Balance and Transactions

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Technical Documentation

Overview

As part of our user experience, we should allow users to be able to see their transaction history as well as their Dwolla Balance (real time transactions users) to maintain our compliance with Dwolla. In addition, we should send appropriate push notifications to our users in advance to make sure we notify them of any transactions well in advance.

Goals

1. Push notifications associated with transactions
2. User Balance and Transactions
3. Addressing : https://www.dwolla.com/p/customer-integration-guide/#section-04

Requirements

1. Front End
    a. On the Settings Page, there should be a button labelled "Balance and Transactions"
    b. When you click the button a page should show up showing the users Balance and Transaction history. For UI/UX, see bottom of this document.
    c. A user should receive push notifications 3 days before a payment is due. See the Push Notifications section for details
    d. A user should receive a push notification when we send them money. See the Push Notifications section for details
2. Back End
    a. Fill the esppRecevingPayments-dev and userOutgoingPayments-dev tables. These tables already have examples in AWS I wrote; do this for each user. This table should update daily.
    b. Maintain a record for transactions. Each of the required fields are described below in the Dwolla Transactions section.
    c. Ensure that we show a Dwolla Balance (see Dwolla Balance section for details)
    d. Send push notifications from our backend whenever a transaction occurs. See Push Notifications section for more information.

Push Notifications for Transactions

1. A push notification should be sent to the user 3 days in advance notifying them of an upcoming transaction.
    a. The notification should say "You have an upcoming payment due to FundBuddie on XX/XX/XXXX".
2. A push notification should be sent to the user when we send them money to their account.

a. The notification should say "You have received funding from FundBuddie!"

Dwolla Balance

Dwolla balance is documented here:
https://www.dwolla.com/p/customer-integration-guide/#section-05

First and foremost, we should make sure we use a UUID for `Idempotency-Key` so that we do not make multiple requests to the dwolla for any balances/transfers.

Secondly, a balance for the user should always be shown. For the purposes of this document, balance refers to the Dwolla User Account Balance for our users in which we will move money from their bank account to the Dwolla Balance. This transfer should be done prior to the user's payment due date.

To derive the due date, lookup the table esppReceivingPayments-dev in our AWS backend, and find the field due_date. This table should be built up of all our users that have due_dates, which should map to the current_period_end_date for the company that user is associated with. This table should **automatically** update on a rolling basis; meaning a cron-job should run so that we can keep track of all the updating end dates as time goes on. This is **very important!**

A detailed step up step integration is in the link above as well as provided access in a slack channel for Dwolla. Utilize this as much as possible and ask ANY clarifying questions.

Dwolla Transactions

In addition to the balance, we need to show the transaction history of the user. This is the combination of both outgoing and incoming transactions. Below, the UI/UX can be seen for transaction history as well and balance. The information required for this transaction history is:

1. User name : The full name of the user
2. Start and End Period of the company
3. Date of transaction: XX/XX/XXXX (format)
4. Amount sent/received : $X,XXX.XX

5. Status of the payment : (Pending | Completed | Defaulted)
6. Running balance: The sum of all outgoing payments we send the user is the running balance. Once we receive a payment from the user equal to or greater than the balance, the running balance becomes $0.
7. Account number (just the last 4 digits)

Summary of Transactions

Funded User	(First Name)	(Last Name)
ESPP Period	(Start Date)	(End Date)
Company	Company Name	

Pmt #	Pmt Type	Incoming / Outgoing	Pmt Amount	Pmt Date	Status	Account Number	Cummulative Balance
1	Funded Amt	Incoming	10	XX/XX/XX	Completed	(XXXXX1234)	10
e.g. 2	Funded Amt	Incoming	12	XX/XX/XX	Completed	(XXXXX1234)	22
e.g. 3	Funded Amt	Incoming	15	XX/XX/XX	Completed	(XXXXX1234)	37
e.g. 4	Funded Amt	Incoming	10	XX/XX/XX	Completed	(XXXXX1234)	47
e.g. 5	Repayment	Outgoing	11	XX/XX/XX	Completed	(XXXXX1234)	58

The entry point into this UI should come from the settings screen that exposes one more field for “Balance and Transactions”. This UI should also have the Dwolla Balance shown under the company name (only if the balance is > or < $0).