



First National Bank

Image credit: <https://www.fnb-online.com/>

Mobile Mortgage Banking App - Wireframes

Shannon Kelly - April 8, 2023

Company Information

First National Bank (FNB) is a financial services company providing solutions to individuals and businesses to help them reach their financial goals through commercial banking, consumer banking, and wealth management solutions. One area of services First National Bank provides is mortgage lending, and access to loan and payment balances is available online and through their mobile app.

Project Description

First National's mobile banking application currently has limited capabilities and is visually confusing and outdated. Function limitations include seeing one's personal mortgage balance and monthly payment amount. Borrowers are unable to make payments through the mobile app. Ultimately, this redesign would revamp their mobile app's look and feel, make sure the application's design is accessibility compliant and would offer more robust features for users to manage their mortgage.

User Base

The user base are Mortgagors (mortgage borrowers) - homeowners and property owners who are already financed through First National Bank with 15 or 30-year fixed mortgages. Users have had an account set up through an FBN relationship manager and are making mail-in, in-person, or online transfer payments to monthly statements. Borrowers need to be able to check their mortgage balance (statements), be aware of payment increases or decreases of monthly payments, as well as the ability to set up or reconfigure automatic payments, make extra payments (payoff) and connect to outside banking institutions from which to make payments.

Users are motivated to make timely monthly payments, cut their lending period in half, avoid liens on their property, keep their credit scores in good standing, and/or pay off their loans.

Functionality

The application functions need to include but are not limited to:

- Easy and securely sign in, including using Face or Fingerprint ID options.
- Ability to check mortgage balance(s) and download statements
- Display payment changes (increases, decreases, overdue)
- Set up or reconfigure automatic payments.
- Make extra principal payments (and payoff loans/late fees)
- Connect to outside banking institutions from which to make payments.
- Access account information and change personal information (including updating passwords, notifications, and reminder settings) as needed.
- Possible location services to find a local branch to make payments and additional changes that can't be completed online (for example, name change.)

The above functions will allow loan borrowers to pay their personal mortgages more efficiently and significantly reduce loan terms.

Platform

This application would be designed and built for iOS and Android devices (focused on native mobile-first functionality), but with the possibility that features and functions could be adapted for First National's browser-based website.



Original Screenflow set 1 - Getting Started

Welcome, Login, Signup, Password reset flow for a Mortgage customer

Required Screens:*

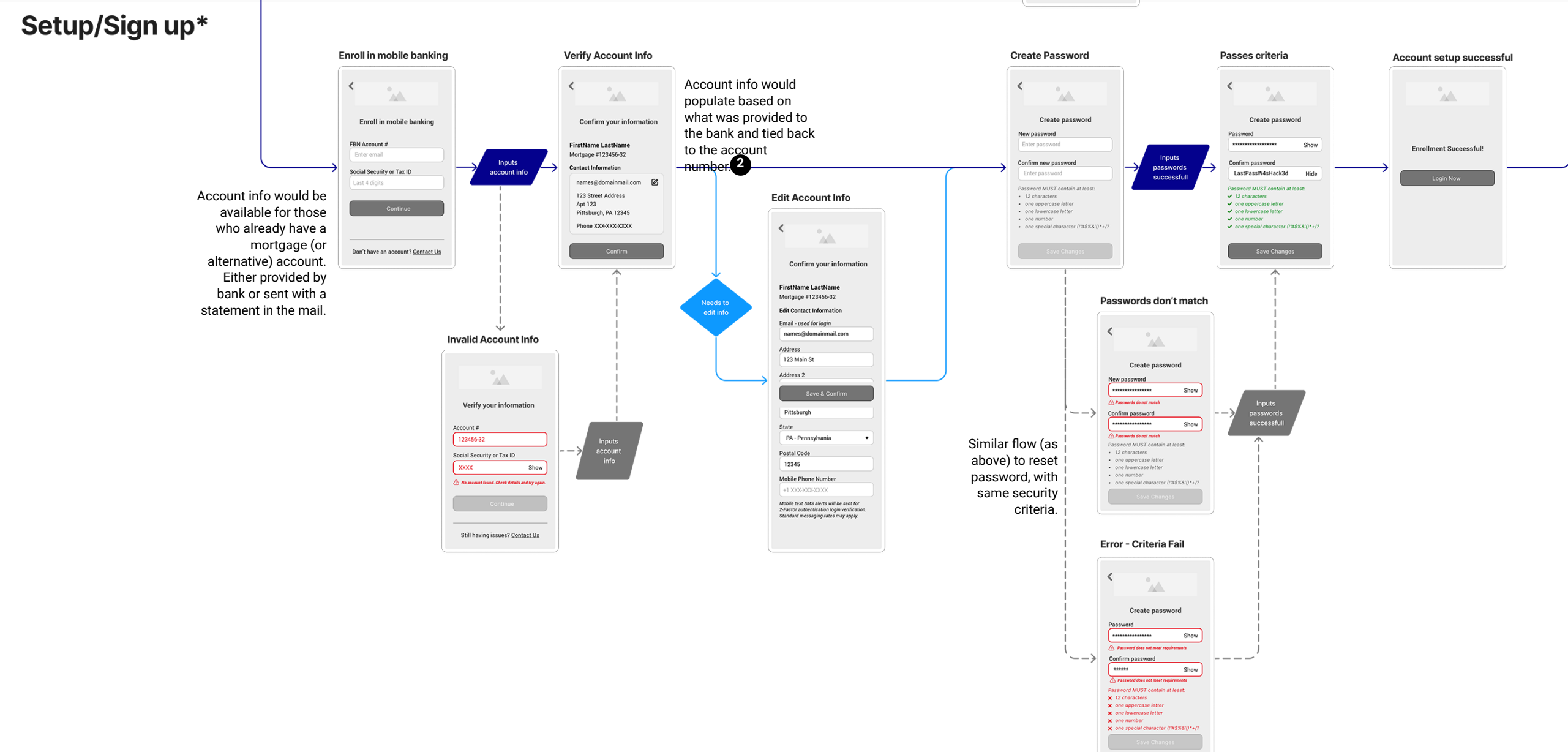
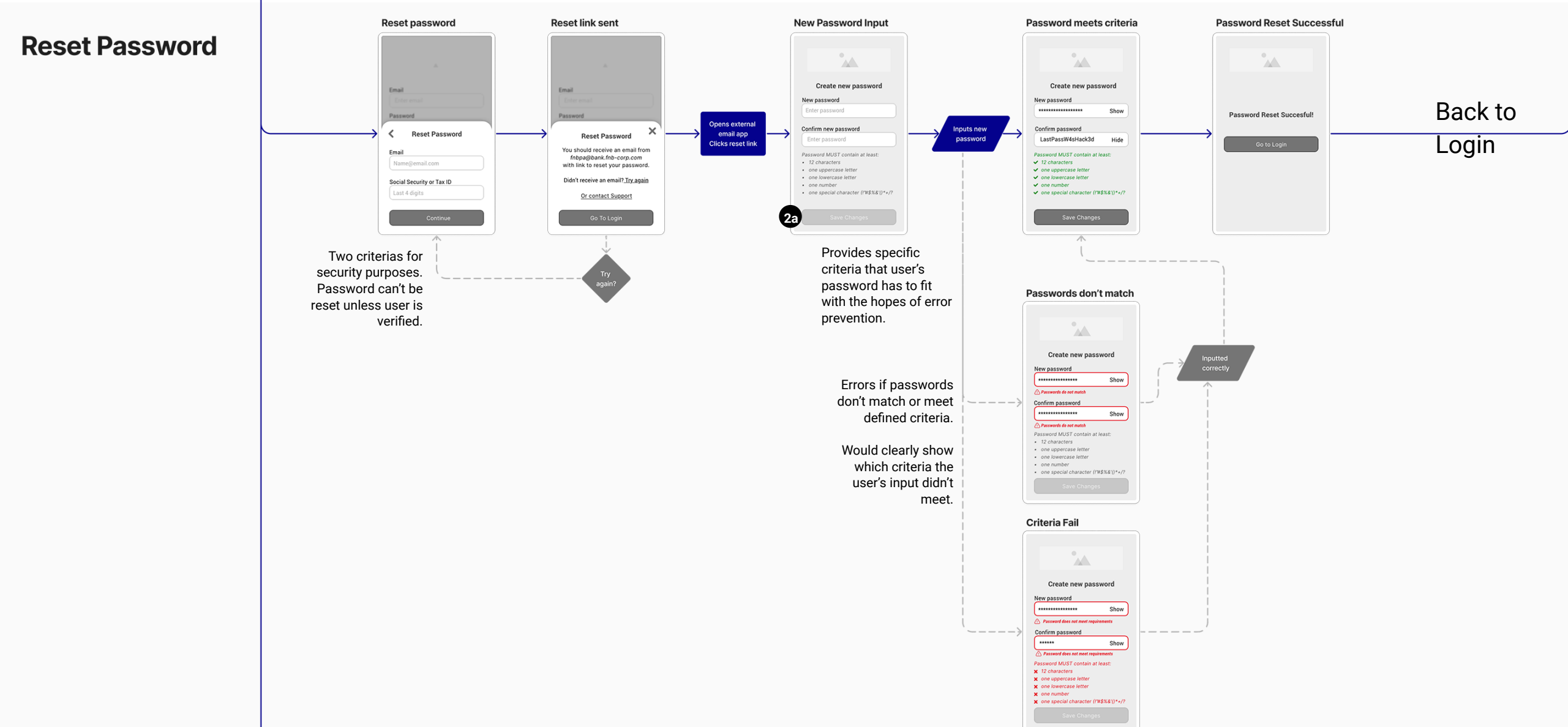
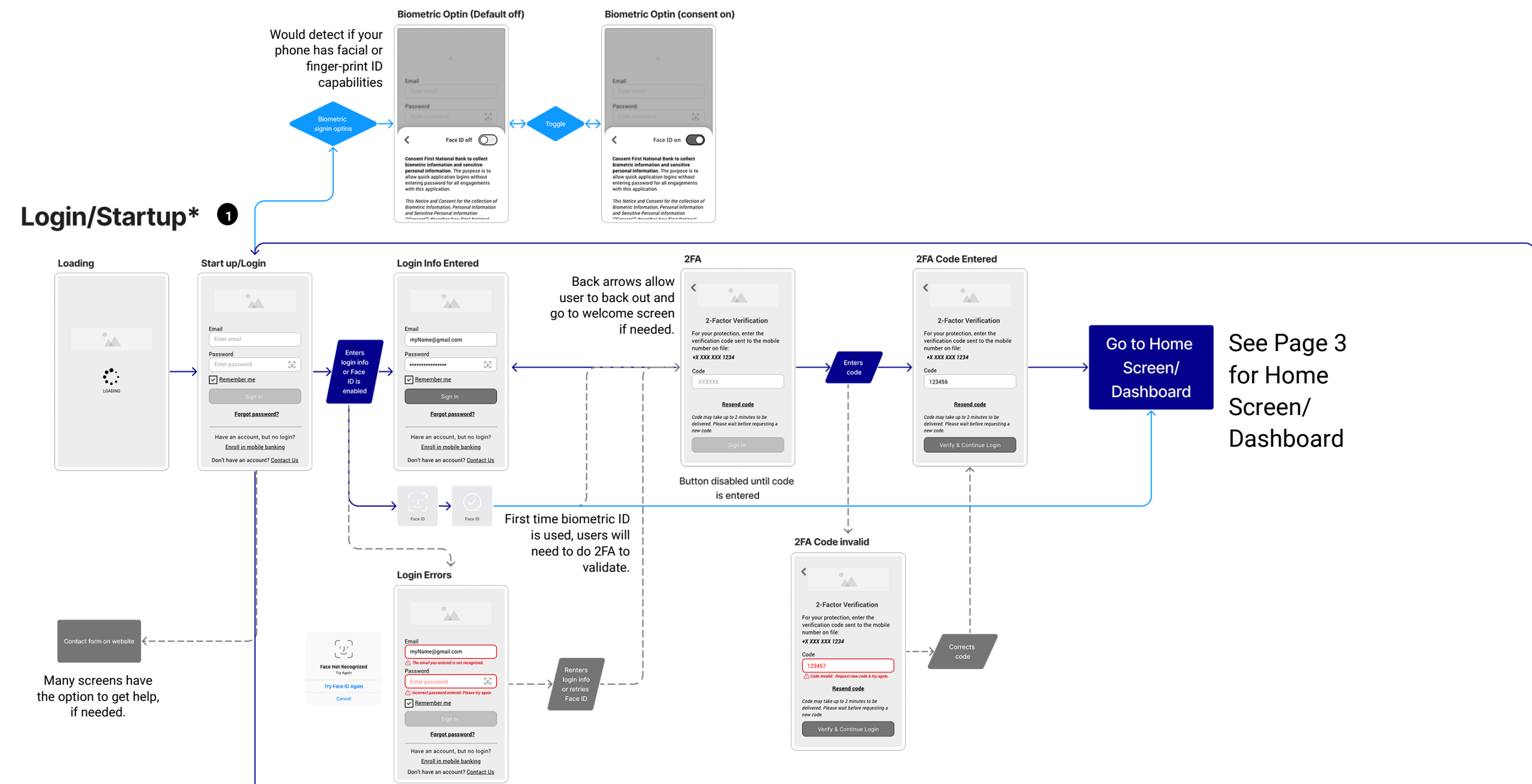
- Sign Up/Register or Set Up
- Login and/or Start Up Screen

Project brief functionality

1. Easily and securely sign in, including using Face or Fingerprint ID options.
 - With the addition of 2FA verification, especially those not utilizing biometric login methods.
2. Access account information and change personal information
 - a. Updating passwords

Key

- Main/ideal flow
- Secondary Flow/Decisions
- Errors, Deletion or Alternative Actions



Wireframes Set - Getting Started 1a

Signing in

Designed at the smallest mobile screen size 320x568.

1. Sign-in options with email and password or biometric (fingerprint/Face ID) login option.
2. Option to save one's information, so they don't have to type account info every time. The "remember me" option would also allow the biometric sign-in to trigger automatically upon the next sign-in (if a user is opted in.)
3. Button is deactivated until fields are filled.
4. Forgot password option for those who forgot or need to reset their password for security purposes.
5. If users are already account holders with the bank, they can enroll in mobile banking.
6. If one doesn't have an account, they can contact the bank to find a branch or follow up the sign-up process online (but this is likely not the flow a future mortgagor can take.)

7. When the user clicks on the Face or fingerprint ID icon in the password field for the first time (the app would automatically detect the phone's capabilities,) a consent option would pop up if one wants to enroll in a biometric sign-in option. (Overlay)

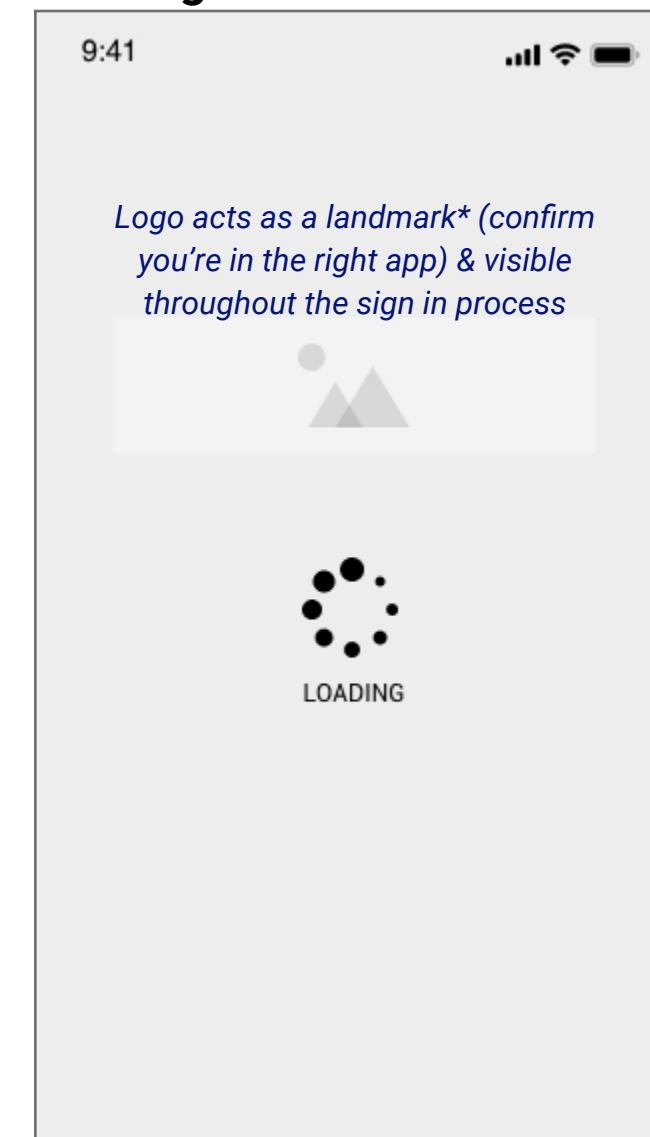
8. Biometric ID will still require a password before logging in automatically the first time.

9. Two-Factor Authentication/Verification (2FA) is often required for most banking institutions (to help reduce scams.) A text message would be sent to the user with a unique 2FA code and a warning message (First National Bank will never contact you to request this code.)

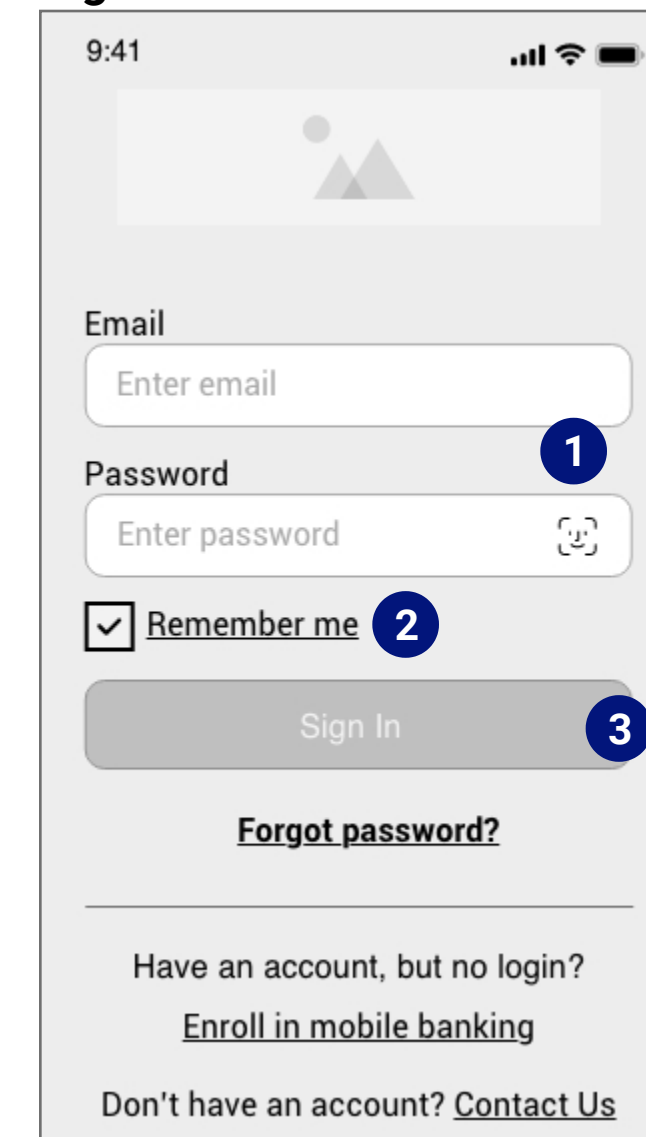
10. Button is disabled until the field is filled.

11. If the user doesn't type in the 2FA code within a specific timeframe or the code is invalid, the user will get an error, and one could ask for another code to be resent.

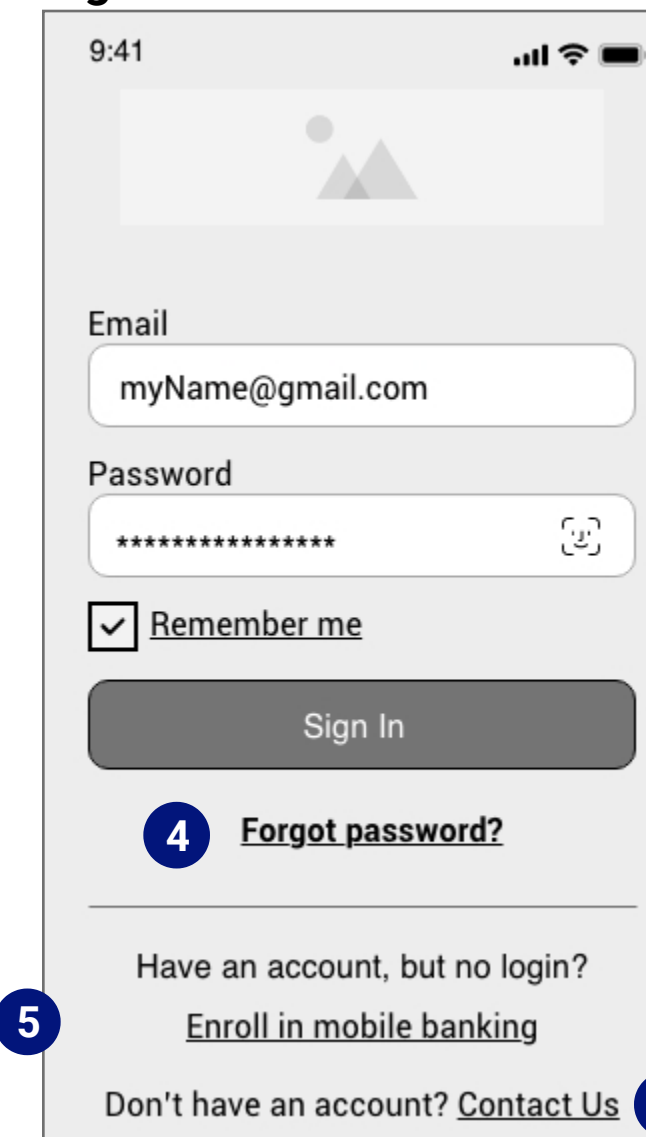
Loading



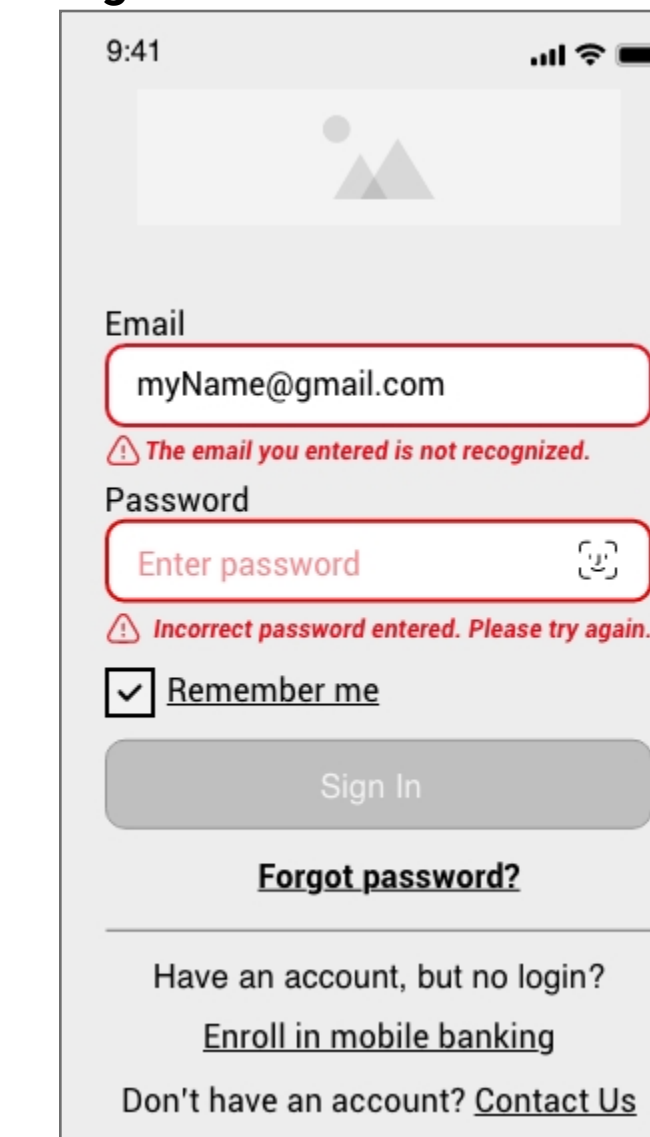
Sign in - Blank



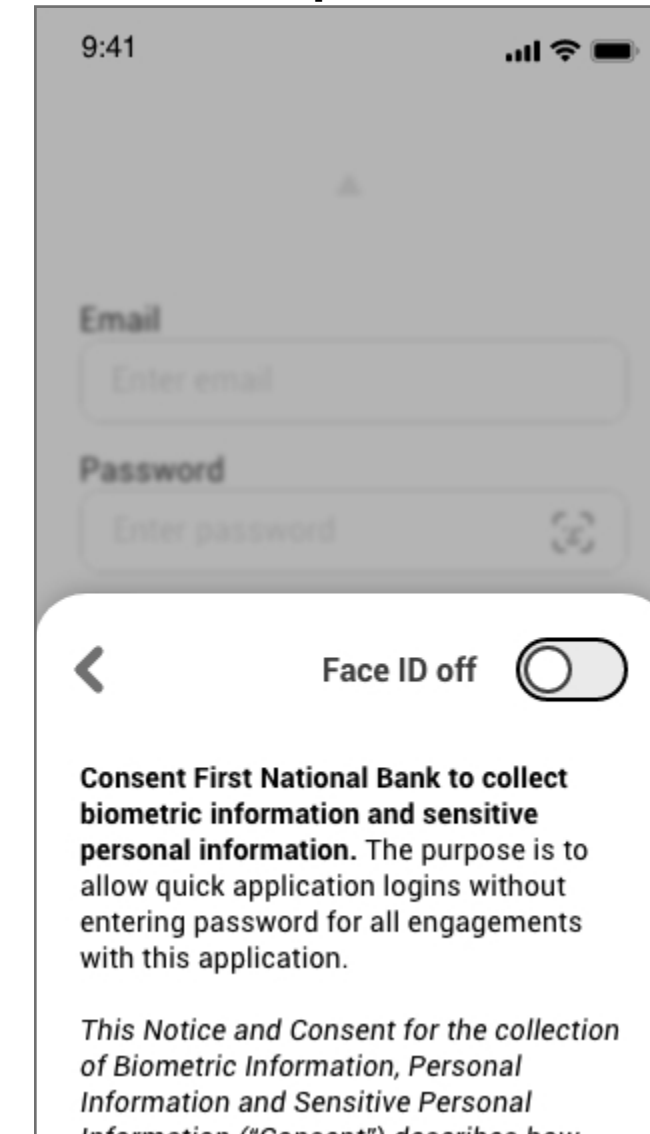
Sign in - Info entered



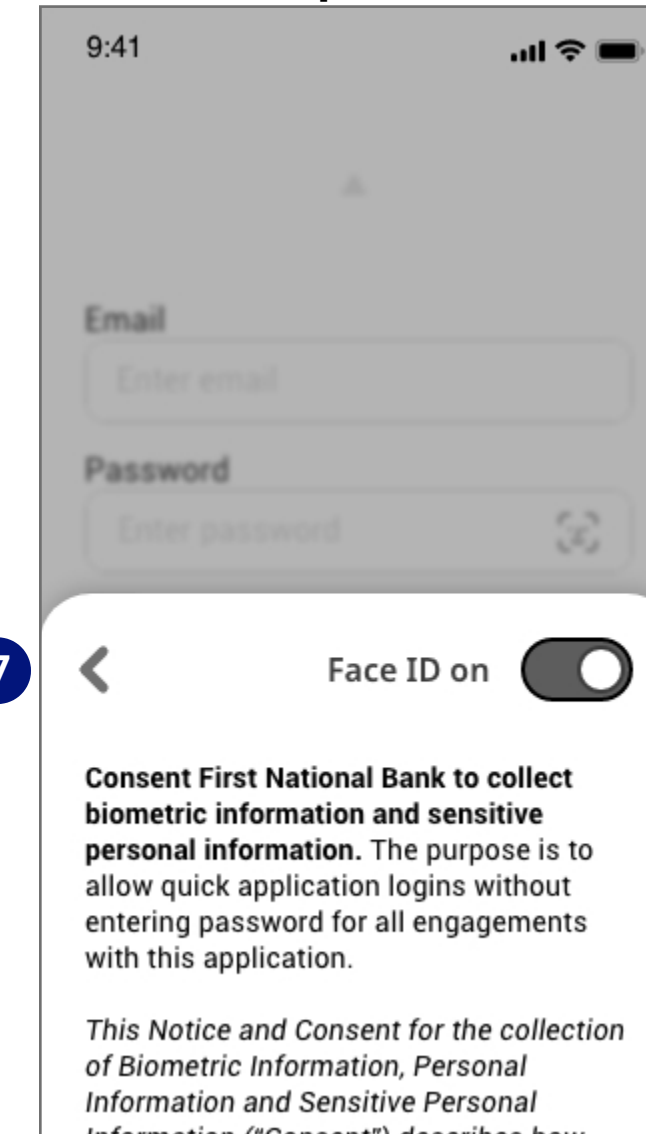
Sign in - Error



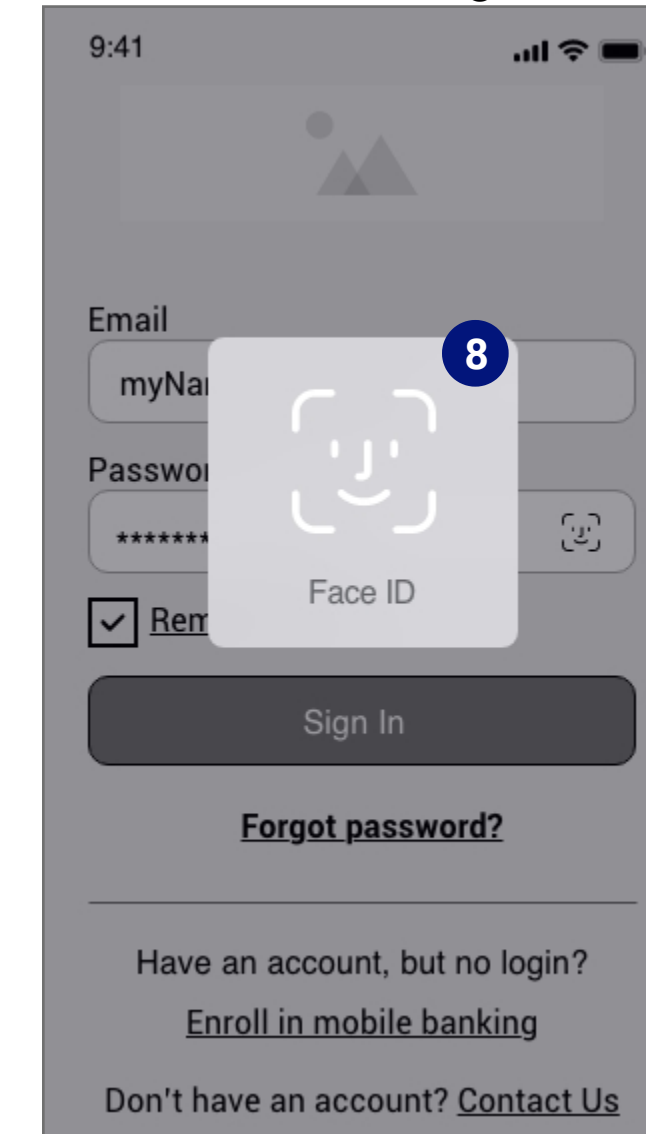
Biometric - opt out



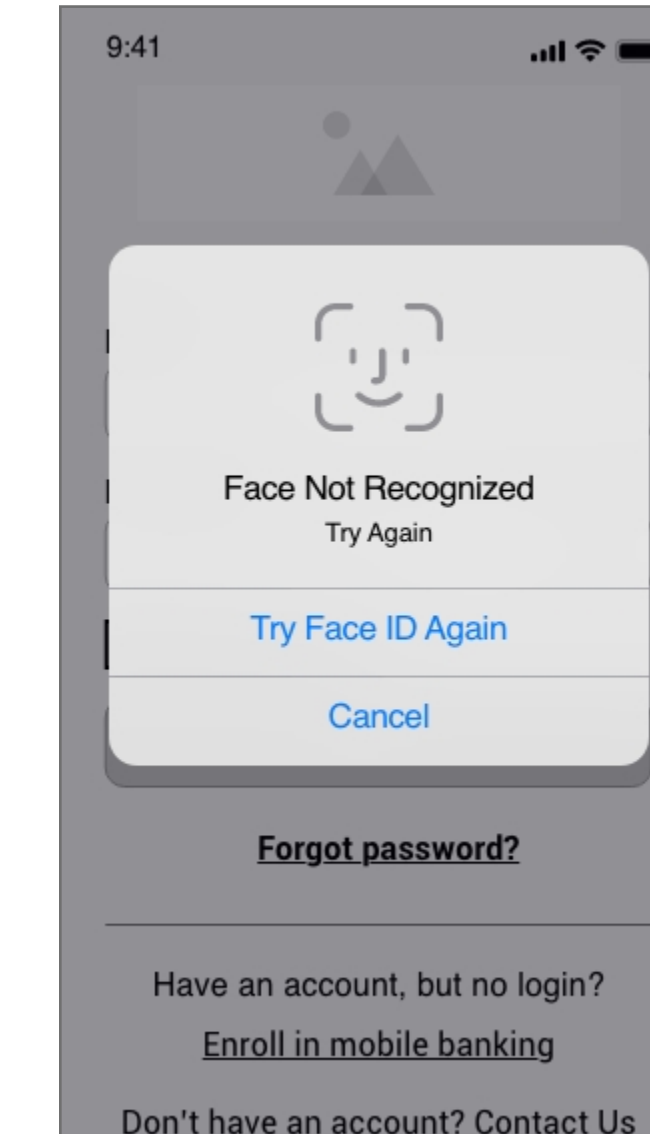
Biometric - opt in



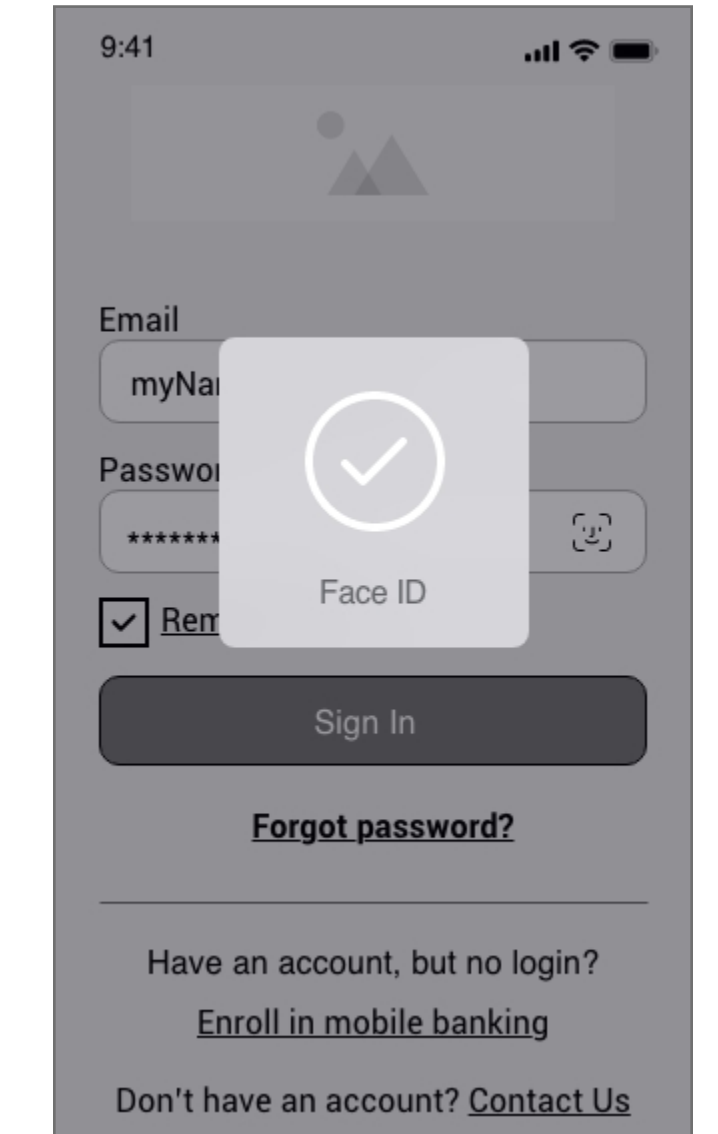
Biometric - Scanning



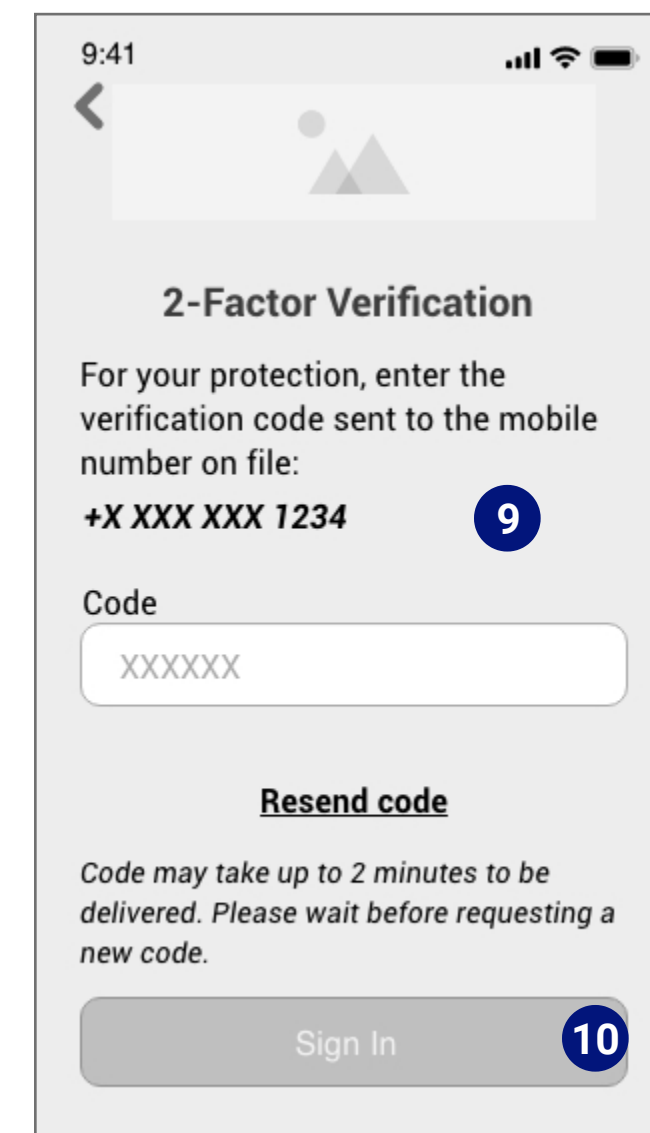
Biometric ID - Fail



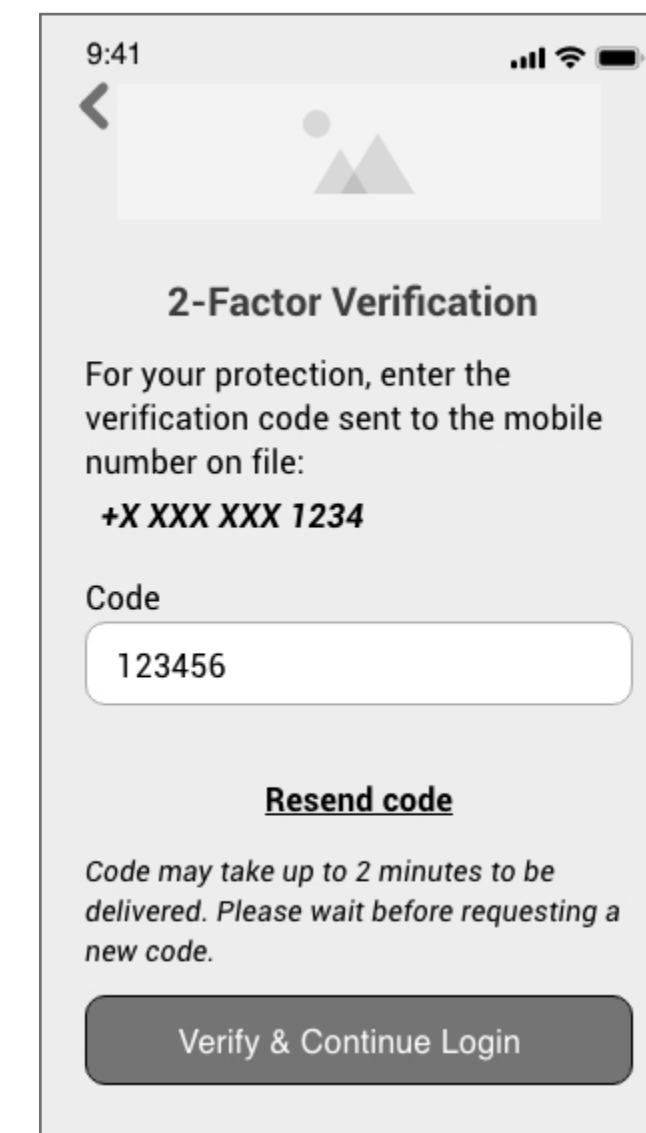
Biometric ID - Success



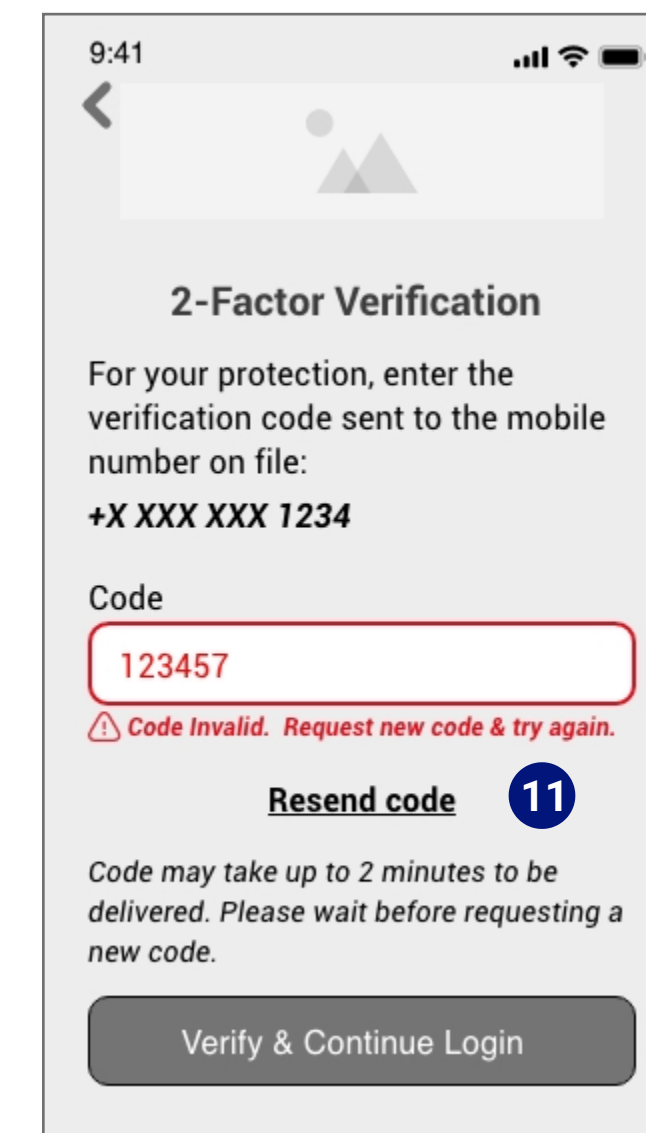
2FA - Blank



2FA - Filled



2FA - Error



Wireframes Set - Getting Started 1b

Password Reset

1. To reset the password, one must provide an account email and a social security or tax id to verify the person resetting the password is the account holder. (Overlay again)

2. Users would be emailed a link to reset their password. If users don't receive an email, they can try again and return to the reset password page.

Reset Password

9:41

Email
Enter email

Password
Last 4 digits

1

Continue

Reset Link Sent

9:41

Email
Enter email

Password
Last 4 digits

Reset Password

You should receive an email from fnbpa@bank.fnb-corp.com with link to reset your password.

Didn't receive an email? [Try again](#)

2

[Or contact Support](#)

Go To Login

3. Reset password sequence would open in-app. The save button is disabled by default until a new password is filled into both fields.

4. If passwords don't match, the user will be alerted before being allowed to save/continue. Criteria list will remain dim until passwords successfully match and fulfills requirements.

5. The password criteria requirements are displayed to secure the account and reduce user error. Users will see an in-line error and the criteria will highlight what has or hasn't met requirements.

6. A show/hide option for the user to verify they've entered the information correctly or to confirm it is the password they've chosen.

7. Once the user has met all password requirements, the criteria list will display a color and icon change, and the "save changes" button will be enabled.

New password input

9:41

Create new password

New password
Enter password

Confirm new password
Enter password

3

Save Changes

Passwords Don't Match

9:41

Create new password

New password
***** Show

4

Confirm password
***** Show

4

Save Changes

Passwords Criteria Fail

9:41

Create new password

New password
***** Show

5

Confirm password
***** Show

6

Save Changes

Password Meets Criteria

9:41

Create new password

New password
***** Show

Confirm password
LastPassW4sHack3d Hide

7

Save Changes

Reset Successful

9:41

Password Reset Successful!

Go to Login

Wireframes Set - Getting Started 1c

Enroll

1. For validation purposes, one must provide an account number and the last four digits of a social security or tax id as part of the enrollment process. The bank would already have this information to validate an existing account holder.

2. If the user can't validate their account information, a contact us link is provided to get help (and go to the mobile website.)

3. The user would confirm their information or edit everything other than their name. Most banking institutions require proof of name change (in-person or a mailed copy), so the option to edit the name is disabled.

4. Same as the reset password flow, creating an account password would require the same criteria for security purposes.

Enroll in mobile banking

9:41

Enroll in mobile banking

FBN Account #
Enter email

Social Security or Tax ID **1**
Last 4 digits

Continue

Don't have an account? [Contact Us](#)

Invalid Account Info

9:41

Enroll in mobile banking

Account #
123456-32

Social Security or Tax ID
XXXX Show

⚠️ No account found. Check details and try again.

Continue

2 Still having issues? [Contact Us](#)

Verify Account Info

9:41

Confirm your information

FirstName LastName
Mortgage #123456-32

Contact Information **3**

names@domainmail.com ✎

123 Street Address
Apt 123
Pittsburgh, PA 12345
Phone XXX-XXX-XXXX

Confirm

Edit account info

9:41

Confirm your information

FirstName LastName
Mortgage #123456-32

Edit Contact Information

Email - used for login
names@domainmail.com

Address
123 Main St

Address 2
Apt 123

City
Pittsburgh

State
PA - Pennsylvania

Postal Code
12345

Mobile Phone Number
+1 XXX-XXX-XXXX

Mobile text SMS alerts will be sent for 2-Factor authentication login verification. Standard messaging rates may apply.

Save & Confirm

Fold

Create password

9:41 **4**

Create password

New password
Enter password

Confirm new password
Enter password

Password MUST contain at least:

- 12 characters
- one uppercase letter
- one lowercase letter
- one number
- one special character (!"#%&'()*+/?

Save Changes

Passwords Don't Match

9:41

Create password

New password
***** Show

⚠️ Passwords do not match

Confirm password
***** Show

⚠️ Passwords do not match

Password MUST contain at least:

- 12 characters
- one uppercase letter
- one lowercase letter
- one number
- one special character (!"#%&'()*+/?

Save Changes

Password Criteria Fail

9:41

Create password

Password
***** Show

⚠️ Password does not meet requirements

Confirm password
***** Show

⚠️ Password does not meet requirements

Password MUST contain at least:

- ✗ 12 characters
- ✗ one uppercase letter
- ✓ one lowercase letter
- ✗ one number
- ✗ one special character (!"#%&'()*+/?

Save Changes

Password Passes Criteria

9:41

Create password

Password
***** Show

Confirm password
LastPassW4sHack3d Hide

Password MUST contain at least:

- ✓ 12 characters
- ✓ one uppercase letter
- ✓ one lowercase letter
- ✓ one number
- ✓ one special character (!"#%&'()*+/?

Save Changes

Account setup successful

Enrollment Successful!

Login Now

Original Screenflow set 2 - Main Tasks

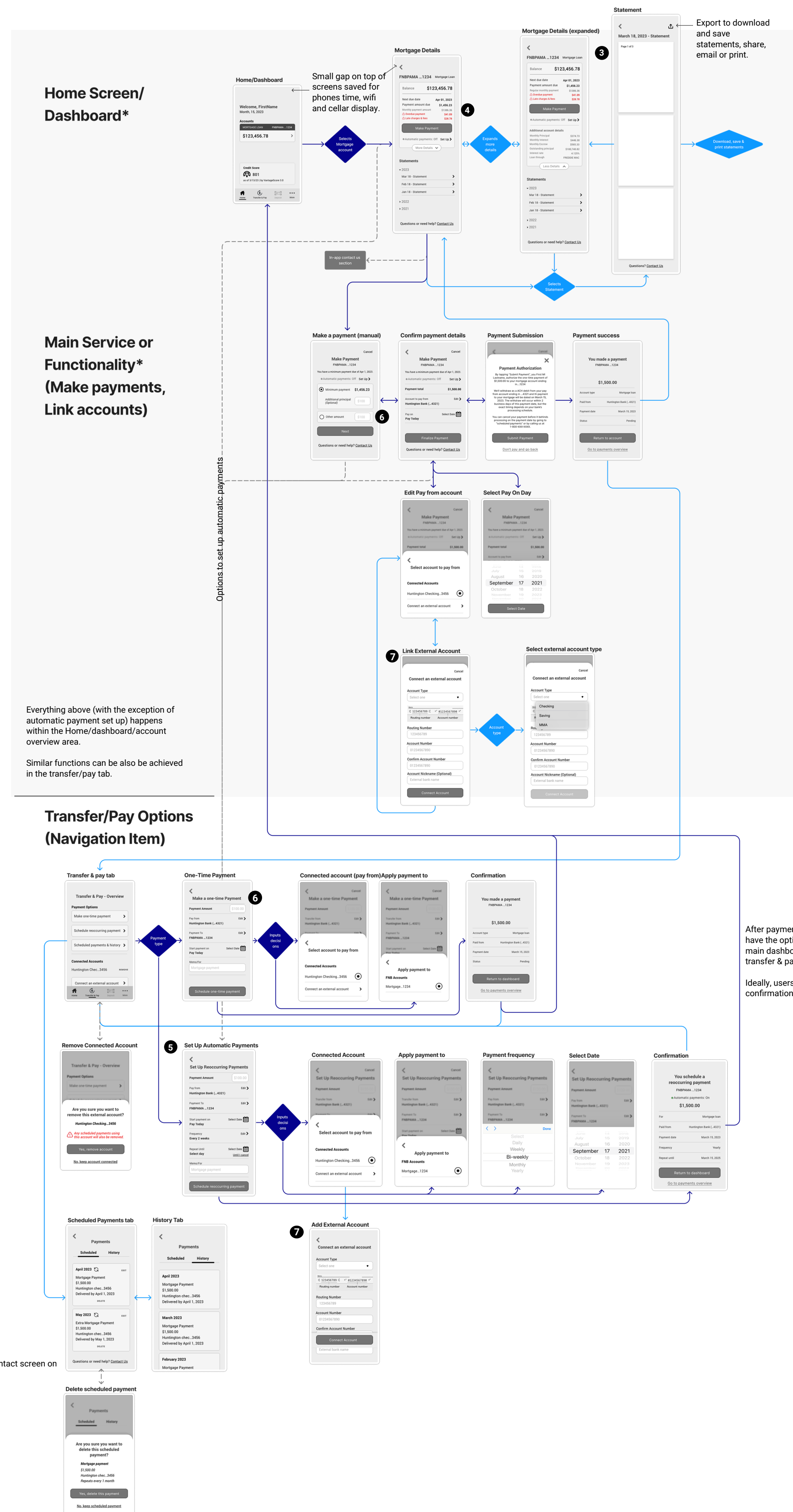
Home Dashboard, Account details and Transfer/Pay for a Mortgage customer

Required Screens:*

- Home Screen/Dashboard
- Main Service or Functionality

Project brief functionality

3. Ability to check mortgage balance(s) and download statements.
4. Display payment changes (increases, decreases, overdue)
5. Set up or reconfigure automatic payments.
6. Make extra principal payments (and payoff loans/late fees)
7. Connect to outside banking institutions from which to make payments.



Wireframes Set - Main Functionality 2a

Access Mortgage Balance & Make Payment

1. Open accounts listed with FNB. (This area would also list checking and savings accounts, credit card accounts, or other loan accounts a user may have.)

- Quick and easy ways to find a local branch or contact FNB are provided on the Home Screen. Credit Score displayed as a bonus.
- Limited 3 item menu for only a Mortgagor user-type due to the limited functionality needs.

2. Clicking into an account listing would take the user to a details page to see their mortgage balance, payment due date, any overdue or late fees, and monthly payment amount.

3. Easy access to monthly mortgage statements

4. Contact link is convenient when a mortgagor has questions or concerns about their account. (Takes them to contact page in-app)

5. Easily make a one-time payment or set up automated (reoccurring) payments for a mortgage account.

6. Expanded mortgage details include payment breakdown (principal, escrow, interest, additional lender info, etc.)

7. View monthly statements or export (as a pdf) and save/print/email or share. Convenient when proof of payment/balance (when refinancing through a different lender, for example.)

8. Users can decide what payment amount they want to provide.

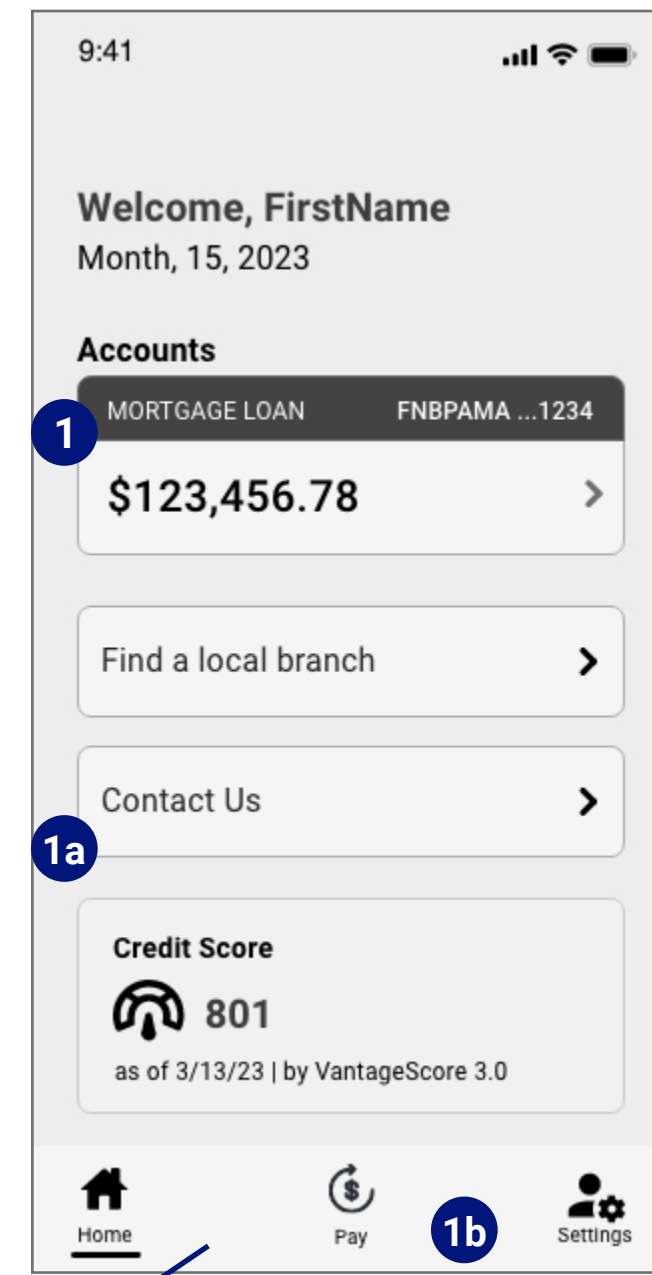
9. Default payment options with the ability to change the account the payment is drawn from (a) and the "pay on" date.(b)

* Referenced source:

Wayfinding For The Mobile Web - Smashing Magazine Article; assigned reading - <https://www.smashingmagazine.com/2014/10/wayfinding-for-the-mobile-web/>

** Sequential menus - NNg - <https://www.nngroup.com/articles/mobile-subnavigation/>

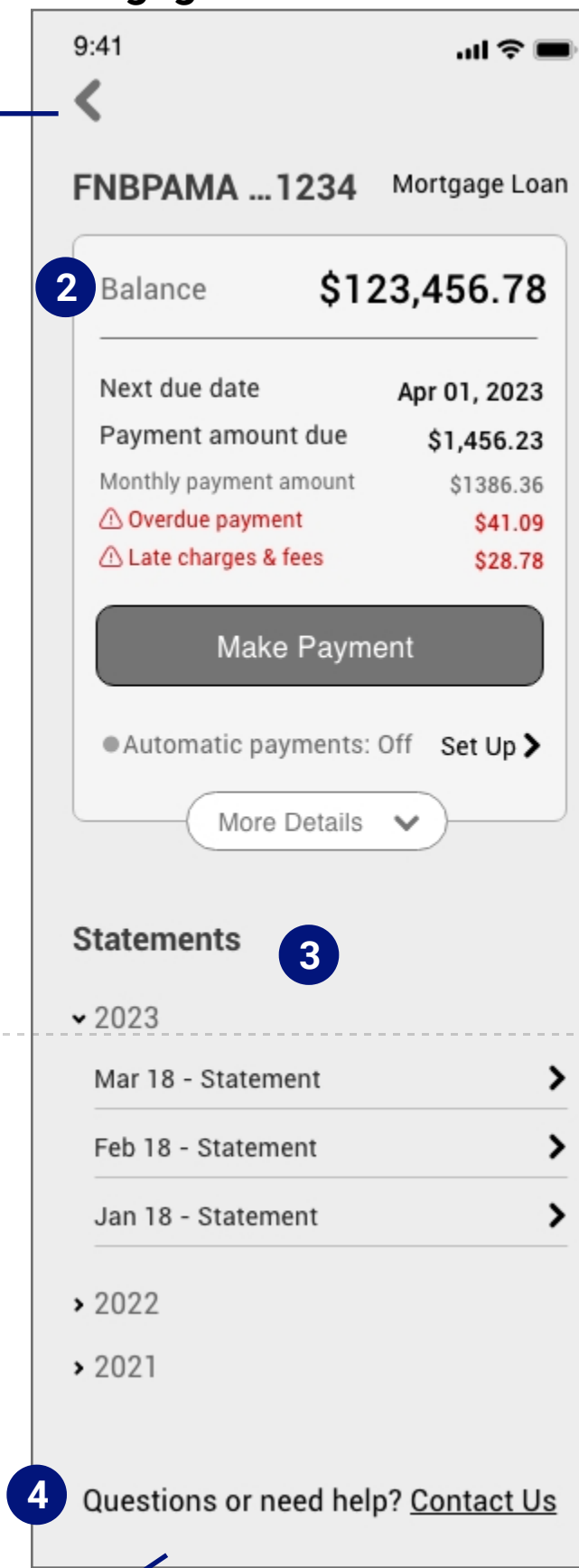
Home/Dashboard



Mortgagors can't deposit checks so a deposit option would display only if the user was a checking/savings customer.

A developer would program logic to show or hide additional menu functionality based on account type(s).

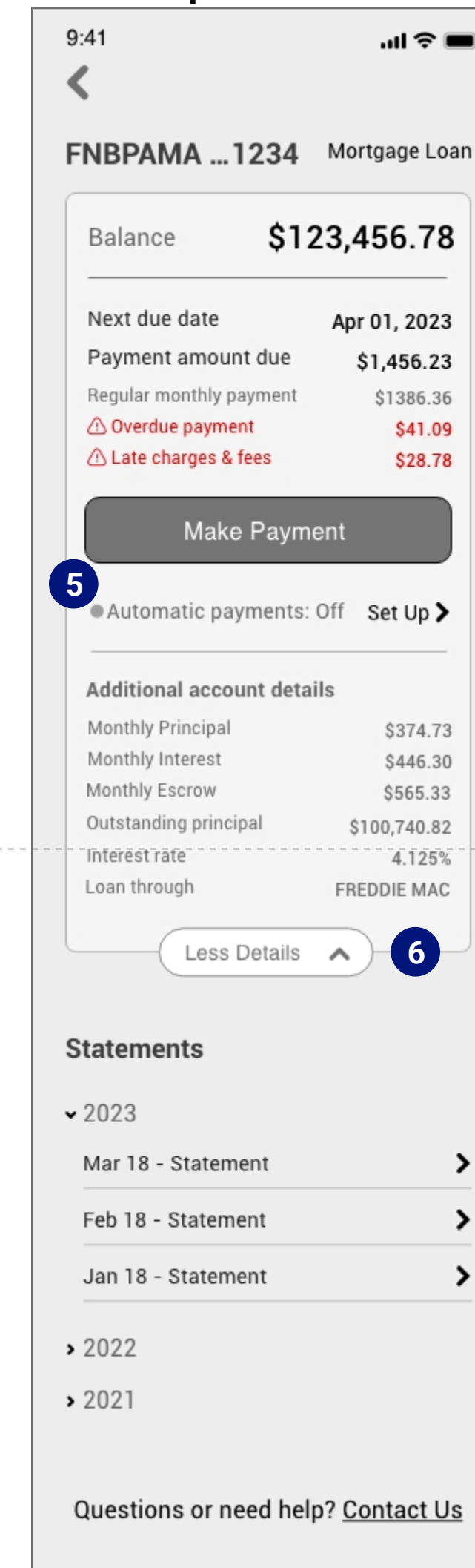
Mortgage Account Details



Bottom menu navigation disappears anytime a sequential menu** or sub-category is entered. This is an affordance that allows the user to know they aren't on a main tab/page, but a subset of the main function/page. This is common among banking apps, but navigational testing would be highly encouraged to validate function and understanding.

The user can still navigate back to the main category/page with the back arrows.

Details Expanded



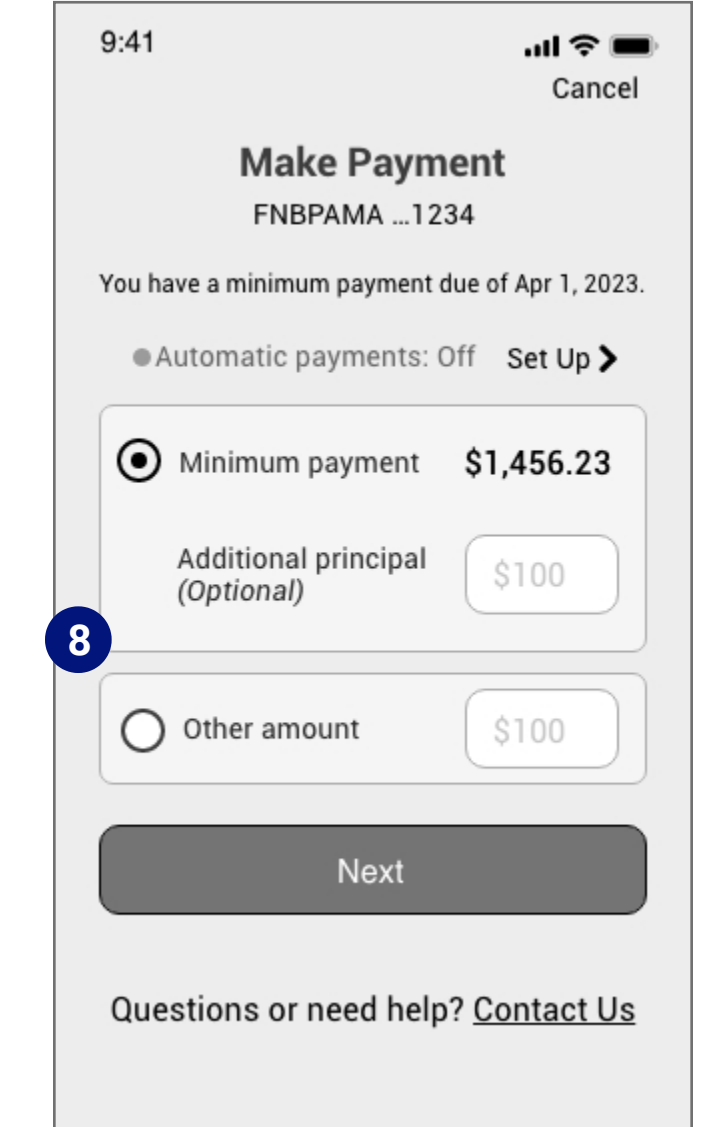
Statement (PDF - Exportable)



Fold

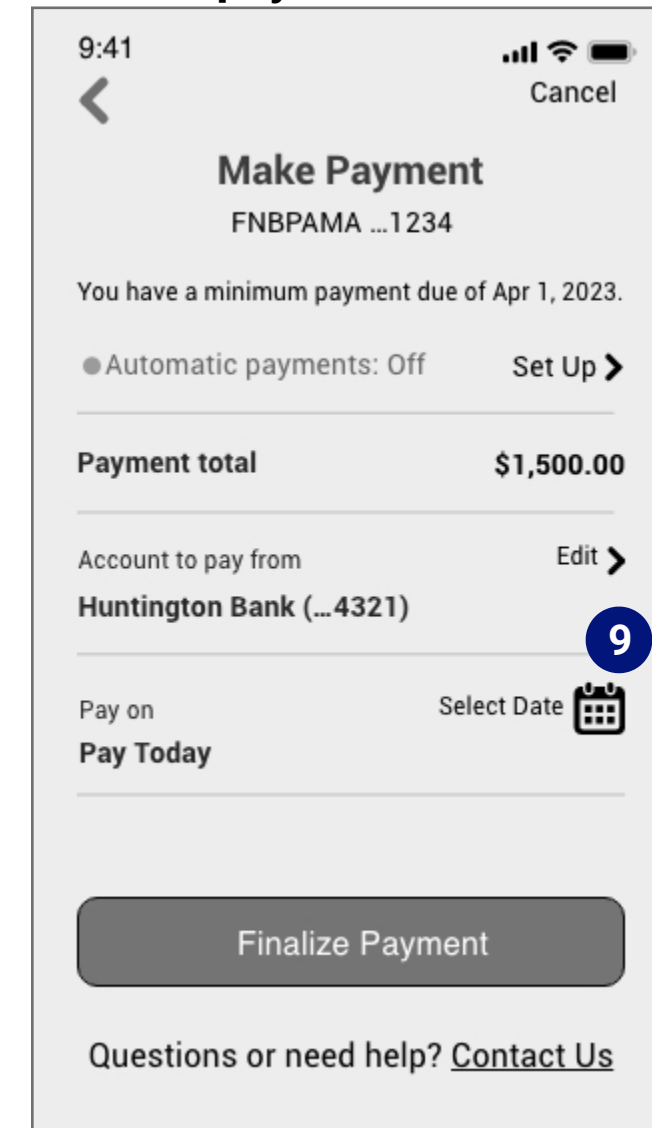
From Account Details...

Make payment(select amount)

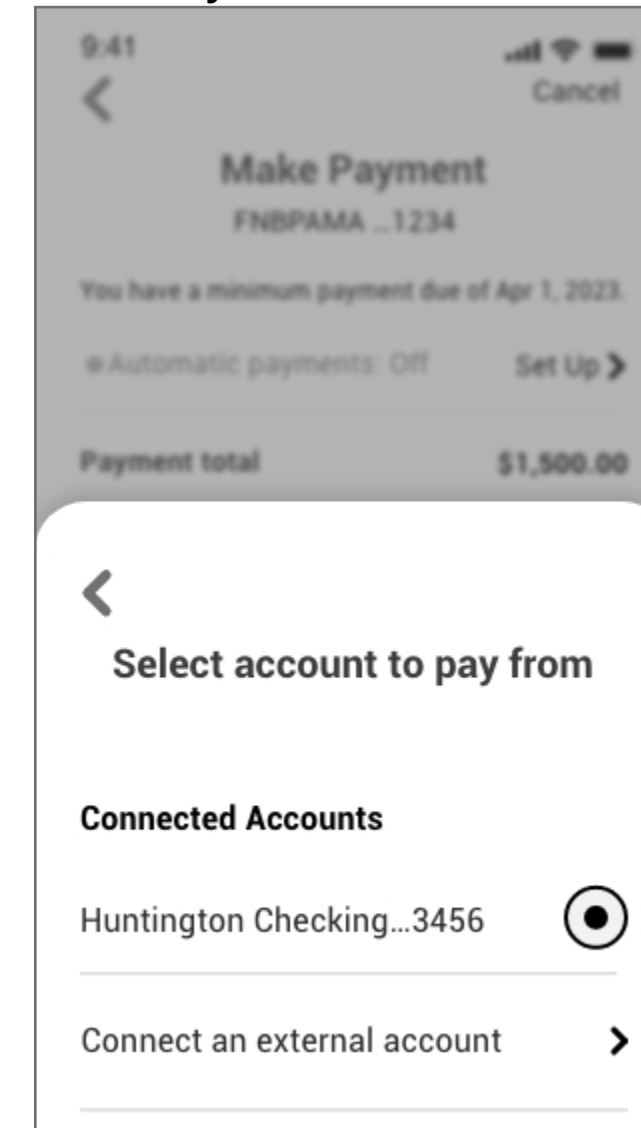


From Account Details...cont.

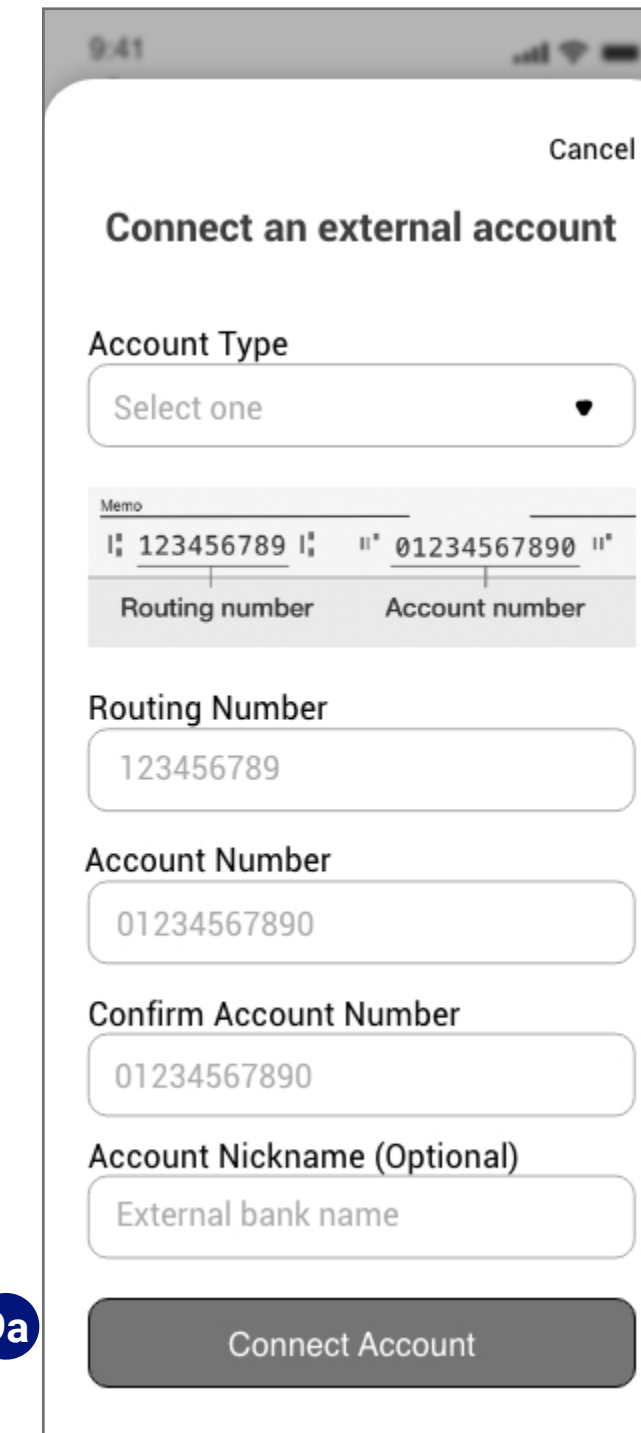
Confirm payment details



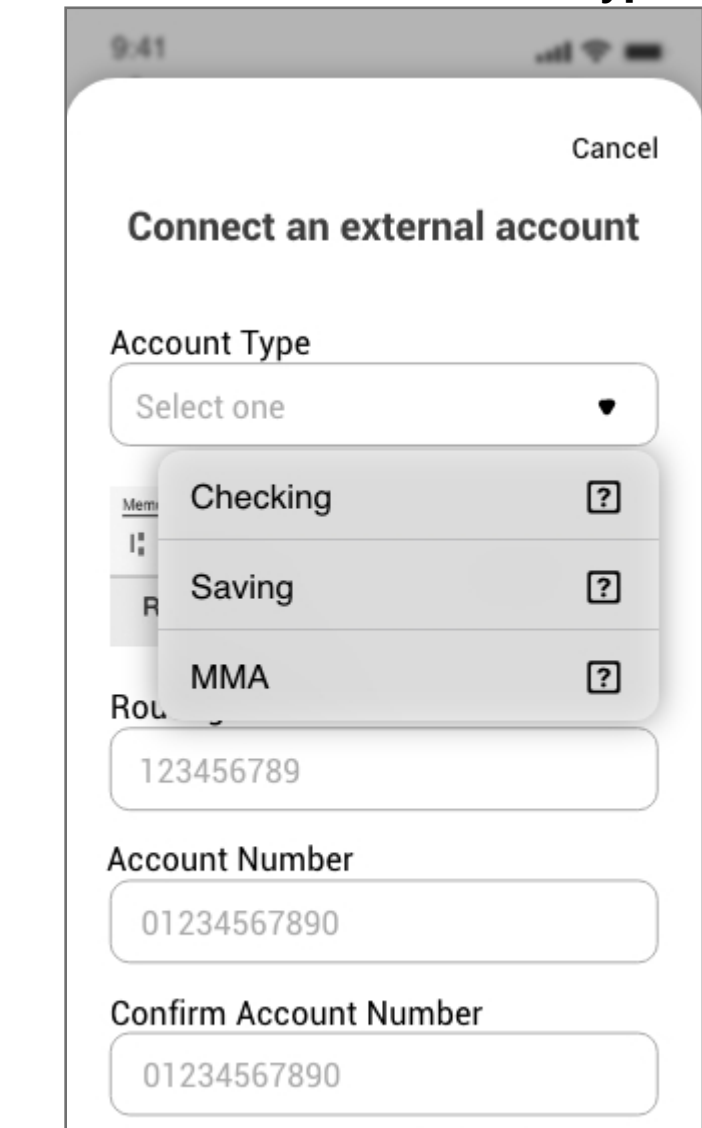
Edit "Pay from" account



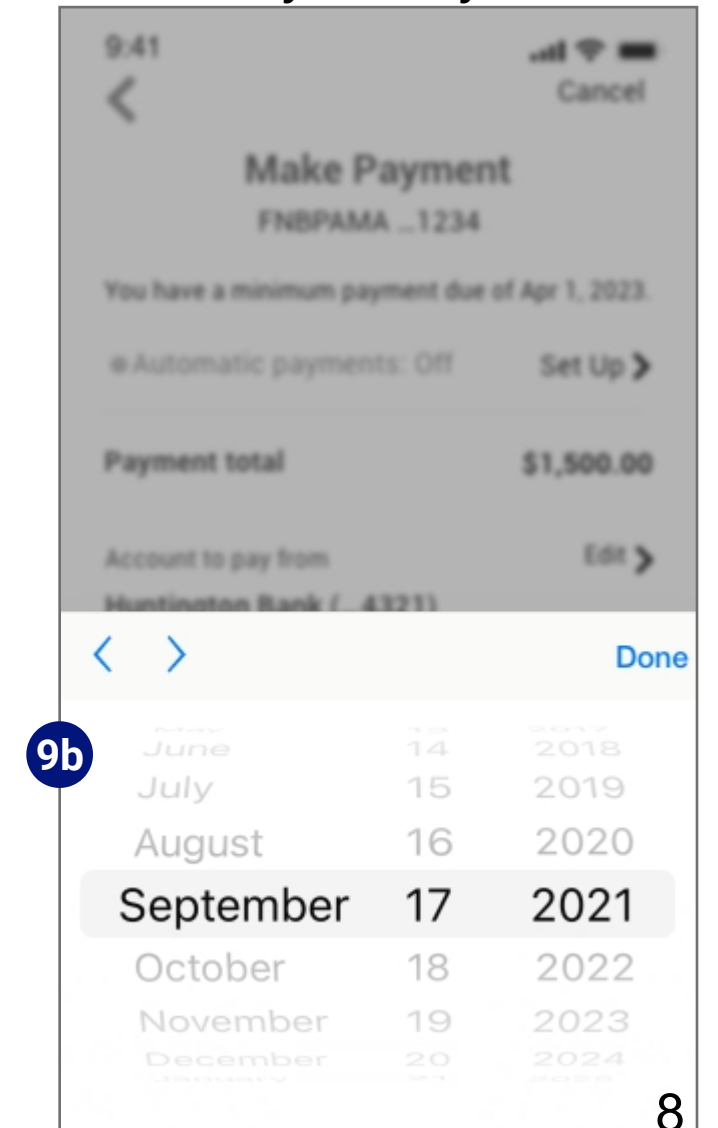
Link an external Account



Select external account type



Select "Pay on" Day



Wireframes Set - Main Functionality 2b

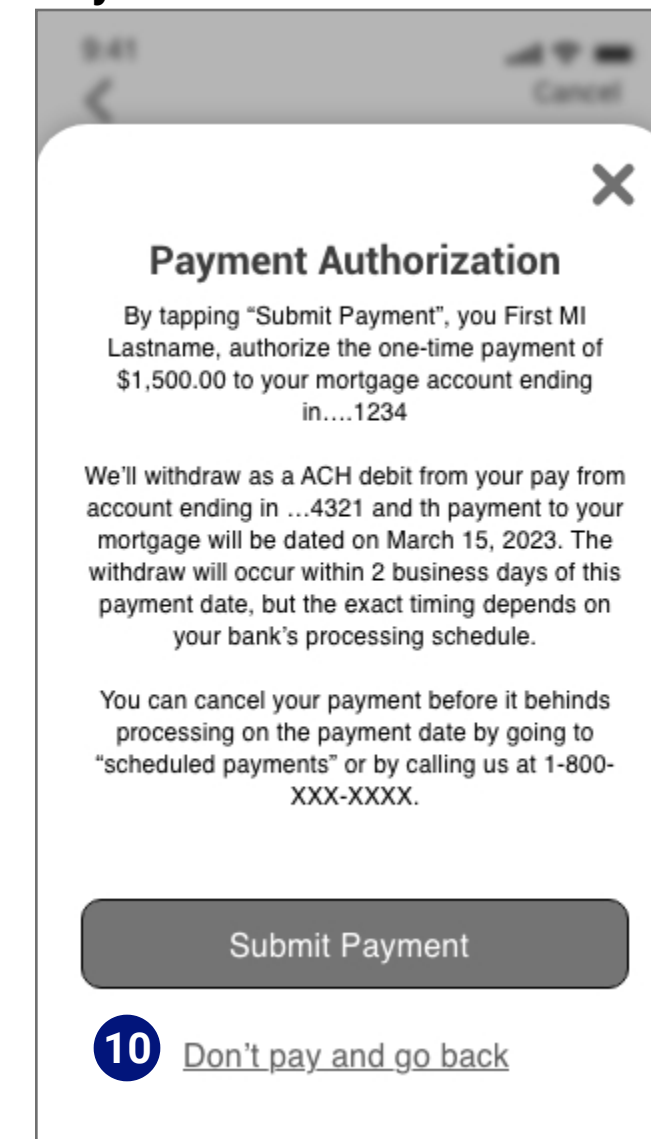
Access Mortgage Balance & Make Payment (cont)

From Account Details...cont.

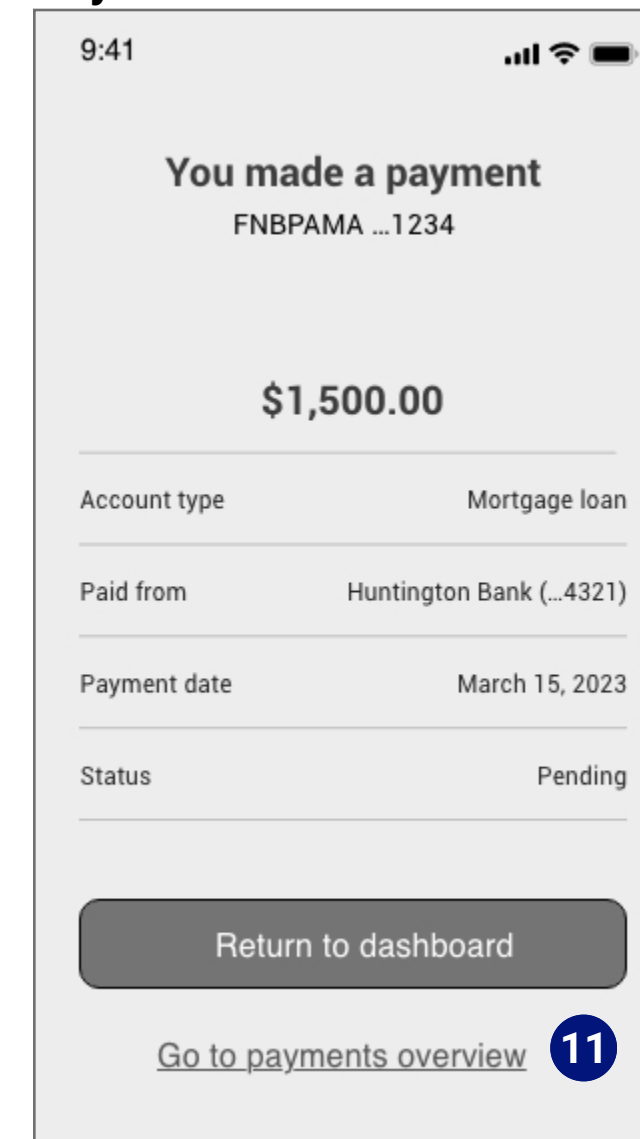
10. One last chance to confirm payment details before submission. (Overlay) Option to go back and make edits.

11. Payment successfully submitted with details—convenient options to navigate to the Dashboard or payments overview.

Payment Submission



Payment Success



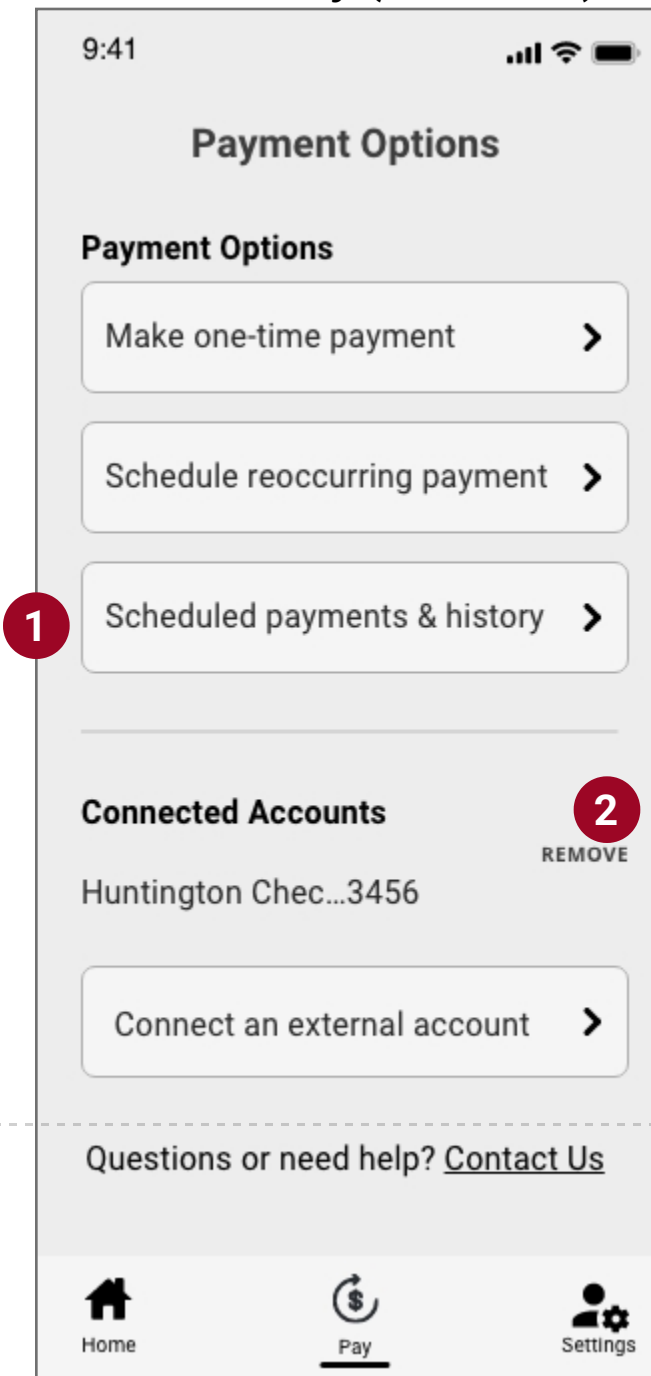
Transfer & Pay Tab (Navigation)

1. Transfer and pay tab houses options for making different payment options and viewing scheduled and historical payments.

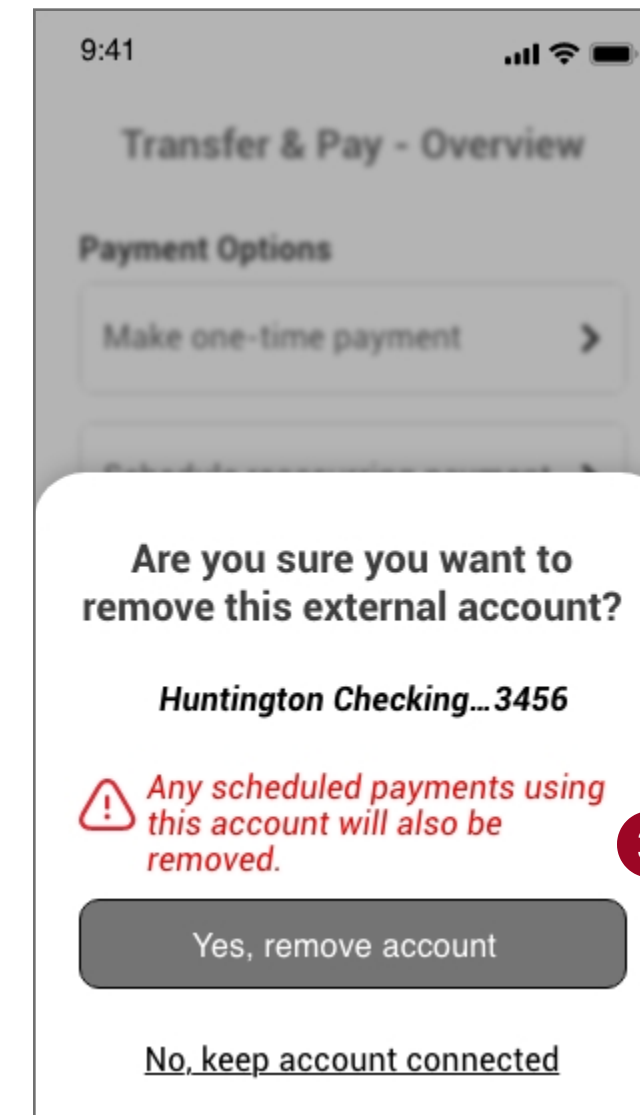
2. Also on the transfer & pay tab would be a list of connected (external) accounts and the ability to add or remove them.

3. Removing an account (especially one tied to scheduled payments) would pop a warning message to confirm if the account removal was intentional.

Transfer & Pay (Overview)



Remove connected account



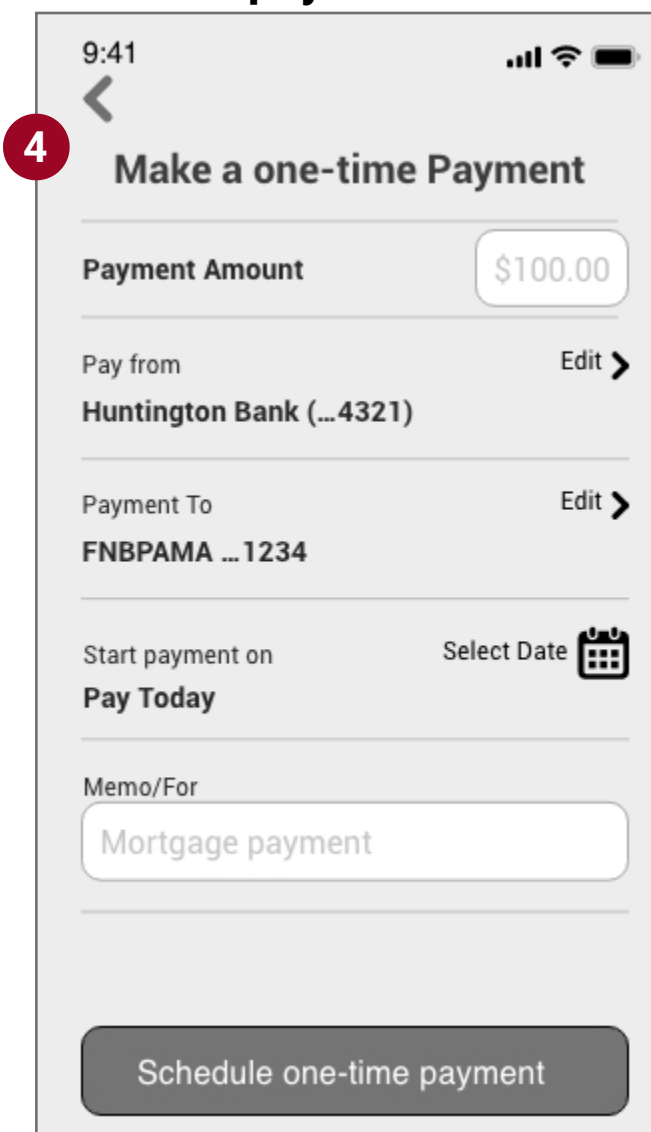
Fold

4. If a user would like to apply a one-time payment to their mortgage account balance, they quickly do so with the One-Time Payment option. This payment could also work for users with other loans or credit card accounts through FBN.

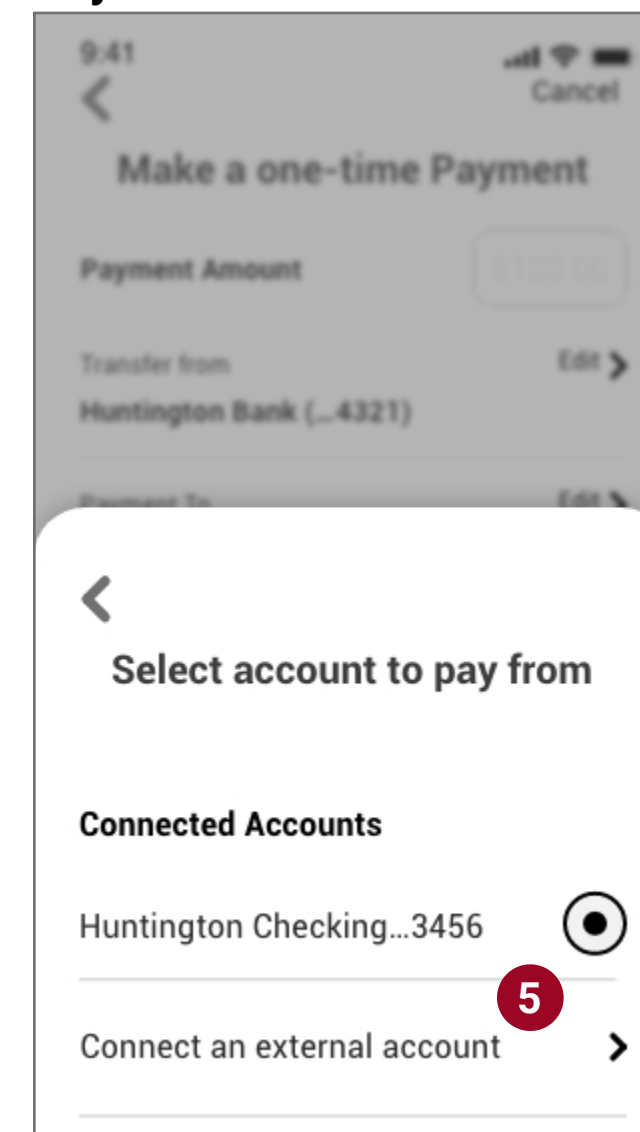
5. (For users with or without checking or savings accounts with FNB) an option to select where a source of payment and the ability to connect to a bank outside of FNB. (Shown on next page)

6. "Apply payment to" lists all the users' internal First National Bank Accounts. Since this flow is for a Mortgagor with one mortgage account, only one option is shown.

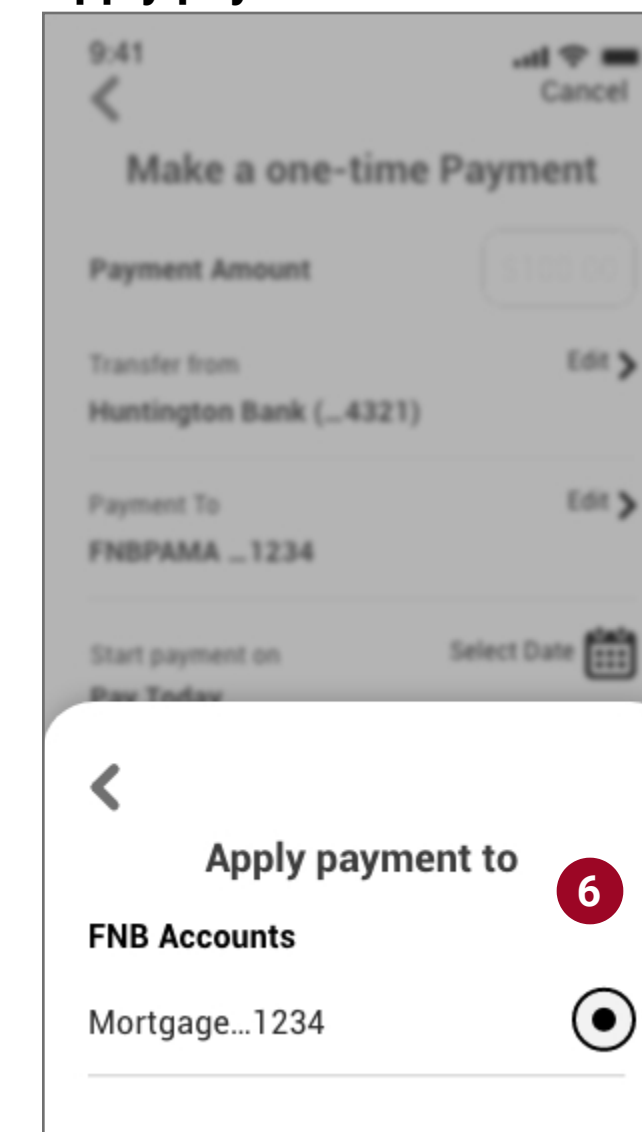
One-time payment



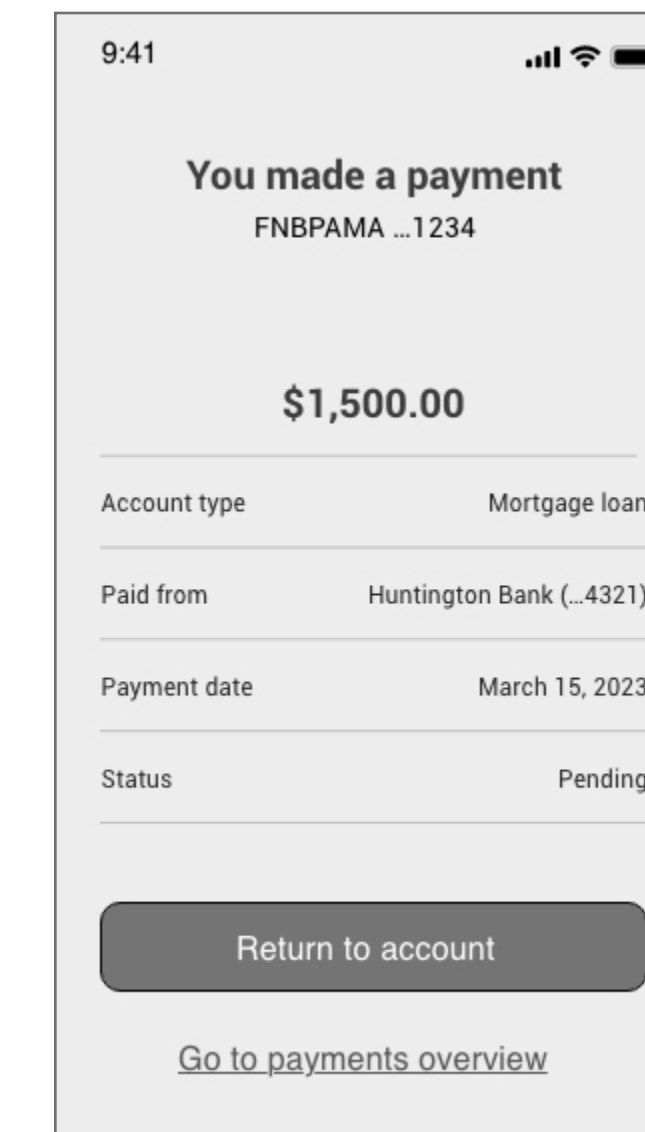
Pay from



Apply payment to



Confirmation



Wireframes Set - Main Functionality 2c
Transfer & Pay Tab (Cont.)

7. Setting up reoccurring (or automatic payments) on one's mortgage would be easy, and this would be the main flow to do so.

8. Additional fields for the scheduling flow include payment frequency and a date selector to say when to end payments. Instead of selecting a date, the user could tap "Until I Cancel," It would continue making reoccurring payments until the payment is deleted (under the *scheduled payments* page or the *Account Details* page) or the balance is paid in full.

Infinite reoccurring payment benefits users with long-term mortgages (predominantly 30-year loans.)

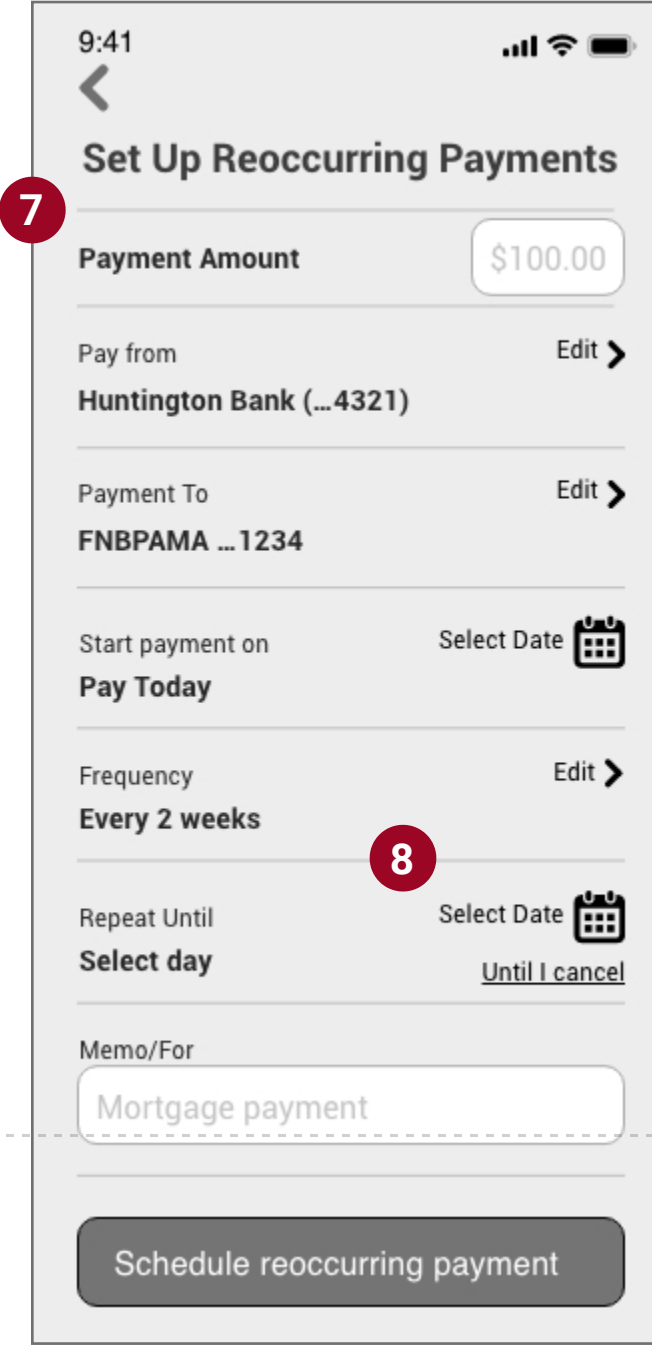
9. When adding an external bank account, it's important to provide examples of finding a routing and account number; this example is a checkbook. For different kinds of accounts (savings, money mutual, credit unions) where a checkbook may be unavailable, an alternative option would display, providing directions on how to find this information on a bill or website.

10. Schedule payments list upcoming one-time and recurring payments. Users will be able to adjust or delete payments from this screen.

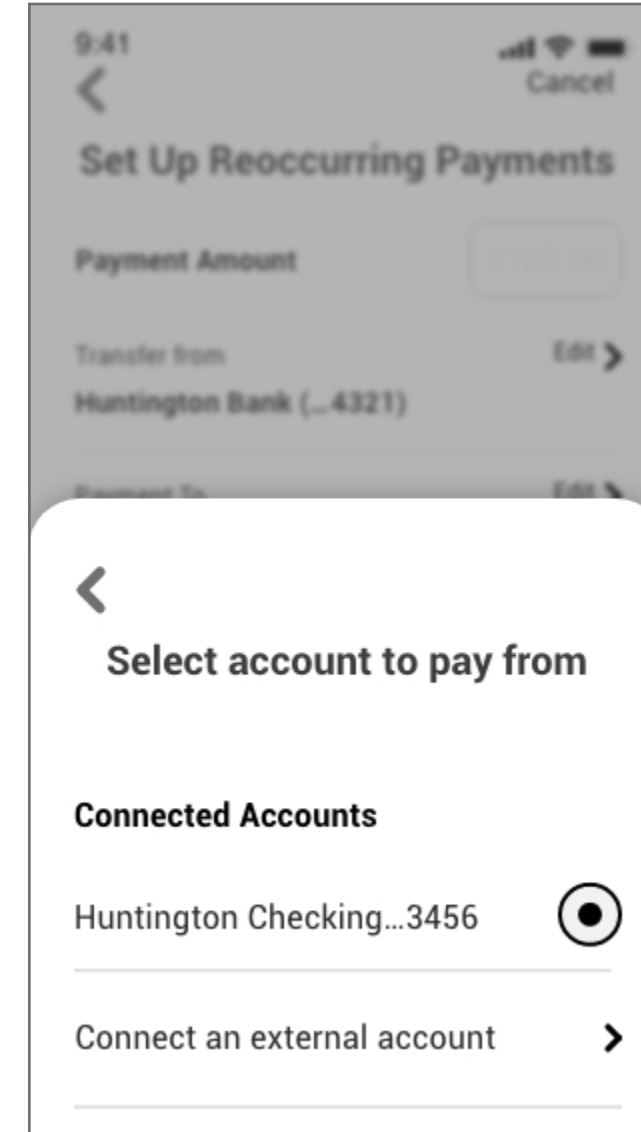
11. Before deleting a payment, the user would be given a confirmation screen to verify that's the action they want to take.

12. Much like viewing statements, users would have the ability to export their payment history to provide proof of payment (if necessary.)

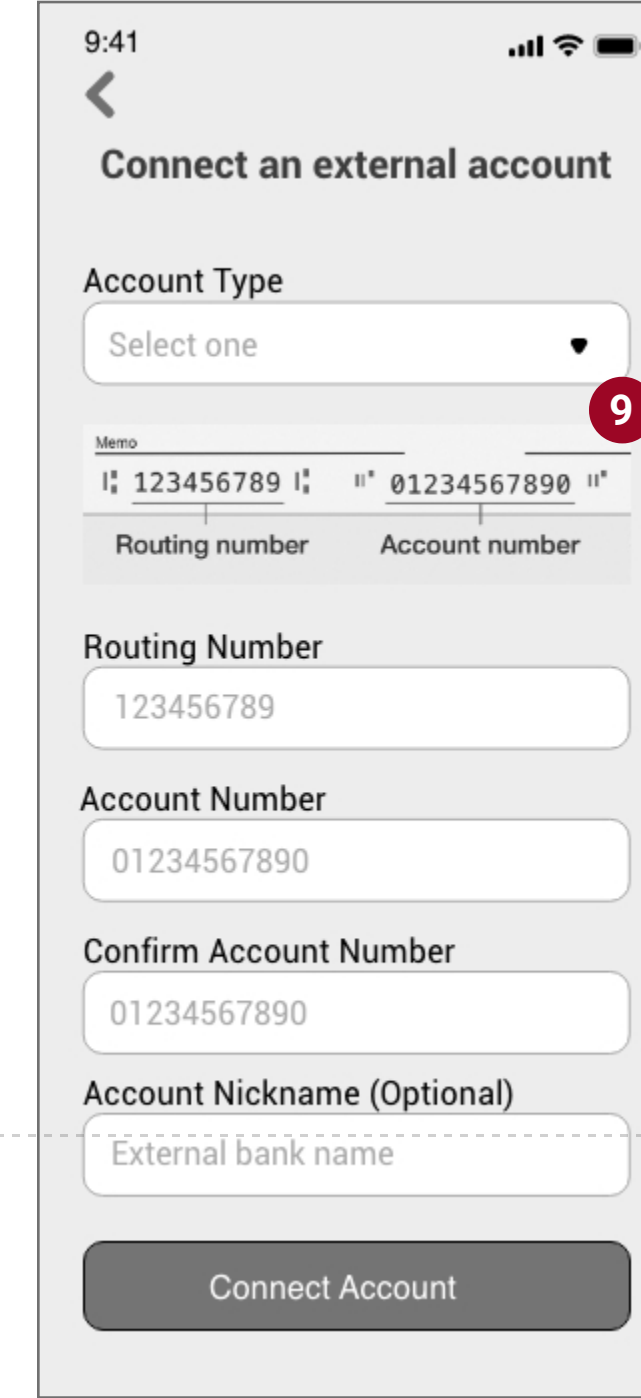
Set up Automatic Payments



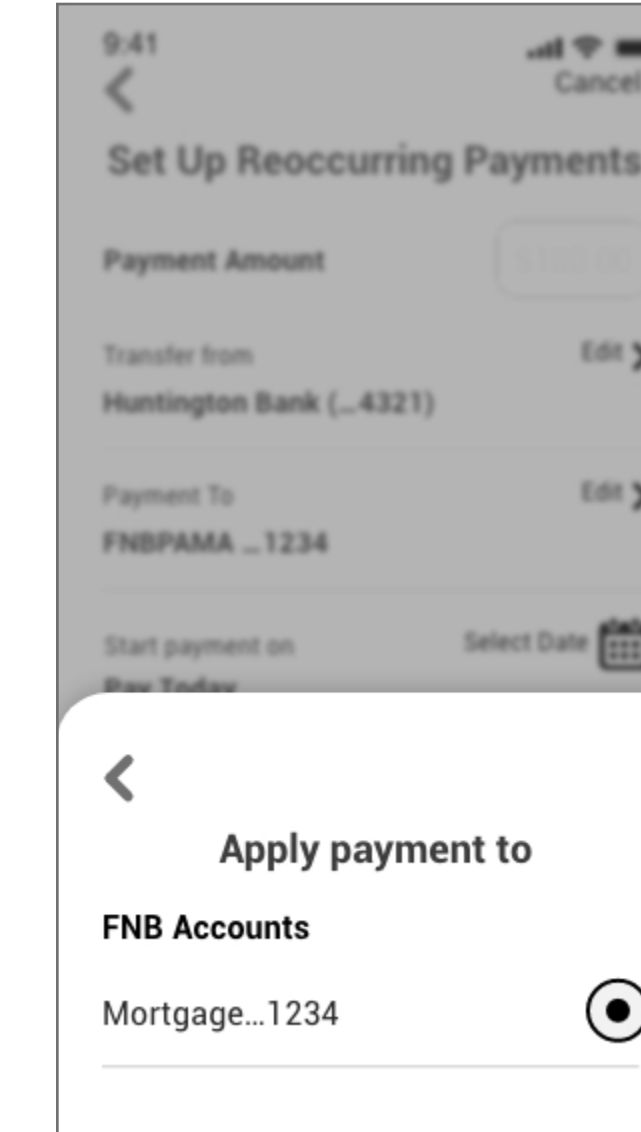
Connected Account



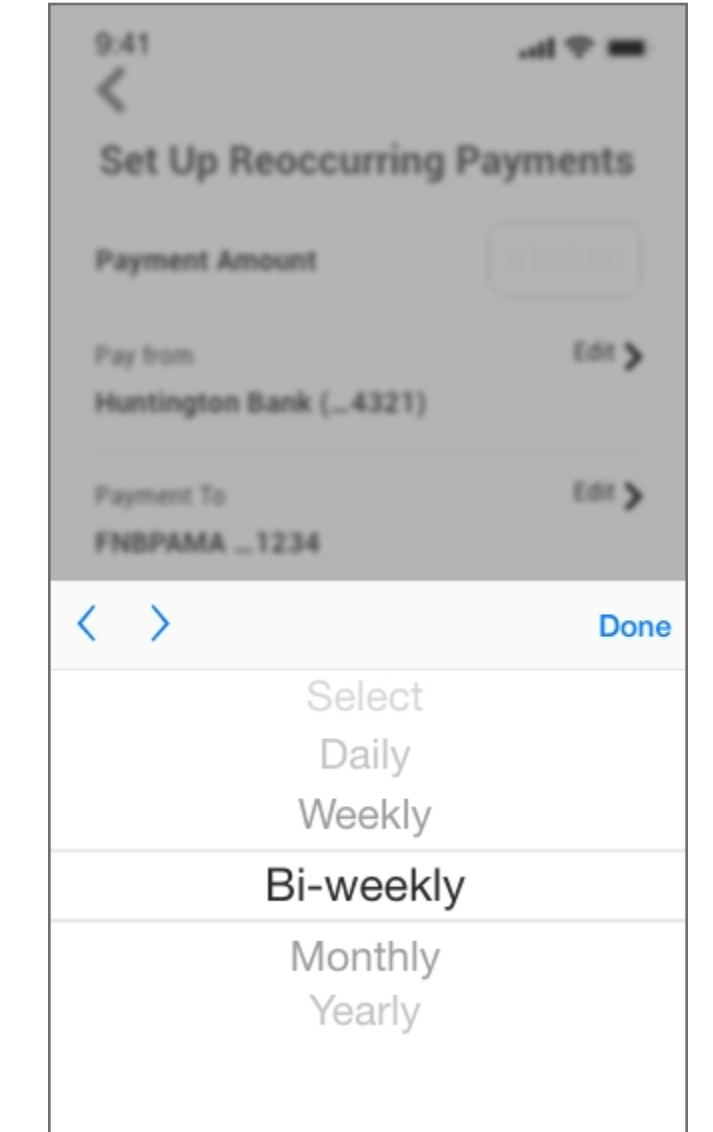
Add External Account



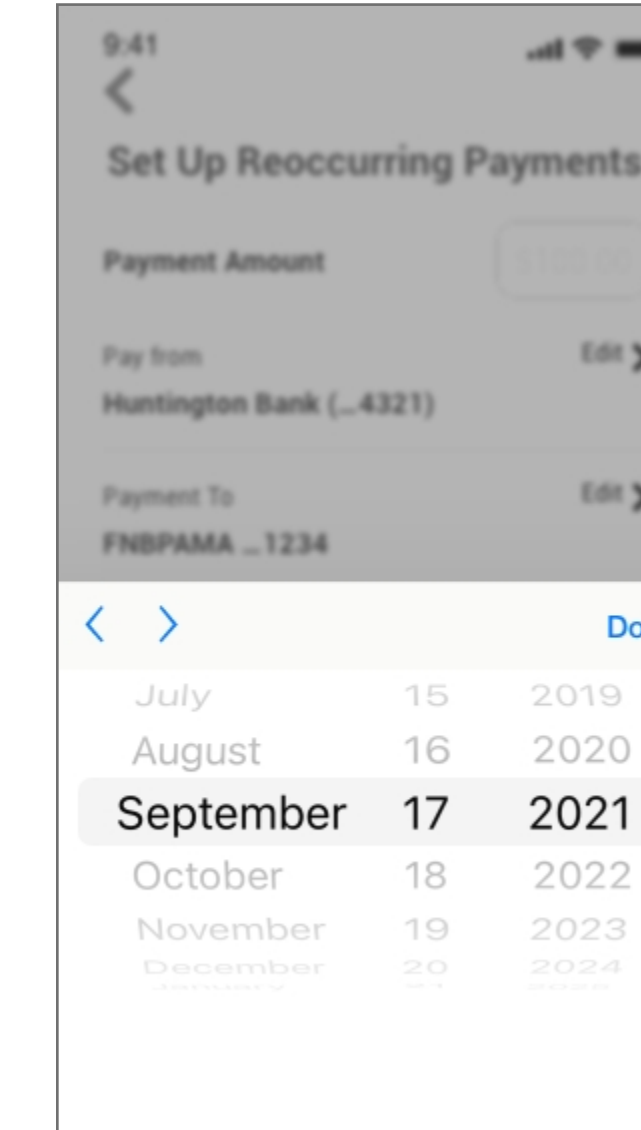
Apply payment to



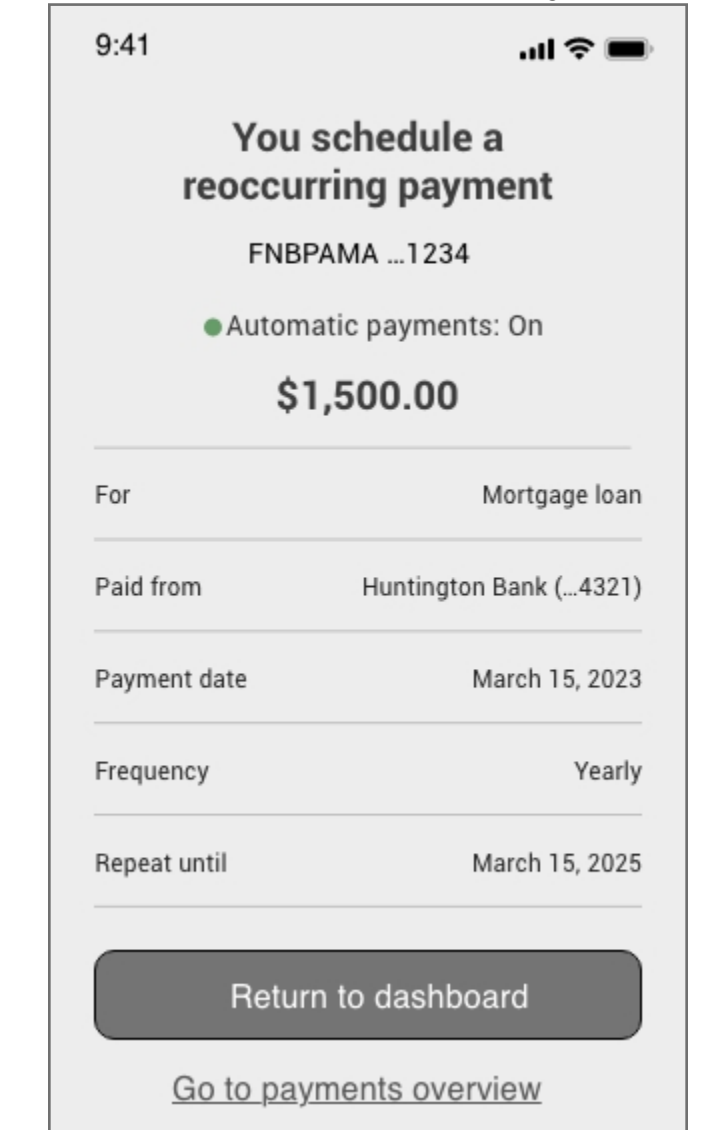
Payment Frequency



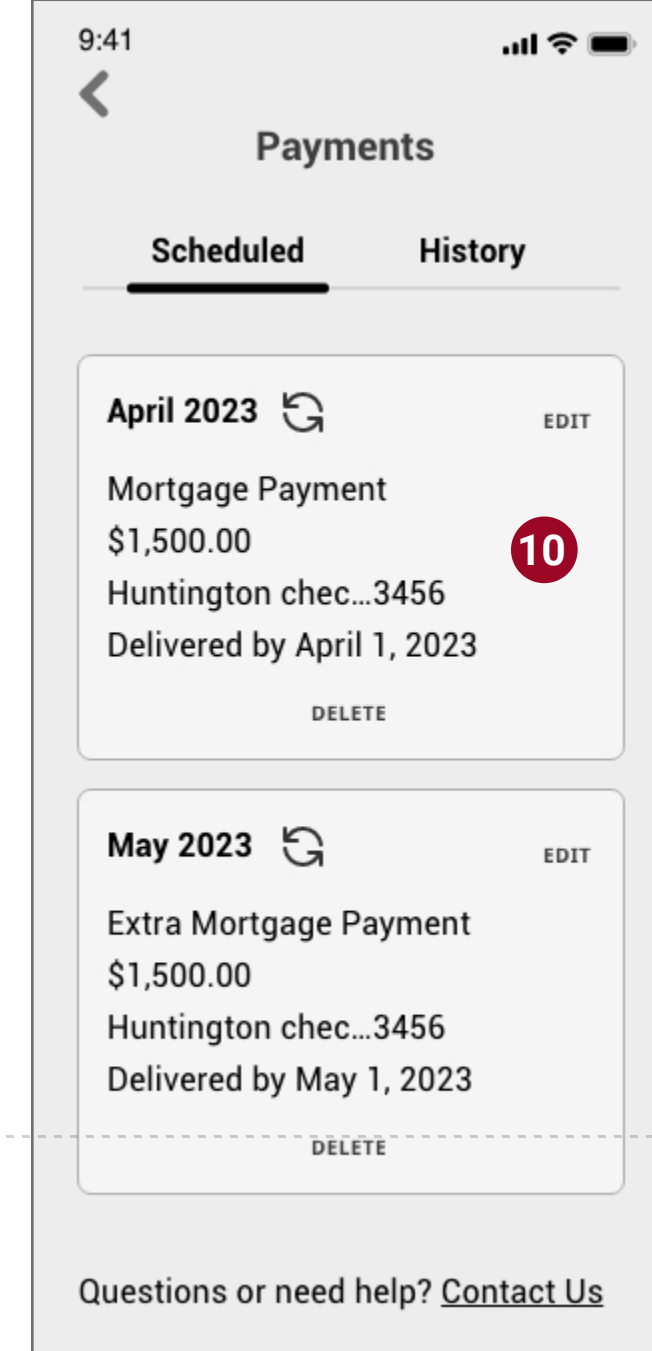
Select Date Options



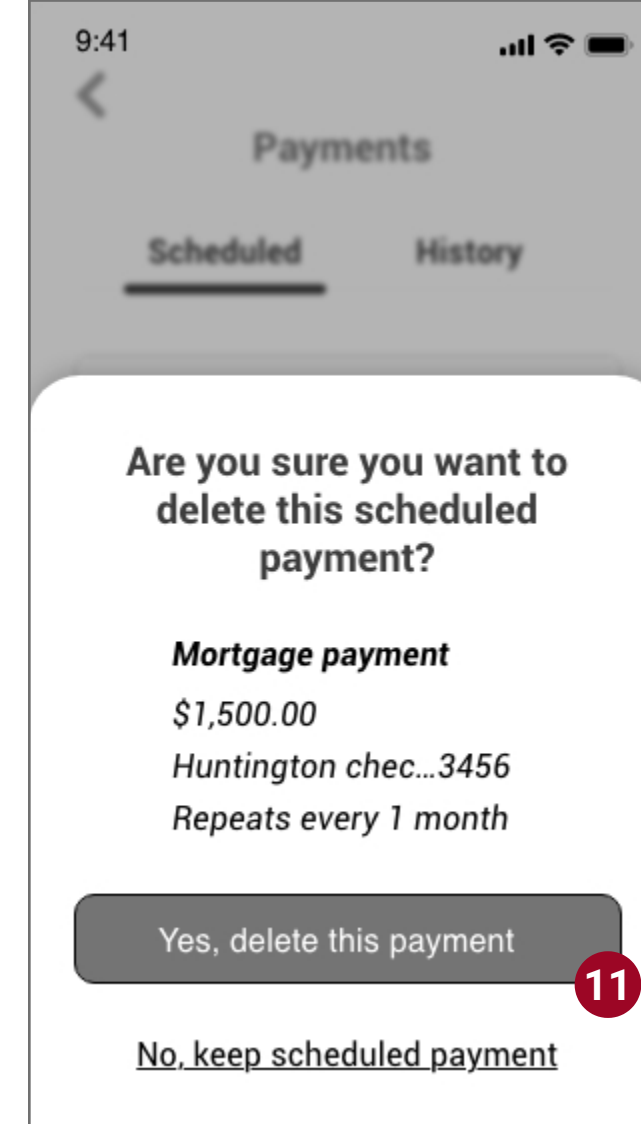
Confirm Reoccurring Payment



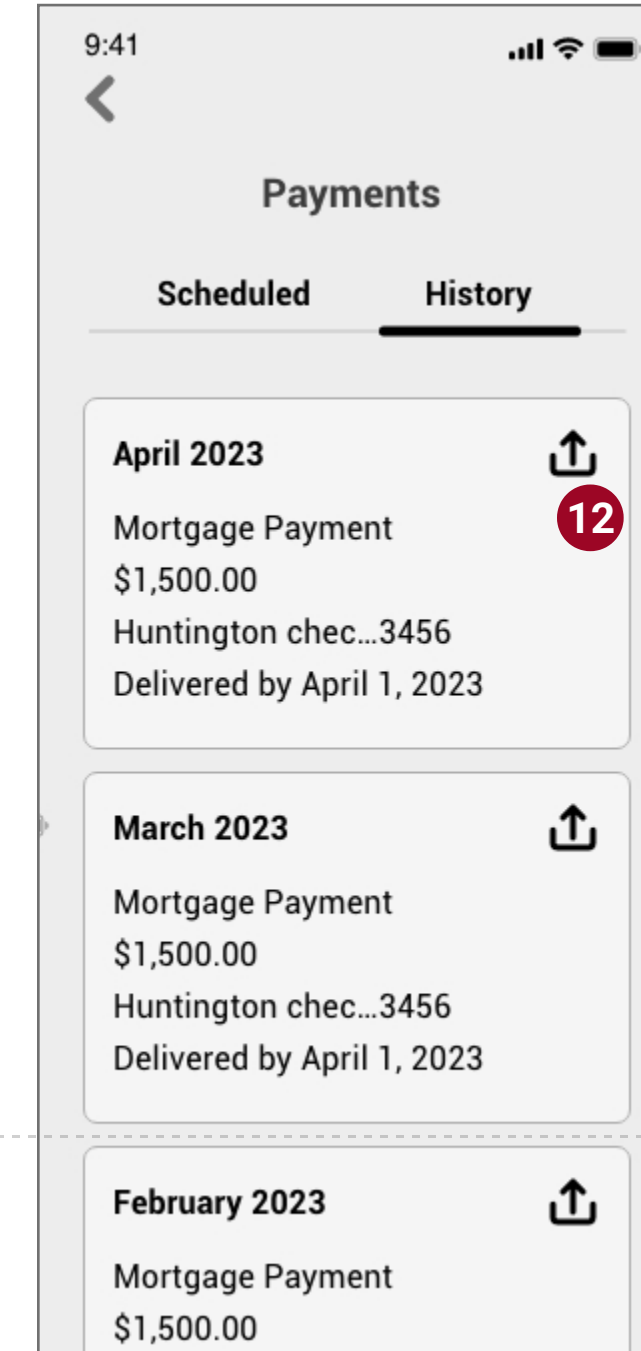
Scheduled Payments



Delete Scheduled Payment



Payment History



Fold

Wireframes Set - Settings and More 3a
Account & Security Setting,

1. Settings navigation (landmark*) option would take the user to the Account settings and more section, where users can edit personal account details, change passwords and security settings, choose types of notifications to receive, and find ways to contact and locate an FNB branch.

- a. Continuing with a nested doll/sequential menu, which clicks into subcategories pages of the main settings category.
- b. Policies would link out to the FNB website.
- c. Logout option - closing the app will also log you out.

2. Other than name, personal account information could be updated/edited. Users could also remove linked (external) accounts and learn how to unenroll in online (mobile) banking.

3. Name changes require proof to do so, so this feature is disabled and requires the user to visit a branch.

4. There may be many scenarios and reasons why a user can't just automatically unenroll in online banking. Like other banking applications (Huntington), unenrolling from an online banking account would require a user to call customer support.

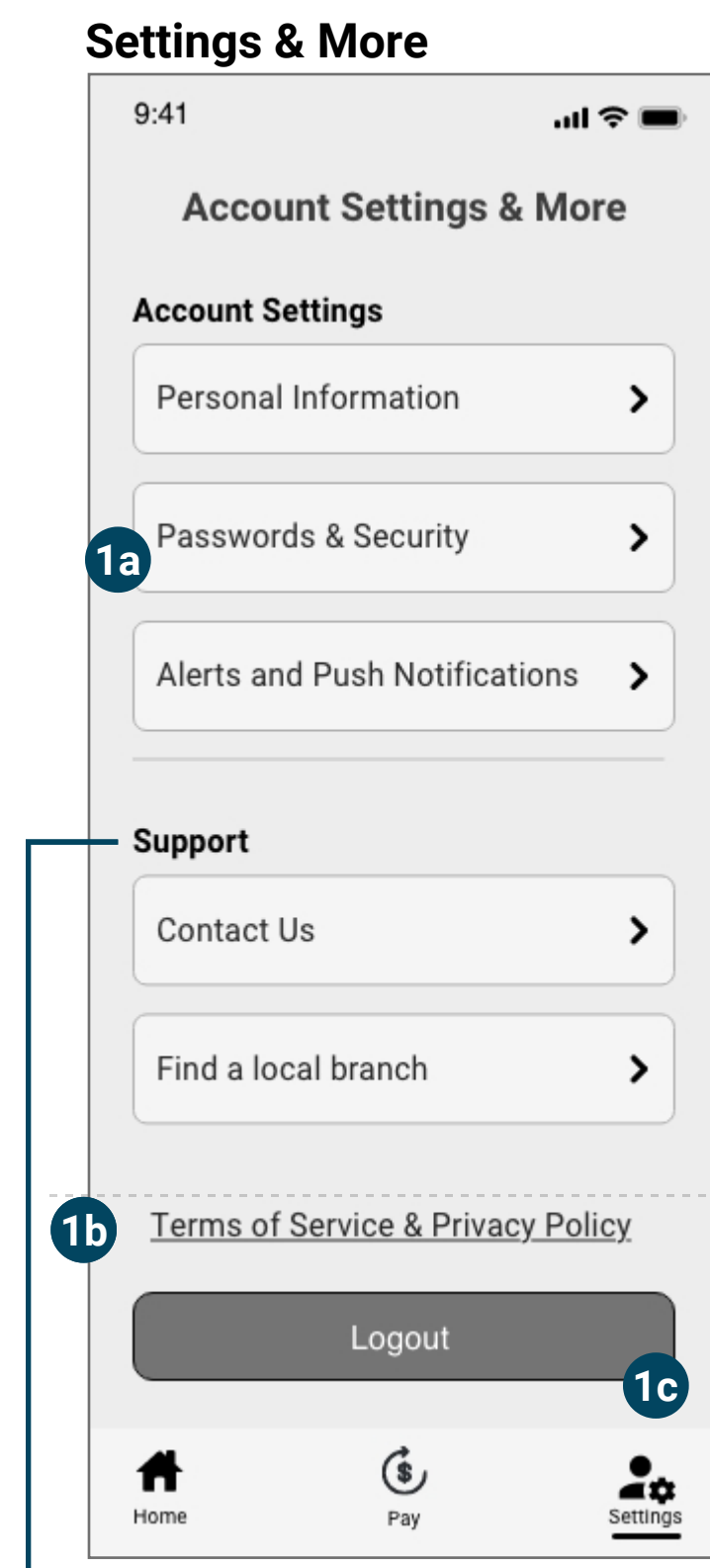
5. Updating passwords within settings would provide the same flow (criteria and warnings) as the reset or enroll processes. (See wireframe set 1)

6. Opting out of 2FA could be an option, especially if users don't want to receive SMS text messages due to data usage. After a user selects to opt-out, a message warns the user about the potential insecurity/instability of the account.

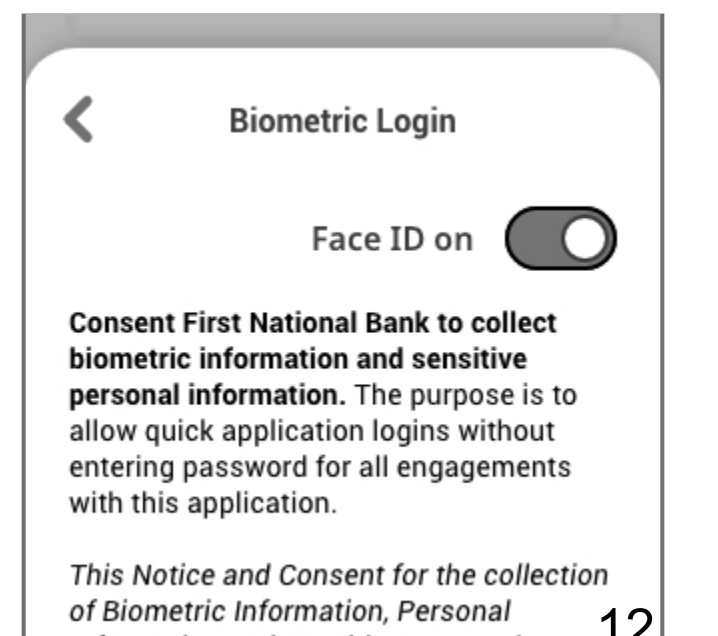
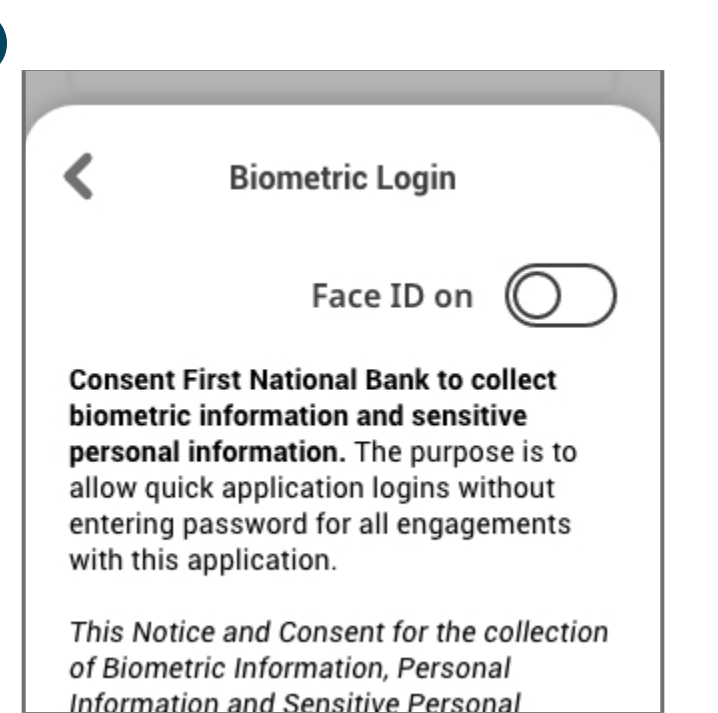
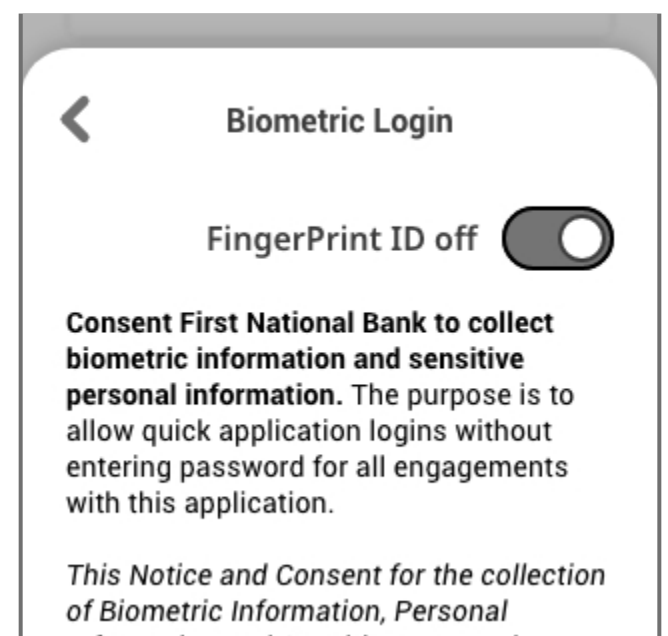
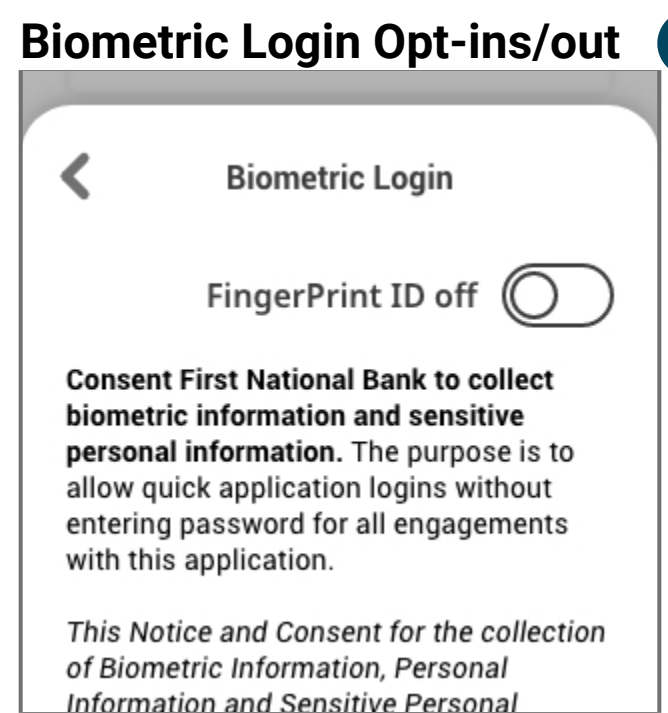
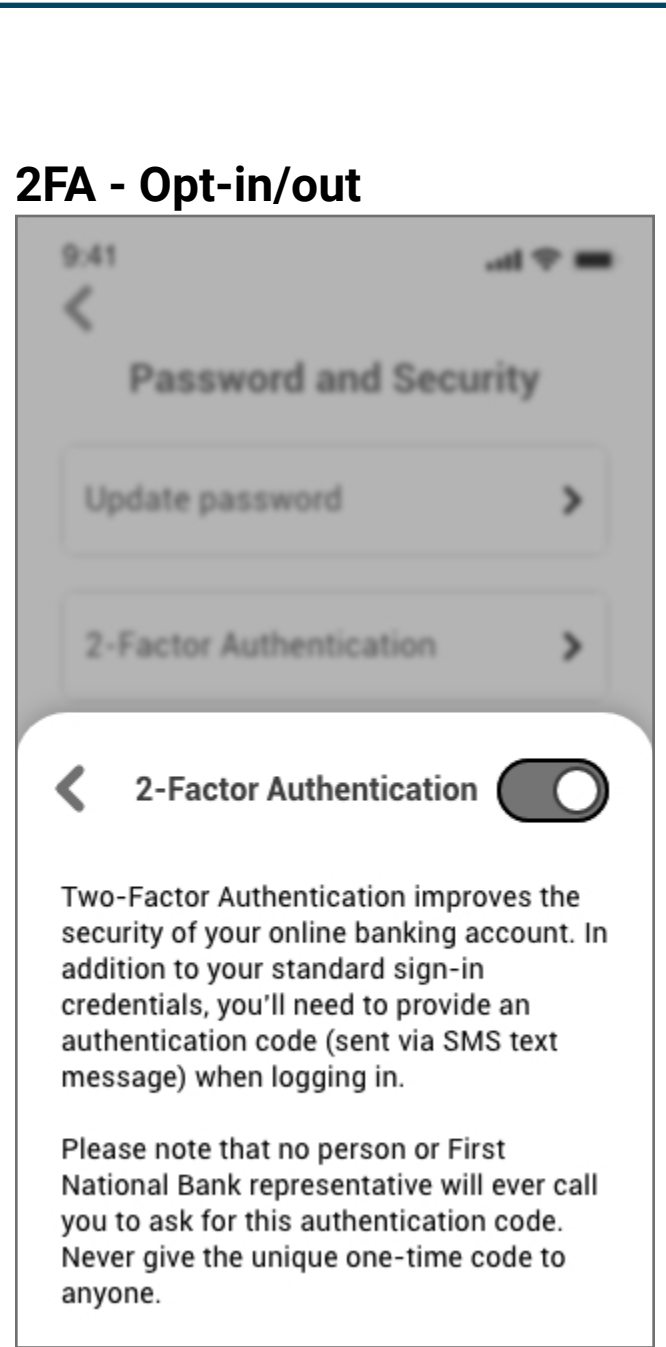
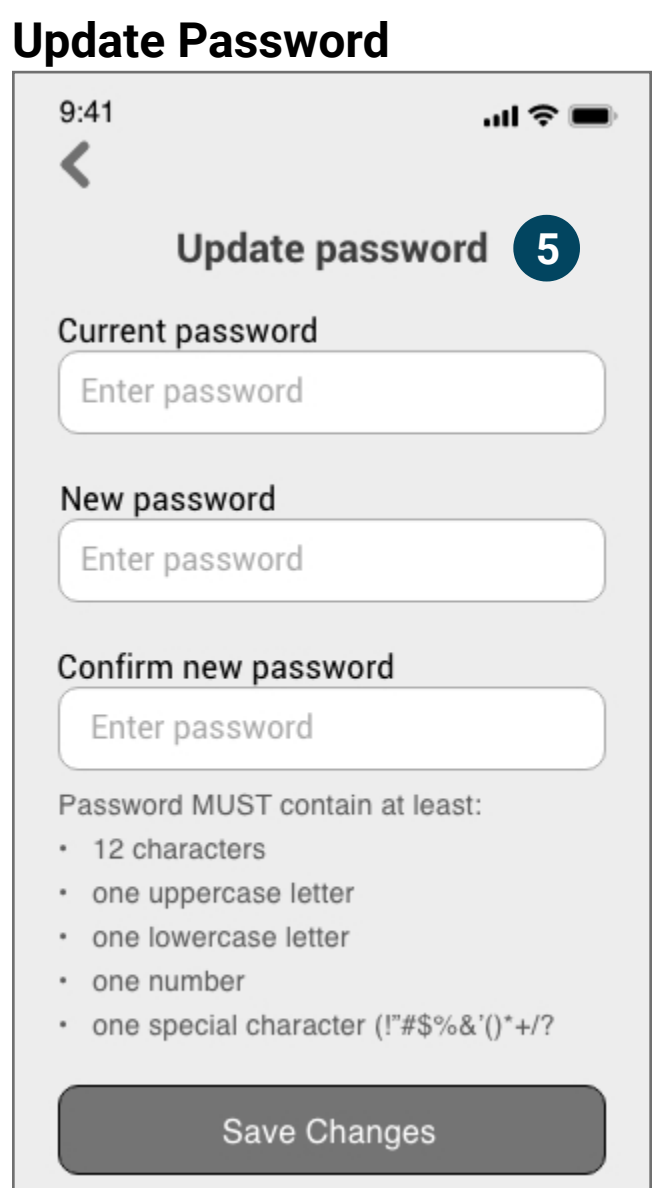
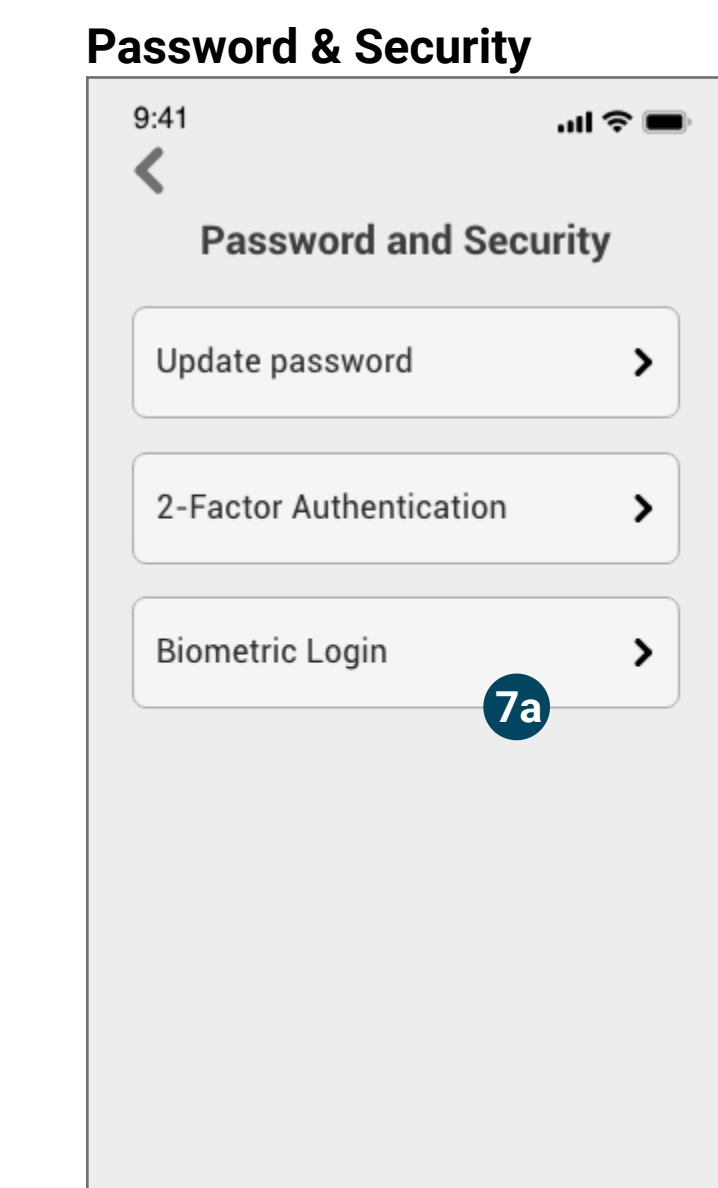
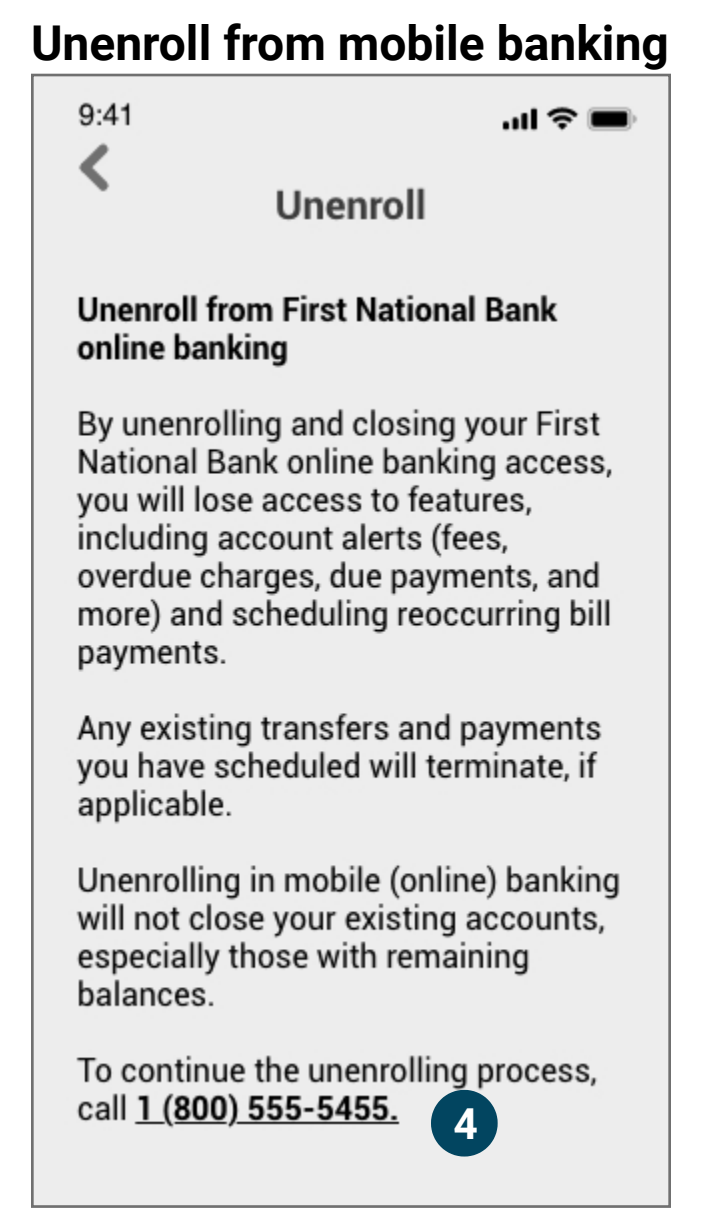
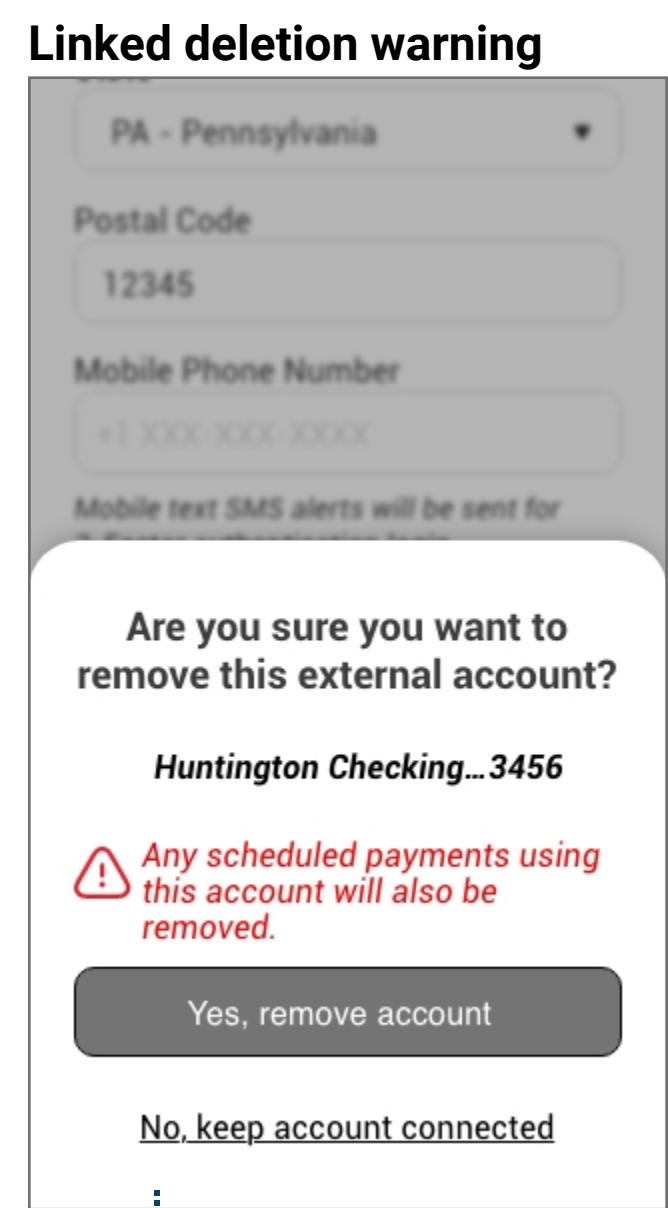
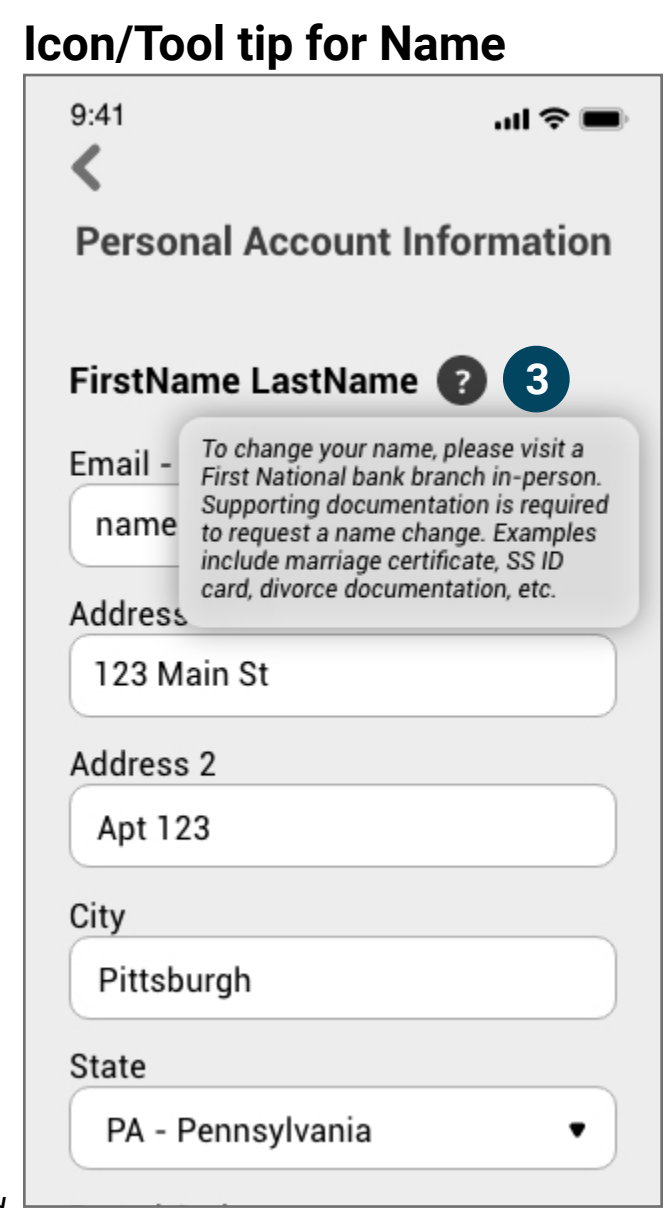
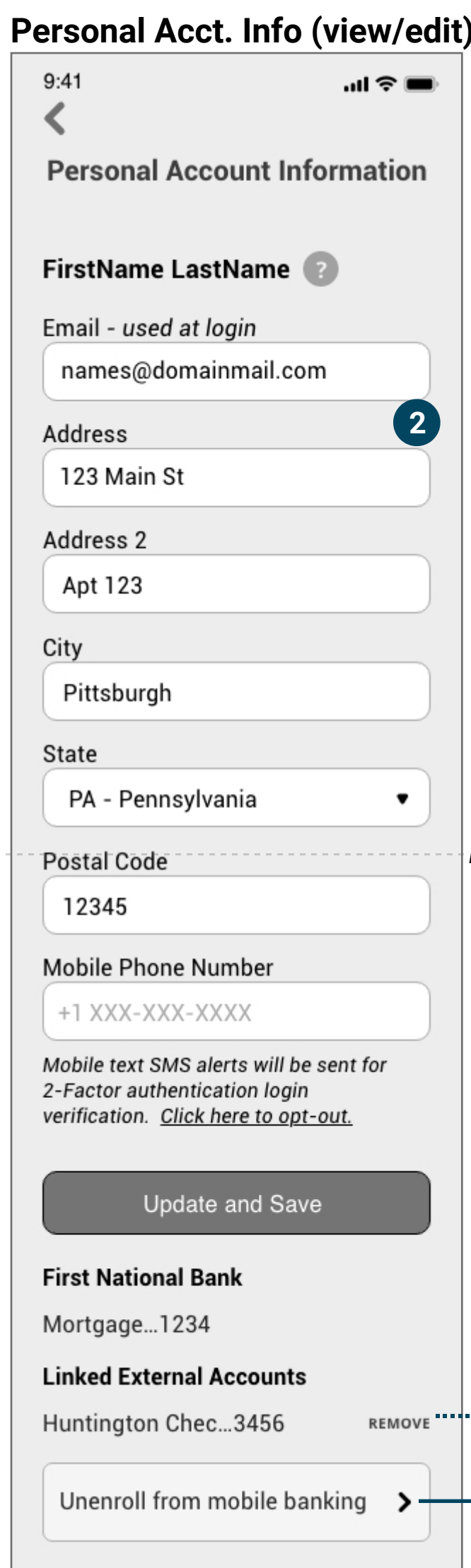
7. System would recognize mobile phone abilities and provide the biometric login option available for that user.

- a. If fingerprint or Face ID isn't a capability, the biometric option won't be a setting option in the Password & Security Screen.

* Referenced source:
Wayfinding For The Mobile Web - Smashing Magazine Article, assigned reading



Offering an alternative and duplicate place for contacting support or finding a local branch. Easier access for the user to find no matter what area of the app they're exploring.

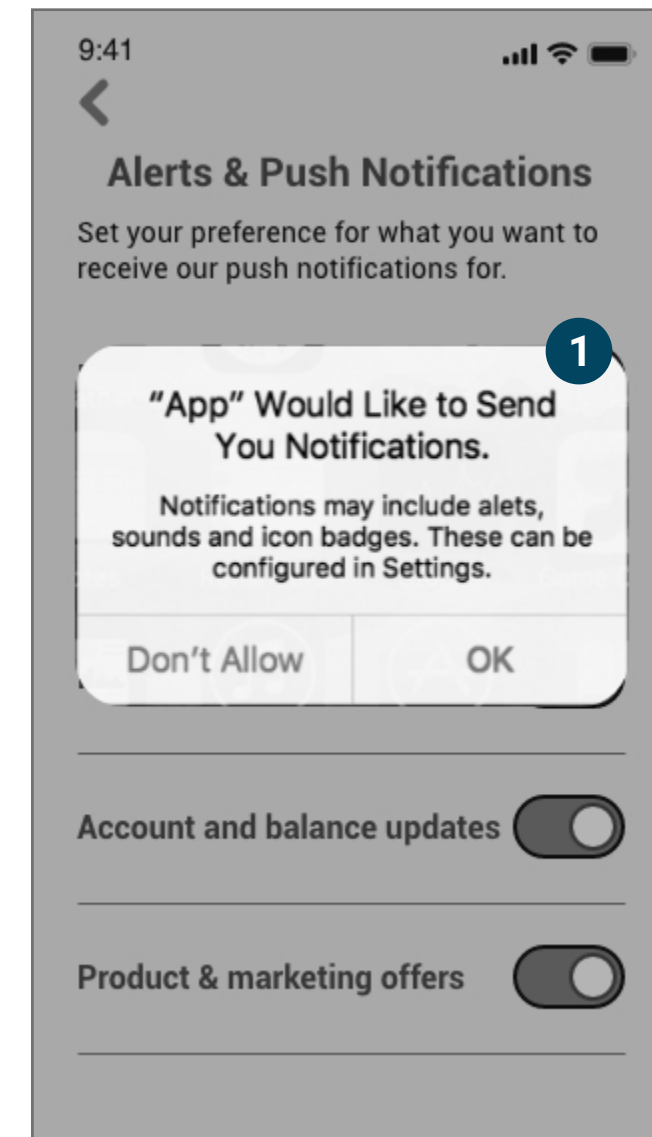


Wireframes Set - Settings and More 3b
Notifications, Contact, & Find a Branch

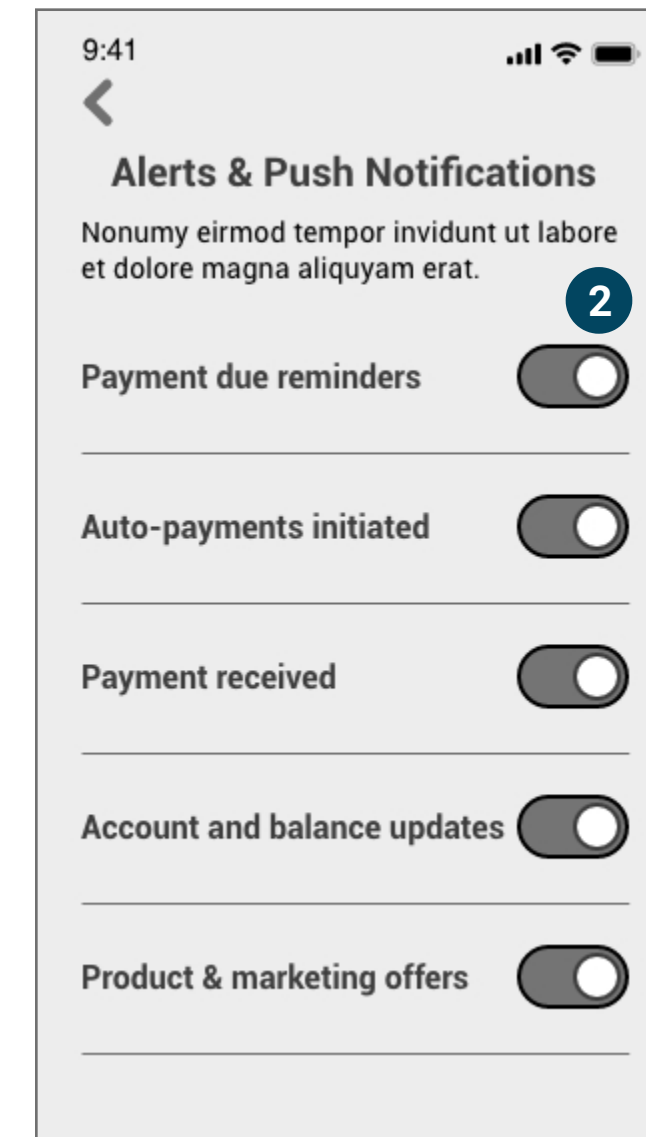
1. Users must accept or set their phone preferences to receive push notifications like most apps.

2. Once the user's phone has notifications enabled for the FNB app, on/off options are provided for different alert types.

Enable Push Notifications



Alerts & Push Notifications



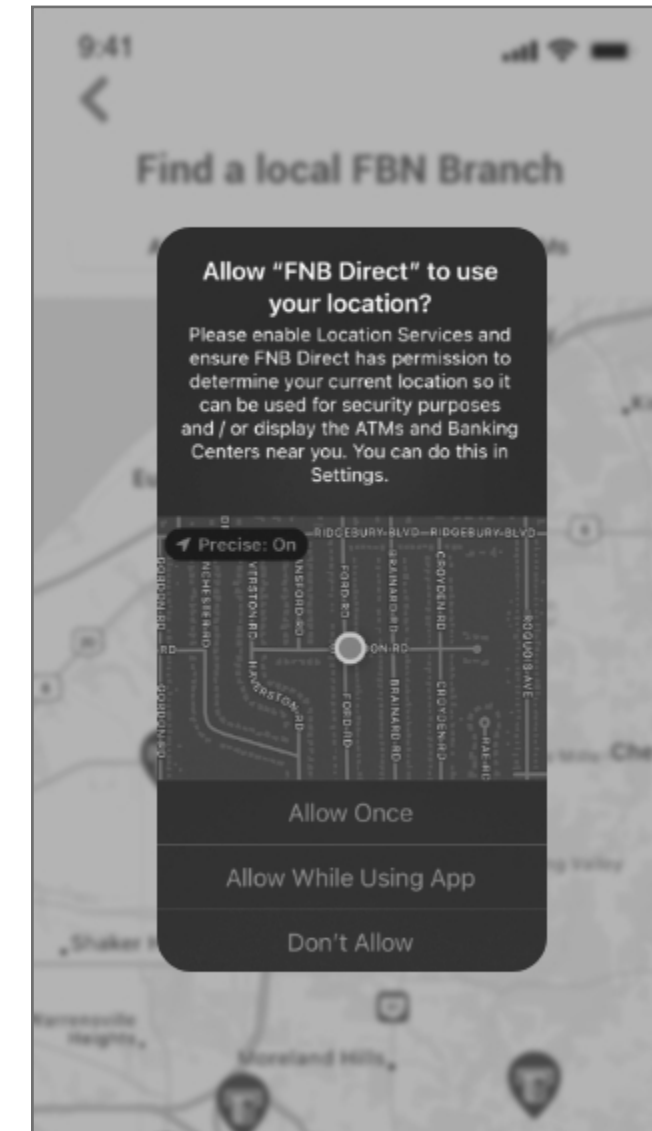
3. To find a local branch, users must enable phone location services.

4. Once enabled, banks could automatically populate based on geo-location, or the user can enter a zip/postal code to find a branch in a different location.

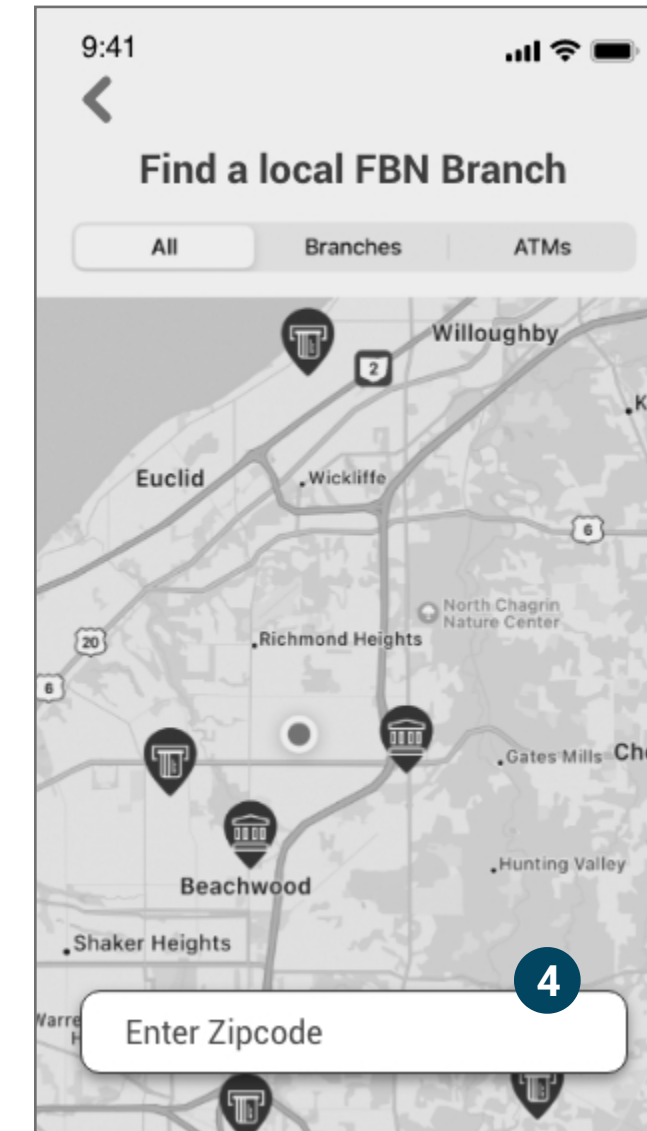
5. Branch and ATM icons display when an option is nearby. Once tapped on, branch details will detail, including distance from the user.

6. One more tap would take the user to a details page about that branch with all locations and contact information.

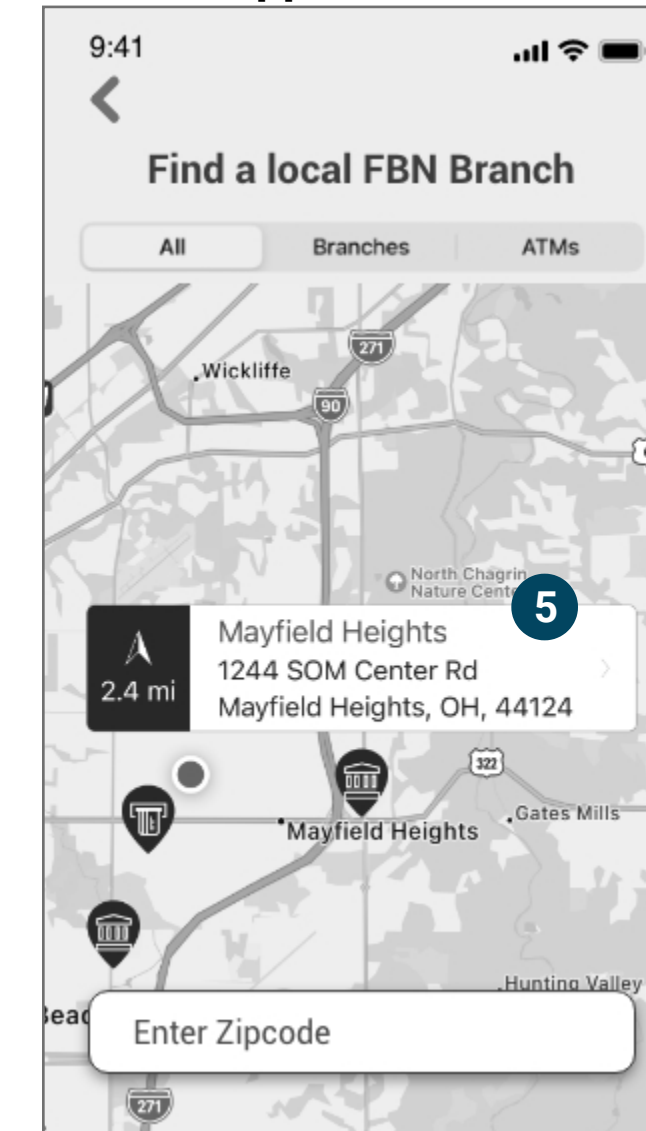
Enable Location Services



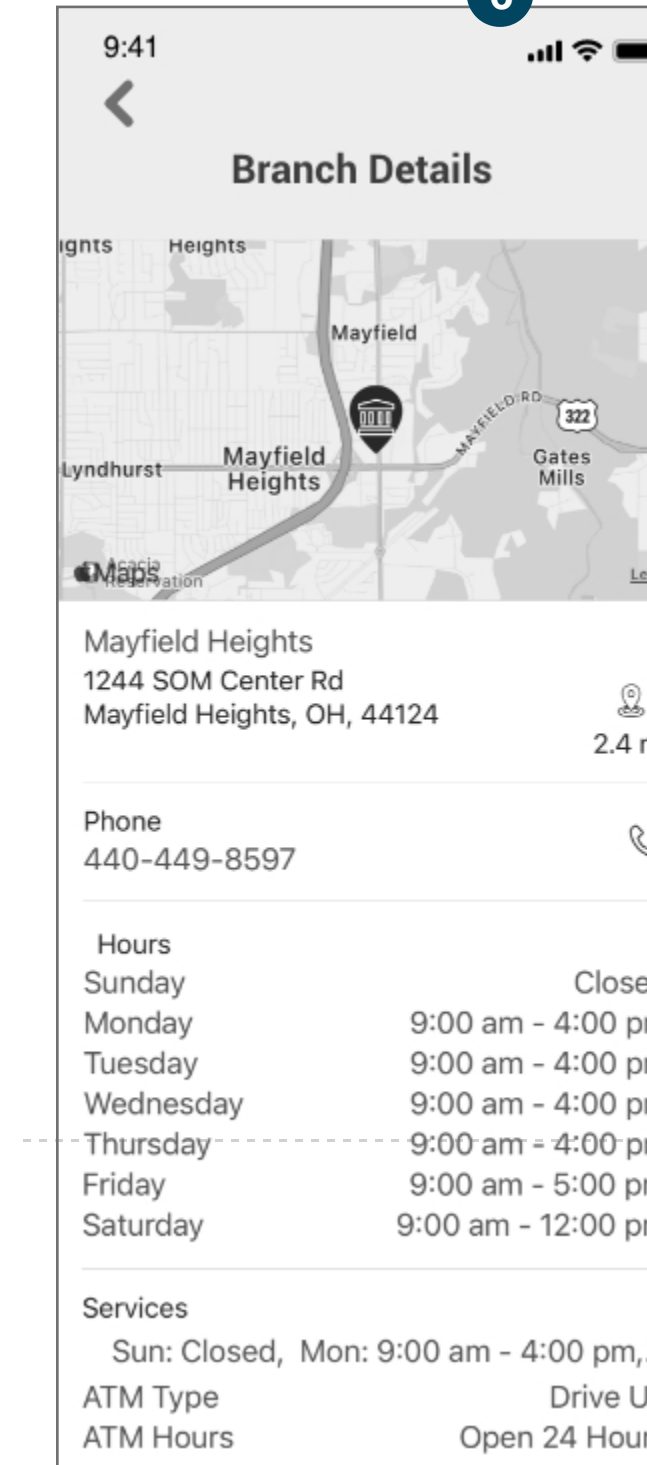
Find a Branch



Branch Tapped



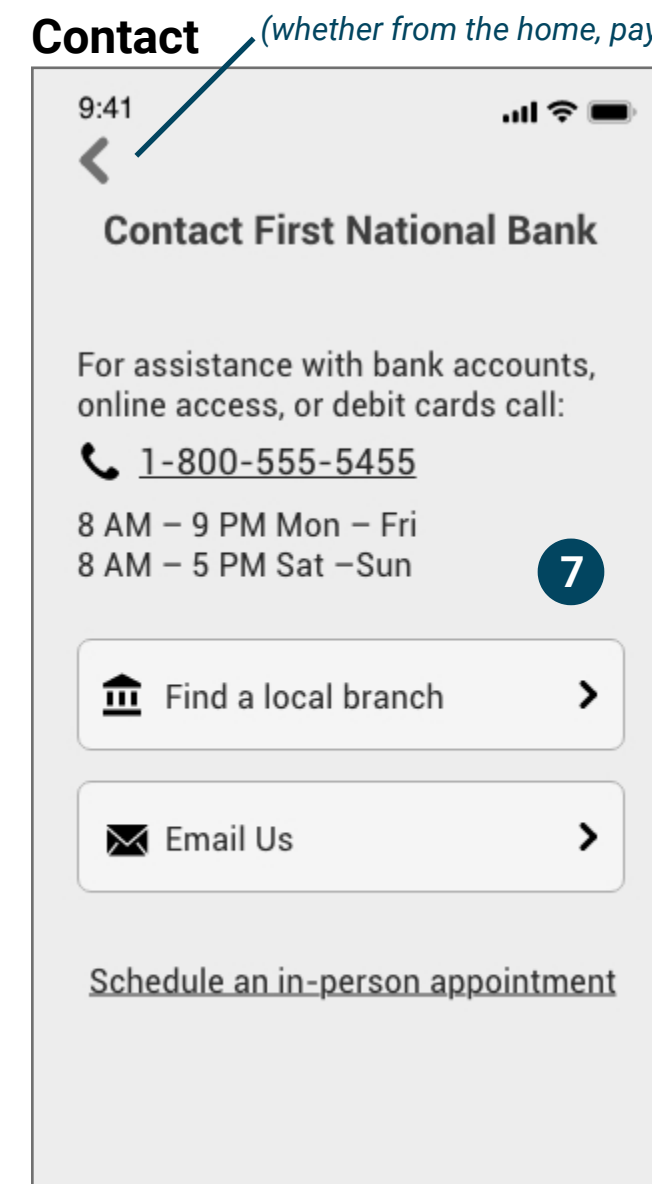
Branch Details



7. Users are provided with multiple options to contact First national bank.

- Call (general support/contact number) with hours.
- Find a local branch option.
- Email (would open their mobile email app.)
- Schedule an in-person visit - takes you to the mobile website to select the things like branch, hours, and the type of representative (checking, mortgage, financing, etc.) to schedule with.

Back button takes user to the previous screen they were on (whether from the home, payment or settings screens)



Fold