

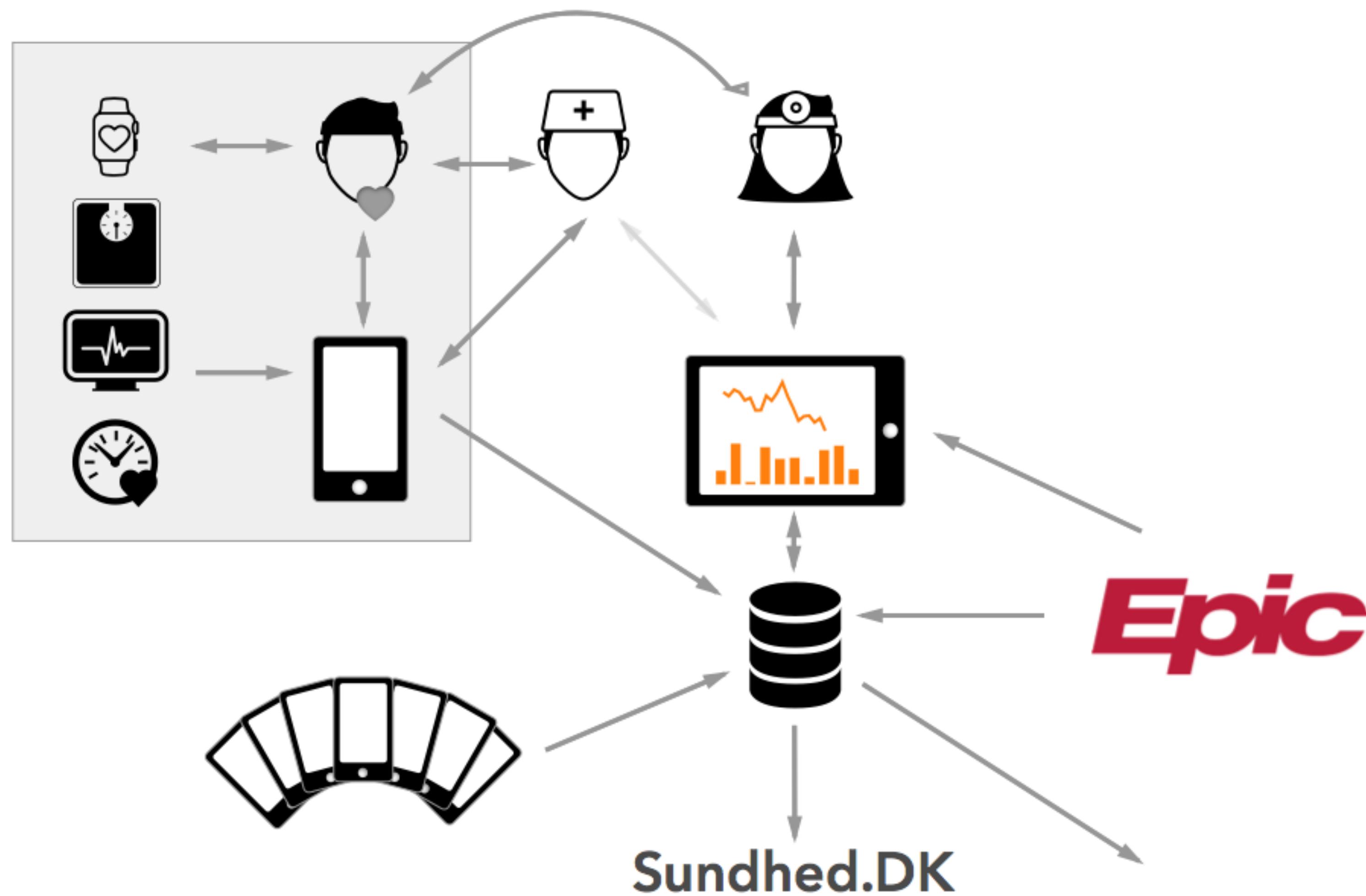
UX for heart failure patients

A short view on lean UX for health care

Heart failure:
Heart is unable
to pump blood
around the body properly

NHS UK

empower patient
improve nurse-patient contact



UX FOR HEART - V.1.0

created by storiesonboard.com

Optimisation of home treatment of heart patients

Sign up

Measure heart patients blood pressure

Measure heart patients weight

Take heart patient EKG

Measure heart patients pulse

Tracking activities of heart patient

Data collection/process ing

Feedback to app user

Doctor receives data

Medicin compliant

Slice 1

Download/open app

Place blood pressure monitor on arm

Step on scale

Place finger on EKG measurer

Constant/continous pulse measurement

Constant tracking of activities - automatic classification

Data collected and stored locally

Give a "status ok" or ✓ when user have logged a measurement o

Doctor reads from stand alone apps (Withings etc.)

Receive home monitoring equipment (scale, blood pres

Start blood pressure measurement

Start weight measurement

Start EKG measurement

Nudging of user to do "something"

Slice 2

Type in name, age and sex

Receive notification to measure blood pressure

Receive notification to measure weight

Receive notification to measure EKG

Notifikation to make a pulse measurement

User based feedback/classification of activities

Data send to healthKit

Simple visualisation of data

Doctor reads data from healthKit on patients phone

Register weight

Instructional video

Instructional video

Instructional video

Heart patient start pulse measurement

Data send from health kit to database

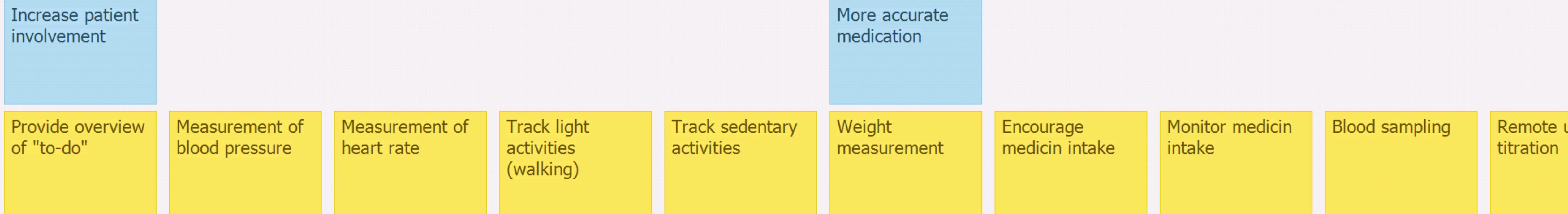
Register height

Interval-based measurement



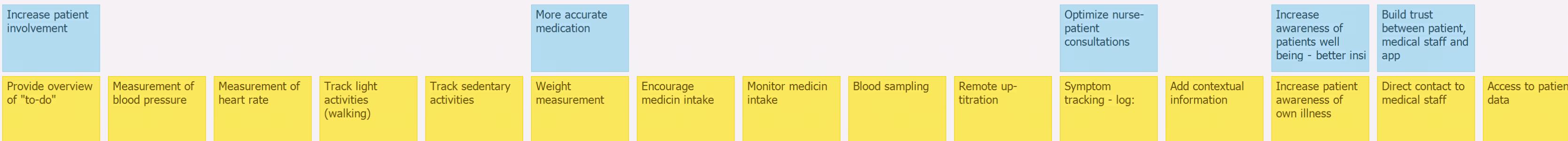
USMPATIENT3

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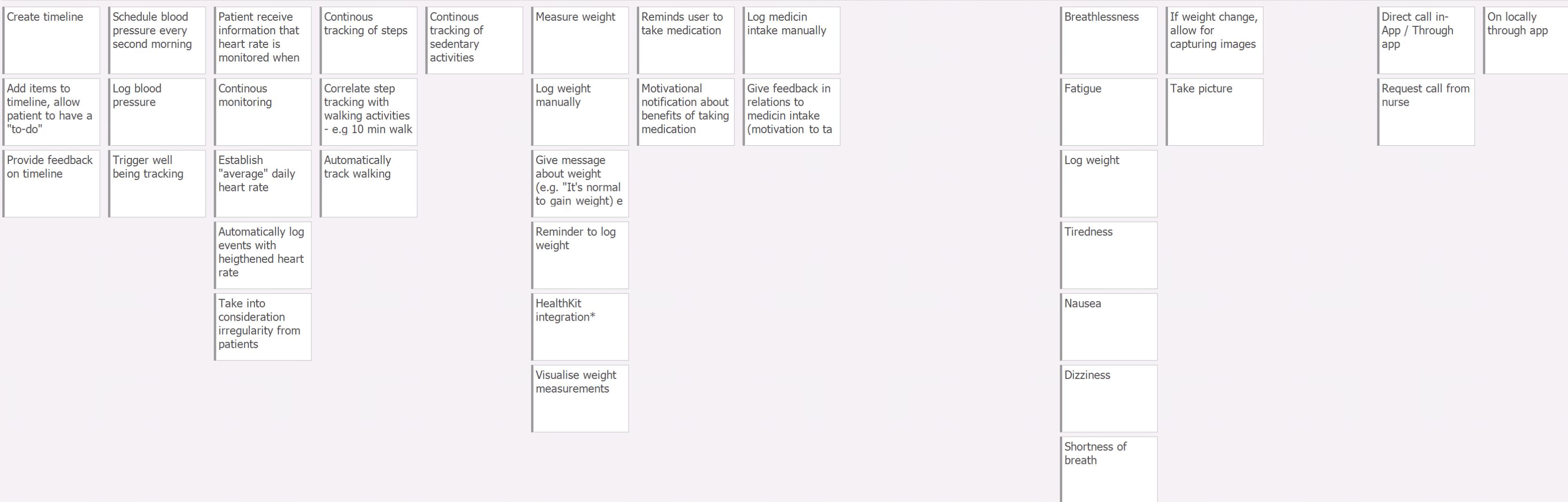


Slice 1

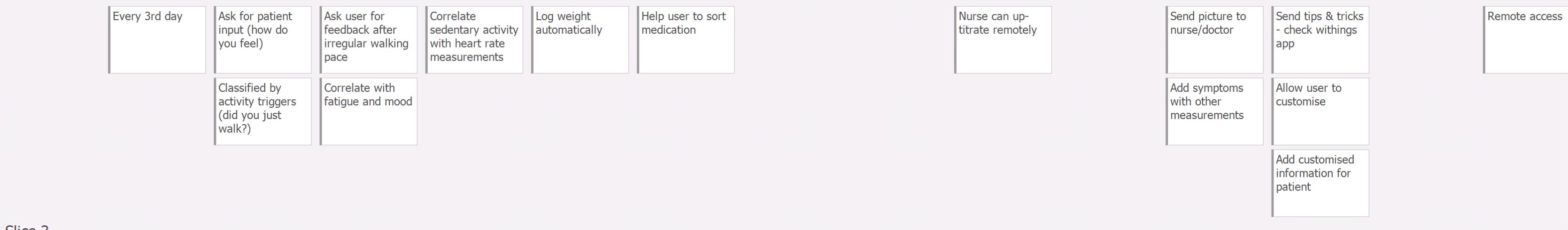
Create timeline	Schedule blood pressure every second morning	Patient receive information that heart rate is monitored when	Continous tracking of steps	Continous tracking of sedentary activities	Measure weight	Reminds user to take medication	Log medicin intake manually		
Add items to timeline, allow patient to have a "to-do"	Log blood pressure	Continous monitoring	Correlate step tracking with walking activities - e.g 10 min walk		Log weight manually	Motivational notification about benefits of taking medication	Give feedback in relations to medicin intake (motivation to ta		
Provide feedback on timeline	Trigger well being tracking	Establish "average" daily heart rate	Automatically track walking		Give message about weight (e.g. "It's normal to gain weight) e				
		Automatically log events with heightened heart rate			Reminder to log weight				
		Take into consideration irregularity from patients			HealthKit integration*				



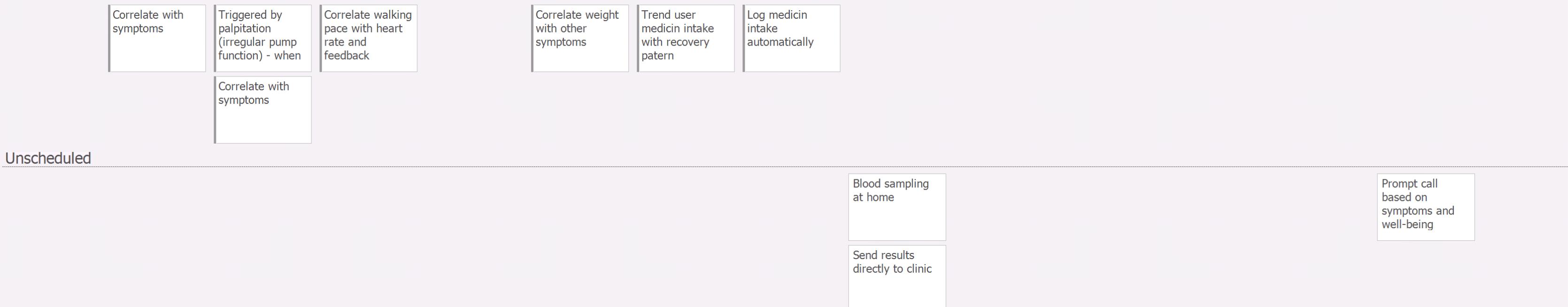
Slice 1



Slice 2

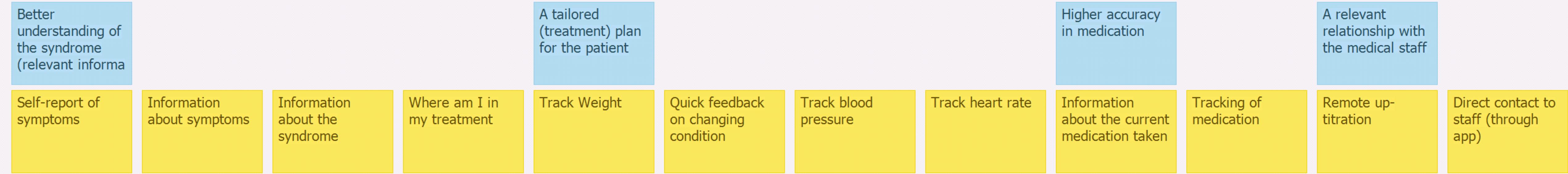


Slice 3



UX FOR HEART - PATIENT MAP

created by storiesonboard.com



MVP/Prototype for test

Breathlessness/Short breath	Manually add weight	Weight change of +/- 1-2kg in 1-2 days	Access to symptoms - to classify according to NYHA	Access to faceTime
Sleeping sitting	Edit weight	Send feedback to system in change of weight	Access to blood pressure	Access to calendar
Sleeping lying	Review weight history	Send registered symptoms	Access to heart rate	
Dizziness		Can be contacted by staff		Access to blood samples, if they exist
No symptoms				
Rapid heart beat				
Fatigue				

I'm experiencing

No symptoms	Tiredness	Nausea

Dizziness	Fatigue	Short breath

Add other symptoms

I'm experiencing

No symptoms	Tiredness	Nausea

Dizziness	Fatigue	Short breath

Add other symptoms

I'm experiencing

No symptoms	Tiredness	Nausea

Dizziness	Fatigue	Short breath

Chest pressure

Q W E R T Y U I O P
A S D F G H J K L
123 ☺ microphone space Add

Week view 07:41 AM 100% +

Today 24-09-2015

Walk 17 min Sedentary 3 Hours

07:02 79,7 kg Missing weight information

07:41 Sedentary 42 min

Medicine Not taken yet

Blood Pressure Not taken yet

Do you have: Select one or more

Swollen ankles ✓
Swollen legs
Swollen abdomen

Do you have: Select one or more

Swollen ankles ✓
Swollen legs
Swollen abdomen

Record an image You will now be asked to take a picture of your swollen body part.



Retake Save

Thank you! It seems like you have some swelling. To relieve yourself you can:

Take diuretic Contact Nurse

Week view 07:41 AM 100% +

Today 24-09-2015

Walk 17 min Sedentary 3 Hours

07:02 79,7 kg Swollen ankles Diuretic taken

07:41 Sedentary 42 min

Medicine Not taken yet

Blood Pressure Not taken yet

Back 07:44 AM 100%

Medicine to take Click for each medicament taken

Beta blocker 1 tablet ✓
ACE 1/2 tablet ✓
Dieuretic (if needed) 1 tablet

Done

Back 07:44 AM 100%

Medicine to take Click for each medicament taken

Beta blocker 1 tablet ✓
ACE 1/2 tablet ✓
Dieuretic (if needed) 1 tablet

Done

Week view 07:44 AM 100% +

Today 24-09-2015

Walk 17 min Sedentary 3 Hours

07:02 79,7 kg Swollen ankles Diuretic taken

07:44 Medicine Taken

Blood Pressure Not taken yet

Done

Prevent patient
feeling ill

Track weight

Contact patient

Monitor medicin
intake

Increase
efficiency of
consultation

Provide nurse
insights of
patient

Timeline
representation

Remote up-
titration

Slice 1

Display weight
for last 7 days

Contact via
phone

Log medicin
intake manually

Weight
measurements
visualised

Representation of
daily activities

Display mean
weight

Give feedback in
relations to
medicin intake
(motivation to ta

Blood pressure
visualised

Daily pill intake

Sketch 9:41 AM 100% Insights Dagbog Vidensbank | :

Idag Torsdag 23. oktober

10:43 **Træthed, Svimmelhed**
"Havde det skidt efter formiddagskaffe"
Sys 95 Dia 60 Puls 78
Klik for mere information

08:55 **Irreguler puls detekteret**
Maks 155 Min 105
Klik for mere information

07:00 **Vægt registreret** Din vægt er **Stabil**
77,3 kg
Klik for mere information

User can also add comments.
And see more information

Color coding for easy identification of special events.

Automatic trigger when user adds a measurement.
Adds the feedback to the timeline, for easy overview

Sidste 7 dage

Vægt

Visualisation of measurements. Yellow is a warning. Red/orange is critical

Interessante dage: Man. 19.09

Vægt +1,7 kg
Symptomer Døsig, Åndenød, Udmattet ved gang, Søvnproblemer
Blodtryk/Puls 140/95 | 87

Symptomer

Dato	Udmattelse	Træthed	Åndenød	Vægt	Søvn	Hjertebanke
17						
18						
19	●	●				
20	●	●	●	●		
21			●	●		
22						
23						

Most relevant information summarised

Symptomer

Dato	Udmattelse	Træthed
18	●	
19	●	●
20		

Medicin

Dato	ACE	Betalblokker	Vanddrivende	Digoxin
18	●			
19		●		
20	●	●		
21		●		
22				
23				

Here the green indicates a patient taking all the medication at specified times. Yellow indicates only sometimes. A blank indicates no medication taken

Blodtryk + Puls

More severe symptoms are registered as yellow or orange

Blodprøver

Parameter	Wert
Hæmoglobin	7,5 mmol/L
Kreatinin	50 µmol/L
Kalium	3,7 mmol/L
Natrium	137 mmol/L

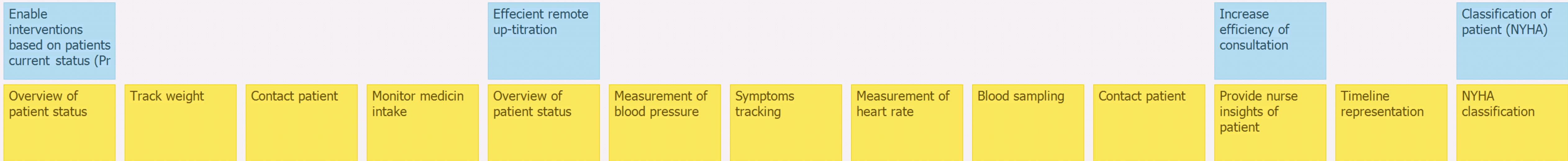
Most recent blood samples

ECG: Atriflimmer (AF)

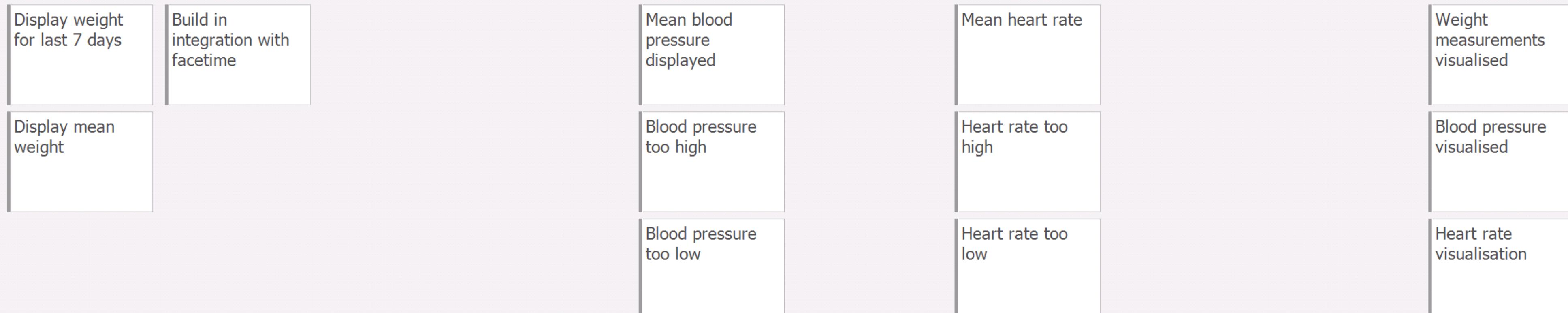
If any abnormalities in the heart rythm appears, it will be displayed here

Swipe for navigation

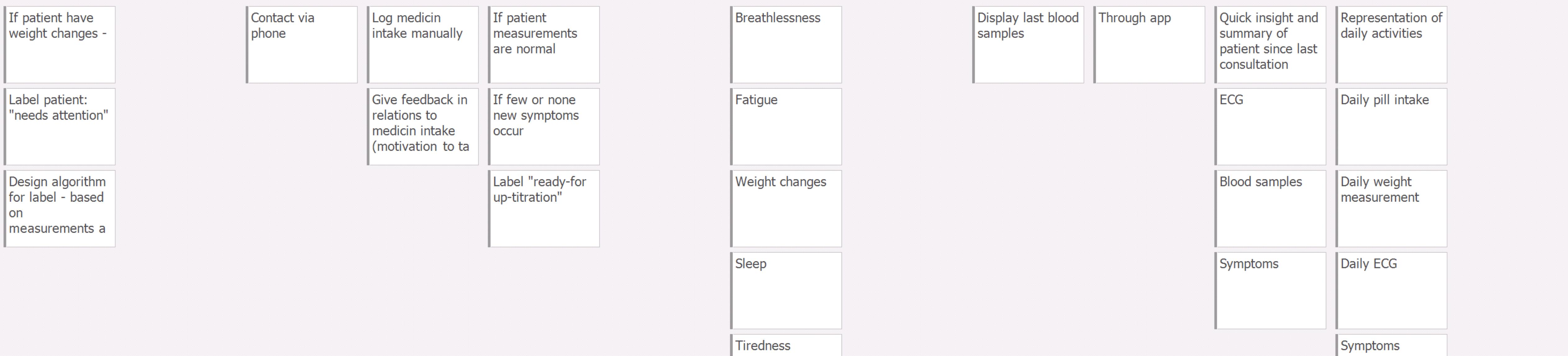


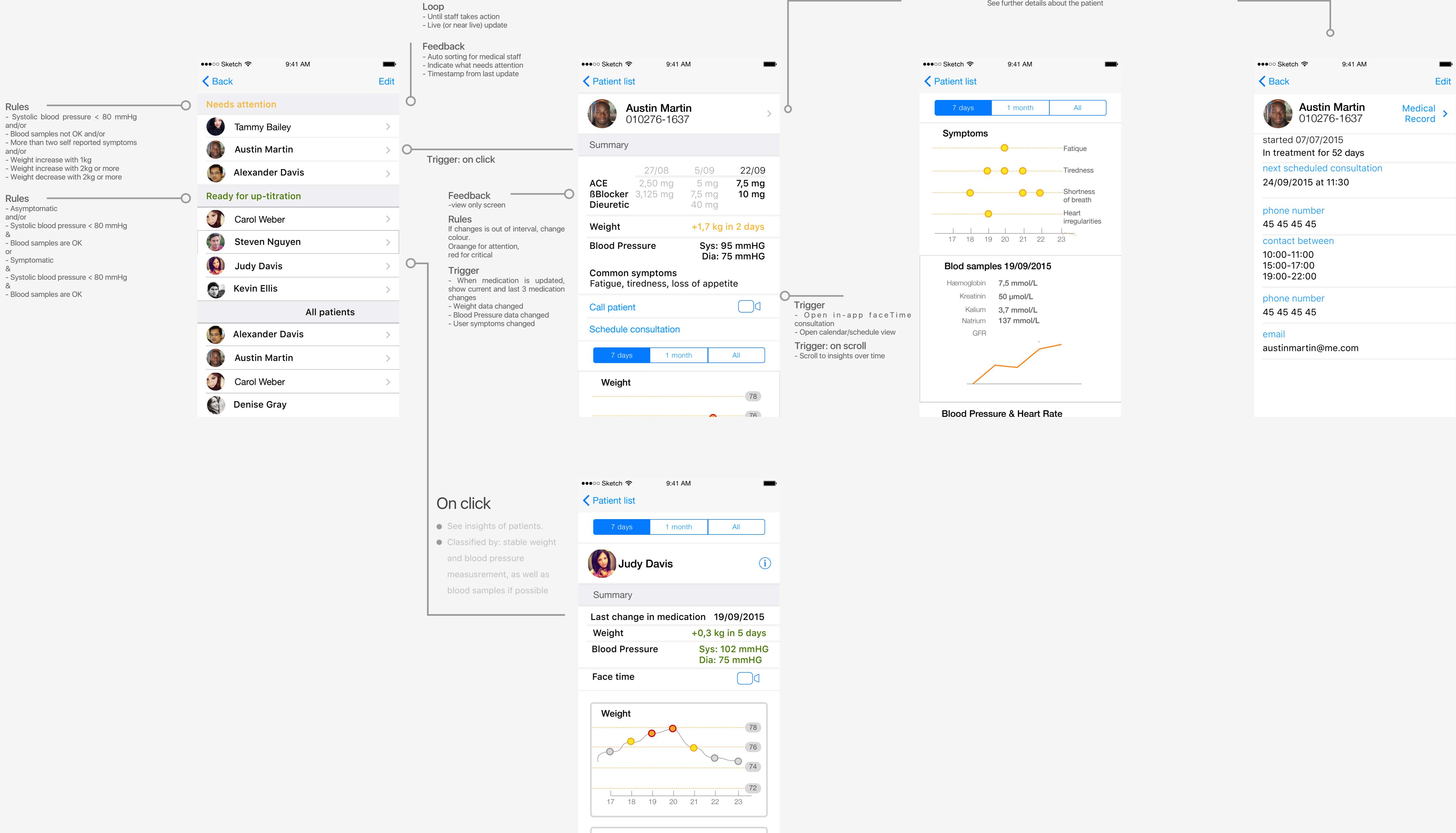


Minimum Viable product

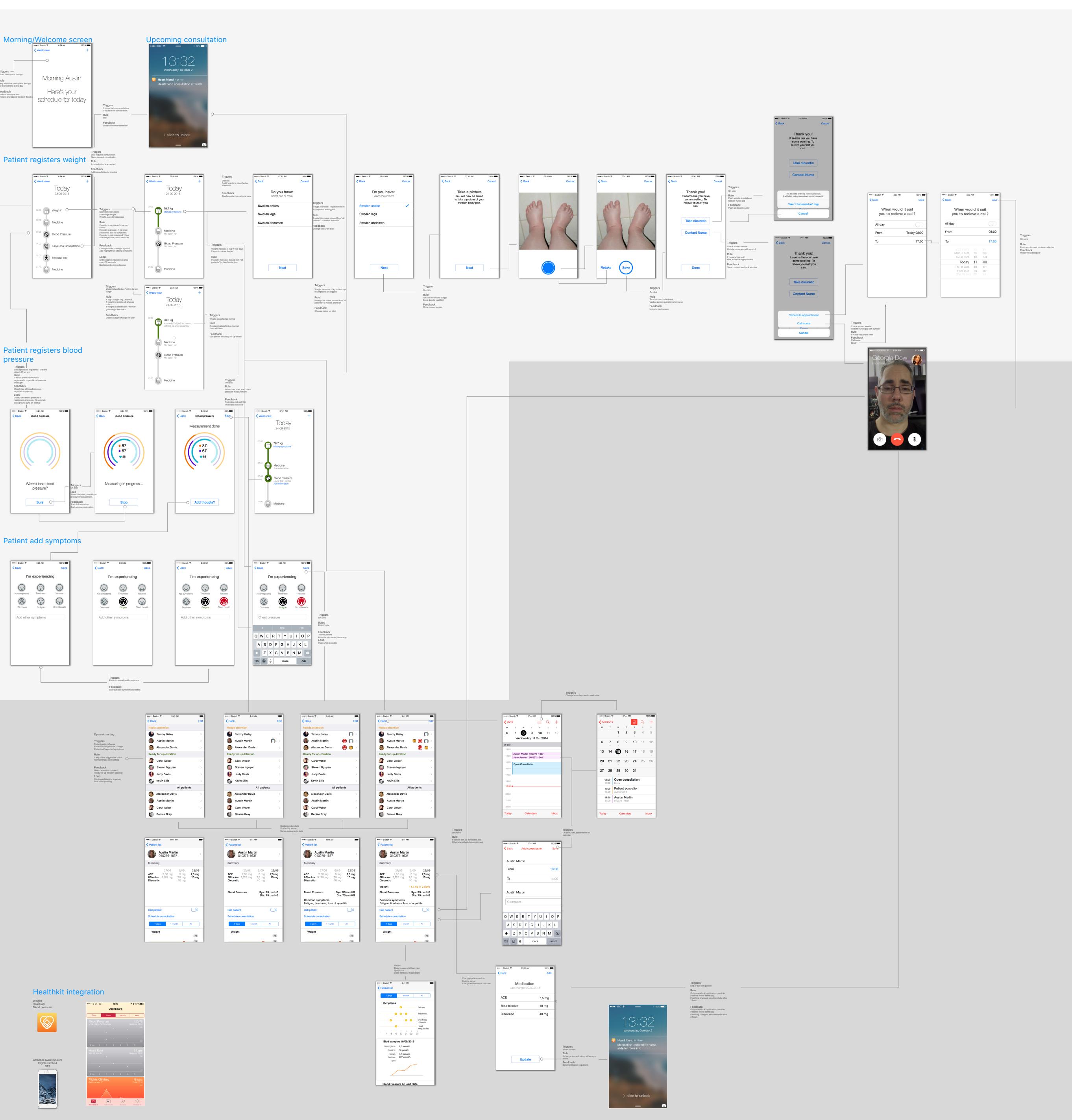


Slice 1



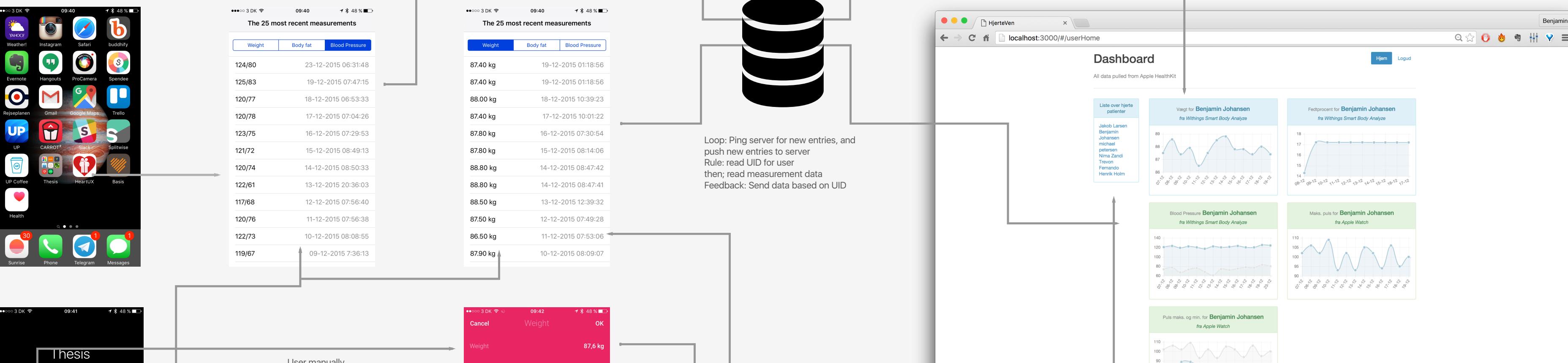


user story maps
are the base for
testable hypotheses
that you want to validate

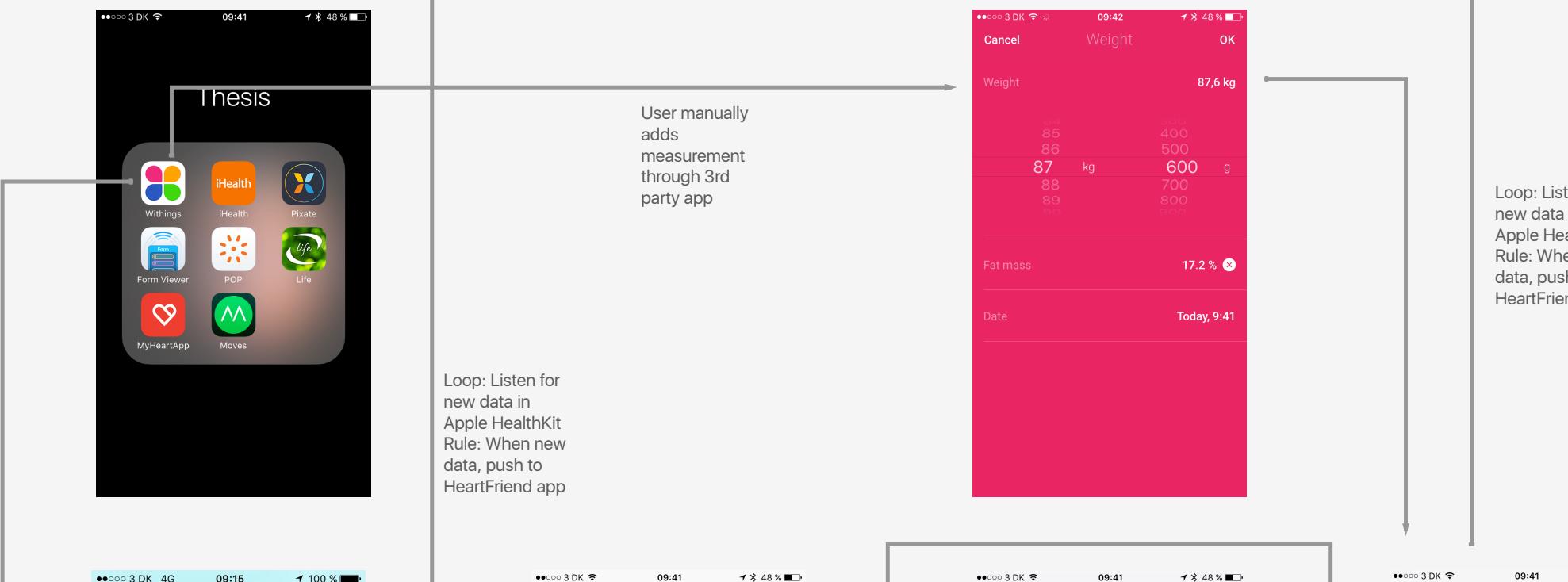


empower patient
improve nurse-patient contact

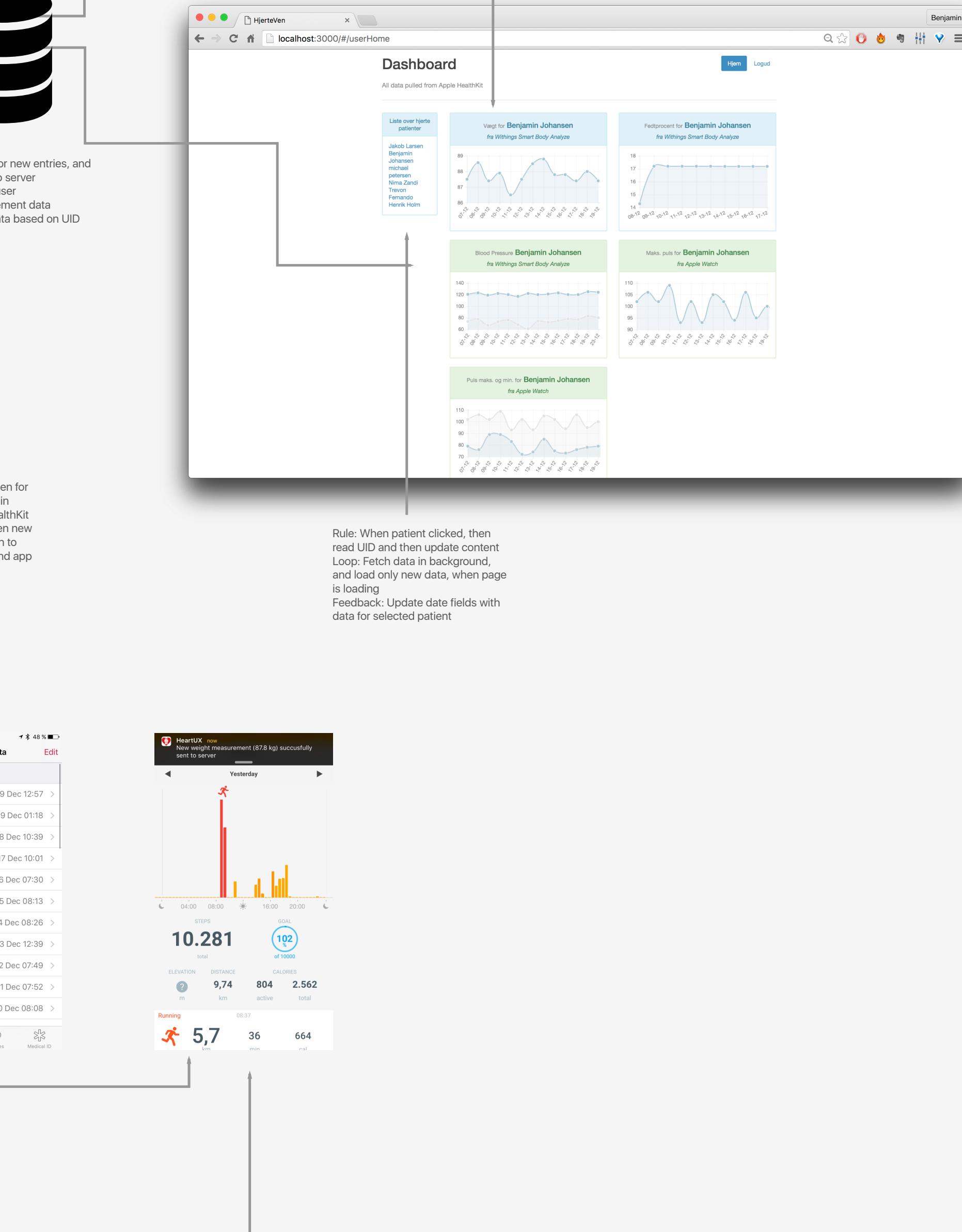
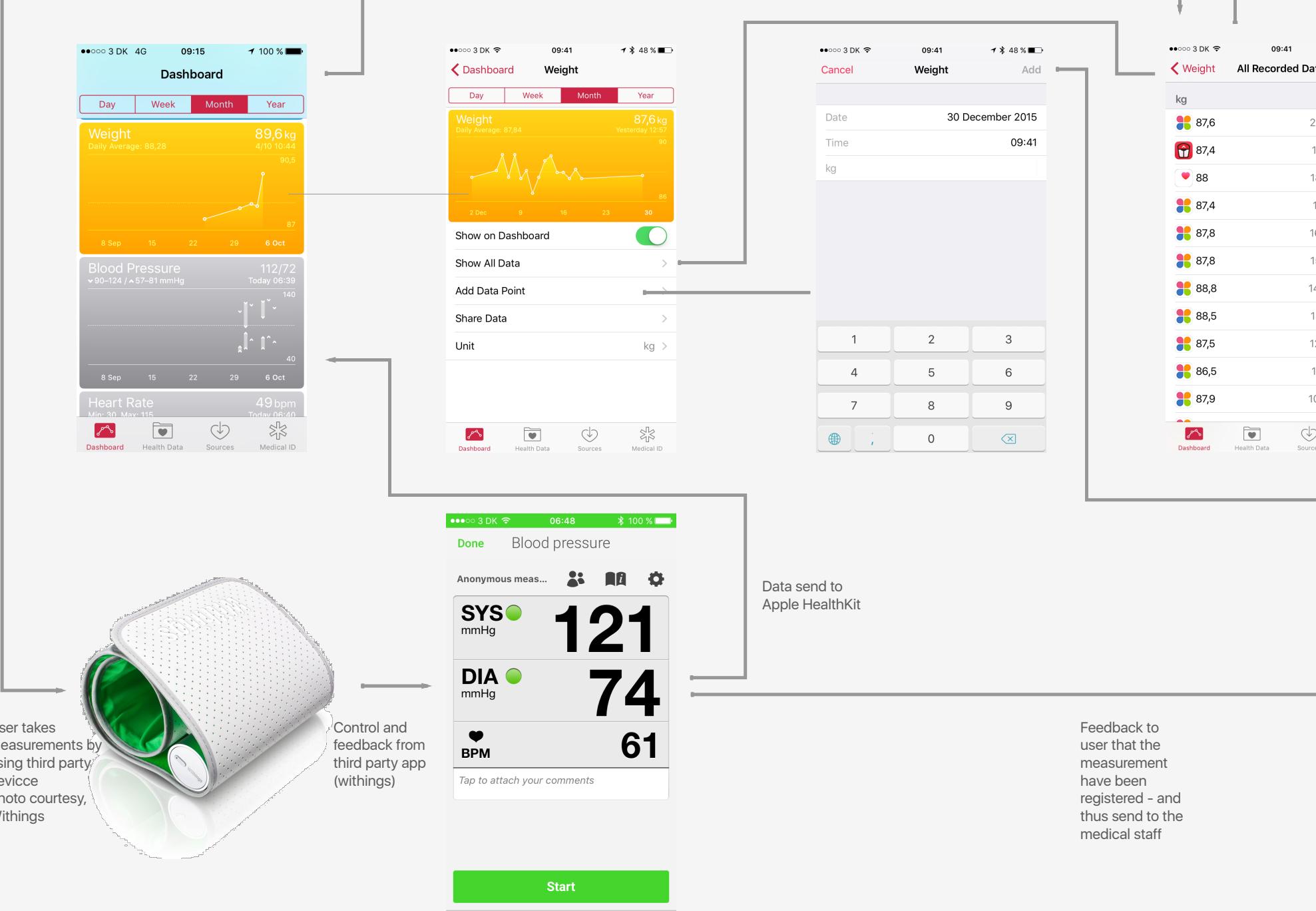
Accessing information about patient



Registration of weight



Registration of Blood pressure



ideate - validate - iterate

start earlier than later

don't be afraid to change

have a well defined target group

iterate