

FRRAAGILE

# D2.2 frAAgiLe apps v2

UNIGE, SLO, IDE, DEU

FR**AA**GILE

# Tablet app

- The app connects with the backend using the patients & caregivers roles.
- They use email and password defined for them.
- The launcher app created by UNIGE connects to the backend by SLO/IDE and launches third party apps from IDE and DEU for games or some connections to devices.

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## Login



E-mail address

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Password

---

Login

# Welcome!



Welcome

Got it!



My health



Evaluate



Play games



Exercises



Learn

# Health score



This is the main menu where you can navigate between the sections of the app.

Later

Next

Trends will be available after a month of usage.

## Messages

14.12.2020 - 10:00  
hello

07.12.2020 - 16:20  
dgdgerer

07.12.2020 - 16:19  
**dggg**

07.12.2020 - 16:14  
hello



My health



Evaluate



Play games



Exercises



Learn

Track your health score and its progress.

Later

Next

68

Trend

Trends will be available after a month of usage.

Messages



14.12.2020 - 10:00  
hello



07.12.2020 - 16:20  
dgdgerer



07.12.2020 - 16:19  
**dggg**



07.12.2020 - 16:14  
hello

# Engagement score

- The different apps have been developed using Android for a better user experience a for a better integration with the hardware (Bluetooth connections, using of the camera, etc. ).
- For this last version, the apps are already published in Google Play.
- The app, after login, presents all the information related to that specific patient.





My health



Evaluate



Play games



Exercises



Learn

# Health score

Assess your health with tests you can do on your own or with a carer.

Later


Next

8

# Trend

Trends will be available after a month of usage.

## Messages

 14.12.2020 - 10:00  
hello

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dgdgerer

 07.12.2020 - 16:19  
**dggg**

 07.12.2020 - 16:14  
hello



My health



Evaluate



Play games



Exercises



Learn

# Health score



Find games that will help you stay healthy while having fun.

Later

Next

Trends will be available after a month of usage.

## Messages



14.12.2020 - 10:00  
hello



07.12.2020 - 16:20  
dgdgerer



07.12.2020 - 16:19  
**dggg**



07.12.2020 - 16:14  
hello



My health



Evaluate



Play games



Exercises



Learn

# Health score



# Trend


Find apps and videos to practice at home.

Later

Next

... after a month of usage.

# Messages

 14.12.2020 - 10:00  
hello

 07.12.2020 - 16:20  
dgdgerer

 07.12.2020 - 16:19  
**dggg**

 07.12.2020 - 16:14  
hello



My health

# Health score



Evaluate



Play games



Exercises



Learn

# Trend

Find apps and videos to learn new things.

Later

Next

## Messages

14.12.2020 - 10:00  
hello

07.12.2020 - 16:20  
dgdgerer

07.12.2020 - 16:19  
**dggg**

07.12.2020 - 16:14  
hello

# Evaluations

- All the evaluations implemented in the backend are filled from the tablet: GDS, IQCode, MNA, Linda Freid, AD8, FAQ, SPPB tests
- UNIGE has created an engine to implement all the needed evaluations following the same wizards: descriptions, instructions, questions, end.
- We have created a calendar to suggest what actions should be done every week.

# Evaluations' calendar

	1	2	3	4	5	6	7	8	9	10	11	12	13	months
Sunfrail			X						X					
GDS	X				X				X					
SPPB	X					X						X		
FRIED's CRITERIA	X					X						X		
Initial Assesment	x face to face													
MNA	x							x						
AD8		x						x						
FAQ		x								x				
AMT			x							x				
IQCODE			x								x			

# Evaluations

- All the evaluations implemented in the backend are filled from the tablet: GDS, IQCode, MNA, Linda Freid, AD8, FAQ, SPPB tests
- UNIGE has created an engine to implement all the needed evaluations following the same wizards: descriptions, instructions, questions, end.
- We have created a calendar to suggest what actions should be done every week.

# Example. Depression scale

16:22 David FRAGILE

## Depression Scale

Depression Scale

The Geriatric Depression Scale is a test which is commonly used to assess depression in older age. COVID-19 pandemic is expected to have a high impact on people's mental health which is why now it's even more important than ever to monitor citizens wellbeing

16:22 David FRAGILE

## Depression Scale

Do you often get bored?

Yes No

Are you basically satisfied with your life?

Yes

Back

16:23 David FRAGILE

## Depression Scale

Do you often get bored?

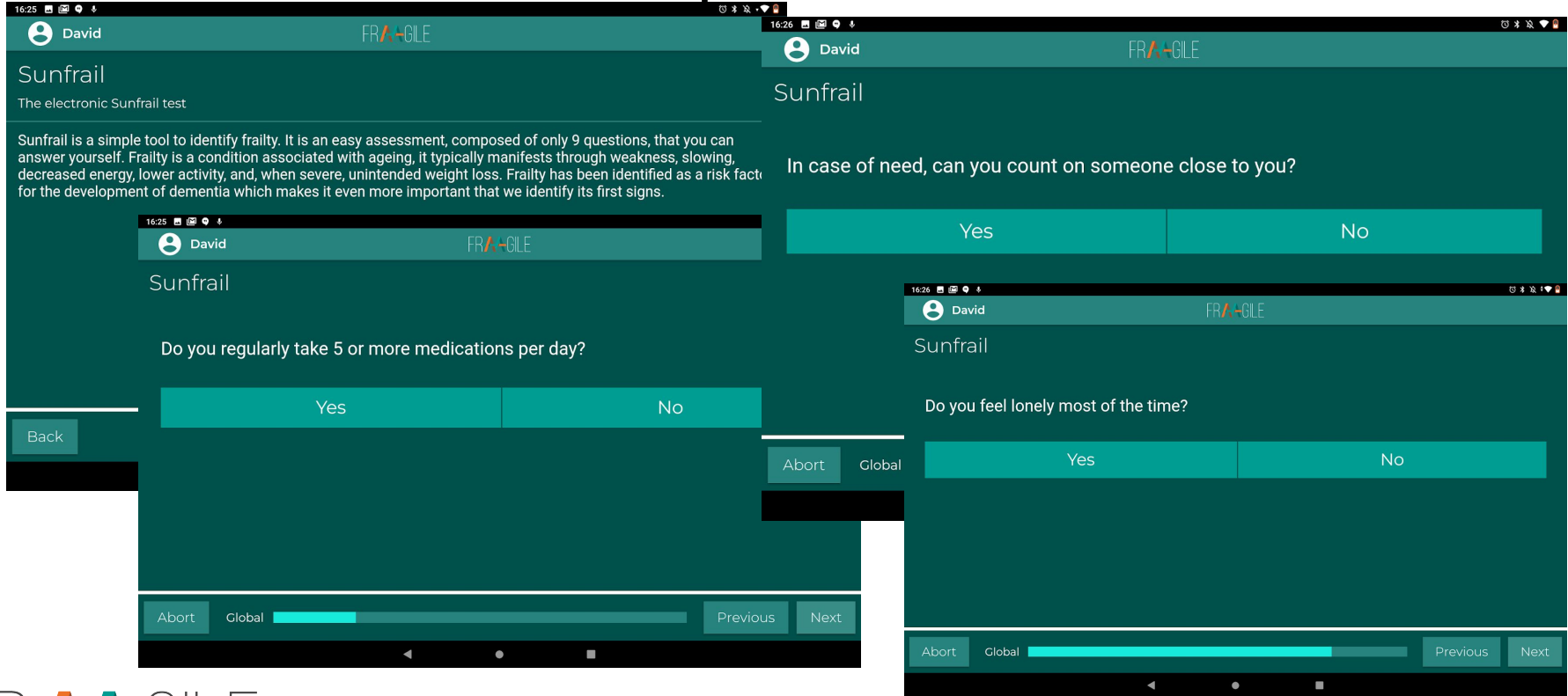
Yes No

Abort Global  Previous Next

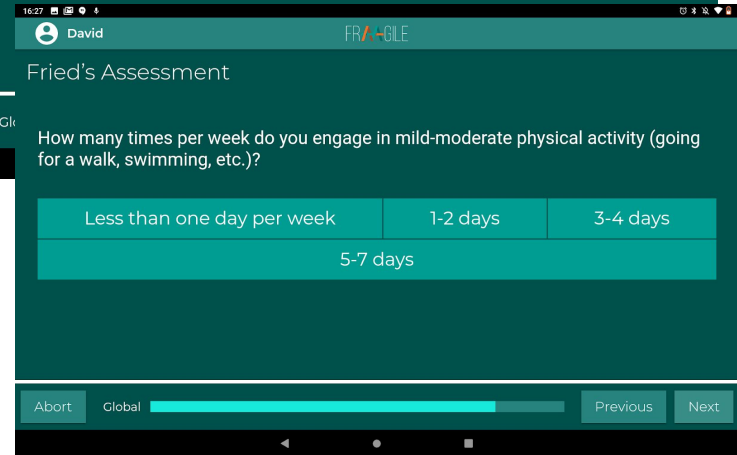
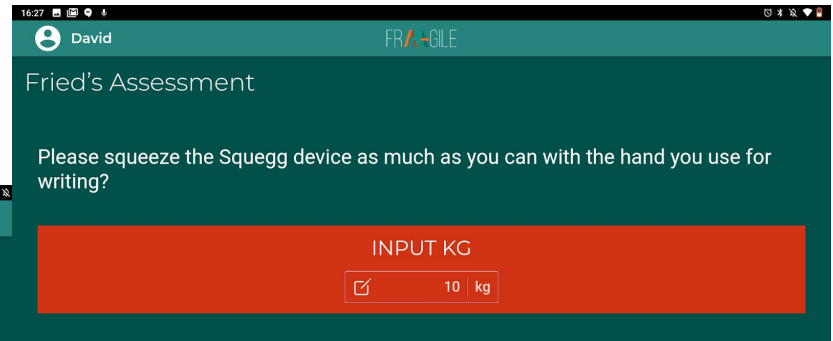
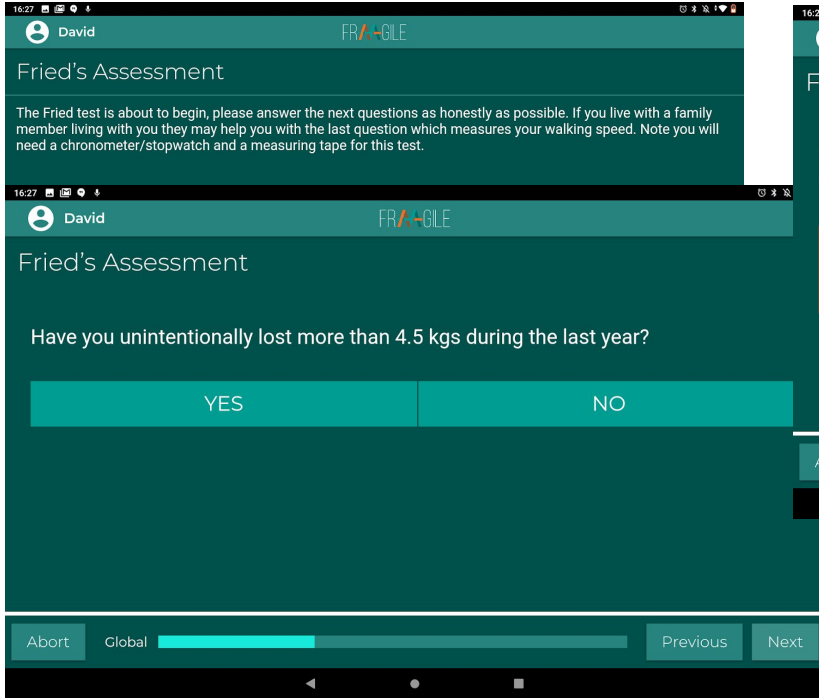
Abort Global  Previous Next



# Example. Sunfrail



# Example. Fried's assessment



# Example. Games. Chop it

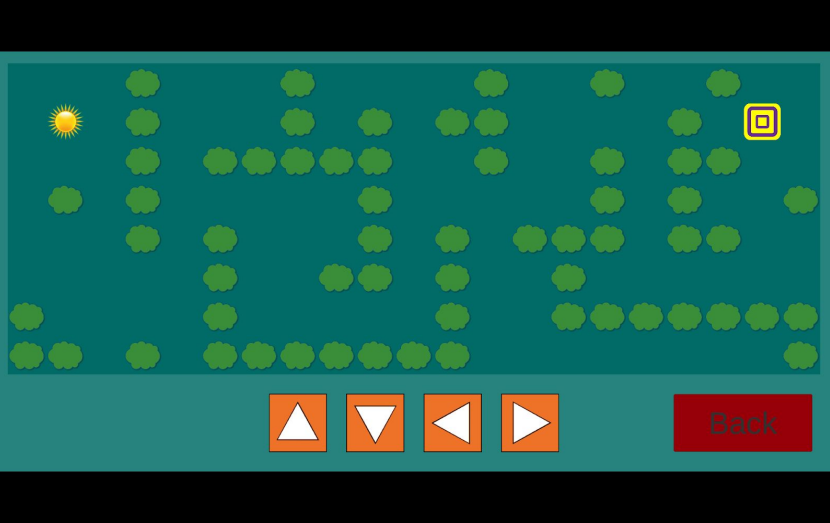


# Example. Games. Sailgity

The objective of this game is to move the sun through the labyrinth using the movement controls until reaching the exit square in the fewest possible movements.

Play

-  Move up
-  Move down
-  Move left
-  Move right
-  Maze output



Back

# Example. Games. Kwido Mementia

kwido making 17's easier → Salir



¿Cuántas alfombras hay en la imagen?



- 10
- 9
- 8



kwido making 17's easier → Salir



Arrastre cada imagen de arriba con su nombre correspondiente



Pato de goma

Minibar

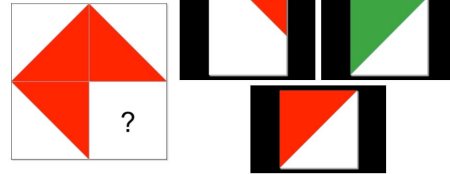
Despertador



kwido making 17's easier → Salir



Marque de las opciones de abajo la que completa correctamente la matriz presentada



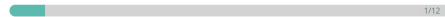
kwido making 17's easier → Salir



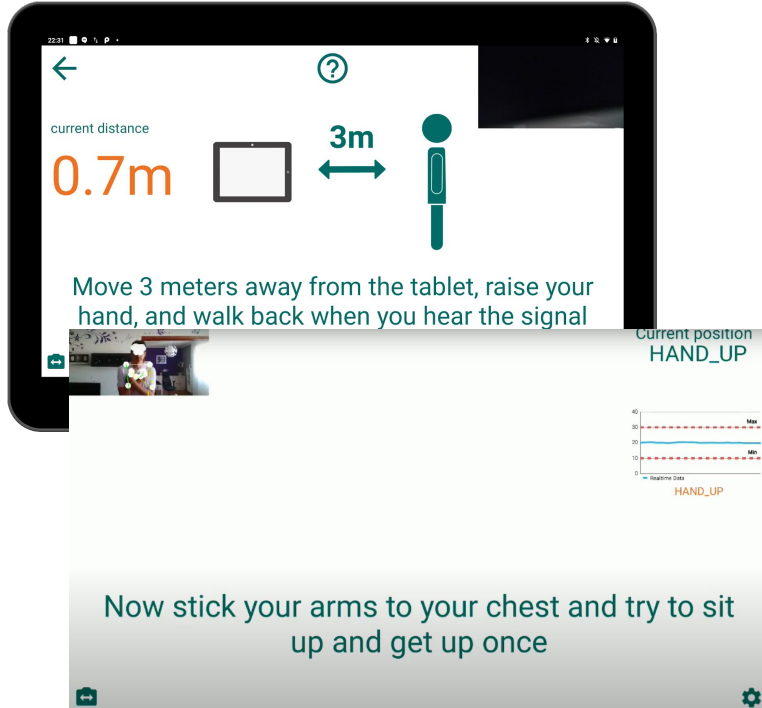
Marque todos los números mayores que 15



13	14	16	17	11
13	2	17	21	18
10	21	23	13	12



# Example. SPPB Test



22:31

← ?

current distance

0.7m

3m

Move 3 meters away from the tablet, raise your hand, and walk back when you hear the signal

Current position  
HAND\_UP

40  
30  
20  
10  
0

Max  
Min

Baseline Data

HAND\_UP

Now stick your arms to your chest and try to sit up and get up once

22:41

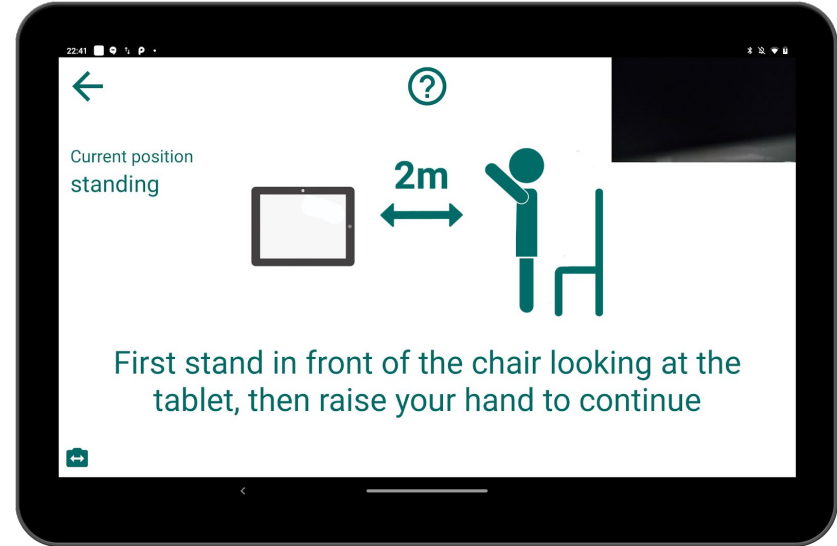
← ?

Current position  
standing

2m

First stand in front of the chair looking at the tablet, then raise your hand to continue

FRAGILE



22:41

← ?

Current position  
standing

2m

First stand in front of the chair looking at the tablet, then raise your hand to continue

# Suggestions after first tests

- If the level shown in the tablet is not a health status but an engagement status, the name should be changed.
- We need the squegg to work on both hands separately.
- More instructions are needed to understand how to use the platform when being alone at home.
- A battery indicator for the squegg device is needed

# Suggestions after first tests

- The smartbands often get disconnected from the tablet.
- More videos are needed.
- More tailored training is needed.
- Games need to be more appealing and challenging.
- Icons meaning in games



# Engagement score

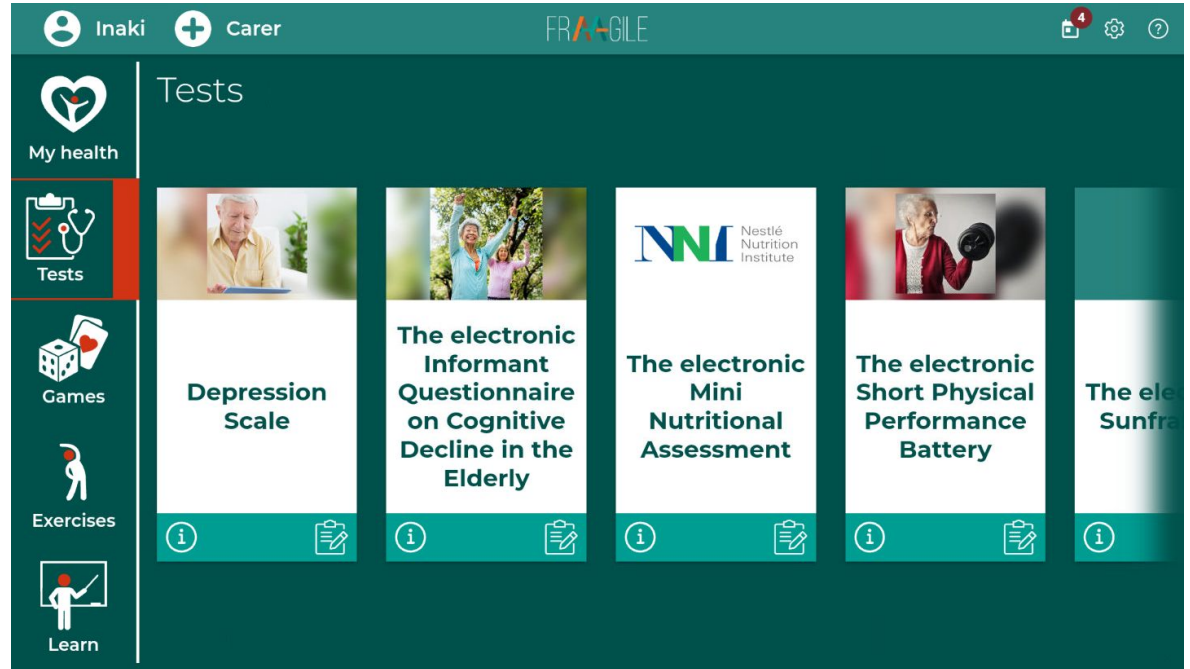
The health score now is more complete and the name has been changed to avoid misunderstanding



# Easier evaluations

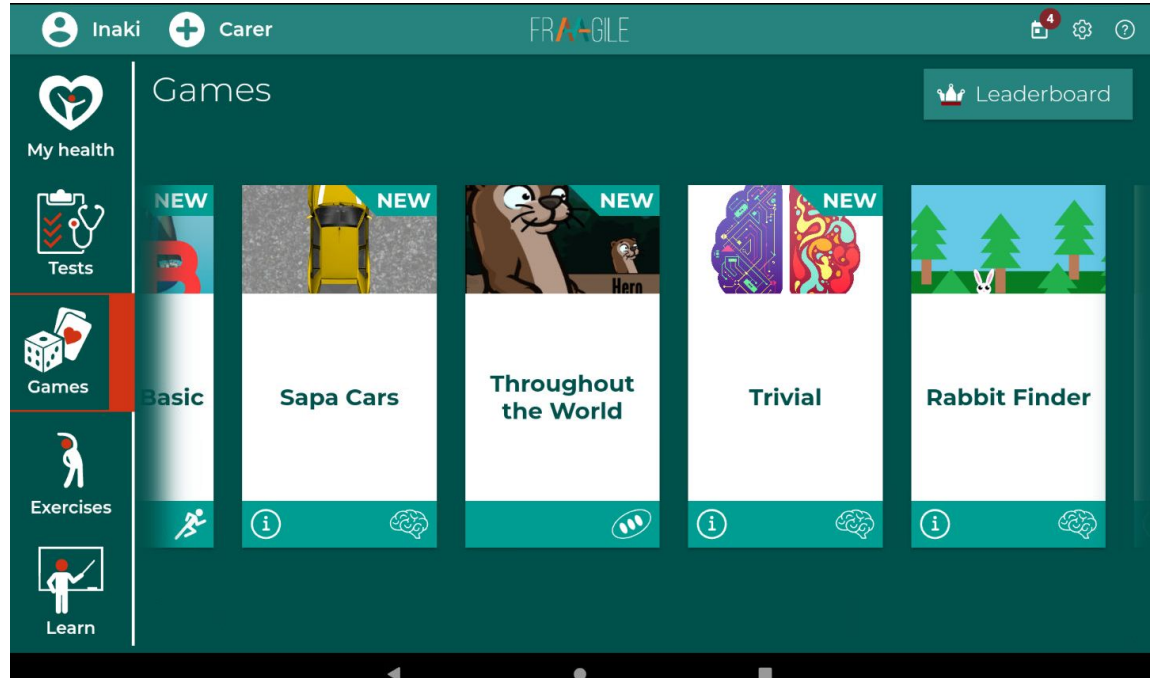
More instructions for the tests with better descriptions and icons

The evaluations are offered to the patient or the caregivers depending on the results of the technical analysis from the initial assessment



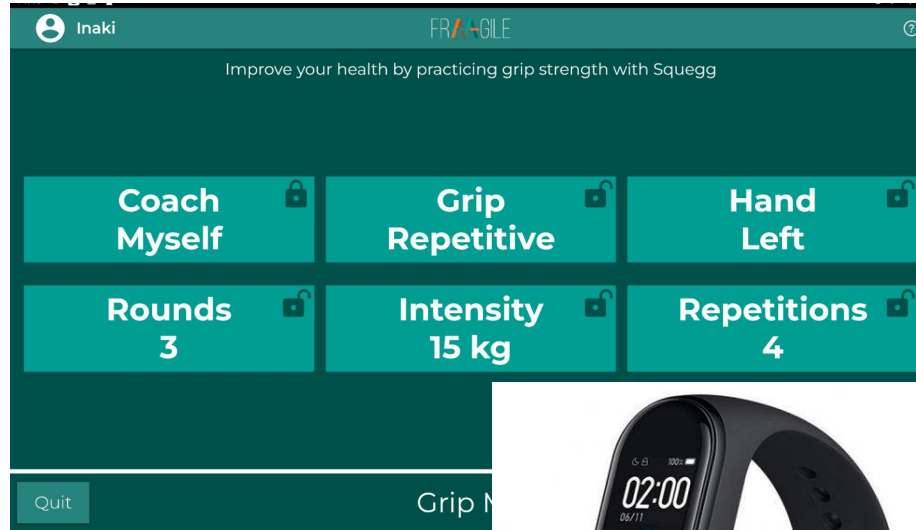
# More games

New games have been included  
Some games use  
balance/weight scale from  
BZN or the squegg device  
(UNIGE)



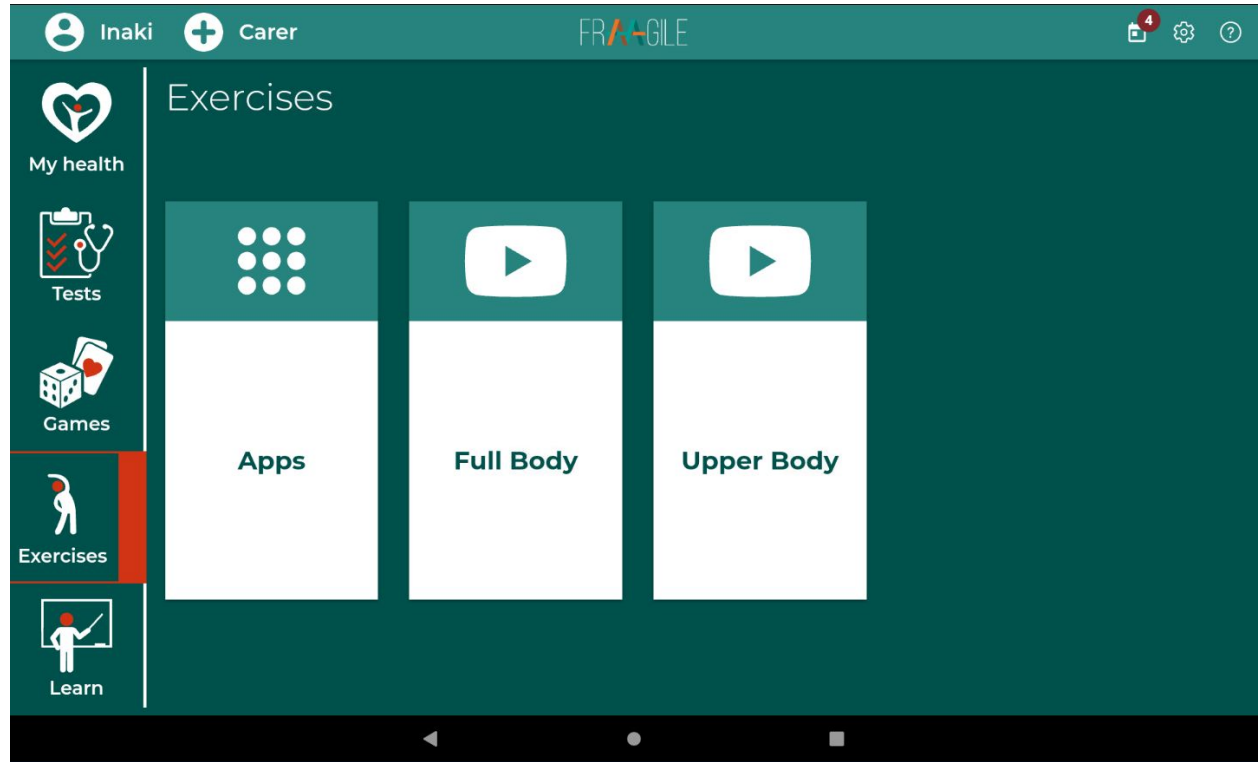
# Devices

Squegg can be used with both hands  
Specific game for Squegg has been created by UNIGE  
New smartband were integrated in the system to avoid connection problems: leotec and lifevit



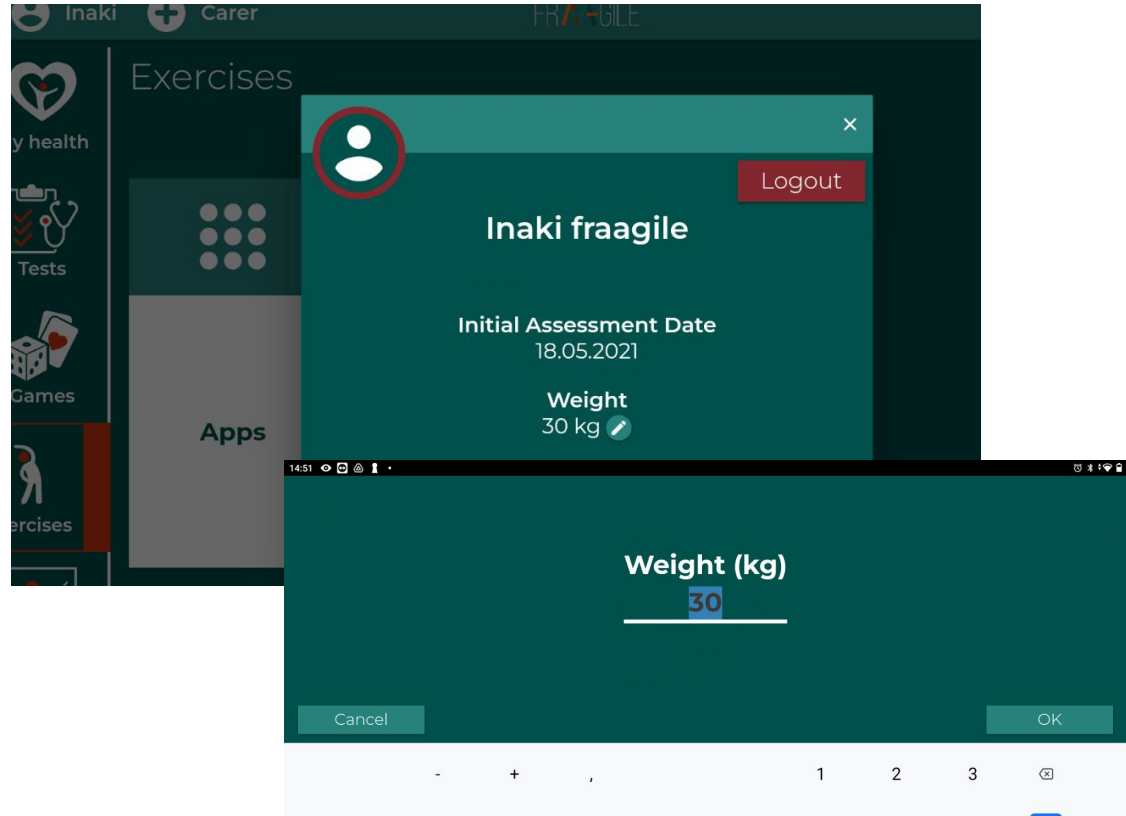
# Exercises clearer now

A new classification is included to choose exercises apps or videos



# Weight control

Weight can be updated and sends information to calculate the patient's BMI



# More tailored training

The calendar now updates automatically based on the system algorithm  
The new evaluations and inputs from games and exercises create new events and send messages to the patient and the caregiver

