# MailJar Development Report

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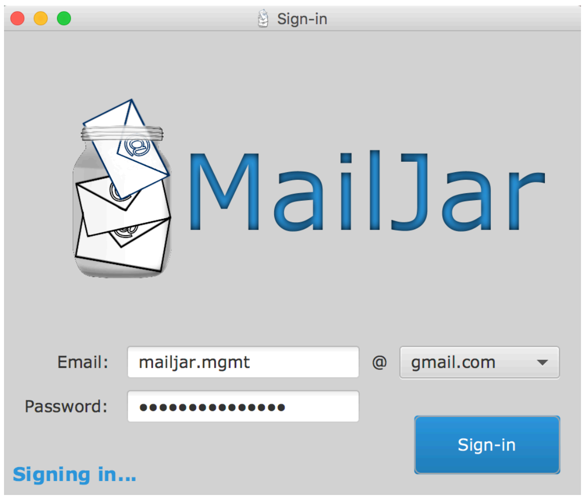
## User Interface

### Login Window



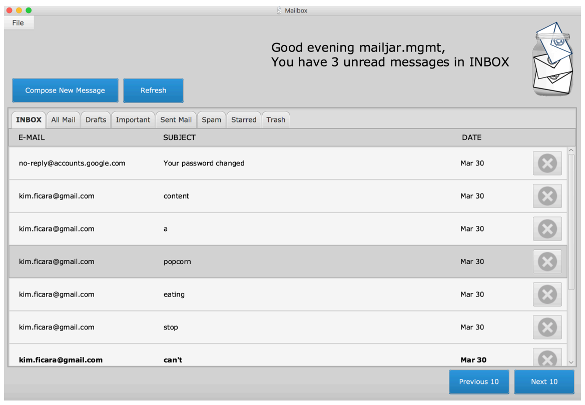
Email: mailjar.mgmt @ gmail.com

Password: ••••••••••••••

Signing in...

- Combo box with 5 different hosts
  ⇒ Hotmail.com
  ⇒ Gmail.com
  ⇒ Uwindsor.ca
  ⇒ Outlook.com
  ⇒ Live.com
- Prompt message to update user on login status
- Password field is masked

### Mailbox Window

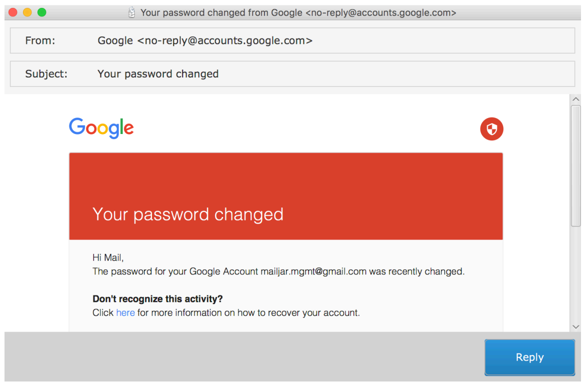


Good evening mailjar.mgmt,
You have 3 unread messages in INBOX

| E-MAIL | SUBJECT | DATE |
|---|---|---|
| no-reply@accounts.google.com | Your password changed | Mar 30 |
| kim.ficara@gmail.com | content | Mar 30 |
| kim.ficara@gmail.com | a | Mar 30 |
| kim.ficara@gmail.com | popcorn | Mar 30 |
| kim.ficara@gmail.com | eating | Mar 30 |
| kim.ficara@gmail.com | stop | Mar 30 |
| **kim.ficara@gmail.com** | **can't** | **Mar 30** |

- Customized greeting prompt with updated number of unread messages
- Compose new message button
- Refresh message button
- Tabs with different folder names and content
- 10 messages displayed per page
- User can browse through 10 messages per page
- Delete message button flags selected message for deletion

## Message Window


Your password changed from Google <no-reply@accounts.google.com>

From: Google <no-reply@accounts.google.com>

Subject: Your password changed

Google

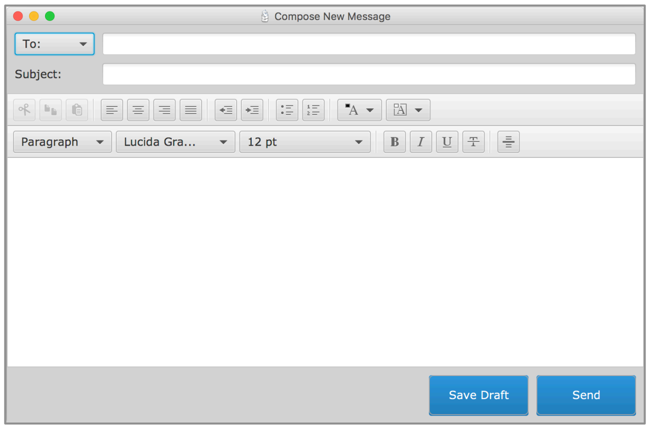
Your password changed

Hi Mail,
The password for your Google Account mailjar.mgmt@gmail.com was recently changed.

**Don't recognize this activity?**
Click here for more information on how to recover your account.

- Displays messages in HTML format, including images
- User can hyperlink to internet sites
- Reply button

## Compose Message Window


Compose New Message

To:

Subject:

- Option to send a message to multiple recipients (cc, bcc)
- Subject line
- HTML editor to allow user to fully format and customize their message
- Save draft button saves the message to draft folder (it existing)
- Send button sends the message to recipients and closes the window

## Implementation

### *Logging in*

- When the log in button is pressed, the e-mail address and password are collected.
- A request is made to the host for two different classes of connection: simple mail transfer protocol (SMTP) and internet message access protocol (IMAP)
- SMTP is used for sending messages and IMAP is used for receiving and updating the messages
- If the request is satisfied, the mailbox window will open with these connections.
- If the request fails, an exception will be printed at the bottom of the log in window.

### *Mailbox*

- Once the connection has been made, we filter through all folders of the mailbox and create a tab for each of the folders and add an event listener to the tabs.
- A message is displayed according to the time of day (e.g. Good Morning) with the number of unread messages. If a user refreshes, changes folder or reads a new message, the greeting will be updated.
- When a tab is pressed, the tab pane will load and display the messages for that given folder.
- The default tab pane will be the first folder in the list (usually the inbox).
- When the delete button is pressed, the delete flag will be set for that message and when the folder is refreshed the message will be removed from the mailbox.
- The refresh button reconnects to the server and retrieves the messages from the current folder and displays the messages in the current tab pane.
- The "next 10" and "previous 10" buttons loop through the array of messages stored in the mailbox model and display 10 messages at a time in the tab pane.
- The view for opening a message is "MessageWindow" and the view for composing a message is called "ComposeWindow".
- If the user closes the MailboxWindow, the entire program will close. The Mailbox Window can be closed by clicking the "x" in the top left corner or selecting exit menu item.

## *Opening a Message*

- When a user requests to open a message, we first check to see if the current folder is drafts.   If it is not drafts, we open the message in a regular MessageWindow.
- The sender, subject and content of the message are loaded in MessageWindow upon construction.
- When the reply button is clicked, it will pass the message to the ComposeWindow (explained in the next section).
- If a new message is opened for the first time, the seen flag is set to true and the message line bold style is removed.

## *Composing a New Message*

- The compose window is invoked for three different cases:  sending a message, replying to a message and opening a draft.
    1. Sending a message from the MailboxWindow creates a blank e-mail to be filled out by the user.
    2. Replying receives the message and loads the sender as the recipient, prepends a Re: to the subject line and inserts a horizontal rule above the replied to content.
    3. Opening a draft loads the message content exactly as it was saved.

## *Other*

- If an exception is thrown anywhere in the program, it will be displayed in a pop up window.
- All other messages to the user will be displayed on the scene.