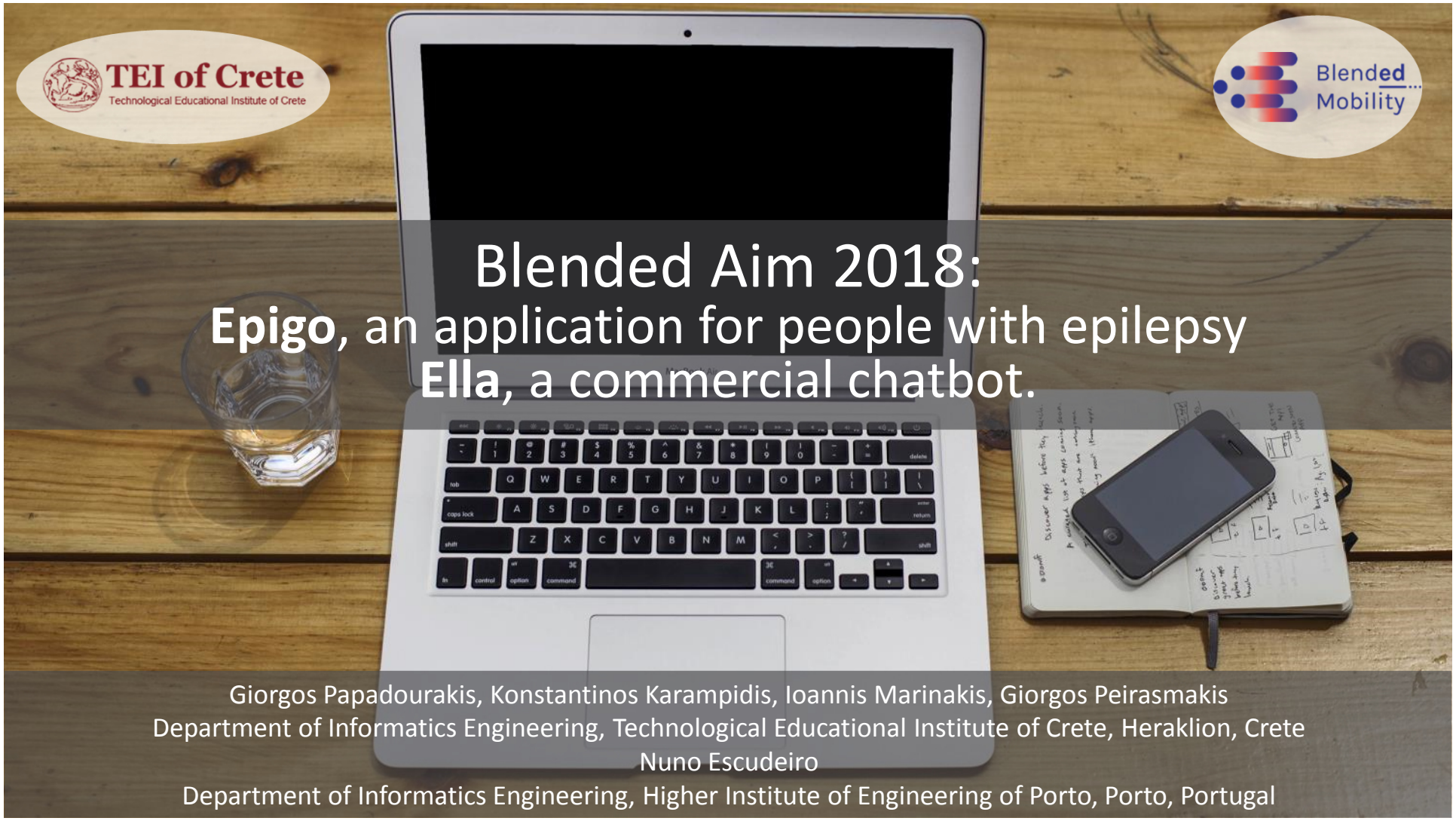


Blended Aim 2018:
Epigo, an application for people with epilepsy
Ella, a commercial chatbot.

Giorgos Papadourakis, Konstantinos Karampidis, Ioannis Marinakis, Giorgos Peirasmakis
Department of Informatics Engineering, Technological Educational Institute of Crete, Heraklion, Crete
Nuno Escudeiro
Department of Informatics Engineering, Higher Institute of Engineering of Porto, Porto, Portugal

Blended Aim – Addressing Problems

- Professional **career** depends on **mobility**.
- Demands several **intercultural skills**.
- **International exposure** is difficult to obtain.
- **Blended mobility** is rarely considered in institutes.

Blended Aim – What it is

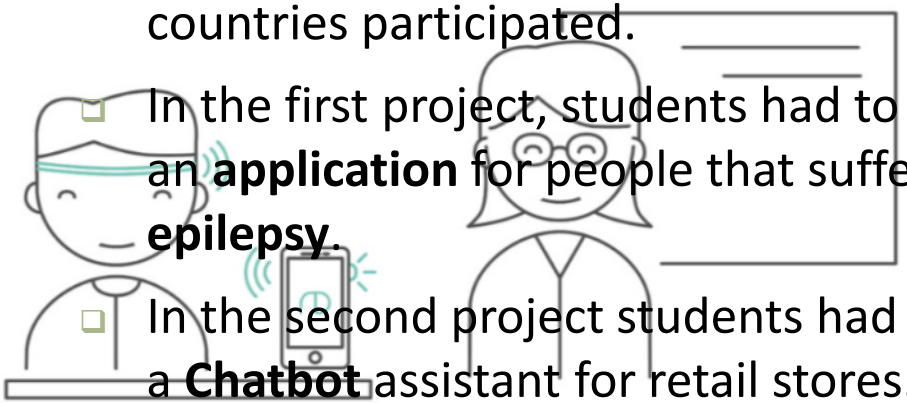
- An **Erasmus+** funded project.
- Partnership with **10 universities** from different countries.
- Offers international **experience**.
- Promotes students' **employability**.

Blended Aim – How it works

- Students **cooperate** to develop a **product** assigned by a **company**.
- They **meet** twice during the semester of the project's acquisition.
- They use **online tools** for project **management** and team **communication**.
- When the **product** is complete it is **presented** to the company and gets **evaluated**.

Blended Aim 2018

- There were 2 **different** projects at Blended Aim of 2018 and **19 students** from different countries participated.
- In the first project, students had to develop an **application** for people that suffer from **epilepsy**.
- In the second project students had to develop a **Chatbot** assistant for retail stores.



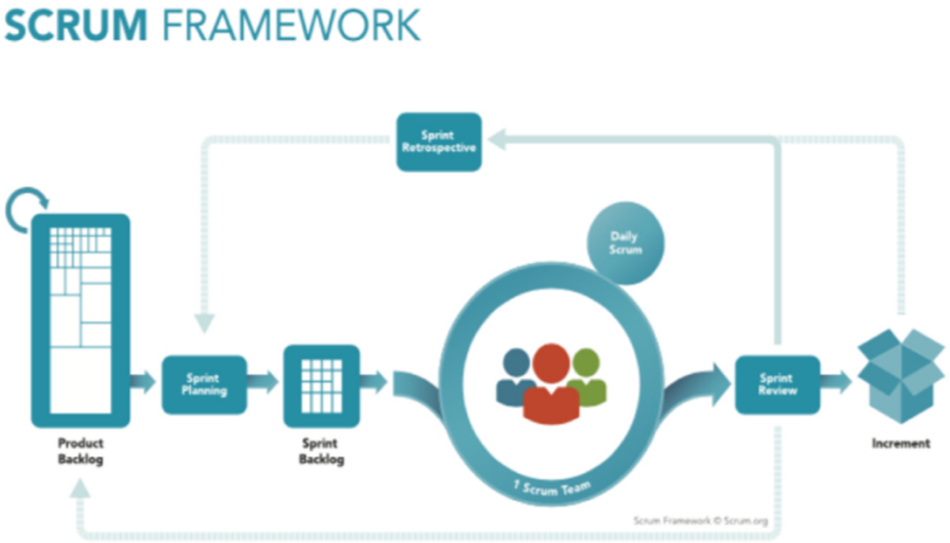
Epihunter turns on a light when the brain switches off.

- The first project, was proposed by **Epihunter**, a Belgian start-up specialized in the detection of **absence seizures** using an EEG headset and a smartphone.
- The goal of this project was to develop an **application** that **notifies** the **parents** of children with epilepsy once a **seizure** is **detected**. Also, records of the seizures are kept, in order to help **doctors** with the **treatment** and the **medication adjustment**.

Blended Aim 2018

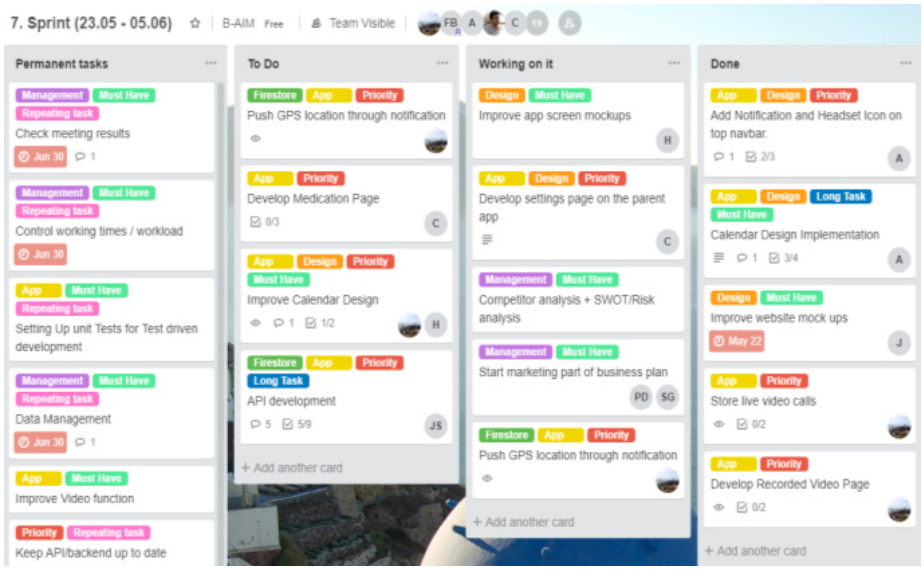
- The other project, was proposed by **KnowledgeFlow**, another Belgian start-up that provides retailers/businesses with solutions for information handling.
- The goal of this project was to develop a chat bot for retail shops that can help a company and its workers to have quick and easy access to information, uses and all the important properties of a searched product.
- It can also understand natural language and return answers to specific or general questions that a user searched.

Scrum, an agile framework for completing projects



- A **scrum team** consists of a **Product owner**, a Scrum master and 3 to 9 **members**.
- The product owner sets the **goals** of the project in a list called **product backlog**.
- On **Sprint Planning** the team decides how to **accomplish** the **goals** of each Sprint.

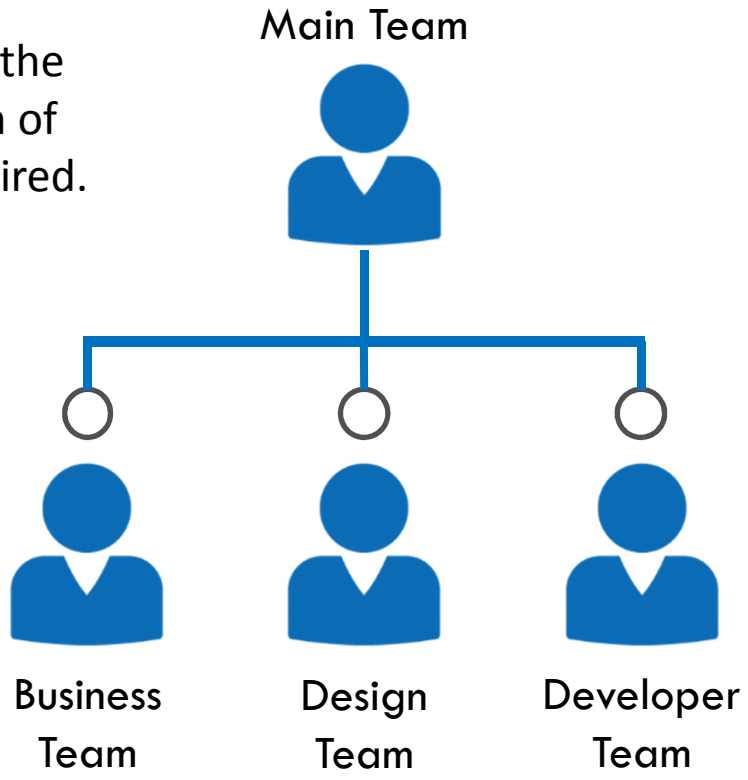
Scrum, an agile framework for completing projects



- During each Sprint the team has **weekly meetings** to discuss **issues** and work **progress**.
- At the end of a Sprint there is a **Sprint review** on the work that was done.
- A **Sprint Retrospective** follows which is an assessment on what went **well**, what went **wrong** and what could be **improved** .
- The Scrum Master helps the team remain **focused** on the Sprint's **goals**.

Nexus Scrum Framework

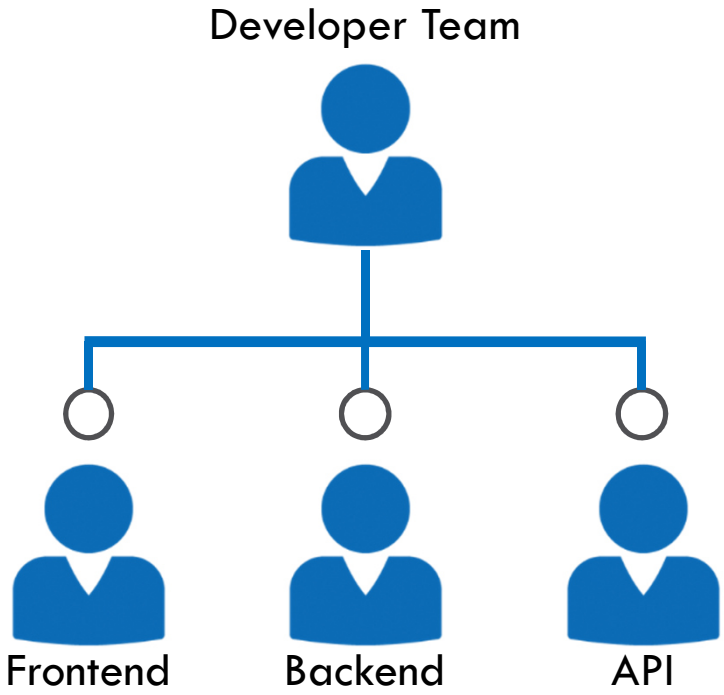
- Due to the **complexity** of the given project a separation of the Scrum team was required.



Nexus Scrum Framework

- The **Developer Team** was further split into **Frontend**, **Backend** and **RESTful API** development.

- The separation to **sub – teams** provided better **organization** of the **workload**.



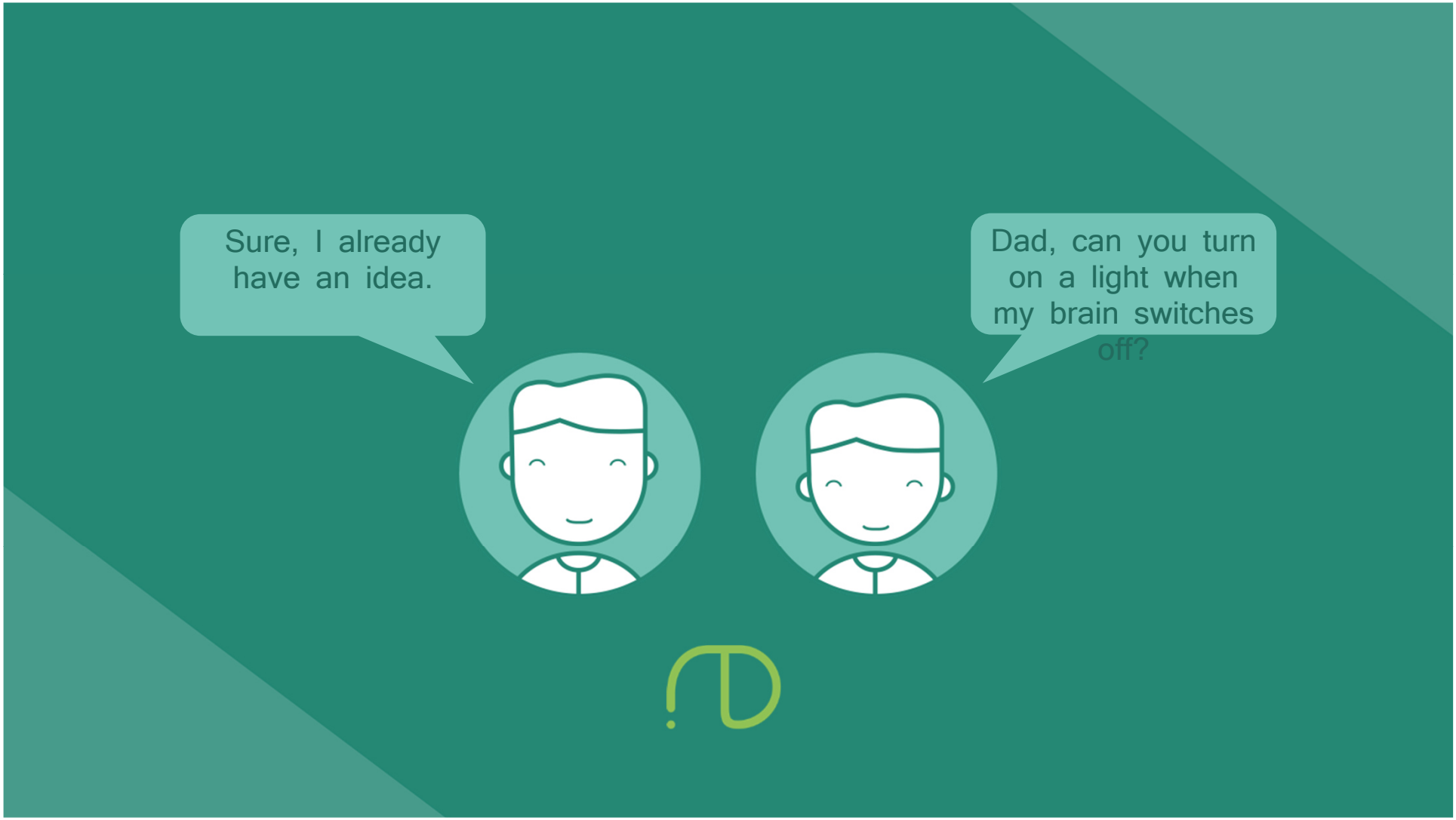
epihunter®

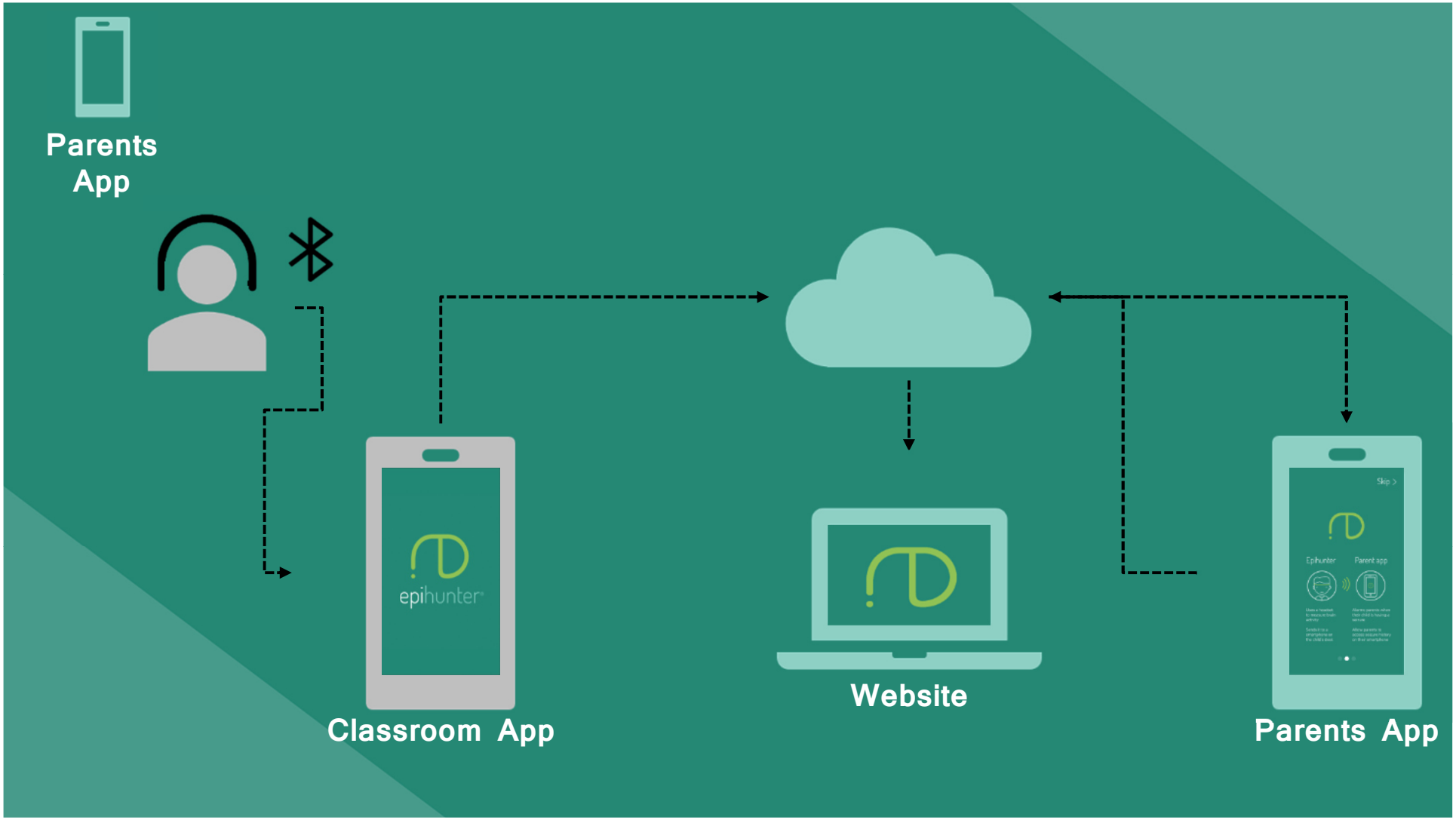
From now on absence seizures do not go unnoticed.

Turns on a light when the brain switches off

1 out of 7 people with epilepsy suffers from absence seizures

Absence seizures are difficult to notice and are more common in children


Dad, can you turn on a light when my brain switches off?
Sure, I already have an idea.


Parents
App
epihunter
Classroom App
Website
Skip
Epihunter
Parent app
Parents App

Parents App

Live Video Stream

Streams the child in case of a seizure

Real Time GPS

Gets the child's location in case of a seizure

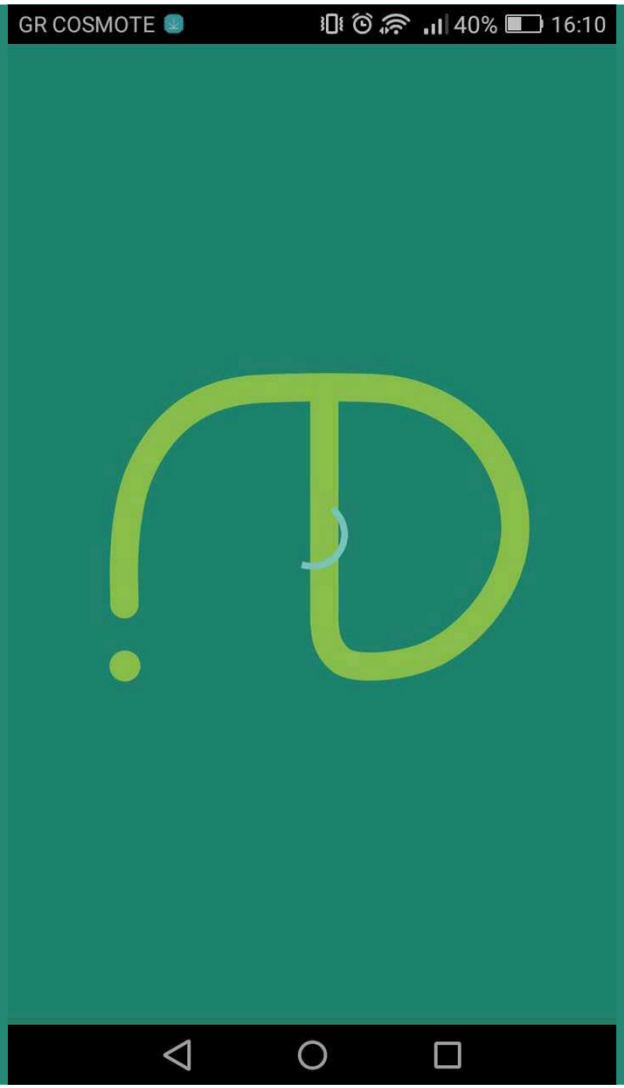
Video / EEG Upload

Uploads data for doctor to analyze

Medication Reminders

Set individual reminders on calendar

Parents
App



epihunter | Jana Peeters | Datalog | Contact | FAQ

Datalog — Michel W.

December 2017

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

January 2018

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Full name: Michel Wouters

Date of birth: 10/10/2008

Gender: Female

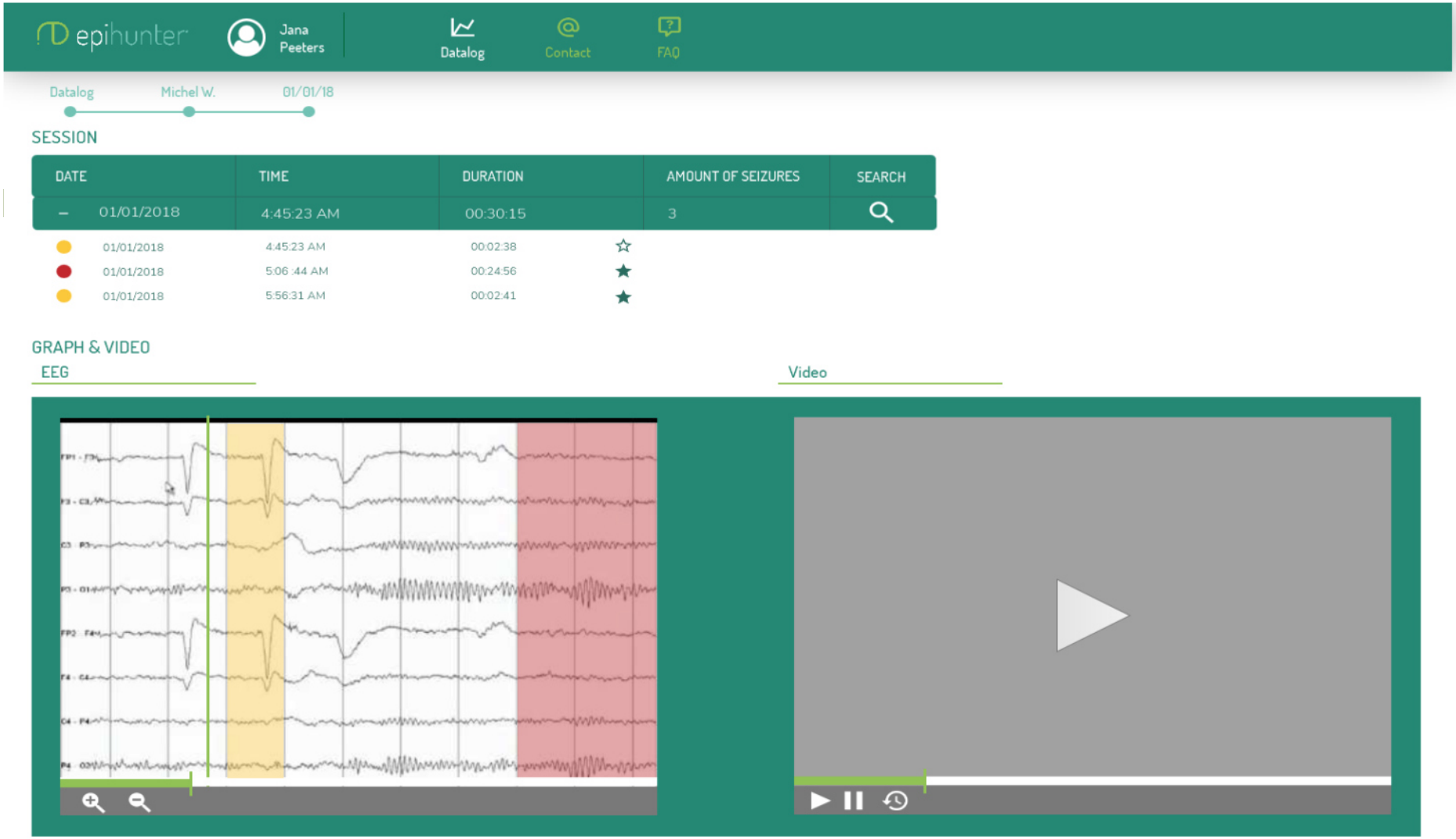
Parent(s) / Guardian(s):
Marijke De Koninck, Peter Walschaerts

City of birth: Leuven

Amount of sessions: 25

Avarage of seizures per session: 4

DATE	TIME	DURATION	AMOUNT OF SEIZURES	VIDEO & GRAPH	ADD	SEARCH
DATE	TIME	DURATION	AMOUNT OF SEIZURES		+	
– 01/01/2018	4:45:23 AM	00:30:15	3			
01/01/2018	4:45:23 AM	00:02:38	☆			
01/01/2018	5:06 :44 AM	00:24:56	★			
01/01/2018	5:56:31 AM	00:02:41	★			
– 31/12/2017	10:14:01 PM	00:38:14	4			
01/01/2018	10:14:01 PM	00:06:58	☆			
01/01/2018	10:26 :44 PM	00:17:02	★			
01/01/2018	11:45:26 PM	00:10:40	☆			
01/01/2018	11:56:31 PM	00:03:34	☆			
+ 31/12/2017	09:30:56 PM	00:06:53	1			


epihunter
Jana Peeters
Datalog
Contact
FAQ
Datalog
Michel W.
01/01/18
SESSION
DATE
TIME
DURATION
AMOUNT OF SEIZURES
SEARCH
01/01/2018
4:45:23 AM
00:30:15
3
01/01/2018
4:45:23 AM
00:02:38
01/01/2018
5:06 :44 AM
00:24:56
01/01/2018
5:56:31 AM
00:02:41
GRAPH & VIDEO
EEG
Video

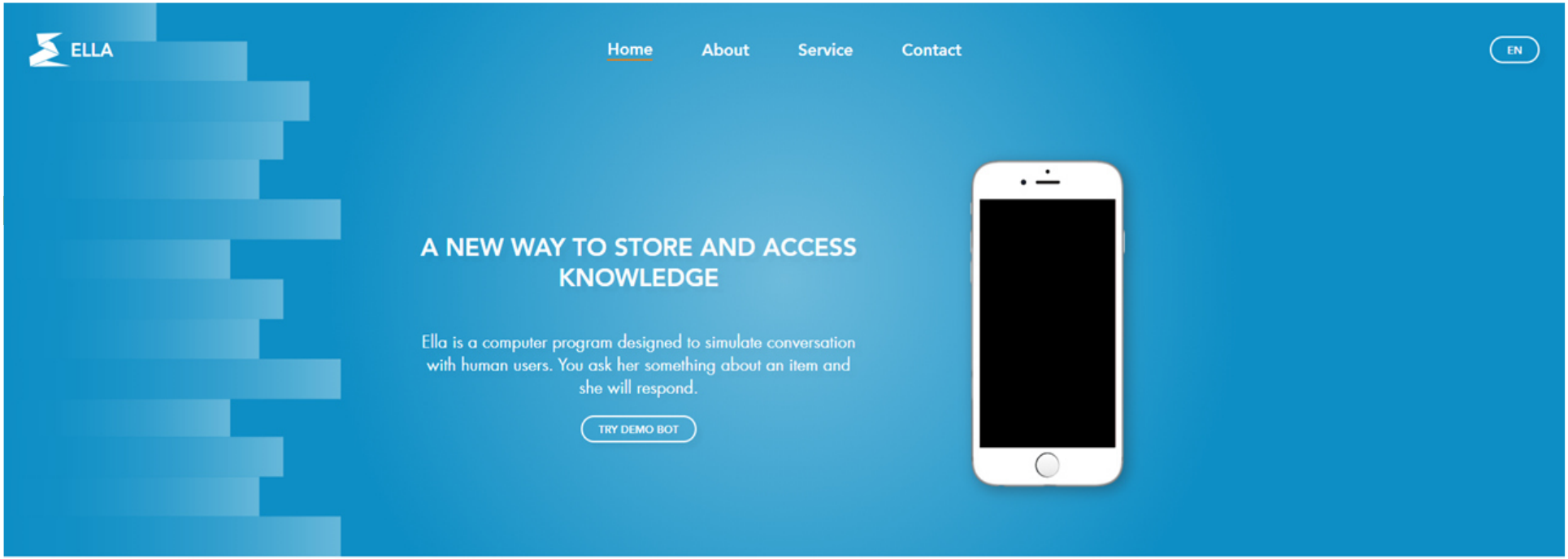
ELLA by Knowledgeflow

Making Knowledge Accessible

A NEW WAY TO
STORE AND ACCESS
KNOWLEDGE

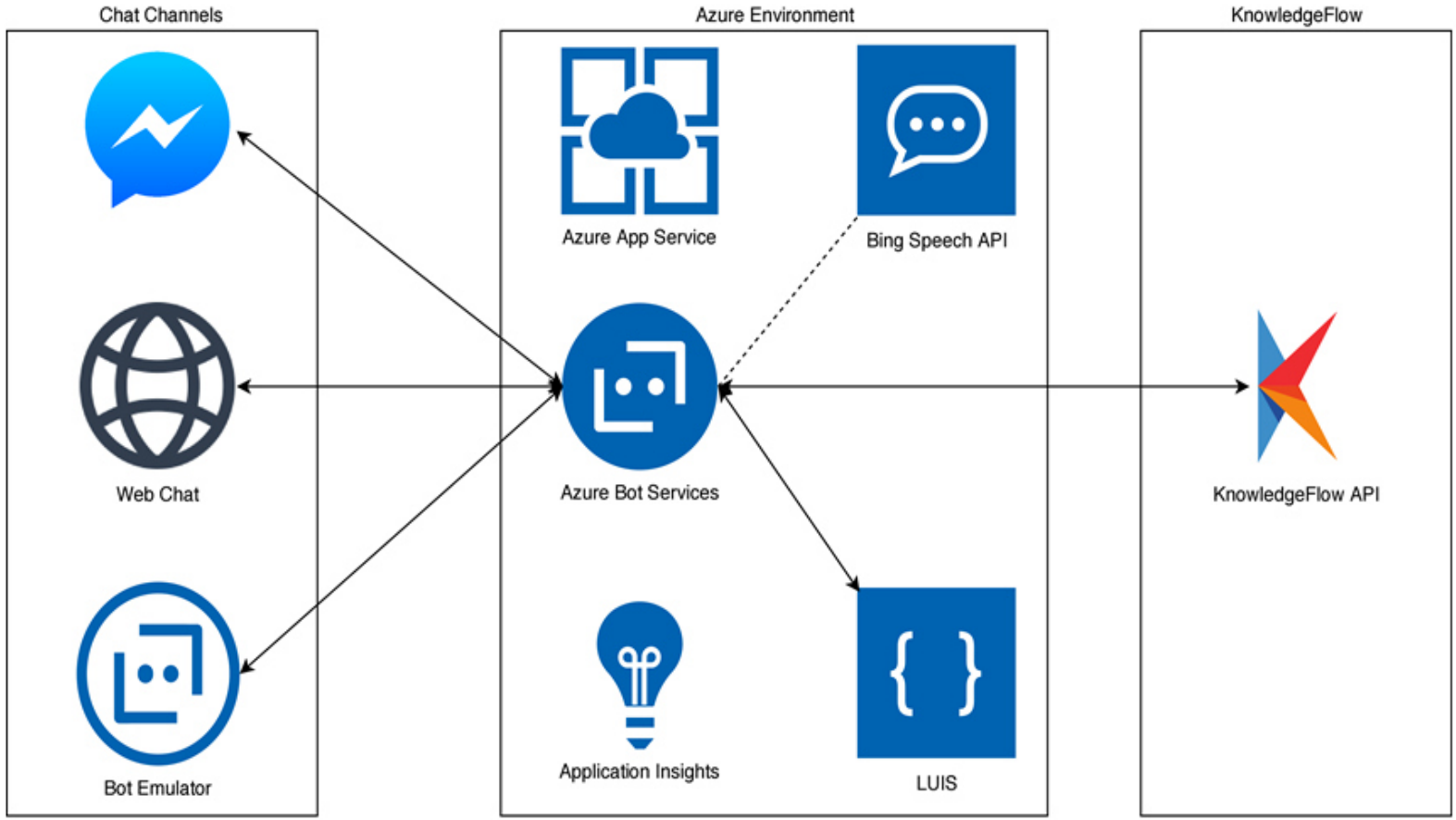
WHAT IS HAPPENING?

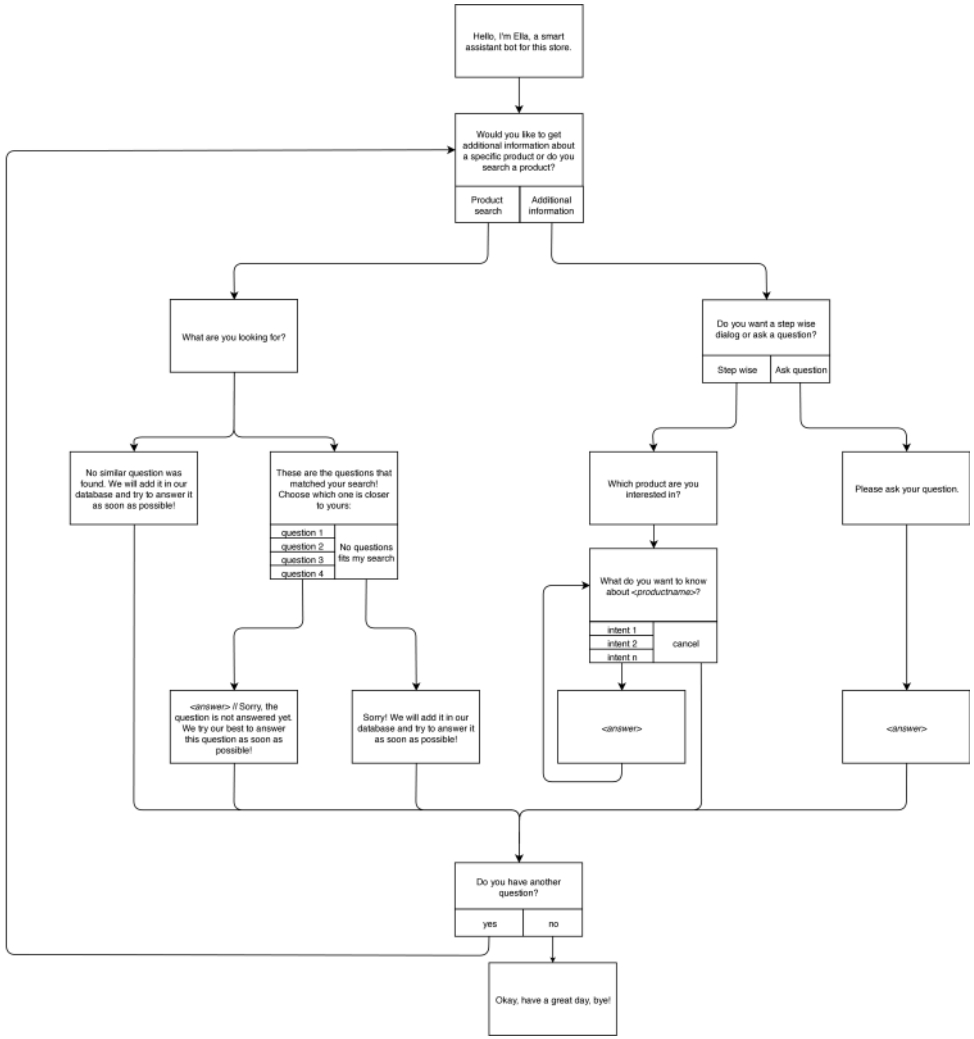
"According to a mckinsey report, employees spend 1.8 hours every day—9.3 hours per week, on average—searching and gathering information."

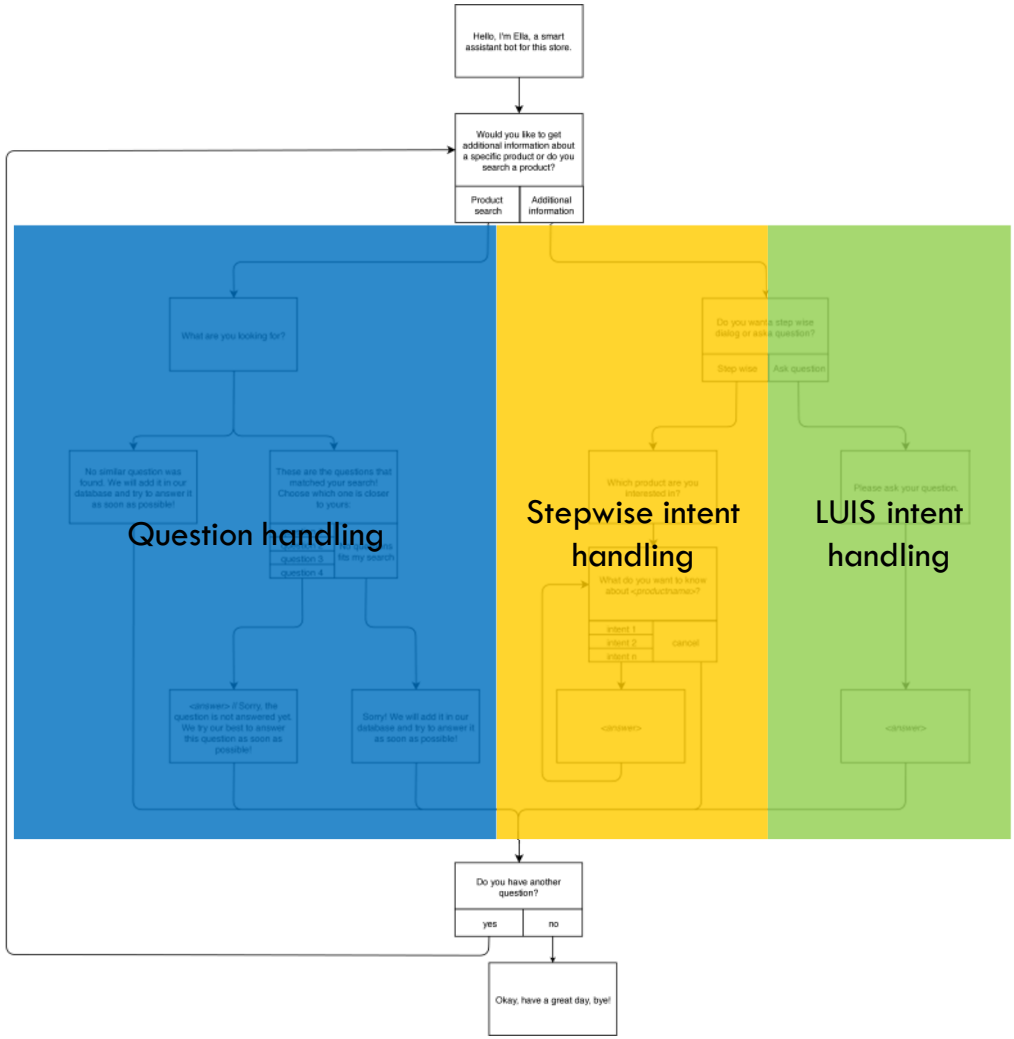


MAKING KNOWLEDGE ACCESSIBLE

Ella works like a real person. She has a friendly and positive character and is accessible to everyone. Ella is created to help people with a purchase when an employee is unavailable. You ask her a question and she will answer it in a very human way.


Chat Channels
Azure Environment
KnowledgeFlow
Azure App Service
Bing Speech API
Web Chat
Azure Bot Services
KnowledgeFlow API
Application Insights
LUIS
Bot Emulator


Hello, I'm Ella, a smart assistant bot for this store.
Would you like to get additional information about a specific product or do you search a product?
Product search
Additional information
What are you looking for?
Do you want a step wise dialog or ask a question?
Step wise
Ask question
No similar question was found. We will add it in our database and try to answer it as soon as possible!
These are the questions that matched your search! Choose which one is closer to yours:
question 1
question 2
question 3
question 4
No questions fits my search
Which product are you interested in?
Please ask your question.
What do you want to know about <productnamex>?
intent 1
intent 2
intent n
cancel
<answer> // Sorry, the question is not answered yet. We try our best to answer this question as soon as possible!
Sorry! We will add it in our database and try to answer it as soon as possible!
<answer>
<answer>
Do you have another question?
yes
no
Okay, have a great day, bye!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Product search
Additional information
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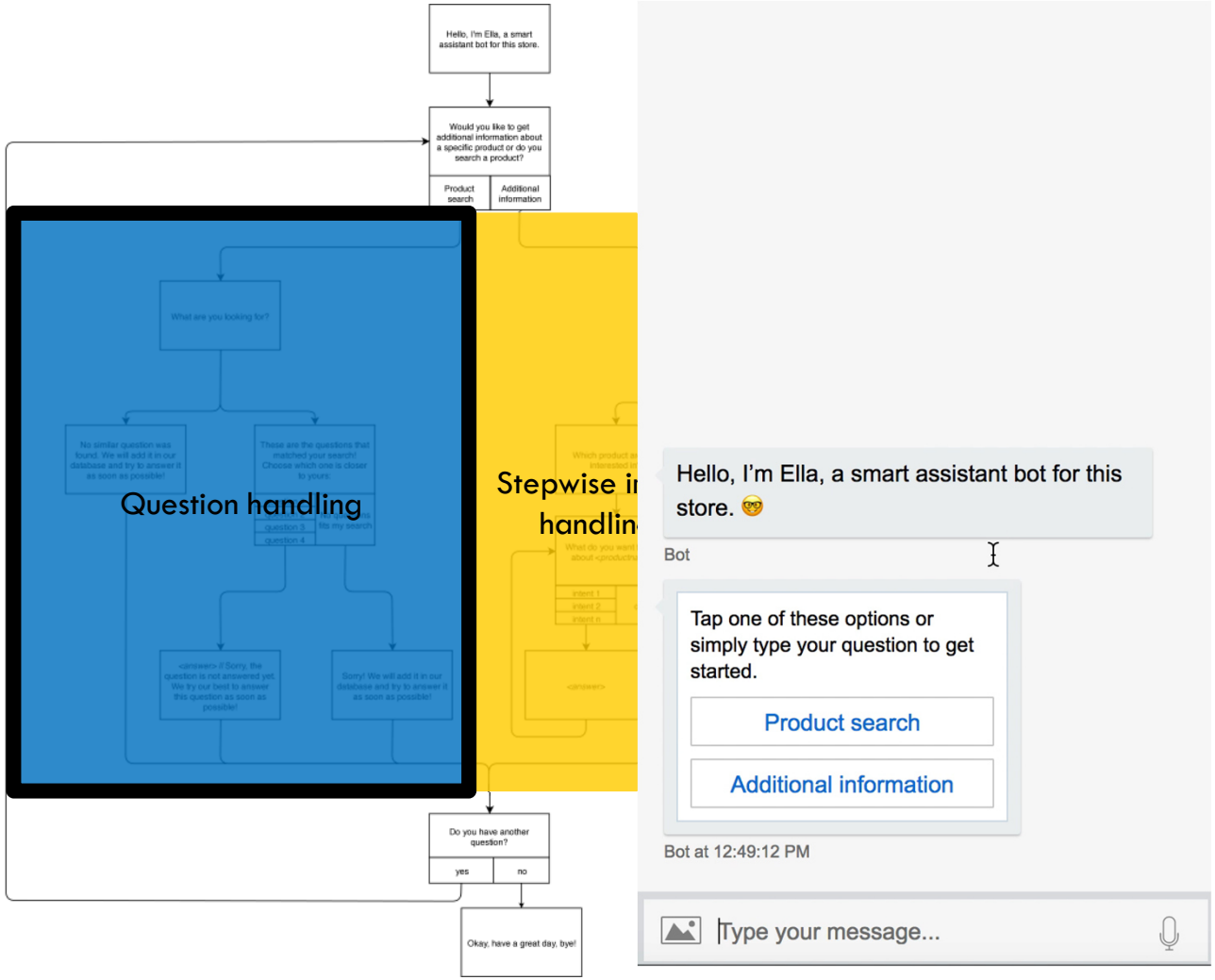
No similar question was found. We will add it in our database and try to answer it as soon as possible!
These are the questions that matched your search! Choose which one is closer to yours:
question 3
question 4
fits my search
<answer> // Sorry, the question is not answered yet. We try our best to answer this question as soon as possible!
Sorry! We will add it in our database and try to answer it as soon as possible!
Question handling
Do you wanna step wise dialog or ask a question?
Step wise
Ask question
Which product are you interested in?
What do you want to know about <productname>?
intent 1
intent 2
intent n
cancel
<answer>
Stepwise intent handling
Please ask your question.
<answer>
LUIS intent handling
Do you have another question?
yes
no
Okay, have a great day, bye!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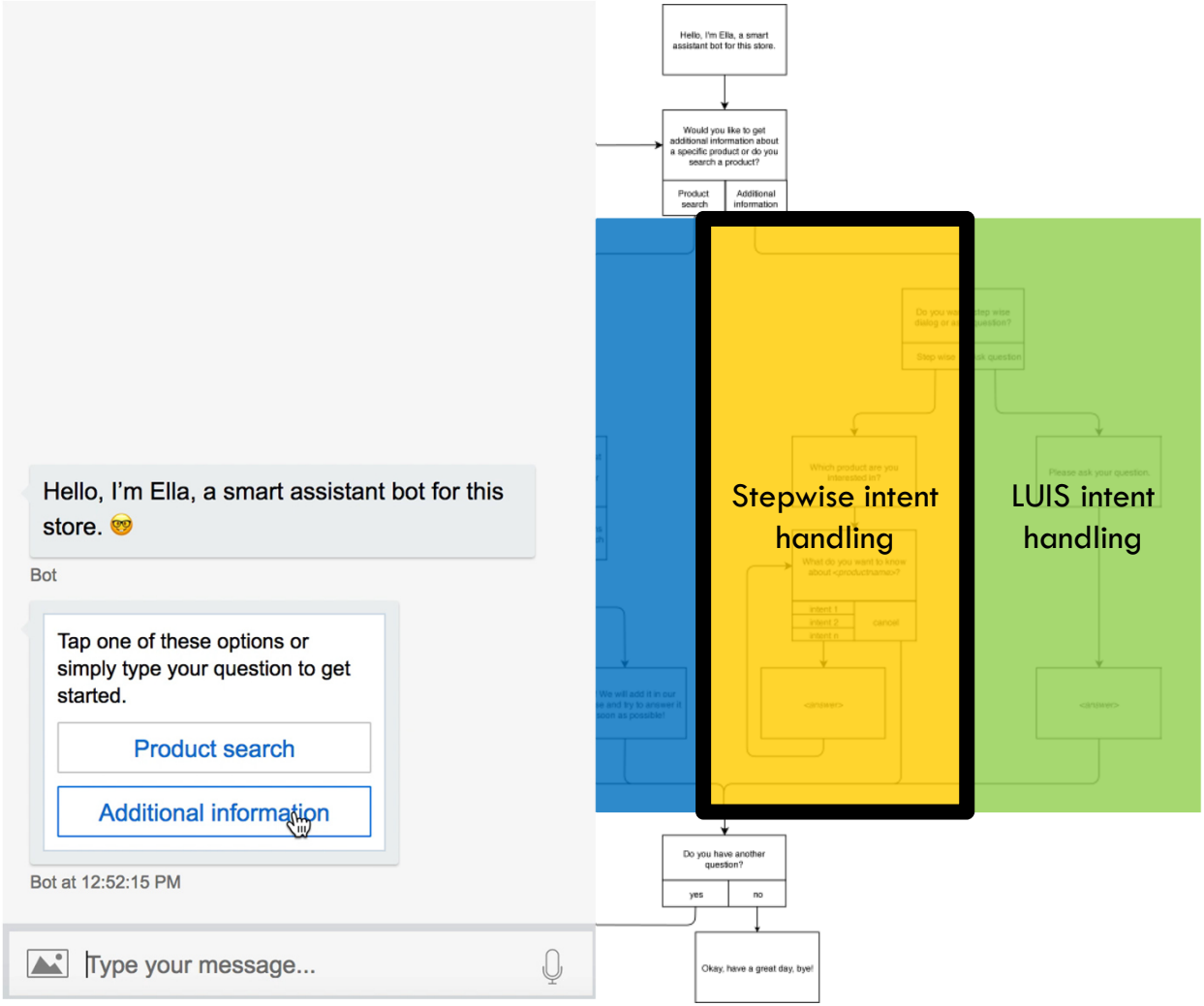
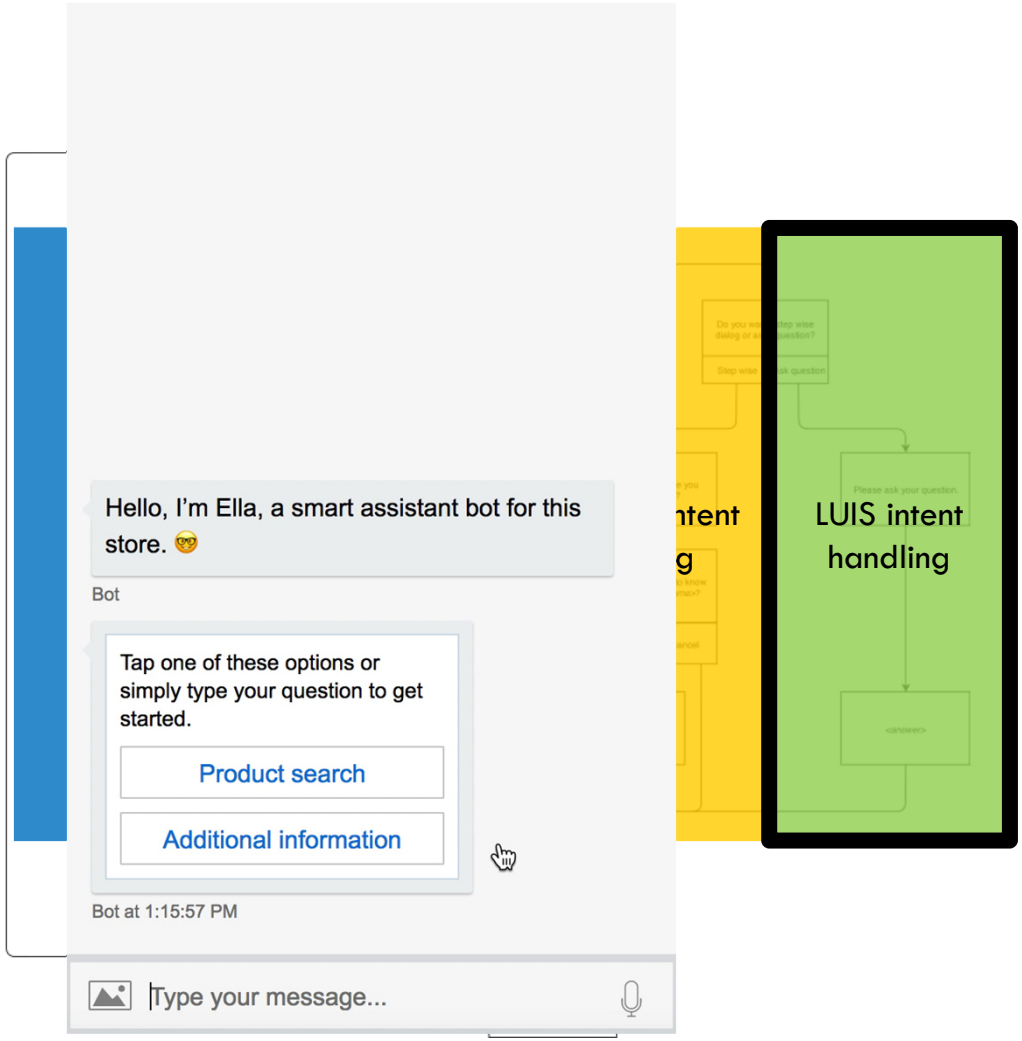
These are the questions that matched your search! Choose which one is closer to yours:
question 3
fits my search
question 4
Question handling
Stepwise i
handlin
Do you have another question?
yes
no
Okay, have a great day, bye!
Hello, I'm Ella, a smart assistant bot for this store.
Bot
Tap one of these options or simply type your question to get started.
Product search
Additional information
Bot at 12:49:12 PM
Type your message...


Hello, I'm Ella, a smart assistant bot for this store.
Would you like to get additional information about a specific product or do you search a product?
Product search
Additional information
Stepwise intent handling
LUIS intent handling
Do you have another question?
yes
no
Okay, have a great day, bye!
Hello, I'm Ella, a smart assistant bot for this store.
Bot
Tap one of these options or simply type your question to get started.
Product search
Additional information
Bot at 12:52:15 PM
Type your message...


Hello, I'm Ella, a smart assistant bot for this store.
Bot
Tap one of these options or simply type your question to get started.
Product search
Additional information
Bot at 1:15:57 PM
Type your message...
LUIS intent handling

imec

TEI of Crete
Technological Educational Institute of Crete

Blended Mobility

Thank you!

epihunter®

KNOWLEDGEFLOW