

UX & Rescue Wireframes

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Setup - Onboarding

1

User can choose to either log in or register

2

Registration with a badge ID is required for legal reasons

1

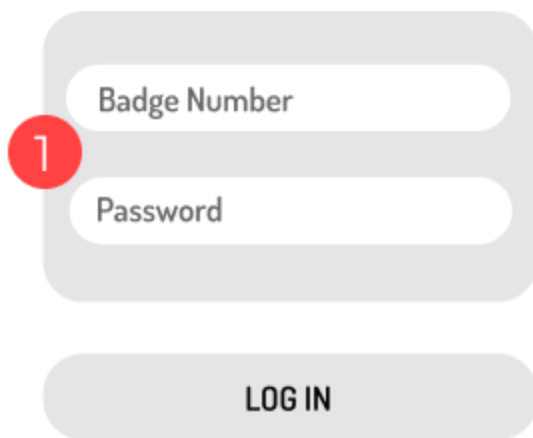
REGISTER

2

LOG IN

Setup - Log In

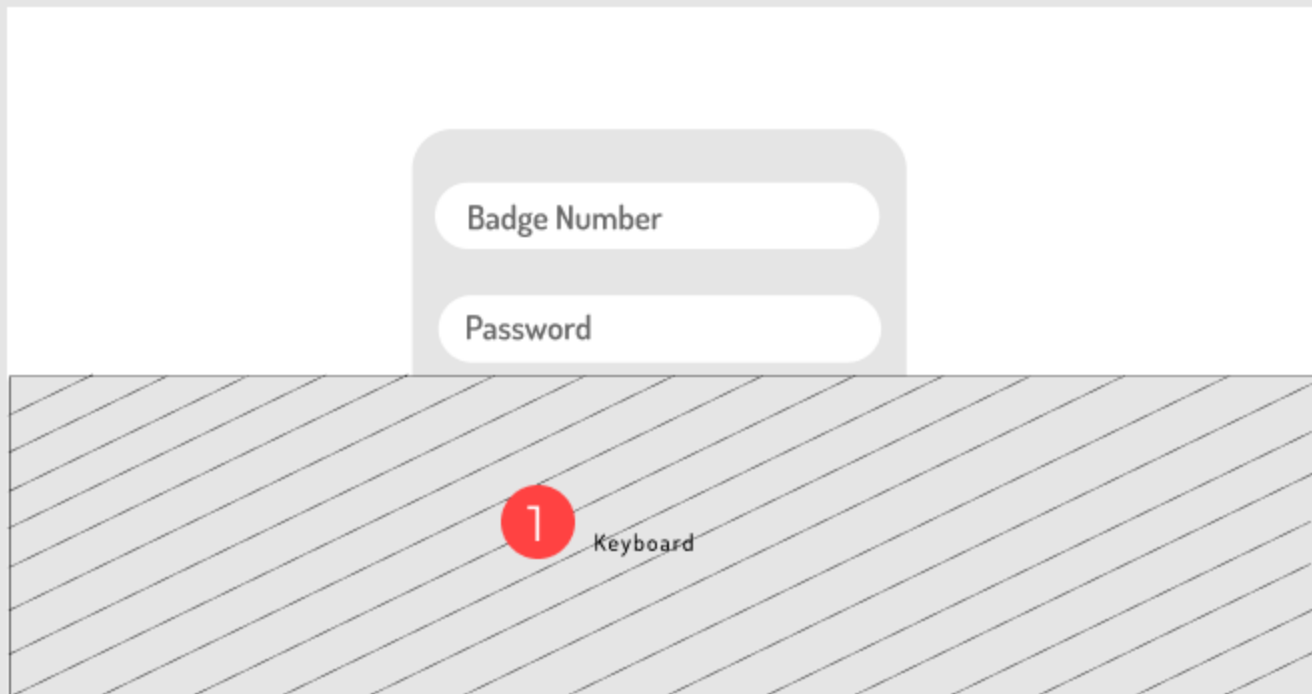
- 1 User enters in their badge number and password to log in



A login form consisting of a light gray rounded rectangle containing two white rounded rectangular input fields. The top field is labeled "Badge Number" and the bottom field is labeled "Password". A red circle with the number "1" is positioned to the left of the "Password" field. Below the input fields is a light gray rounded rectangular button labeled "LOG IN".

Setup - Log in Keyboard

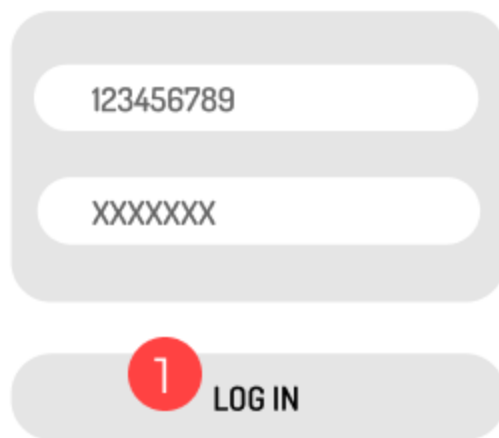
- 1 Keyboard pops up when the user clicks to input badge number and password



Setup - Login Complete

1

Allows them to start completing a report for an incident. User is taken to main menu



A login form UI mockup consisting of a light gray rounded rectangle containing two white rounded input fields. The first field contains the text "123456789" and the second field contains "XXXXXXX". Below this rectangle is a separate light gray rounded button. On the left side of the button is a red circle with the number "1" inside, and to its right is the text "LOG IN" in black uppercase letters.

Setup - Register

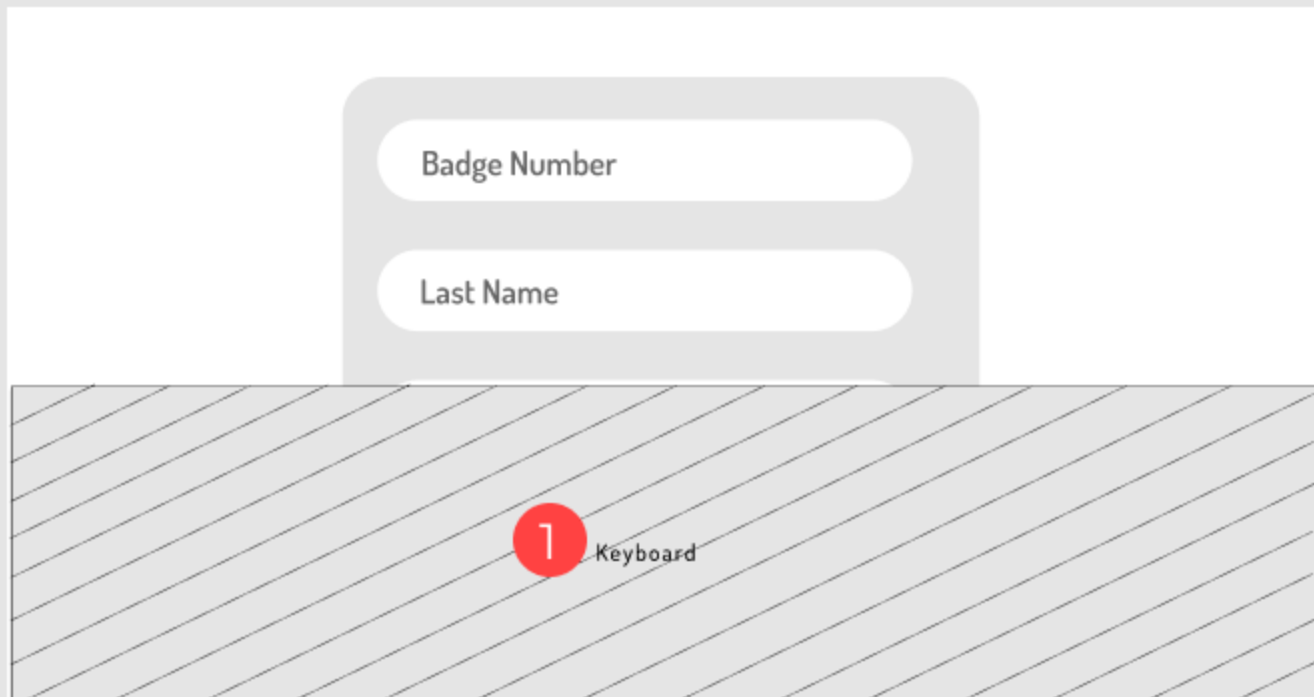
1

User inputs in badge number, last name and password to sign up. All are required for legal reasons

Register

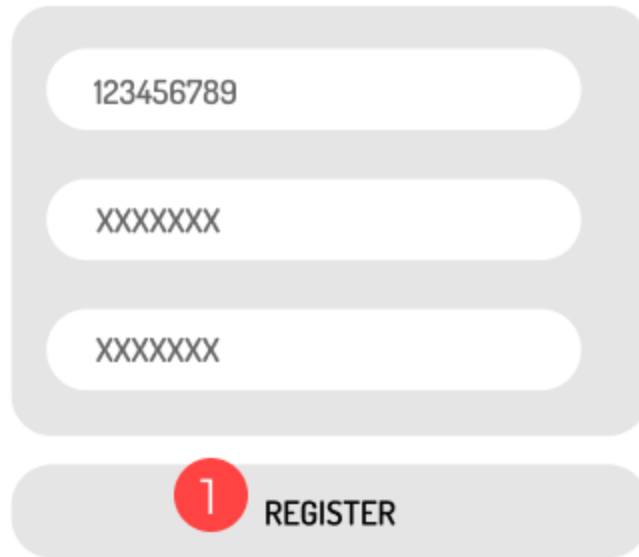
Setup - Register Keyboard

- 1 Keyboard pops up when the user clicks to input badge number, last name, and password



Setup - Register Complete

- 1 Allows the user to create an account and begin the tutorial



A registration form with three input fields and a 'REGISTER' button. The first input field contains the text '123456789'. The second and third input fields contain the text 'XXXXXXX'. The 'REGISTER' button is highlighted with a red circle containing the number '1'.

123456789

XXXXXXX

XXXXXXX

1 REGISTER

Setup - Tutorial

- 1 Screen will be shown once after registration

1

Would you like to walk through the tutorial?

YES

NO

Setup - Tutorial Menu

1

User can skip the tutorial at any time, letting them begin a report

2

Explains the user input supported by system, and how to move around report

3

Explains how to record data in report

2

HOW TO NAVIGATE

HOW TO INPUT DATA

3



Back

1

Finish

Setup - Tutorial How to Navigate

- 1 Example shows the user how to input data via voice or touch
- 2 Pressing next will continue the tutorial
- 3 Creating a report records data about an incident for legal reasons and data purposes

HOW TO NAVIGATE

What would you like to log?

Vitals

Action Taken

Patient Info

Report 1

New Report

< Back

Next >

1


> To select an option, you can use either voice or touch.

> For voice: Say "Record" to get the system to begin listening. Then say "Log Vitals" or "Log Action Taken" or "Log Patient Info"

> For touch: Press the function you would like to log.

3

> To create a new report for a different patient, press the "+" icon.

> Press  to go back to the home screen.

2

Setup - Tutorial How to Input Data

1 Example shows user how to input data for vitals

2 User clicks to finish the tutorial

HOW TO INPUT DATA

Blood Pressure

Heart Rate

Spo2

Body Temperature

Orientation

> To select an option, you can use voice or touch.

> To make the system begin listening, say "Record". Then say "Blood Pressure 120 over 80" or "Heart Rate 80 beats per minute." A screen will appear to confirm the information. Voice can be used for Patient Information and Action Taken as well.

listening... 
"Blood Pressure 120/80..."
If incorrect, speak again

1

> For touch: Select the option you'd like to input and type in the data.

< Back

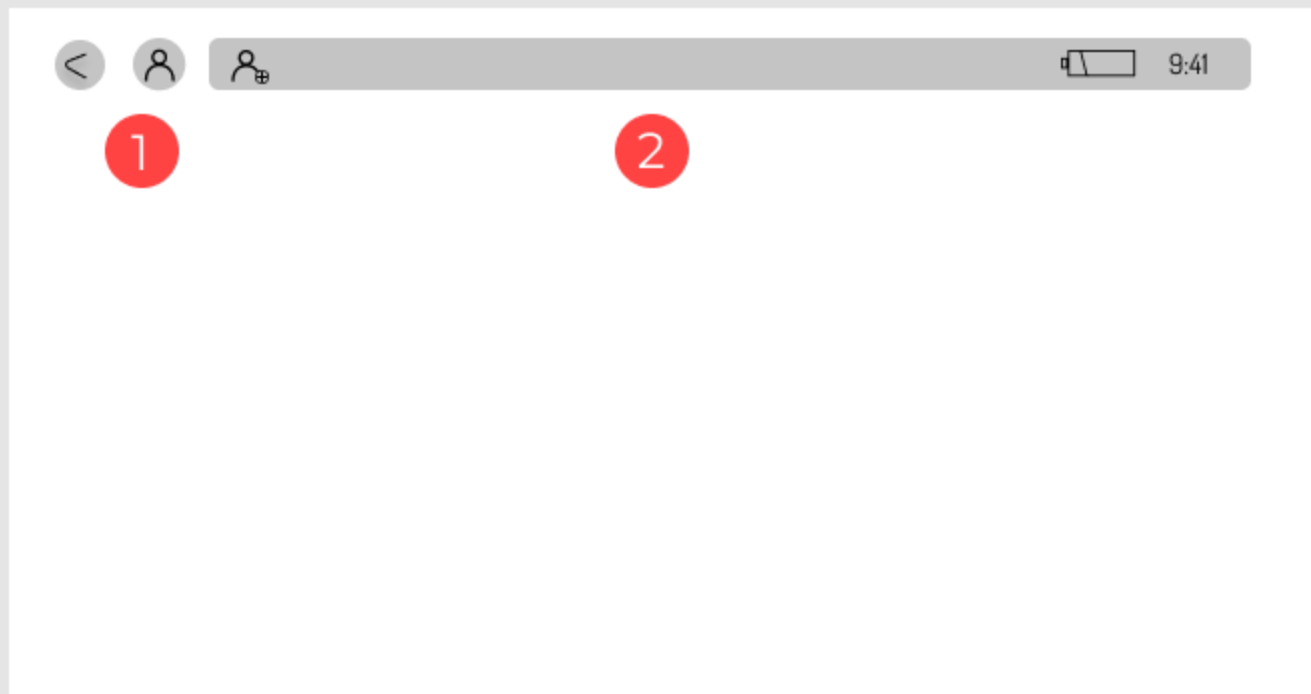
Finish

2

Home Screen - Create a Report

1 Reporting is the main functionality of this system. It adds information about an incident, for legal and data purposes. User creates a report by voice or touch

2 The screen is mainly blank to not block user's eyesight if they want the system on all the time



Main Menu - Report 1

- 1 Report 1 is grayed in to indicate data is for report 1
- 2 User can record who was hurt/called/needed attention
- 3 User can input the vital measures they took from patient
- 4 User can record what response they took while on scene
- 5 Review allows the user to review all the information they have filled in so far, commonly used right before submission

The screenshot shows a mobile application interface for 'Main Menu - Report 1'. At the top is a header bar with a back arrow, a person icon, a key icon, a battery status indicator, and the time 9:41. Below the header, the main content area has a title 'What would you like to log?' followed by three stacked buttons: 'Patient Information', 'Vitals', and 'Action Taken'. At the bottom right is a 'Review' button. Red numbered callouts (1-5) are placed over the interface: 1 points to the header area, 2 points to 'Patient Information', 3 points to 'Vitals', 4 points to 'Action Taken', and 5 points to the 'Review' button.

1

What would you like to log?

2 Patient Information

3 Vitals

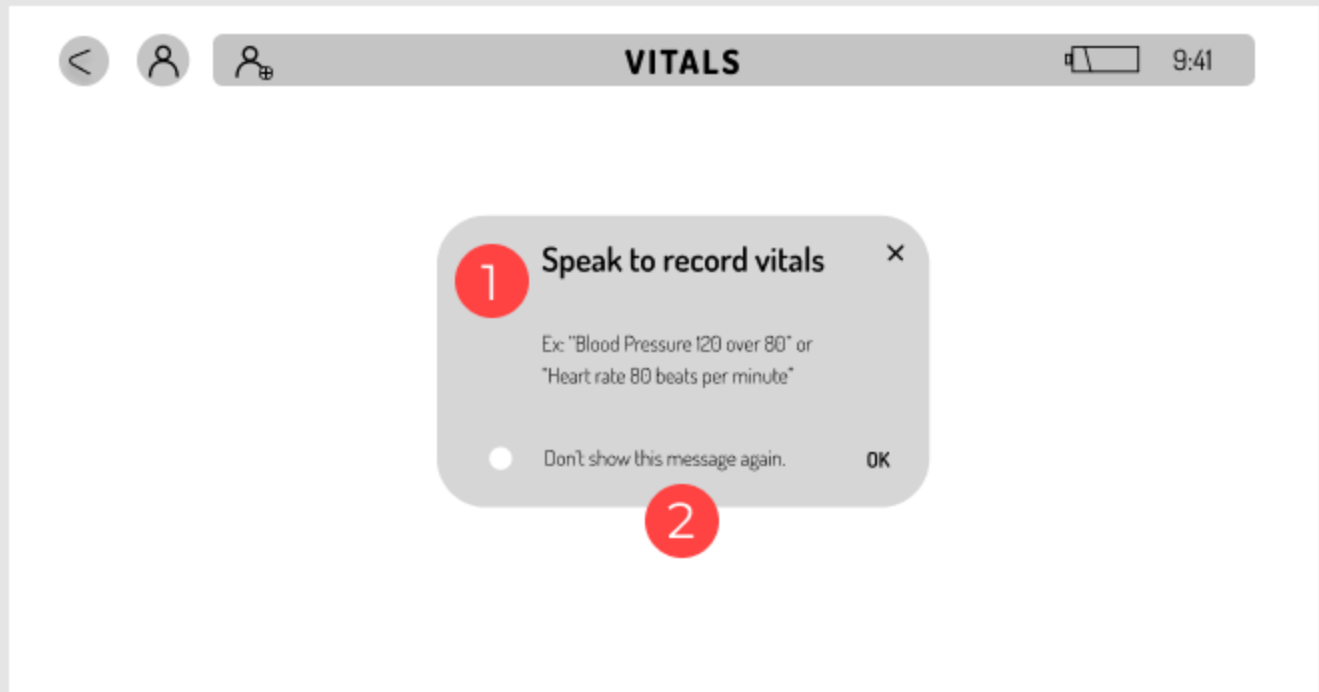
4 Action Taken

5 Review

Record Data - Vital Reminder

1 For our intermediate user, we chose to display this message to remind of system functionality

2 User can choose to not show message (for expert user), or to continue showing



Record Data - Vital Reminder Answered

1

A filled in bubble means the user has checked that option

2

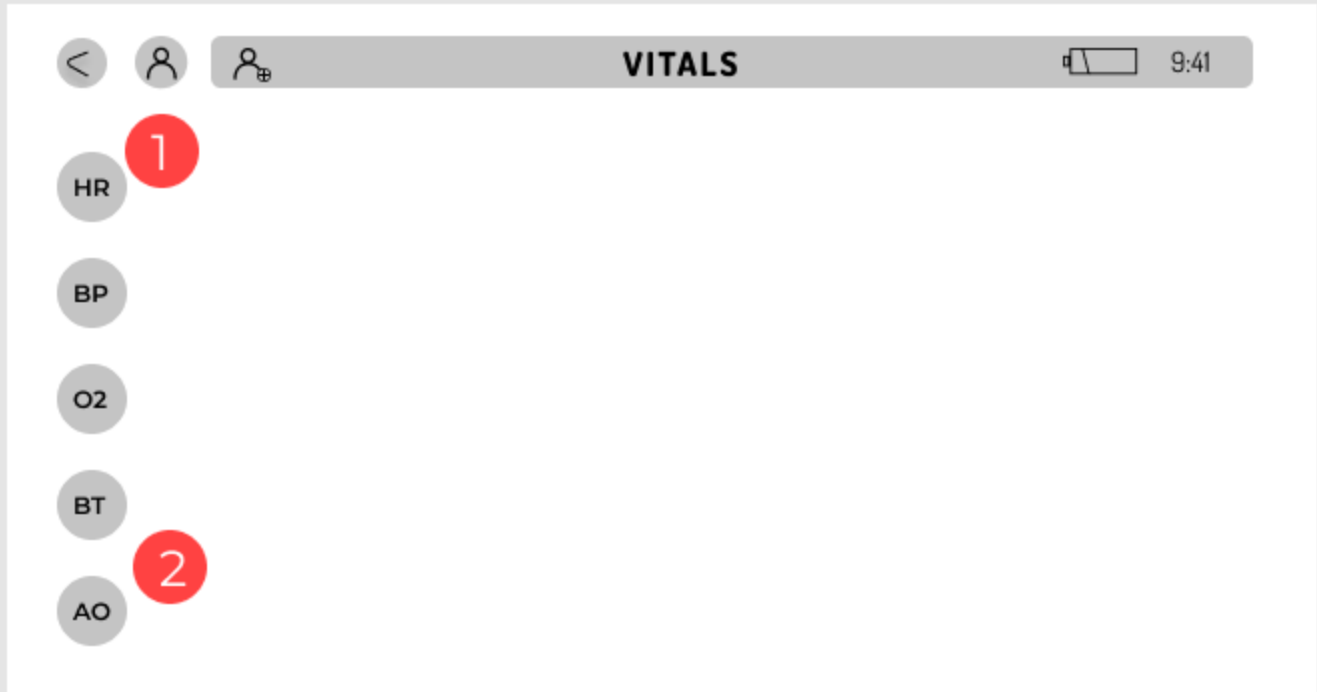
After answering, user is taken to vitals menu



Record Data - Vital Menu

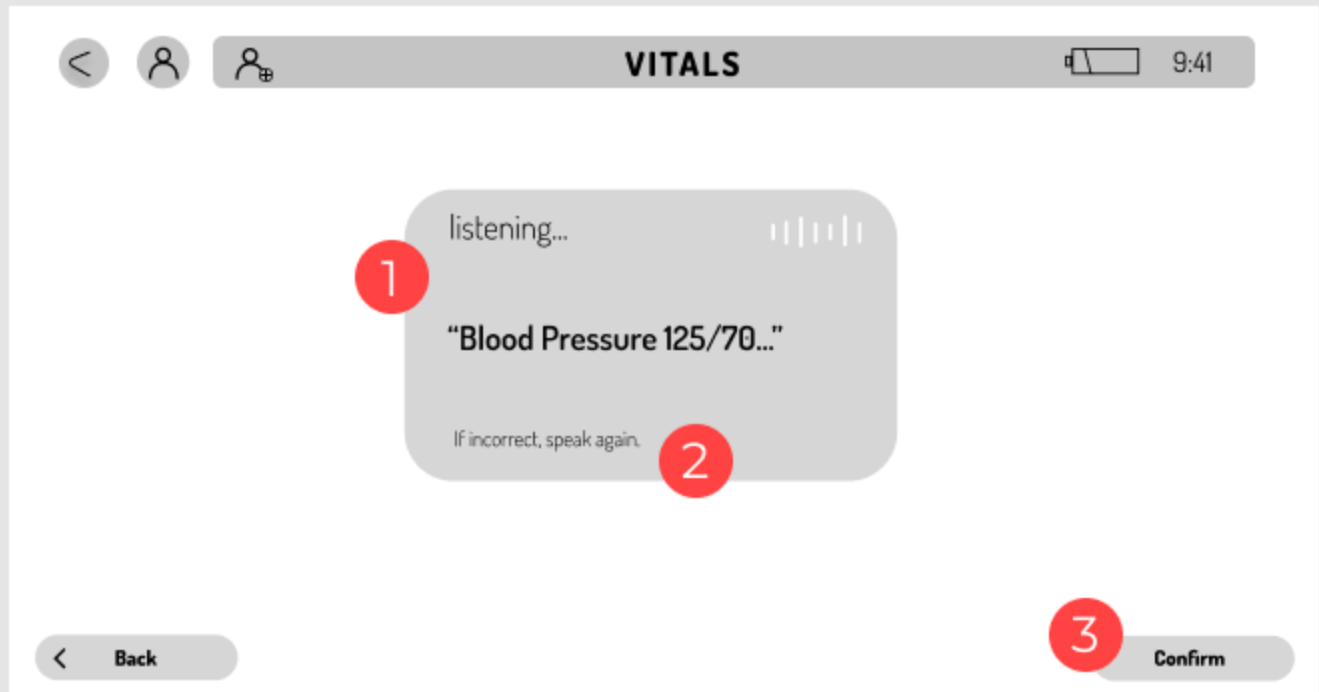
1 Main menu that has all vitals listed

2 Orientation is more in-depth and has its own subset of measures. Intermediate users are aware of this



Record Data - Blood Pressure

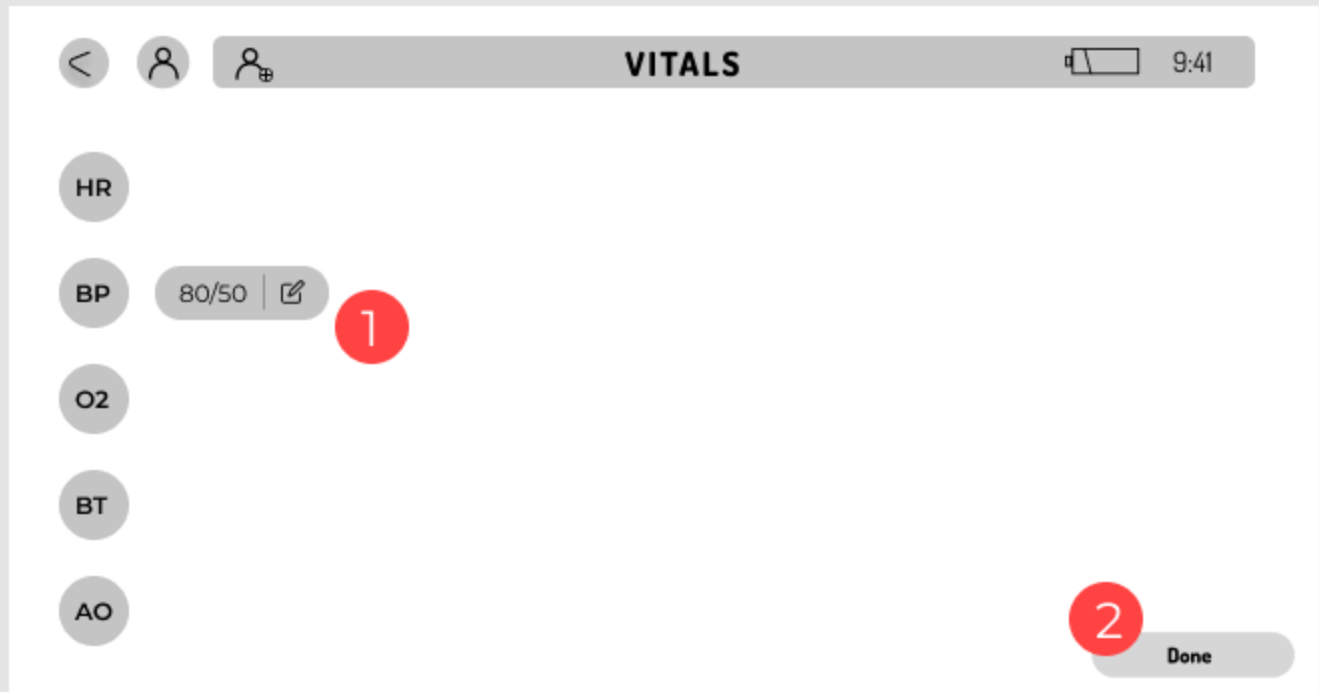
- 1 When system hears record, it begins listening for user input and recording it
- 2 Lets the user know that the vital can be resaid if the system misinterpreted
- 3 Pressing confirm confirms the vital and ends the system listening



Record Data - Vital Menu

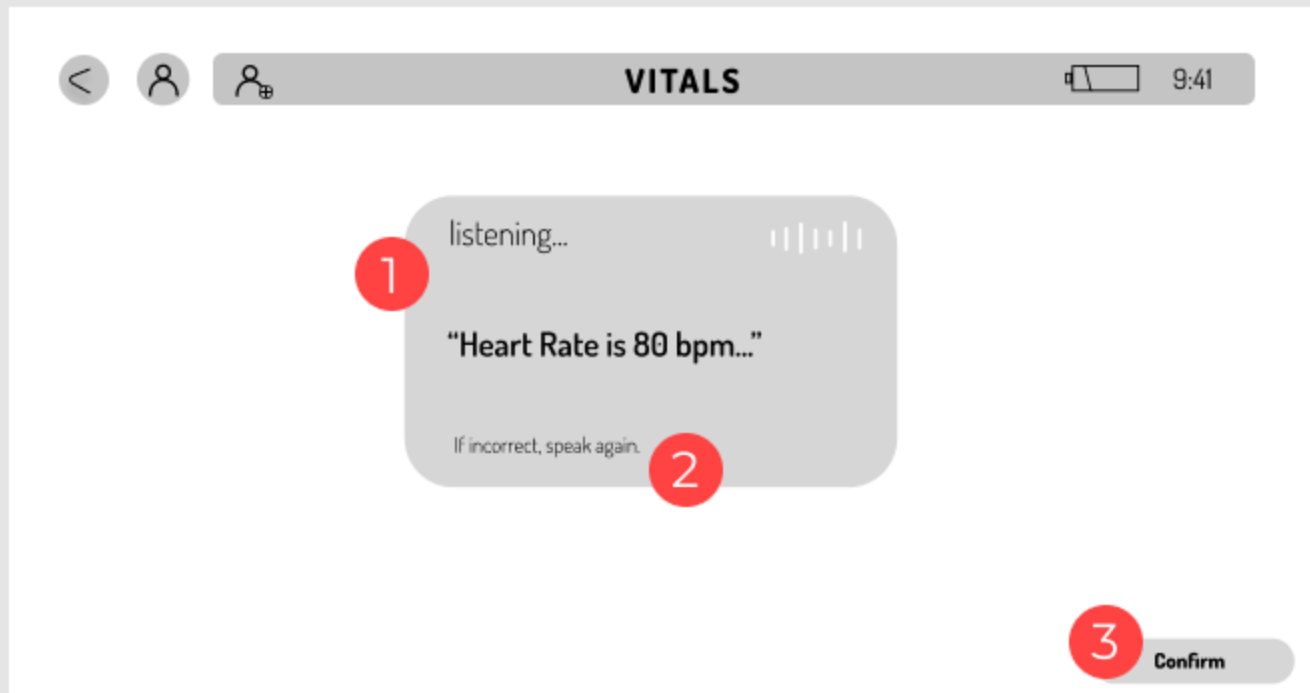
1 Blood pressure has been recorded, with an option by touch and voice to edit

2 User can click done, and come back to recording vitals



Record Data - Heart Rate

- 1 When system hears record, it begins listening for user input and recording it
- 2 Lets the user know that the vital can be resaid if the system misinterpreted
- 3 Pressing confirm confirms the vital and ends the system listening



Record Data - Vital Menu

1 Now blood pressure and heart rate are recorded, with both being able to be edited

2 User can click done, and come back to recording vitals

The screenshot shows a mobile application interface for recording vital signs. At the top, there is a header bar with a back arrow, a person icon, a group of people icon, the title "VITALS", a battery icon, and the time "9:41". Below the header, there is a list of vital signs: HR (60 BPM), BP (80/50), O2, BT, and AO. Each vital sign has a circular button next to it. A red circle with the number "1" is positioned next to the BP value. At the bottom right, there is a "Done" button, and a red circle with the number "2" is positioned next to it.

Vital Sign	Value	Edit Icon
HR	60 BPM	✎
BP	80/50	✎
O2		
BT		
AO		

Done

Record Data - Orientation

1 The patient's orientation score is determined by the number of fields they can list

2 The user can check the number of fields the patient completed

The screenshot shows a mobile application interface for recording patient orientation. At the top, there is a header bar with a back arrow, two user icons, the title "VITALS", a battery icon, and the time "9:41". Below the header, there are four input fields, each with a checkmark icon to its right. The fields are labeled "Person", "Place", "Time", and "Situation". A red circle with the number "1" is positioned next to the "Person" field. A red circle with the number "2" is positioned next to the "Situation" field. At the bottom right of the screen, there is a "Confirm" button.

< [User Icon] [User Icon] **VITALS** [Battery Icon] 9:41

Person ✓ 1

Place ✓

Time ✓

Situation ✓ 2

Confirm

Report Data - Vital Menu

1

The information from pg 21 was synthesized into this tag, which means “Alert & Oriented”, times the score they recieved. The firefighters understand this scoring system

< [User Icon] [User Icon] **VITALS** [Battery Icon] 9:41

HR 60 BPM [Edit Icon]

BP 80/50 [Edit Icon]

O2

BT

AO AO x4 [Edit Icon]

1

Done

Report Data - Patient Information Home

1

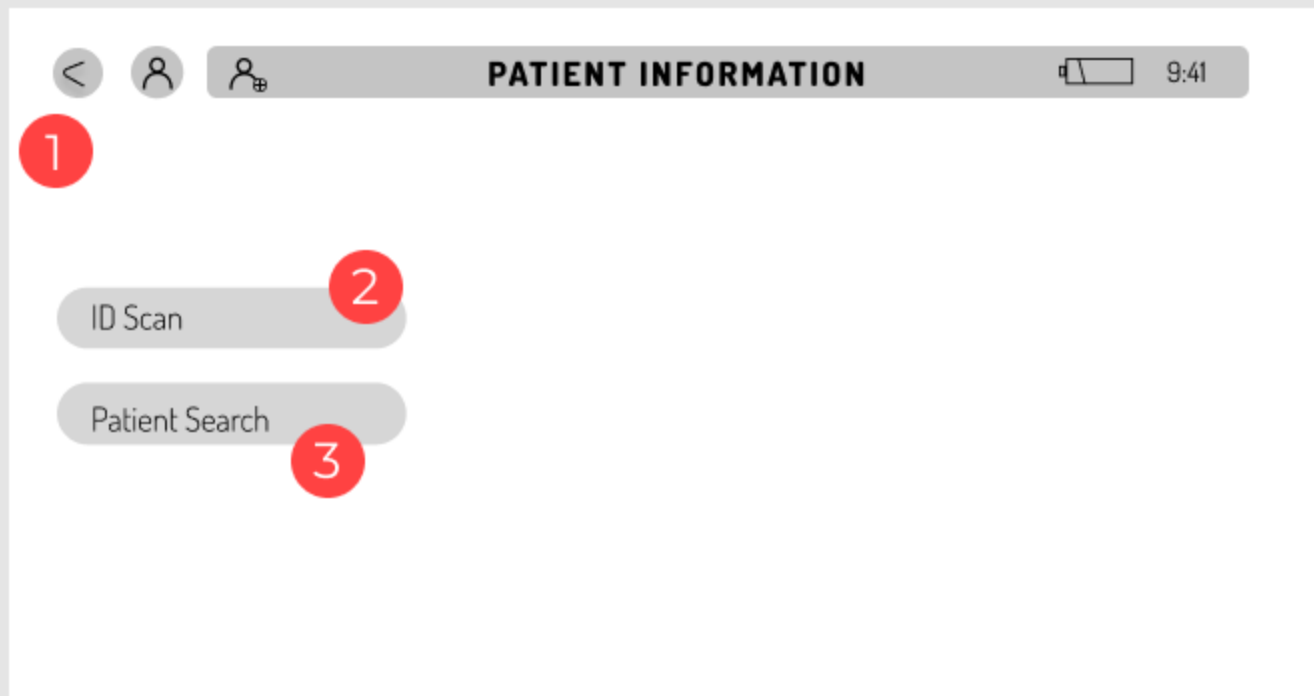
Report 1 is grayed in because the user is filling out information for Report 1.

2

User can choose to scan an ID (medicine, license, hospital armband, etc.) to receive patients name if the patient is unresponsive

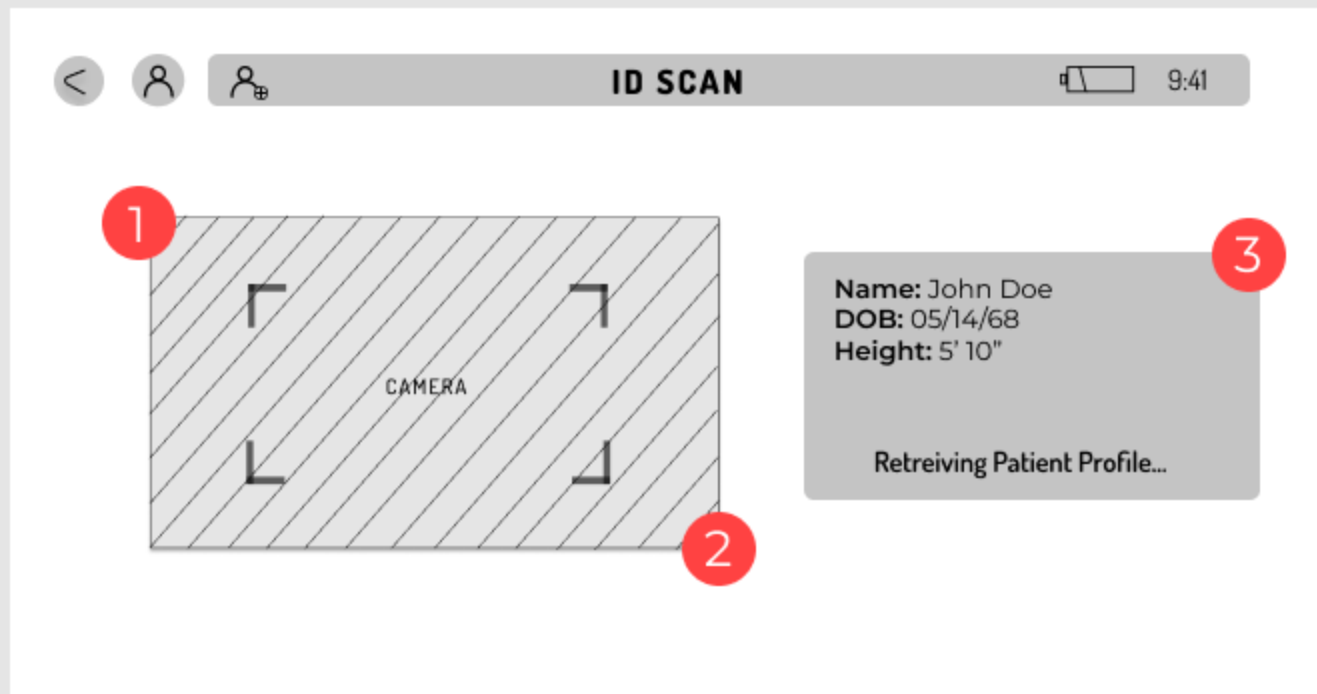
3

User can choose to search through existing database for patient information



Report Data - Patient Information ID Scan

- 1 Glasses (our form factor) will have a camera
- 2 User positions identification in the outlined area and waits for the system to capture it
- 3 Patient data will appear and fill in next to the capture



Report Data - ID Scan Results

- 1 Patient name is filled in from ID scan
- 2 Similar names that have existing reports
- 3 User can also enter DOB, if known, to narrow options (keyboard on pg 7,1)
- 4 If patient is not found in existing reports, user can create a new one

The screenshot shows a mobile application interface for 'PATIENT INFORMATION'. At the top is a navigation bar with a back arrow, two user icons, and the title 'PATIENT INFORMATION'. On the right of the bar are a battery icon and the time '9:41'. Below the bar, the form contains several fields: a 'DOB:' field with callout 3; a 'Name: John Doe' field with callout 1; an 'Existing Reports:' section with a scrollable list of names: 'John M. Doe', 'Johnathon Doey', 'Johnathen Doe Walter', and 'Joe Doe', with callout 2 pointing to the list; and a 'NEW PATIENT' button with callout 4.

< **PATIENT INFORMATION** 9:41

DOB: 3

Name: John Doe 1

Existing Reports:

- John M. Doe
- Johnathon Doey
- Johnathen Doe Walter
- Joe Doe

2

NEW PATIENT 4

Report Data - ID Scan New Patient

- 1 Only the name from the ID scan is filled in for new patient
- 2 Report is blank and ready to be filled in
- 3 Call on [date of today] automatically fills in with today's date
- 4 User can click to cement information and return to main menu

The image shows a mobile application interface for entering patient data. At the top, a header bar contains a back arrow, a person icon, a key icon, the name "JOHN DOE", a battery status icon, and the time "9:41". Below the header, the form is organized into several sections. On the left, there is a vertical list of input fields: "DOB: / /", "Sex:", "Height:", "Weight:", "Preferred Hospital:", and "Emergency Contact: Name:" followed by "Phone Number:". In the center, there are two expandable sections: "Known Conditions:" and "History". The "History" section contains a list item "call on [date of today]". On the right, there are two more expandable sections: "Allergies:" and "Medications:". At the bottom right, there is a "Confirm" button. Red numbered callouts (1-4) are placed over the interface to highlight specific features: 1 points to the patient name "JOHN DOE", 2 points to the empty input fields, 3 points to the "call on [date of today]" entry in the History section, and 4 points to the "Confirm" button.

< Person Key **JOHN DOE** Battery 9:41

DOB: / /

Sex:

Height:

Weight:

Preferred Hospital:

Emergency Contact:
Name:
Phone Number:

1

Known Conditions: +

History +

- call on [date of today]

3

Allergies: +

Medications: +

2

4

Confirm

Report Data - ID Scan Existing Patient

1 Pulls up the patient info of a previous patient

2 User can click on any field to edit (keyboard on pg 7, 1)

3 User can click on + to add medical information (keyboard on pg 7, 1)

4 All the fields are displayed on one screen, users do not like hidden fields or progressive disclosure

< **JOHN DOE** 9:41

DOB: 08/13/1974

Sex: Male

Height: 6'0"

Weight: 170

Preferred Hospital: lorem ipsum

Emergency Contact:
Jane Doe
(XXX)-XXX-XXXX

1 Known Conditions: +
• lorem ipsum dolor
• lorem ipsum dolor
• lorem ipsum dolor

2

History: +
• call on 04/22/13
• call on 12/31/17

3 Allergies: +
• lorem ipsum dolor
• lorem ipsum dolor
• lorem ipsum dolor
• lorem ipsum dolor

Medications: +
• lorem ipsum dolor
• lorem ipsum dolor
• lorem ipsum dolor
• lorem ipsum dolor

4

Report Data - Patient Information Patient Search

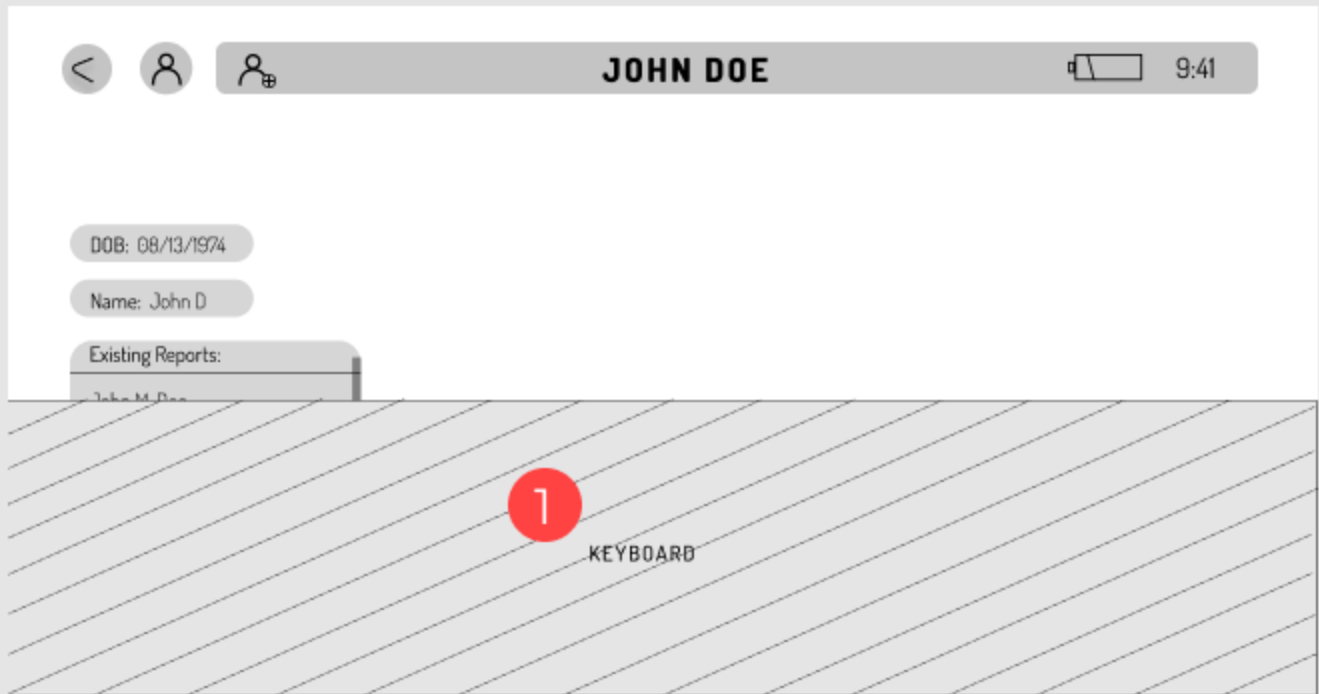
1 User can input DOB and/or Name (first and/or last) to find a patient. Entering DOB significantly narrows search results

2 New patient can be created before search, to save time if no previous report known

The screenshot shows a mobile application interface for patient information. At the top, there is a navigation bar with a back arrow, a person icon, a person with a plus sign icon, and the title "PATIENT INFORMATION". On the right side of the navigation bar, there is a battery status icon and the time "9:41". Below the navigation bar, there are three input fields: "DOB:", "Name:", and "NEW PATIENT". A red circle with the number "1" is placed next to the "DOB:" and "Name:" fields. Another red circle with the number "2" is placed next to the "NEW PATIENT" button.

Report Data - Patient Search Keyboard

- 1 When name or DOB field is clicked, keyboard pops up for typing



Report Data - Patient Search Filled

1 Similar names that have existing reports (pg 3, 2)

2 If patient is not found in existing reports, user can create a new one (pg 3, 4)

The screenshot shows a mobile application interface for patient search. At the top, there is a header bar with a back arrow, a person icon, a search icon, the name "JOHN DOE", a battery icon, and the time "9:41". Below the header, there are two input fields: "DOB: 08/13/1974" and "Name: John Doe". Below these fields is a section titled "Existing Reports:" which contains a list of names: "John M. Doe", "Johnathon Doey", "Johnathen Doe Walter", and "Joe Doe". A red circle with the number "1" is placed next to this list. Below the "Existing Reports:" section is a button labeled "NEW PATIENT". A red circle with the number "2" is placed next to this button.

< [Person Icon] [Search Icon] **JOHN DOE** [Battery Icon] 9:41

DOB: 08/13/1974

Name: John Doe

Existing Reports:

- John M. Doe
- Johnathon Doey
- Johnathen Doe Walter
- Joe Doe

NEW PATIENT

Report Data - Patient Search New Patient

1 Name is not filled in, user gets completely blank form

2 Report is blank and ready to be filled in

3 Call on [date of today] automatically fills in with today's date

The form is titled "JOHN DOE" and includes a back arrow, a person icon, and a search icon. The form is divided into several sections:

- Left Column:**
 - DOB: / /
 - Sex:
 - Height:
 - Weight:
 - Preferred Hospital:
 - Emergency Contact:
 - Name:
 - Phone Number:
- Center Column:**
 - Known Conditions: (with a plus icon)
 - History
 - call on [date of today] (with a plus icon)
- Right Column:**
 - Allergies: (with a plus icon)
 - Medications: (with a plus icon)

Annotations:

- 1: Points to the "JOHN DOE" header.
- 2: Points to the "Emergency Contact" section.
- 3: Points to the "call on [date of today]" text in the History section.

A "Confirm" button is located at the bottom right.

Report Data - Patient Search Existing Patient

1 Pulls up the patient info of a previous patient

2 User can click on any field to edit (keyboard on pg 7, 1)

3 User can click on + to add medical information (keyboard on pg 7, 1)

4 All the fields are displayed on one screen, users do not like hidden fields or progressive disclosure

The screenshot shows a mobile application interface for "Patient Search". At the top is a header bar with a back arrow, a person icon, a search icon, the title "Patient Search", a battery status icon, and the time "9:41".

Below the header, the patient information is displayed in a list of fields, each with a red circle '1' next to it:

- DOB: 08/13/1974
- Sex: Male
- Height: 6'0"
- Weight: 170
- Preferred Hospital: lorem ipsum
- Emergency Contact: Jane Doe (XXX)-XXX-XXXX

To the right of the patient info, there are three expandable sections, each with a red circle '2' next to it:

- Known Conditions:** Contains a list of three items: "lorem ipsum dolor", "lorem ipsum dolor", and "lorem ipsum dolor". A red circle '3' is next to the "+" icon in the top right corner of this section.
- History:** Contains a list of two items: "call on 04/22/13" and "call on 12/31/17". A red circle '4' is next to the "+" icon in the top right corner of this section.
- Allergies:** Contains a list of four items: "lorem ipsum dolor", "lorem ipsum dolor", "lorem ipsum dolor", and "lorem ipsum dolor". A red circle '3' is next to the "+" icon in the top right corner of this section.

Below these sections is another expandable section, also with a red circle '4' next to it:

- Medications:** Contains a list of four items: "lorem ipsum dolor", "lorem ipsum dolor", "lorem ipsum dolor", and "lorem ipsum dolor". A red circle '3' is next to the "+" icon in the top right corner of this section.

Report Data - Action Taken

- 1 User has to fill out 1 of the 3 sections
- 2 Transfer to med and treatment refusal open up their own unique pages. Users didn't like progressive disclosure, but we felt the interface needed organization
- 3 By selecting a field, the circle will become filled in

The screenshot shows a mobile application interface for reporting actions taken. At the top is a header bar with a back arrow, a person icon, a group of people icon, the title "ACTION TAKEN", a battery level indicator, and the time "9:41". A red circle with the number "1" is placed over the title. Below the header, the form is organized into three sections: "ON SCENE CARE", "TRANSFERRED TO MED", and "TREATMENT REFUSAL". Each section contains several radio button options. A red circle with the number "3" is placed over the "Intubation" option in the "ON SCENE CARE" section. A red circle with the number "2" is placed over the "Signature Required" option in the "TREATMENT REFUSAL" section. At the bottom right, there is a "Confirm" button with a right arrow.

ACTION TAKEN

ON SCENE CARE

- ☐ PT Exam
- ☐ Wound/Burn Care
- ☐ Oxygen
- ☐ Medication
- ☐ I.C Injection
- ☐ Splint
- ☐ Rescue/Extraction
- ☐ Splint/Reduction
- ☐ Psychological
- ☐ ECG Monitor
- ☐ Peripheral IV
- ☐ Intubation

TRANSFERRED TO MED

- ☐ Location
- ☐ Method

TREATMENT REFUSAL

- ☐ Signature Required

Confirm >

Report Data - Action Taken Transferred to Med

- 1 Field is outline and not bubbled in because it is in progress, not completed
- 2 Location is a fill in the blank field, which prompts the keyboard
- 3 Clicking next will take the user to the next field needed for Transferred to Med

The image shows a mobile application interface titled "ACTION TAKEN". At the top is a navigation bar with a back arrow, two user icons, and a battery/status bar showing 9:41. Below the header, the section is titled "TRANSFERRED TO MED". There are two radio buttons: "Location" (selected) and "Method". Below these is a text input field containing "lorem ipsum", which is annotated with a red circle "2". To the right of the input field is a "Next" button, annotated with a red circle "3". A red circle "1" points to the "Location" radio button. At the bottom of the screen is a large gray area with diagonal lines, labeled "Keyboard", indicating that the text input field is active and has prompted the keyboard to appear.

Report Data - Action Taken Transferred to Med

- 1 Field is outline and not bubbled in because it is in progress, not completed
- 2 Location is a fill in the blank field, which prompts the keyboard
- 3 Clicking confirm marks the end of the Transferred to Med section and takes the user back to page 37

The image shows a mobile application interface for a section titled "ACTION TAKEN". At the top, there is a navigation bar with a back arrow, two user icons, the title "ACTION TAKEN", a battery status icon, and the time "9:41". Below the navigation bar, the section "TRANSFERRED TO MED" is displayed. It contains two input fields: "Location" and "Method". The "Method" field is highlighted with a red circle labeled "1". Below these fields is a text input field containing "lorem ipsum", which is highlighted with a red circle labeled "2". To the right of the text input field is a "Confirm" button, highlighted with a red circle labeled "3". At the bottom of the screen, there is a large, shaded area with diagonal lines, labeled "Keyboard", indicating the keyboard is active.

Report Data - Action Taken Treatment Refusal

- 1 Field is outline and not bubbled in because it is in progress, not completed
- 2 Refusing treatment requires the patient to read a consent form and sign it
- 3 Clicking confirm marks the end of the Refusing Treatment section and takes the user back to page 37

< [User Icon] [Add User Icon] **ACTION TAKEN** [Battery Icon] 9:41

TREATMENT REFUSAL

☒ Signature Required **Confirm**

Consent Form with Signature

Report Data - Review Report

- 1 All the information filled in is on display, and a scrollbar is used to fit it all
- 2 Anything can be edited on this page
- 3 Clicking submit will send the report to the cloud and will finalize the report

REVIEW 9:41

1

Patient Information +

Name: John Doe
DOB: 08/13/1974
Sex: M
Height: 5'10"
Weight: 180
Preferred Hospital: lorem ipsum
Emergency Contact:
Jane Doe
(XXX)-XXX-XXXX

2

Vitals +

Blood Pressure: 80/50
Heart Rate: 55
SpO2: 75%

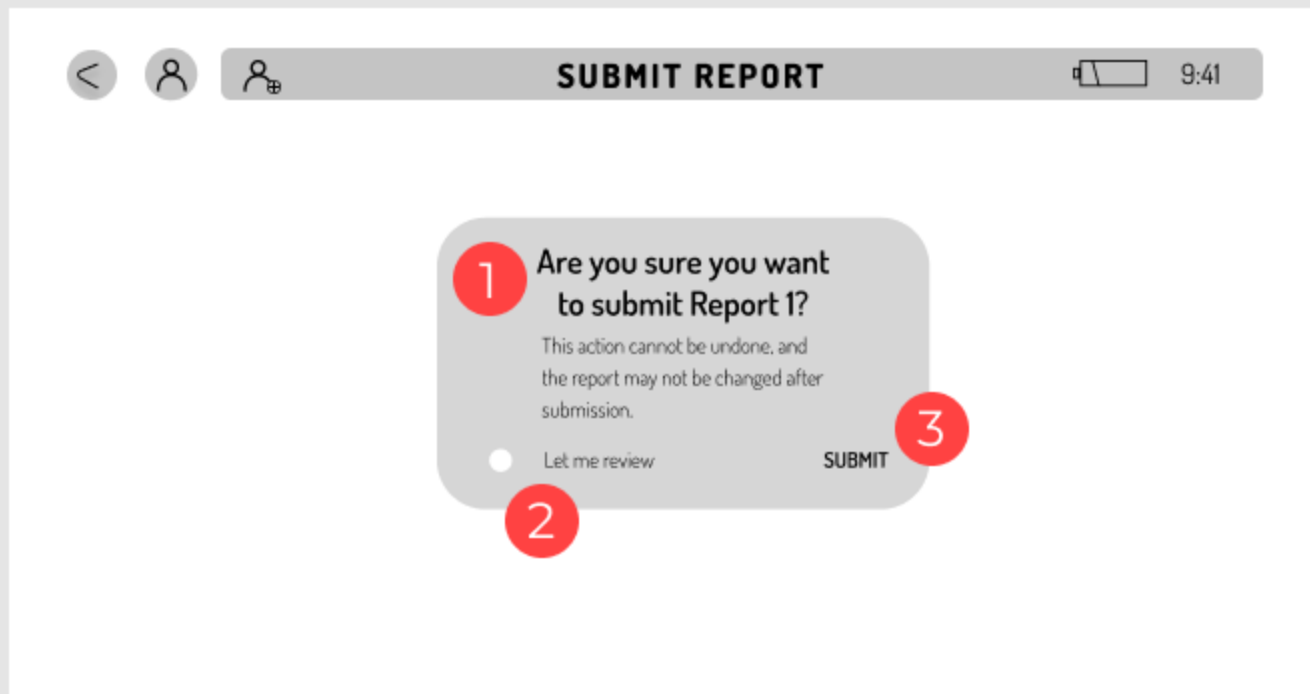
3

SUBMIT

Keyboard
Shortcut

Report Data - Submit Report

- 1 A warning message is shown because submitting the report is irreversible due to legal reasons
- 2 User has a chance to go back and edit
- 3 Completes the report and returns user to blank home screen (pg 12)



State Transition Diagram

Key Path: Inputting Vitals

