be placed in focus, bringing up a keyboard that is numeric with a decimal point. Tap anywhere outside the cell to dismiss the keyboard.</p> <p>The textfield has a character limit of 15 characters.</p> <p>Localization Keys: LABEL_STARTING_BALANCE, TEXTFIELD_STARTING_BALANCE_PLACEHOLDER</p>
6. Default Account Cell	Table Cell	<p>This table cell consists of three UI elements: two labels and a switch. The switch is turned off by default.</p> <p>Tap anywhere in the cell and the switch will be toggled. There can only be one default account at any time.</p> <p>Localization Keys: LABEL_IS_DEFAULT_ACCOUNT, LABEL_IS_DEFAULT_ACCOUNT_DESCRIPTION</p>
7. Error Alert	Alert Controller	<p>This alert controller has two labels.</p> <p>The alert is displayed when either the account name or the initial amount has not been filled, and the user taps "Done".</p> <p>Localization Keys: ERRORLABEL_ERROR_TITLE, ERRORLABEL_NAME_CURRENCY_NOT_EMPTY</p>

4.1.2 Error Scenarios

Title	Description
Duplicate Account Name	<p>This error is triggered when the Done button is pressed and a similar account name already exists in the Core Data.</p> <p>Localization Key: ERRORLABEL_DUPLICATE_ACCOUNT_NAME</p>
Duplicate Account Name	<p>This error is triggered when the Done button is pressed and the account name or the amount has not been filled.</p> <p>Localization Key: ERRORLABEL_NAME_CURRENCY_NOT_EMPTY</p>
Multiple Decimals	<p>No error alert is displayed, but this check exists in the textfield, where decimals can only be input once.</p>
Maximum Length	<p>No error alert is displayed, but this check exists in the textfield, where there is a maximum length for the textfield.</p>

4.1.3 Use Cases

4.2 Currency Selection

The currency selection screen enables users to search and select a currency to use for their new account. The user can search for the country's name, the currency name, or the currency symbol. Once the user is satisfied with their selection, they can tap the Back button to return to the Add New Account screen, where they will see their newly selected currency in the Currency Cell (See Figure 1, #4).

4.2.1 Application Screenshots

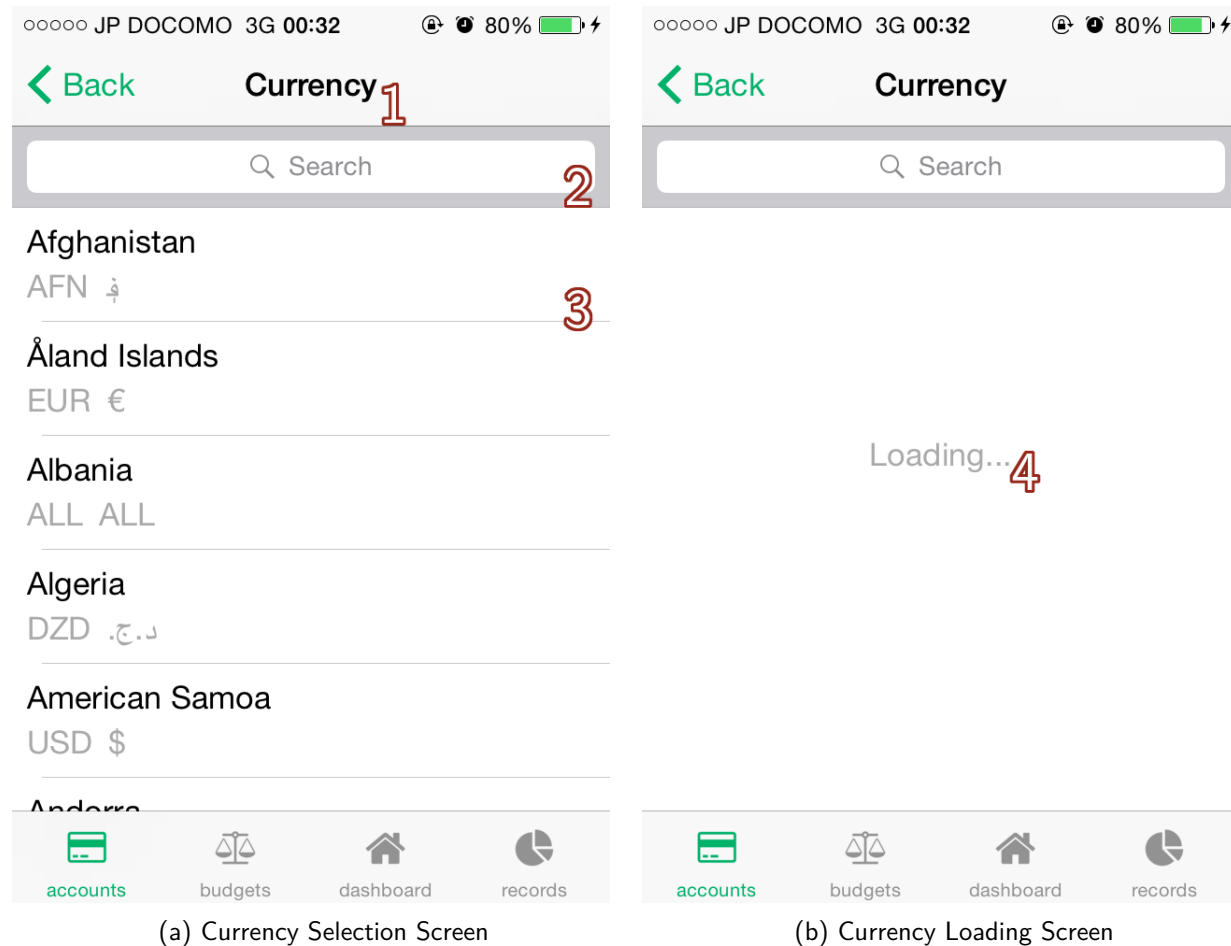


Figure 2: Currency Selection Screenshots

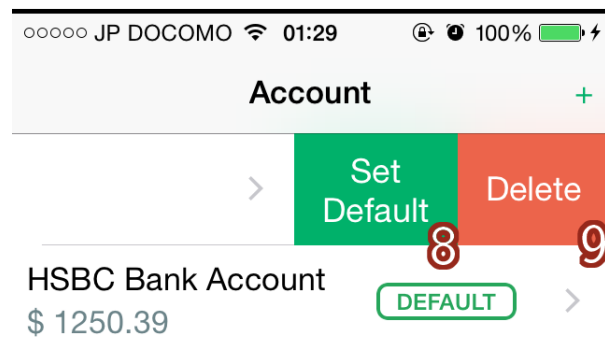
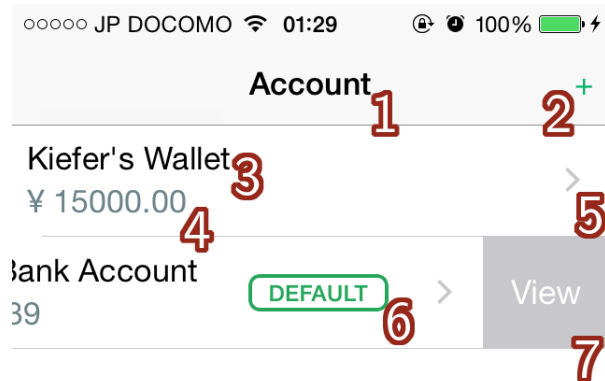
Screen Component	Type	Description
1. Screen Title	Label Title	Localization Key: MENULABEL_CURRENCY_PICKER
2. Search Field	Search Bar	<p>When tapped, a QWERTY keyboard is displayed, and the search textfield is given focus.</p> <p>At the same time, the width of the textfield shortens, giving way to the Cancel button which, when tapped, dismisses the keyboard and returns it to the state shown in the screenshot.</p>
3. Currency Selection Cell	Table Cell	<p>This table cell consists of three UI labels showing the currency's country, code, and symbol.</p> <p>Tap anywhere in the cell and a checkmark will appear on its right side, indicating that a type of currency has been selected.</p>
4. Loading Screen	Label	<p>This label is displayed while the currency data is being loaded.</p> <p>While loading, the user cannot scroll or type in the search bar.</p> <p>Localization Key: LABEL_LOADING</p>

4.2.2 Use Cases

4.3 Account List Display

The Account List screen displays the name, current amount, and default status of the accounts that the user has added. It allows the user to delete an account, or set it as default by swiping the list item left. When an account item is tapped, the user is taken to a screen where the account details can be viewed and edited. Note that an account marked as default cannot be deleted, so when swiping left, the only available option is "view", which has the same functionality as tapping the account list item.

4.3.1 Application Screenshots



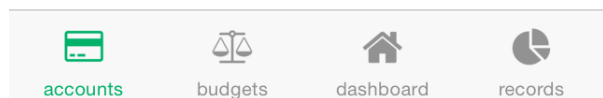
(a) Account List Screen



There are no accounts yet.

To add a new account, tap the + sign located at the upper right corner of the screen.

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(b) Empty Account List

Figure 3: Account List Screenshots

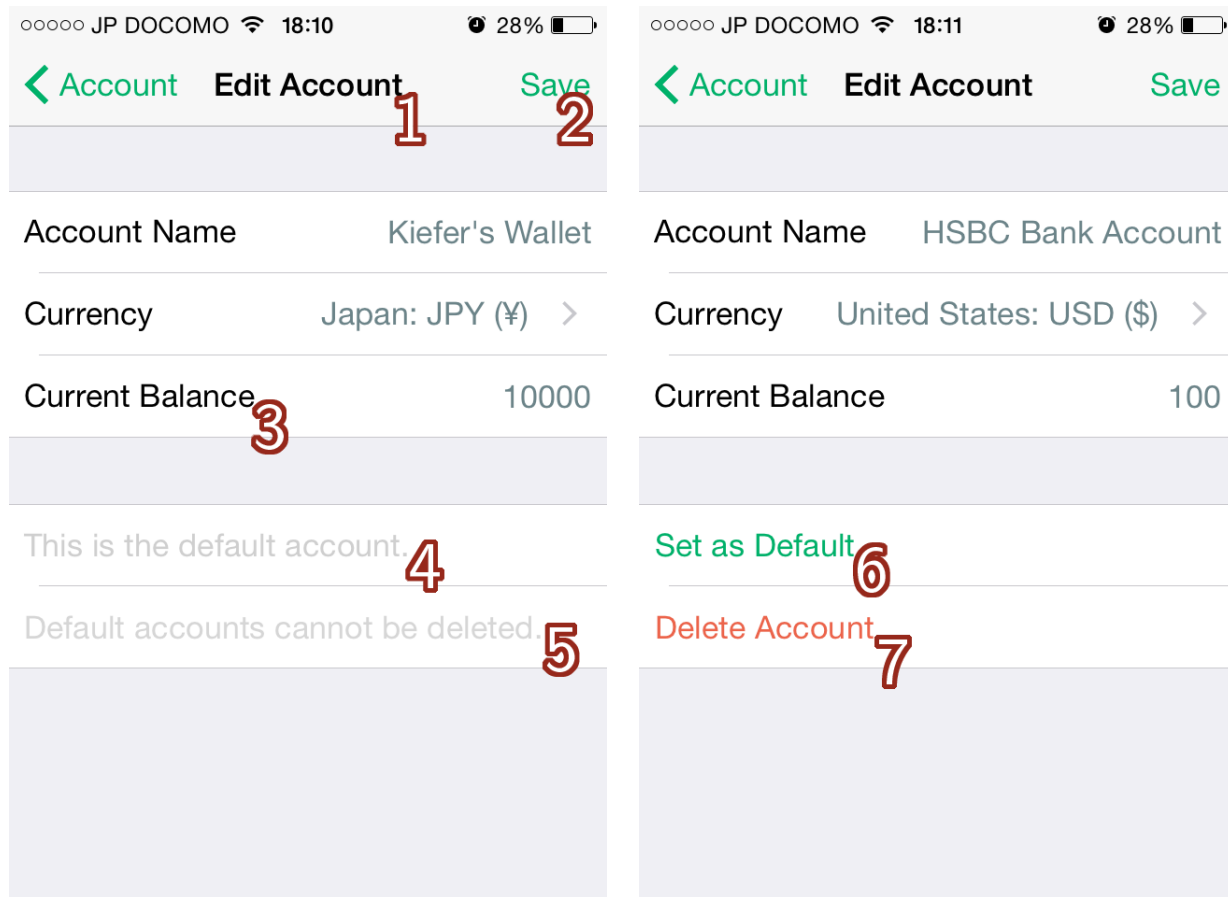
Screen Component	Type	Description
1. Screen Title	Label Title	Localization Key: MENULABEL_ACCOUNT
2. Add Button	Button	When tapped, the screen transitions to the Add New Account Screen. (Section 4.1)
3. Account Name Label	Label	A label that displays the name of the account.
4. Amount Label	Label	A label that displays the account's currency and the amount.
5. Chevron Icon	Table cell icon	Indicates that when the entire cell can be tapped. When tapped, the cell transitions to the Edit Account Screen (Section 4.4)
6. Default Icon	View Element	An indicator showing whether or not an account is marked as default. There can only be one default account at any one time. Localization Key: LABEL_DEFAULT
7. View Button	Table Cell Button	This button is displayed when the swiped cell is not a default account. When tapped, the screen transitions to the Edit Account Screen (Section 4.4) Localization Key: BUTTON_VIEW

Screen Component	Type	Description
8. Set Default Button	Table Cell Button	<p>This button is displayed when the swiped cell is as default account.</p> <p>When tapped, the cell will slide back and will be marked as default. The previously default cell will slide too, indicating that it was updated and unmarked.</p> <p>Localization Key: BUTTON_SET_DEFAULT</p>
9. Delete Button	Table Cell Button	<p>When tapped, the account is deleted and the cell slides away to disappear.</p> <p>Localization Key: BUTTON_DELETE</p>
10. No Accounts Guide	Label	<p>This label is displayed when there are no accounts present.</p> <p>This scenario theoretically should not happen under normal circumstances, as there is no way for the user to delete an account marked as default, and when the app is freshly installed, there will be one account available, and it is marked as default.</p> <p>Localization Key: LABEL_NO_ACCOUNTS</p>

4.4 Editing an Existing Account

The Edit Account screen enables users to edit existing accounts that were previously added. Its layout is and functionality is similar to the Add Account screen, but users can now set an existing account as default, or delete an account through this screen. Note that accounts that have been marked as default cannot be deleted or set as default once again.

4.4.1 Application Screenshots



(a) Editing a Default Account

(b) Editing a Non-Default Account

Figure 4: Edit Account Screenshots

Screen Component	Type	Description
1. Screen Title	Label Title	Localization Key: MENULABEL_EDIT_ACCOUNT
2. Save Button	Button	<p>This button has the same functionality as the Done Button (Section 4.1), but it updates the core data instead of adding a new entry.</p> <p>Localization Key: BUTTON_SAVE</p>
3. Current Balance Cell	Table Cell	<p>This cell functions is similar to the Initial Balance cell in Section 4.1, but it has its localization key changed.</p> <p>Localization Keys: LABEL_CURRENT_AMOUNT</p>
4. Disabled Default Account Button	Button	<p>This button cannot be tapped, and it informs the user that the current account is marked as default.</p> <p>Localization Key: BUTTON_DEFAULT_ACCOUNT_MESSAGE</p>
5. Disabled Delete Account Button	Button	<p>This button cannot be tapped, and it informs the user that it is not possible to delete default accounts.</p> <p>Localization Key: BUTTON_DEFAULT_ACCOUNT_DESCRIPTION</p>

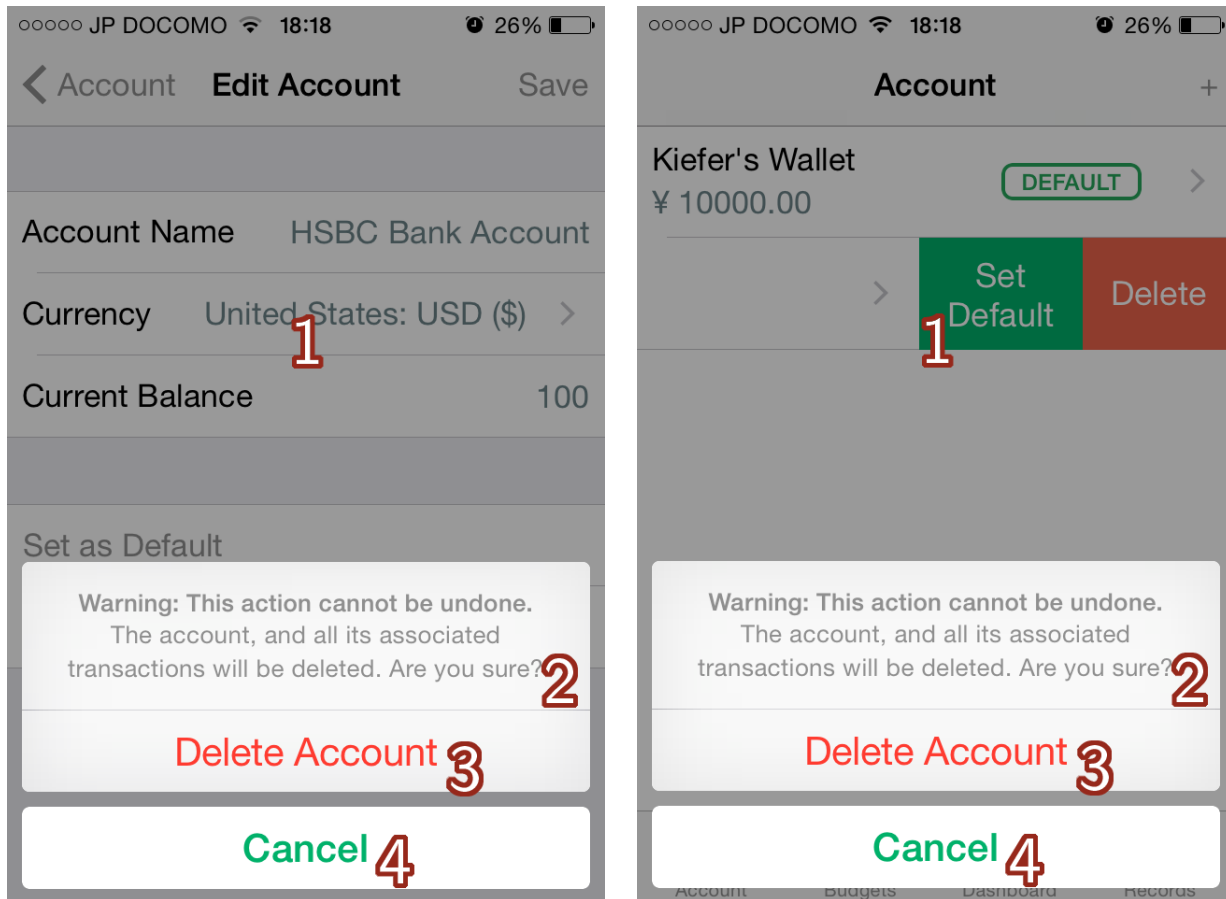
Screen Component	Type	Description
6. Set as Default Button	Button	<p>Once this button is tapped, it will mark the account as default, and will be disabled, turning into a state seen in the fourth item of this screen.</p> <p>Localization Key: BUTTON_SET_AS_DEFAULT</p>
7. Delete Button	Button	<p>Once this button is tapped, it will display a warning, telling the user that the action cannot be undone, as seen in Section 4.5.</p> <p>Localization Key: BUTTON_DELETE_ACCOUNT</p>

4.4.2 Use Cases

4.5 Deleting an Existing Account

This screen consists of a confirmation alert dialog, activated whenever an account is about to be deleted. Deleting an account will delete all transactions related to the account, and it is an action that cannot be undone. Hence, this alert dialog exists to confirm the action.

4.5.1 Application Screenshots



(a) Deleting from Edit Account

(b) Deleting from the Account Display

Figure 5: Account Deletion Screenshots

Screen Component	Type	Description
1. Cancellation Area	Dimmed black opacity	Tap anywhere within the darkened area, and the alert controller will be dismissed.
2. Deletion Message	Alert Controller	<p>This alert controller is in the style of an action sheet. It displays the title and the message of the alert.</p> <p>Localization Keys: LABEL_WARNING_DELETE_ACCOUNT_TITLE, LABEL_WARNING_DELETE_ACCOUNT_MESSAGE</p>
3. Delete Alert Action	Alert Action	<p>Once tapped, this button will delete the selected account from the core data.</p> <p>Localization Key: BUTTON_DELETE_ACCOUNT</p>
4. Cancel Alert Action	Alert Action	<p>Once tapped, the alert controller will be dismissed.</p> <p>Localization Key: BUTTON_CANCEL</p>

4.5.2 Use Cases