

Prototyping

Data For Police Accountability

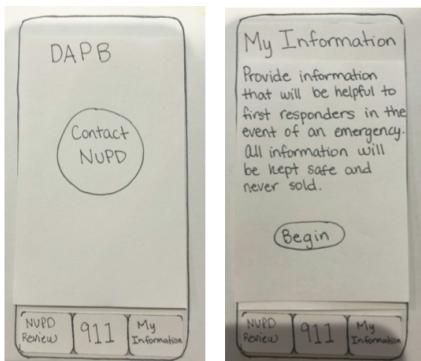
Team: Ashraf Bade (bade.a@northeastern.edu), Elena Silva (silva.el@northeastern.edu), and Anu Kandasamy (kandasamy.a@northeastern.edu)

Team Page: <https://github.com/elenarose/DAPB>

Prototype Photos

Task 1: Personal information

Navigating to the “My Information Page”



Inputting basic information

The image displays five wireframes illustrating the input process for basic information:

- First Name, Middle Name, Last Name:** Shows three input fields for "First Name", "Middle Name", and "Last Name". Buttons for "Save and continue" and "exit my information" are at the bottom.
- Date of Birth:** Shows a date picker interface with fields for "year" (2000), "month" (March), and "day" (1995). Buttons for "go to previous form", "Save and continue", and "exit my information" are at the bottom.
- Date of Birth (continued):** Shows a date picker interface with fields for "year" (2012), "month" (January), and "day" (1-31). Buttons for "go to previous form", "Save and continue", and "exit my information" are at the bottom.
- Date of Birth (final):** Shows a date picker interface with fields for "year" (2012), "month" (January), and "day" (1-31). Buttons for "go to previous form", "Save and continue", and "exit my information" are at the bottom.
- Home Address:** Shows fields for "Street address", "Apartment, suite, etc.", "City", "State" (MA), and "Zip Code". Buttons for "go to previous form", "Save and continue", and "exit my information" are at the bottom.

Inputting medical information

The wireframes illustrate the sequential input of medical information:

- Allergies:**询问是否有过敏史，提供“yes”或“no”的选择。
- Medications:**询问是否服用任何药物，提供“yes”或“no”的选择。
- Medical Conditions:**询问是否有任何医疗条件，提供“yes”或“no”的选择。

每个界面都包含“go to previous form”, “Save and continue”, “exit my information”按钮。

Inputting emergency contacts

展示了紧急联系人管理的流程：

- New Emergency Contact:**添加新联系人，输入姓名、电话号码和关系。
- Primary Contact:**设置主要联系人。
- Add additional contact:**继续添加更多联系人。
- Secondary Contacts:**设置次要联系人。
- Drag to Change order:**允许用户通过拖放来调整联系人的顺序。

每个界面都包含“go to previous form”, “Save and continue”, “exit my information”按钮。

Finishing data entry

显示感谢信息，说明信息将仅在紧急情况下共享，并有一个“OK”按钮。底部有NUPD Review, 911, My Information按钮。

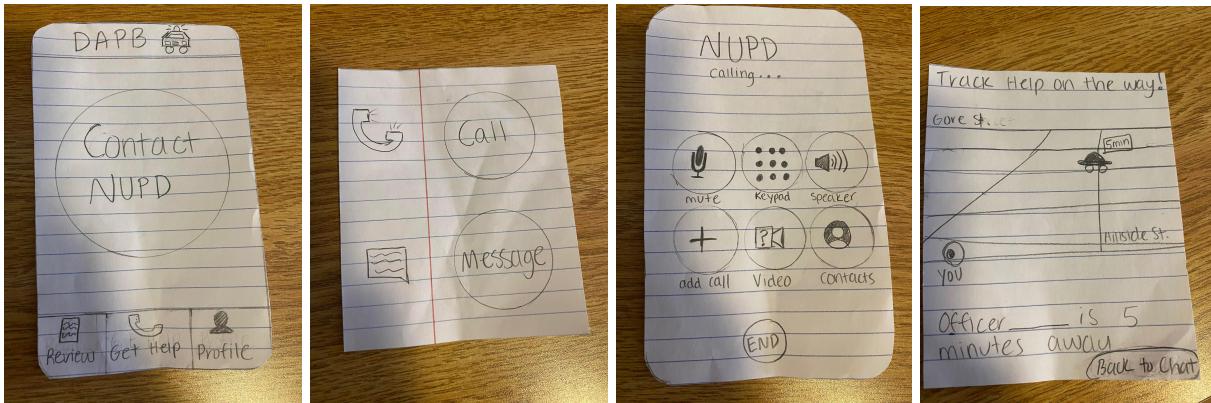
Viewing saved information

展示了查看保存信息的界面：

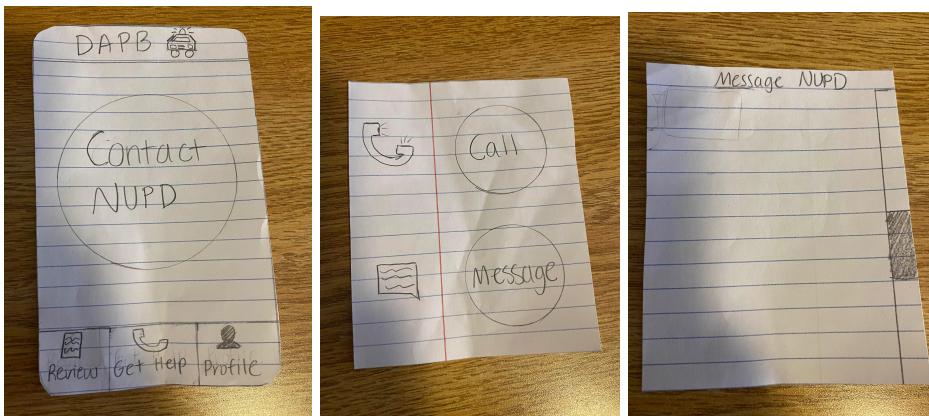
- Personal Information:**显示姓名、地址等详细信息。
- Medical Information:**显示过敏史、医疗条件、药物等。
- Emergency Contacts:**显示主要和次要联系人。

每个界面都包含“go to previous form”, “Save and continue”, “exit my information”按钮。

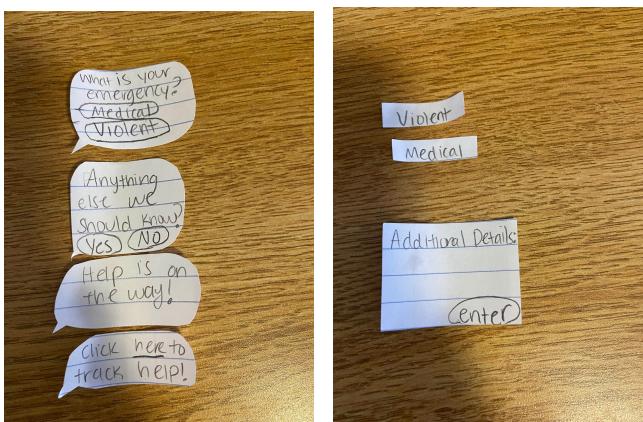
Task 2: Contact police using phone



Task 3: Contact Police without using phone



Message dialogue between operator and user:



Task 4: Review officer



Briefing

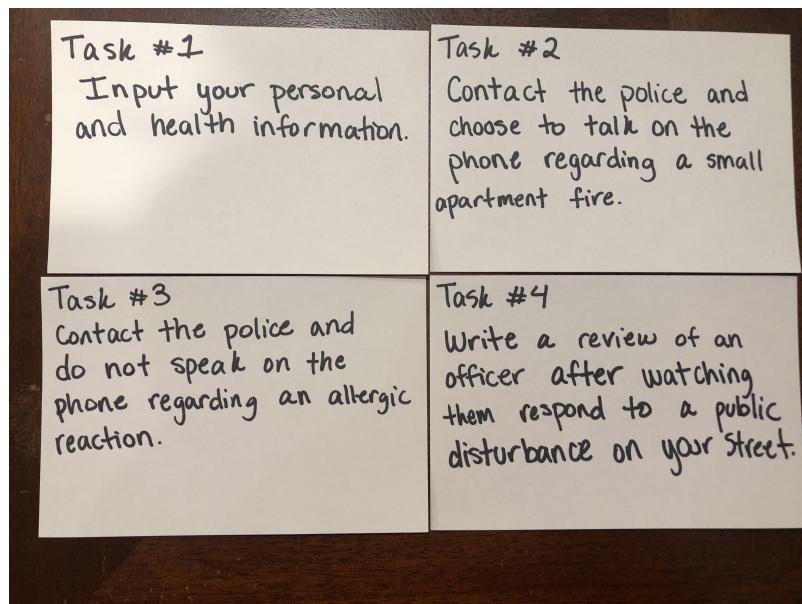
The purpose of the application you will be testing is to provide a way to call the Northeastern Police via a phone application. It is meant to provide a way for someone to call the police without actually speaking on the phone directly to an operator. Additionally, the

application will automatically provide the most important information about you to the police and other first responders so they can more quickly and easily locate you and address your emergency. Currently if you call 911, you have to speak to an operator and tell them your emergency as well as where you are located. If you are unable to speak or don't know where you are it will take help much longer to arrive which in an emergency situation can be very dangerous. An additional problem that our application addresses is that of police brutality. It provides the option to review and leave feedback after an interaction with the police so inappropriate behavior can be identified and dealt with when it occurs.

Today you will be helping us by testing a paper prototype of our application. We will provide you with four different tasks one at a time and ask you to complete them. We will not be guiding you through the application but want to see how you think each task should be completed. Feel free to ask questions and talk aloud your thought process as you navigate the app and complete the task. This is a very rough paper prototype and we want you to be completely honest as you test it.

Scenario Tasks

1. Input your personal and health information
2. Contact the police and choose to talk on the phone regarding a small apartment fire.
3. Contact the police and do not speak on the phone regarding an allergic reaction.
4. Write a review of an officer after watching them respond to a public disturbance on your street.



Task cards given to participants.

Test Users

Demographics

User 1

User 1 is a 23-year-old undergraduate college student studying computer engineering and computer science. User 1 uses he/him pronouns. Due to his experience as a computer science student, this user has an above average understanding of user interfaces and applications.

User 2

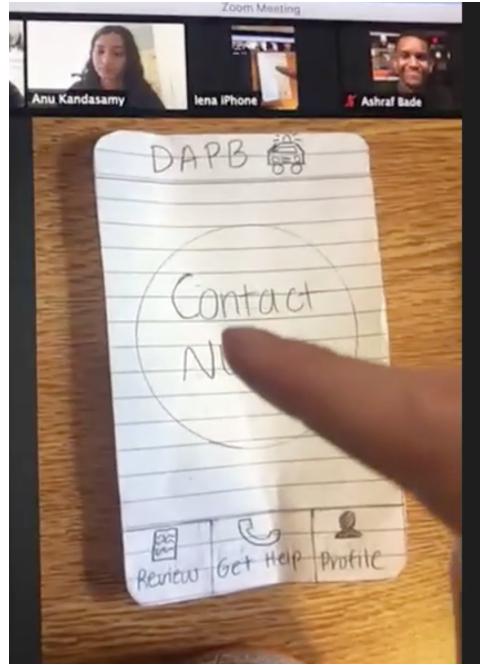
User 2 is a 23-year-old undergraduate college student studying economics. User 2 uses she/her pronouns. This user has experience as a member of the design studio Scout and has participated in multiple user testing sessions prior to this one.

User 3

User 3 is a 23-year-old undergraduate college student studying computer science and business. User 3 uses she/her pronouns. User 3 is also experienced in UI design and has previously been a part of a project that developed an app which crowdsources help in emergency situations, which is in a similar domain as our application.

Situation

Our user testing was done on Sunday, March 14th in the living room of an apartment in Boston. Two of the users live in the apartment so they were fairly comfortable as they were in their own home. We used Zoom to conduct the testing and each team member joined on both their cell phone and their computer. The cell phones were used to stream the video of the paper prototypes and the laptops were used to view the stream. The user would “click” through the app which was streaming over Zoom with the phone in person showing what the user was clicking. An image of this setup is below.



User “clicking” the paper prototype over Zoom.

Observations

Usability problems we discovered:

- Putting numbers under the scoring/rating of officers, users were not sure what the circles represented numerically
- The bottom 3 icons caused some confusion in the call/message tasks. User was unsure where to go to message an officer.
- Suggestion from user: Rather than messaging, send a silent signal to law enforcement, then add more details if needed/if possible.
 - Press and hold system

Interview Notes:

Task 1 - Input your personal/health information (profile page)

- User 1:
 - User needed clarification on where/how to type
 - User needed clarification on meaning of ‘primary contact’
- User 2:
 - User made a slight pause after allergy question, was unsure if she had to save and continue
- User 3:
 - Slight confusion when entering primary/secondary contact information
 - Have the same title format as the other screens to keep consistency

Task 2 - Call the Police where they choose to talk over the phone

Task 3 - Call the Police one where they don't talk on the phone or aren't able to

- User 1:
 - The second question might have come too soon, user seemed surprised
- User 2:
 - Was confused on how to message NUPD without calling, clicked on "Get Help" button first
- User 3:
 - Need cancel police response button

Task 4a: Write a review of an officer interaction just with the name or badge number (not after using the app to call the police)

- User 1:
 - User was unsure of numbering (circles)
 - Need confirmation
 - Need keyboard
- User 3:
 - No mention of NUPD

Task 4b: Write a review of an officer interaction by scanning a badge

- User 1: att
 - Need confirmation page
 - Need numbering system for reviews
 - Need keyboard
 - Need a redirect to home page option
 - Need option for raising concern after review
 - Need option to exit from review process
 - Need confirmation of exiting of review process
- User 2:
 - User was unsure how to complete the survey in a different way at first
 - User unsure about profile icon.
 - Thinks it would make sense to have officer's profile pop up after the encounter, don't need to search them up

Questions to ask users:

- Were you confused at any point?
- Would you use this application?
- Is there anything you would improve about what you saw?
- Did you feel each task could be done quickly and efficiently?
- How would you cancel a call if you could?

Observations of the Experience

Observations from interviews and the overall experience

One of the users mentioned that it was difficult to imagine the paper prototype as a real app and having to visualize a keyboard popping up threw them off during the testing session because the

paper is not a real phone. User 3 said she would be more interested in the app for the silent calling feature which uses chat instead of voice. She also said that due to the large “Contact NUPD” button, she thought that was the main purpose of the app, which is what we had intended. We decided through the user testing that one large “Contact NUPD” button is the best way to communicate the main purpose and task that the app serves and that allowing the user to choose the method, either voice call or chat, after pressing the button is the best way to proceed.

We received good feedback from user 2 regarding the edit feature of the user’s medical information. She said that allowing the user to just type to change that information could result in accidental slips and so we decided to create a button to edit any of the user information in order to be consistent.

We also determined that the press and hold method of contacting the NUPD would help to prevent accidental calls.

Videos

Link to user testing videos:

<https://drive.google.com/drive/folders/1mU7Vx6nhKgTLB-8q8Gnpk-7MkrWPOd8O?usp=sharing>

Revised Interface

Landing Page

D.F.P.A

Press and Hold to Contact NUPD

Nearest Officer: 0.6 miles

Review Officers

Contact NUPD

View/Edit My Info

Reviews Landing Page

iPhone 11 Pro Max - 1

Officer Accountability

Search for Officer e.g. John Smith

Officers Near You Refresh List

Maj. Jeff Crumbs

Sgt. Tina Peters

Lt. Andrew Tiempo

Maj. Stefani Madrazo

Det. Wilson Hayes

Scroll for More

Scan Officer's Badge

Officer Review Page

iPhone 11 Pro Max - 1

Officer Review



Sgt.
Johnson Devin
Smith

Current Overall Rating



Professionalism



Compassion



Helpfulness



Efficiency of Service



Scroll for More

Frame 1

Have more to say?

 Write here.....

Submit Review

My Information Screens

My Information Begin			
My Information		Name	
<p>Provide information about yourself that will be helpful to first responders.</p> <p>Begin</p> <p>Your information will be kept private and never sold.</p>		My Information Enter your name First Name: <input type="text"/> Middle Name: <input type="text"/> Last Name: <input type="text"/>	
Review Officers Contact NUPD View/Edit My Info		Save and continue Exit my information	Return to previous form Save and continue Exit my information
Home address			
My Information Enter your home address Street Address: <input type="text"/> Apartment, Suite, etc: <input type="text"/> City: <input type="text"/> State: <input type="text"/> Zip Code: <input type="text"/>			
Return to previous form Save and continue Exit my information			

Allergy 1		
My Information		
Enter your allergy information Do you have any allergies? <input type="radio"/> Yes <input checked="" type="radio"/> No		
Return to previous form Exit my information	Save and continue	
Allergy 2		
My Information		
Enter your allergy information Do you have any allergies? <input type="radio"/> Yes <input checked="" type="radio"/> No		
Return to previous form Exit my information	Save and continue	
Allergy 3		
My Information		
Enter your allergy information Do you have any allergies? <input checked="" type="radio"/> Yes <input type="radio"/> No		
List your allergies: <input type="text"/>		
Return to previous form Exit my information	Save and continue	

Medications 1

My Information

Enter your medication information

Do you take any medications?

Yes No

[Return to previous form](#)

[Save and continue](#)

[Exit my information](#)

Medications 2

My Information

Enter your medication information

Do you take any medications?

Yes No

[Return to previous form](#)

[Save and continue](#)

[Exit my information](#)

Medications 3

My Information

Enter your medication information

Do you take any medications?

Yes No

List the medications you take:

Medical conditions 1

My Information

Enter your medical condition information

Do you have any medical conditions?

Yes No

[Return to previous form](#)

[Save and continue](#)

[Exit my information](#)

Medical conditions 2

My Information

Enter your medical condition information

Do you have any medical conditions?

Yes No

[Return to previous form](#)

[Save and continue](#)

[Exit my information](#)

Medical conditions 3

My Information

Enter your medical condition information

Do you have any medical conditions?

Yes No

List your medical conditions:

[Return to previous form](#)

[Save and continue](#)

[Exit my information](#)

Emergency Contacts 1

My Information

Enter your emergency contacts

[Add primary contact](#)

[Return to previous form](#) [Complete](#)

[Exit my information](#)

New emergency contact

My Information

New emergency contact

Contact's First Name:

Contact's Last Name:

Contact's Phone Number: - -

Contact's Relationship to You:

[Stop Creating New Contact](#) [Save and Continue](#)

[Exit my information](#)

One Emergency Contact

My Information

Emergency Contacts

Primary Contact: [Contact Name](#) [Edit](#)

[Add additional contact](#)

[Return to previous form](#) [Complete](#)

[Exit my information](#)

Edit Emergency Contact

My Information

Edit emergency contact

Contact's First Name:

Contact's Last Name:

Contact's Phone Number: - -

Contact's Relationship to You:

[Discard changes](#) [Save](#)

[Return to previous form](#) [Complete](#)

[Exit my information](#)

multiple Emergency Contacts

My Information

Emergency Contacts

Primary Contact: [Contact Name](#) [Edit](#)

Secondary Contacts: [Contact Name](#) [Edit](#)

[Add additional contact](#)

[Change order](#)

[Return to previous form](#) [Save and Continue](#)

[Exit my information](#)

Change order of Emergency Contacts

My Information

Drag to Change Emergency Contact Order

Primary
Contact name
Secondary
Contact name
Contact name
Contact name

[Return to previous form](#) [Save and Continue](#)

[Exit my information](#)

My Information Complete

My Information

Thank You.

Your information will only be shared with first responders in the event of an emergency

OK

Review Officers

Contact NUPD

View/Edit My Info

All personal info

My Information

Personal Information Medical Information Emergency Contacts

First Name:

Middle Name:

Last Name:

Date of Birth (mm/dd/yy):

Street Address:

Apartment, Suite, etc:

City:

Review Officers

Contact NUPD

View/Edit My Info

All medical info

My Information

Personal Information Medical Information Emergency Contacts

Allergies:

Medications:

Medical Conditions:

Edit Medical Information

Review Officers

Contact NUPD

View/Edit My Info

All emergency contacts

My Information

Personal Information Medical Information Emergency Contacts

Primary Contact:

Contact Name

Secondary Contacts:

Contact Name

Add additional contact

Change order

Review Officers

Contact NUPD

View/Edit My Info

All personal info 2

My Information

[Personal Information](#) [Medical Information](#) [Emergency Contacts](#)

Street Address:

Apartment, Suite, etc:

City:

State:

Zip Code:

[Edit Personal Information](#)

[Review Officers](#)

[Contact NUPD](#)

[View/Edit My Info](#)

All personal info edit

My Information

Edit Personal Information

First Name:

Middle Name:

Last Name:

Date of Birth (mm/dd/yy):

Street Address:

Apartment, Suite, etc:

City:

[Discard changes](#)

[Save](#)

All medical info 2

My Information

[Personal Information](#) [Medical Information](#) [Emergency Contacts](#)

Allergies: None

Medications: None

Medical Conditions: None

[Edit Medical Information](#)

[Review Officers](#)

[Contact NUPD](#)

[View/Edit My Info](#)

All medical info edit

My Information

[Personal Information](#) [Medical Information](#) [Emergency Contacts](#)

Do you have any allergies?

Yes No

Do you take any medications?

Yes No

List the medications you take:

Do you have any medical conditions?

Yes No

List your medical conditions:

[Discard changes](#)

[Save](#)

New emergency co...

My Information

New emergency contact

Contact's First Name:

Contact's Last Name:

Contact's Phone Number:

 - -

Contact's Relationship to You:

[Stop Creating New Contact](#)

[Save](#)

Change order of Em...

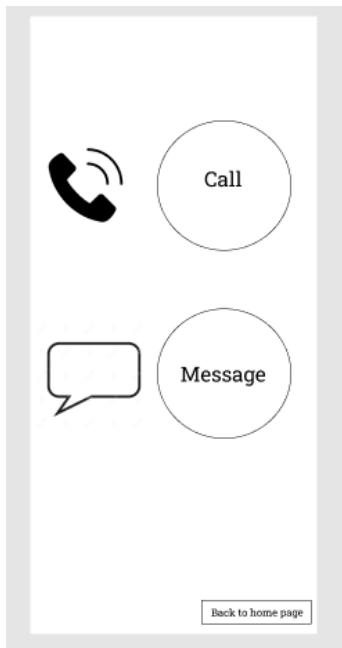
My Information

Drag to Change Emergency Contact Order

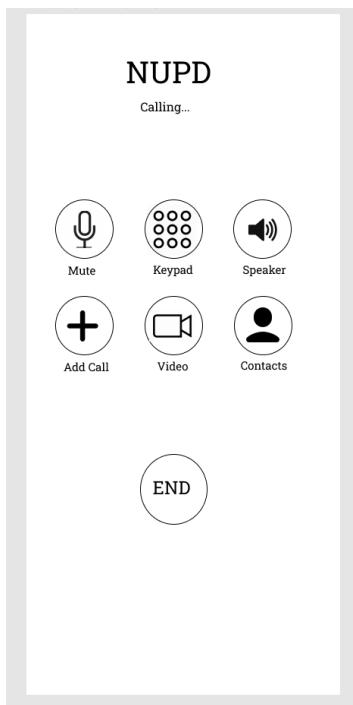
Primary
Contact name
Secondary
Contact name
Contact name
Contact name

[Discard changes](#) [Save](#)

Choosing Call or Message Screen



Calling NUPD Screen



Messaging NUPD Screen

Message NUPD



Tracking Help Screen

