



Cloud Platform

SingularLogic D1.1 Fraagile Cloud Platform v2



Index

- □ Concept & architectural design
- □ New functionalities based on the user requirements after first tests
- □ Design & Develop second prototype



Architectural Overview





GDPR

- As mentioned in the "D3.1. Field trials' validation plan", the participants data will be pseudoanonymized by appointing to each of them a subject ID number. Necessary precautions will be taken (avoid the storage of any personal data, etc.) to ensure no identification of the participants included in the trials.

- Data will be used exclusively for the purpose of the project (improvement of the frAAgiLe, dissemination, publications).

- Standards are respected to guarantee the safety of the data. HTTPS, hashed password SHA-512, secured database, user's role in database



GDPR

- Data is now located in the backend of SingularLogic. The access to the data has been transferred to Ideable and is now stored in a AWS CPD that is GDPR compliant in Frankfort. The access is restricted to the persons involved in the project and now only in Ideable Solutions. To be more precise, the rules of access per actor are the following:
 - Ideable's development team has direct access to the database for development purpose.
 - Organizations have only access to an administrative web interface. They can register and manage patients. They have access to read and to write all information (profile, activity, evaluations results, etc.).
 - Carers, who belong to Organizations have limited access to the information in the administrative web interface. They can read or write partially. Details will be added during the project.
 - Users, themselves, have full control over their data. They can delete their profile and all information stored or change Organization/Carer easily (Right of withdrawal and right to be forgotten).



Web platform Roles & Responsibilities

- □ We've defined for the business model a B2B international approach.
- That's why our backend is focused on regional administrators and companies as customers.
- In some cases, our customers may be individual professionals, but it's still a B2B model.



Web platform Roles & Responsibilities

- □ The organizations (hospitals, daily centers, etc.) create professionals.
- The professionals (doctors, carers, therapists) create patients. They also monitor all the tests performed by the patients in the tablet.
- The patients & caregivers use the app in the tablet to send regular information about their frailty situation using tests and games.



Platfmorm's Technologies





Web platform Roles & Responsibilities

- Super Admin -> controls and intervenes to everything (Add, Edit, Delete & feed the system with new games, articles...)
- Region Admin -> registers organisations & individual healthcarers per country
- **Organisation** -> organisation's view & registers its own healthcarers
- **Organisation's Healthcarer ->** registers and manages its patients
- Individual Health carer -> registers and manages its patients



Users Category

High-end users -> Full frAAgile System -> Highest reliability

Mid-range users -> Adapted frAAgile System -> Medium reliability

Low-end users -> Basic frAAgile System -> Lowest reliability



Login page for admins, organisations and healthcarers





Register now!





Register As Organization

A procedure of direct registration, without the Region Admin's interference, of a New Organisation, creating its own credentials. By selecting Country the system automatically places the Organisation under the respective Region Admin.





Register As Healthcarer

A procedure of direct registration, without the Region Admin's interference, of a New Individual Healthcarer, creating its own credentials. By selecting Country the system automatically places the Organisation under the respective Region Admin.

Surname		
L Nome		
Email		
C Phone Number		
Address		
Country		
Select Lountry		
Possword		
Password Confi	irmation	



Forgot Password?





Role of Super Admin : Front page/My Region Admins list

FRAAGILE •					English 🂥 Super Admin 🎧
🏦 Region Admins	Dashboard >				
🔐 Individual HealthCar	My Region Admins A Region Admin(s) Total				Add Region Admin
🔹 Games	Q Search Region Admin				
水 Exercises	News	Feed.	Caraba	Diana Marakara	A.1
🕒 Leorn	Name	Email	Country	Phone Number	Actions
MY ACCOUNT	Region Admin	region_admin1@test.gr	Austria		T
 My Profile 	Region Admin	region_admin2@test.gr	Belgium		
Reset Password	Nick TheGreek	nickthegreek123!!@testokis.gr	Greece		
	Popin Region Admin	sp@gmail.gr	Spain		
		< 1 >			

Region Admin added by Super Admin

Add Region Admin

Dasht

 Super Admin adds a region admin by completing the fields Surname, Name, E-mail, Nationality.

An e-mail is sent with credentials to the new Region Admin.

Register a new Region Admin		×	
Surname	Name		
Enter Surname	Enter Nome		
Email	Nationality		
Enter Email	Enter Nationality		



Super Admin - Table for registering a new Region Admin

Register a new Region Adn	nin	×
Surname Enter Surname	Name Enter Name	
Email Enter Email	Nationality Enter Nationality	•
C	Register Nowl	



Super Admin - Region's Admin Details

	Q Search	Supe	er Admin 👤	English
	Dashboard > Region Admins > Region Admin			
nboard > Region Admins > Region Admin	Region Admin			×
	f Info			
o go back at a page click at the	Nome	Surnome		
quence of titles as shown above	Region	Admin		
	Emoil region_admin1@test.gr			
	Address	Phone Number		
	Country			ā.

Super Admin- Region's Admin Organisations

Region Admin			×
🚯 Info	Corgonizations		
Q Search Organization			
Name	Email	Phone Number	Actions
Metropolitan	stsak@gmail.com	6974581916	
organization2	nijywewtuty@mailinator.com	21046559992	
۵۵۵۵۵۵۵۵۵۵	badmi22n@ma2il.com	21125125125	

Region's Admin - List of Oganisations

The Organisations under a Region Admin are of the same region. The Super Admin can:

- Select a Region's Admin
 Organisation to view its info
- To display the list of the organization's healthcarers
- Delete an Organisation (provided there are no other records under the certain one)



Super Admin- Details of a chosen Organisation

Dashboard >	Organizations 🦻	organization2
-------------	-----------------	---------------

organization2	×
Info Leolthcarers	
Organization Name organization2	Number Of Healthcarers 0
Email nijywewtuty@mailinator.com	
Address	Phone Number
14 West Old Parkway	21046559992



Super Admin-List of an Organisation's Healthcarers

organization2		×	
🚯 Info	Healthcarers		
Q Search Healthcarer			
Name	Email	Phone Number	
Second HealthCarer	healthcarer2@test.gr	0123456789	



Individual Healthcarers's List



Super Admin- Healthcarers's Detail

First HealthCarer	×
1 Info	S
Name	Surname
First	HealthCarer
Emoil	
healthcarer1@test.gr	
	Phone Number
Address	0123456789



Super Admin-List of Healthcarers's Patients

board > Healthcarers > First HealthCarer			
First HealthCarer			×
🚯 Info	Rotients		
Q. Search Patient			
Name	Email	Phone Number	
First Patient	patient1@test.gr	21046559992	
Patient Second	gr@gmaiLcom	6974581916	
Panagiotis Tsakiris	Pan@gmail.com	6978451269	
•	1. 101. 1	500 40 40	

Super Admin - Add New Individual Healthcarer

FR₳₳GILE .					English 💥	Super Admin 🎧
🎰 Region Admins	Dashboard > Healthcarers					
📇 Individual HealthCare	My Healthcarers 5 Healthcarer(s) Total				Add Health	ncorer
🐇 Games	Q. Search Healthcorer					
∬r Exercises	Nome	Emoil	Phone Number	Specialty	Number Of Potients	Actions
🗐 Learn	Nume	Lindit	Those Number	Speciality	Number of Fatients	Actions
MY ACCOUNT	First HealthCarer	healthcarer1@test.gr	0123456789	psychologist	7	
 My Profile 	Second HealthCarer	healthcarer2@test.gr	0123456789	psychologist	1	
Reset Password	Dhird HealthCorer	healthcarer3@test.gr	0123456789	psychologist	1	
	🔝 lñaki Cuidador	ibartolome+care@ideable.net		Nurse	0	
	IÑAKI BARTOLOME MARTIN	ibartolome73@gmail.com		Therapist	2	

Super Admin - Add New Individual Healthcarer

- Super Admin adds a new individual healthcare by completing the fields of Surname, name, e-mail, specialty.
- An e-mail is sent with the button "Register now" to the new healthcarer with the credentials

		Add Health	carer	
Register a new Healthcarer			×	
Surname Enter Surname	Name Enter Nome			
Email Enter Email	Speciality Enter Speciality	frAAgile frAAgileSig@gmail.com <u>a través de</u> sendgrid ne	4	mié, 2 dic 8:56 📌 🔦
	Register Nowl	para ibantolome+care +	FRAAGILE	
		Welcome Just created complete ye	to Fraagile! I a fraagile account for you! Please click the button below t our registration on the platform Completion of Registration	to
		If you have Regards, Fraagile 's To	not created the account , please ignore this email	
		If you're havi and paste the wtoniestst/fr 63368837de me+sare@id	ng trouble clicking the "Completion of Registration" button, copy URL below into your web browsen: <u>https://webbhog.aingulategica</u> , usglield32gue544057/rguble/complete-register/token=5cc508138 200030660545eb739cfb3e9e6d260a720a1bc7a0d8cemail=ibartol eable.net	2 1a 10

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Super Admin (and for all roles) - My Profile and Reset Password

FRAAGILE .			English 🎇 Super Admin 🎧	
Region Admins Dashboard > Reset Password			요 My Profile ⑦ Reset Password	
ដ Individual HealthCar	Reset Password	×	→I Logout	One way
🐈 Games				
s∱ Exercises	Password			
🗐 Leorn	Password Confirmation			
MY ACCOUNT	Cleor	Reset Possword		
① My Profile				Second
Reset Password				way



Catalog for games, activities and videos

In the backend there's a catalog to include new games for the patients in the tablet.





Catalog for games, activities and videos

In the backend there's a catalog to include apps for tracking and videos for the patients.



My Profile (Super Admin's)

My Profile		×
Surname	Nome	
Admin	Super	
Country	Emoil.	
Austria	← super_odmin@test.gr	
Address	Phone Number	
Upload Avatar		
	Sove	

Reset Password

Reset Password	×
Password	
Password Confirmation	
Clear	Reset Password



Language





Super Admin User




Role of Region Admin – First Page/List of Organisations





Super Admin Vs Region Admin

Role of Super Admin

- Access to registrate Region Admins and Individual Healthcarers of all Regions
- View of all Region Admins' Organisations and healthcarers under each organization
- View of all Individual Healthcarers' patients.
- Will have access to add material (games, videos, exercises, etc), for all Regions
- Will have access to add translations for the evaluations and make alterations.

Role of Region Admin

- Access to Add New Organisations and Individuals Healthcarers only for its own Region
- Will have access to add material (games, videos, exercises, etc) for its own Region





Region Admin -> Add New Organisation

				English 👯	Region Admin 🎧
Dashboard > Organizations >	Register a new Organization				
	Register a new Organization		×		
	Organization Name Enter Name	Phone Number			
	Email Enter Email	Address			
		Register Nowl			
		Register Now			



Region Admin -> Add New Organisation

Add Organization

- Region admin adds a new organisation by completing the fields Organisation Name, Phone Number, E-mail, Address.
- An e-mail is sent with credentials to the new Organisation.
- It does not ask for country to be filled, as by default considers the same as the region's admin.

logister a new organization		
Organization Name		
Enter Name	Phone Number	
Emoil		
Enter Emoil	Address	
	Register Now	



Region Admin - Selected Organisation's Details

ashboard > Organizations > Metropolitan		
Metropolitan		×
🚯 Info 🗮 Healthcarers		
Organization Name	Number Of Healthcarers	
Metropolitan	0	
Emoil		
stsak@gmail.com		
Address	Phone Number	
11 Stadiou str. Athens	6974581916	



Region Admin - Organisation's Details



Region Admin -> List of Healthcarer

FR A GILE «					English	💥 Region Admin 🚷
💼 Organizations	My Healthcarers 5 Healthcarer(s) Total				Add He	ealthcarer
🚢 Healthcarers	Q Search Healthcorer					
🐐 Games						
∮ Exercises	Name	Email	Phone Number	Specialty	Number Of Patients	Actions
🗐 Leorn	First HealthCorer	healthcarer1@test.gr	0123456789	psychologist	7	
MY ACCOUNT	Second HealthCarer	healthcarer2@test.gr	0123456789	psychologist	1	
My Profile	Third HealthCarer	healthcarer3@test.gr	0123456789	psychologist	1	т.
Reset Password	Nikolaos Tsakiris	ntsa@gmail.com		therapist	0	т. –
	Pan Papadopoulos	papad@gmail.com	6974581916		1	
			< 1 2 >			

Region Admin -> Add a New Individual Healthcarer

- Region admin adds a new individual healthcarer by completing the fields Surname, Name, E-mail, Specialty.
 An e-mail is sent with
- credentials to the new Healthcarer.
- It does not ask for country to be filled, as by default considers the same as the region's admin.

	Add Healthcarer	
Register a new Healthcarer		×
Surname Enter Surname	Nome Enter Name	
Email Enter Email	Specialty Enter Specialty	
	Register Nowl	

Region Admin -> Healthcarer's Details

Dashboard > Healthcarers > Third HealthCarer	
Third HealthCarer	×
🚯 Info	
Nome	Surnome
Third	HealthCarer
Emoil	
healthcarer3@test.gr	
	Phone Number
Address	0123456789



Region Admin -> Healthcarer's Patients List

Dashboard > Healthcarers > Third HealthCarer						
🛔 Third HealthCarer			×			
🕕 Info	Le Potients					
Q Search Patient						
Name	Email	Phone Number				
Fourth Patient	patient4@test.gr	0123456789				

Organisation's Role -> First Page/List of its Healthcarers





Organisation's Role -> List of its Healthcarers

In the list of the Organisation's Healthcarers, each line of record display's:

- The Healthcarer's Name
- E-mail
- Phone number
- □ Number of patients
- Ability to proceed in the action of deleting the record, as long as there aren't any patients records under it.



Organisation's Role -> Add a New Healthcarer

	Add Healthcarer	
Register a new Healthcarer		×
Surnome	Name	
Enter Surname	Enter Name	
Email	Specialty	
Enter Emoil	Enter Specialty	
	Register Nowl	



Organisation's Role -> Selected Healthcarer's Details

Dashboard > Healthcarers > First HealthCarer

First HealthCarer	×
🚺 Info 🕂 Patients	
lame	Surnome
First	HealthCorer
mail	
nealthcarer1@test.gr	
	Phone Number
uddress	0123456789



Organisation's Role -> Selected Healthcarer's Patients

			Ελληνικά 🚈 organization44 🚷	
	1 Info	Potients		
٩	Search Patient			
Nar	ne	Emoil	Phone Number	
8	First Patient	patient1@test.gr	21046559992	
8	Patient Second	gr@gmail.com	6974581916	
8	Panagiotis Tsakiris	Pan@gmail.com	6978451269	
3	test test	test1@test.gr	522412412	
8	Pat001 Unai	unai.martinez@gmail.com	123456789	
	test1 test1	test11@test.gr	522412412	Ŧ

Organisation Role - « My Region Admin»

FF	RAGILE •		E	inglish 💥	organization44 🚷
<u></u>	Healthcarers	Dashboard > My Region Admin			
÷	My Region Admin	My Region Admin	×		
n da	Games	Nome Surpome			
Ŕ	Exercises	Nick TheGreek			
٥	Learn	Email nickthegreek123!!@testakis.gr			
MY A	CCOUNT	Address Phone Number			
(j)	My Profile				
0	Reset Password				



« My Region Admin»

English 💥 organization44 🕵

X

-RAGILE ۲ Organisation pertains to a Dashboard > My Region Admin # Healthcarers certain Region Admin, L My Region Admin My Region Admin defined by country. Games This option displays the Region Admin that the TheGreek ∳ Exercises certain Organisations E Learn MY ACCOUNT Address My Profile Reset Password



belongs

/

Example of « My Region Admin » displayed in language Greek

FR₩GILE .		ιληνικά 🚈 organization44 🎧
🔐 Φροντιστές	Αρχική -> Ο Διαχειριστής Περιοχής μου	
💄 Ο Διαχειριστής Περι	Ο Διαχειριστής Περιοχής μου	
📲 Games		
s∱ Exercises	Nick TheGreek	
🖨 Learn	Hiertpovisó Taguðpopisio nickthegreek123!!@testakis.gr	
Ο ΛΟΓΑΡΙΑΣΜΟΣ ΜΟΥ	Διέυθυνση Τηλέφωνο	
🛈 Το προφίλ μου		
😵 Επαναφορά Κωδικού		



Healthcarers's Role ->Front Page/Patients' list

FRAAGILE ®				Eng	ish 💥 First HealthCarer 🎊
A Potients	S Patients 5 Patient(s) Total				Add Patient
My Organization	Q Search Patient				
∎ " Games					
n Exercises	Name	Email	Phone Number	Initial Assesment	Actions
🗐 Learn	Eirst Potient	potient1@test.gr	21046559992	~	T
MY ACCOUNT	Patient Second	gr@gmail.com	6974581916	~	
③ My Profile	Panagiotis Tsakiris	Pan@gmail.com	6978451269	\checkmark	т
Reset Password	(test test	test1@test.gr	522412412	×	т
	Pat001 Unai	unai.martinez@gmail.com	123456789	×	•
		< 1	2 >		

Healthcarers's Profile (edit and save)

urnome	Nome	
HealthCarer	First	
Country	Emoil	
Austria	← healthcarer1@test.gr	
ddress	Phone Number	
Somewhere 1, Somewhere	0123456789	



Healthcarers's Role -> Add a Patient

	_		
 		-	
		_	
 ~~	 	~	

Surname	Nome	
Enter Surname	Enter Name	
Emoil	Username	
Enter Emoil	Enter Username	
Gender	Age	
Enter Gender	← Enter Age	
Height	Weight	
Enter Height	Enter Weight	
	Living Status	
Phone Number		•
Environment	Nationality	
	•	•

Suggestions from first round of trials

- □ The results should be shown using graphics to see the trends.
- The application should adapt the behaviour depending on the type of end-user and their skills with technology.
- Weight. A new numeric variable that we should send from the tablet with the weight in kg. And calculate and offer the BMI.

□ Messages should allow the professionals to send attachments.



Suggestions from first round of trials

- □ A history of sent messages should be included.
- Patients should receive a feedback not based on scores, but on natural language.
- The system should offer events in the calendar and send messages automatically based on the inputs from the platform.

□ New assessments should be done for changes in the situation for the person.



Patients

Weight and height are included and will give us feedback about BMI

Surname	Nome	
Enter Surname	Enter Name	
Emoil	Username	
Enter Email	Enter Usernome	
Gender	Age	
Enter Gender	← Enter Age	
Height	Weight	
Enter Height	Enter Weight	
	Living Status	
Phone Number		•
Environment	Nationality	
	• • • • • • • • • • • • • • • • • • •	•
	Renister Nowl	



Patients – New assessment history

🔒 Inaki fraagile					×
Info	 Initial Assessment 	a History	e Messages	♥ Settings	
Date of birth 6 - 2 - 1931	×□				•
Phone number 111111111					
What is your g Male Female	ender?				
Do you have a No Yes	ny allergies??				

New assessments can be added to the initial one now.



Patients – Graphis to see evolutions



New classification for results (evaluations, games and exercises) Results can be viewed in graphics



Patients – Adapted to their needs



Depending on the results of the initial assessment, some tests can be done at home, others with help from caregivers and others only at the centre



Messages – improved interface

Message

Title

Now professionals can enrich the use of the messages and include attachments



Upload Attachment

Messages history

All automatic and manual messages appear in the messages tab

ID	Title	Content	Date
784	BMI lower than expected.	BMI lower than expected.	1/2/2023
780	It seems that you are less active than expected.	It seems that you are less active than expected.	8/1/2023
779	Focus on mementio.	Focus on mementio.	8/1/2023
778	It seems that you are not walking the distance needed, Being active improves your health and well-being! If you feel unwell, however, see your doctor.	It seems that you are not walking the distance needed, Being active improves your health and well-being! If you feel unwell, however, see your doctor.	3/1/2023
750	It seems that you are less active than expected.	It seems that you are less active than expected.	2/10/2022
748	Focus on mementia.	Focus on mementio.	2/10/2022
741	BMI lower than expected.	BMI lower than expected.	1/10/2022
738	Focus on Squegg and Througout the world,	Focus on Squegg and Througout the world.	27/9/2022
737	It seems that you are not walking the distance needed, Being active improves your health and well-being! If you feel unwell, however, see your doctor.	It seems that you are not walking the distance needed, Being active improves your health and well-being! If you feel unwell, however, see your doctor.	27/9/2022



Improved dashboard

A general dashboard now shows the main information asked by the professionals:

- Last evaluations date and results. And a description of the situation according to the values
- □ Cognitive situation
- Engagement values



Last evaluations and situation

Nome	Surname
Inaki	fraagile
°	
Emoil	Phone Number
ibartolome73+paciente@gmail.com	11111111
Preferred Language*	
English	Reset Password Clear Save

Evaluation	Worst - Best score	Last Score	Last Score Date	Message
MNA	0 - 14	2	27/09/2022 11:37:24	Malnourished
GDS	15 - 0	10	27/09/2022 11:35:59	Depression.
IQCODE	5 - 1	3	12/08/2022 10:50:47	Healthy
SPPB	0 - 12	No data	No data	No data
FRIED	5 - 0	2	27/09/2022 11:42:34	Intermediate or Pre-Frail
SUNFRAIL	2 - 0	8	11/08/2022 13:45:40	Not active. Possible social isolation
BMI	Ξ.	30.0kg - 11.72	11/8/2022	Not Enough



Engagement values



Original
 Deadlation



Cognitive situation



Portal for professionals

GDS

Squegg values

٠

• The backend includes all the logic for interpretation & monitoring of the frailty tests included in the application for the moment. Some are questionnaires, others include devices or apps:

•

- Linda Freid
- AD8
 IQCode
- FAQ MNA
- SPPB tests
- Steps walked every day



"This is the way"

- Working In close collaboration with all partners
- Structured development
- Smiling

to achieve optimum functionality for the application and its users!









University of Deusto







NURSING CARE-REHABILITATION







