

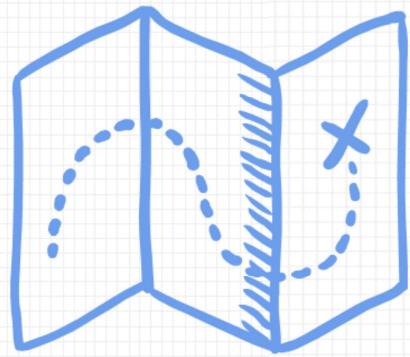
ClimbCode



Welcome to ClimbCode's exposition. Here we'll see the results of the development's first sprint of this project.

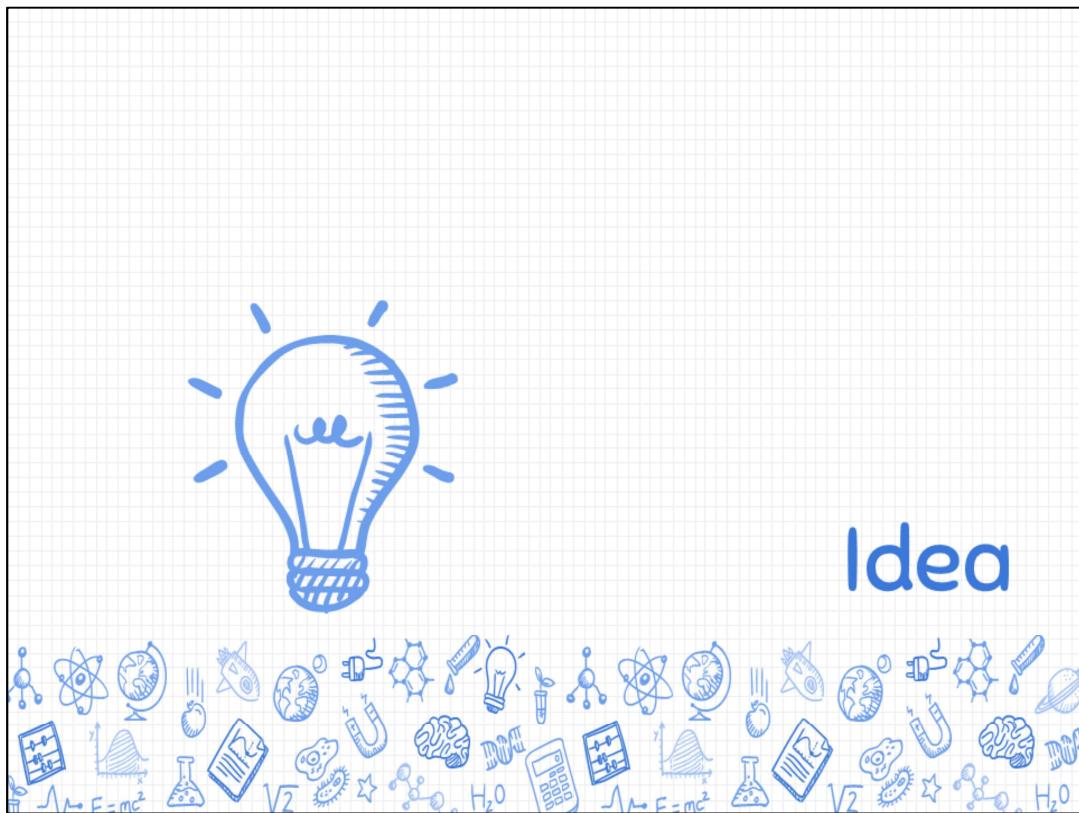
Our Path Today

- ✗ Idea
- ✗ The Workgroup
- ✗ Pilot Plan
- ✗ Technologies
- ✗ Status

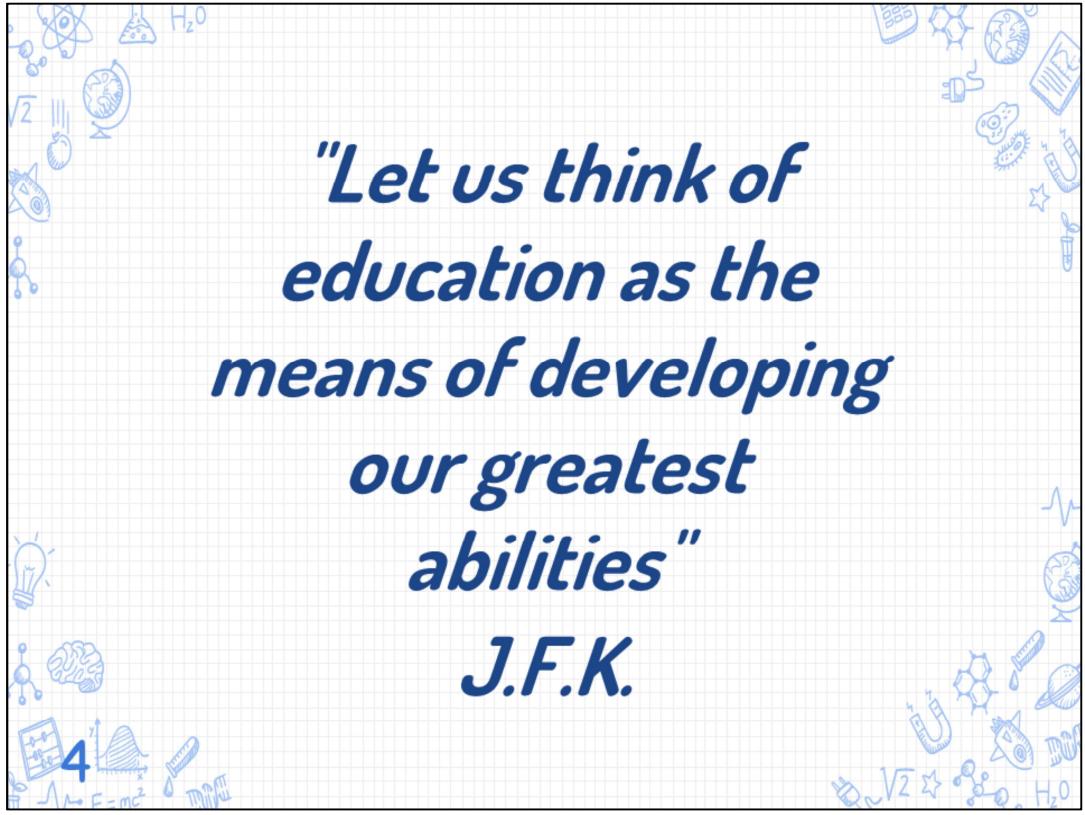


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The main points we're going to talk about are the following ones: First, we'll talk about the idea that ClimbCode represents. Next, we'll introduce the team which is developing the project. Then, we'll skip to the pilot plan that will begin to be applied in the next sprint. Then, we'll see the technologies we're using in the project, their situation and their assigned members. Finally, we'll see the status of the project this week.



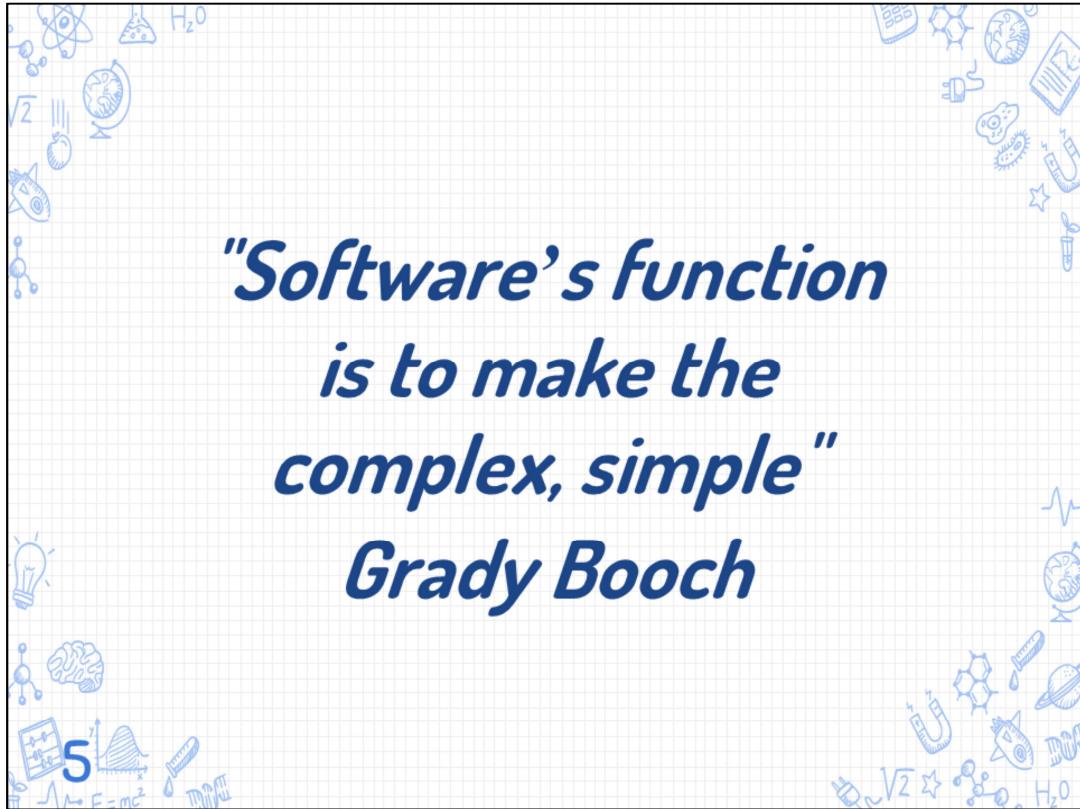
We'll start seeing which idea lies behind ClimbCode. But first, let me introduce two facts:



*"Let us think of
education as the
means of developing
our greatest
abilities"*

J.F.K.

The first one is, as we see here, that education is the means of developing our greatest abilities. We're sure that we all agree in that by education and learning is how we develop ourselves and become better, right?

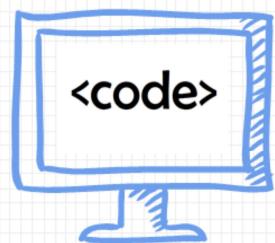


*"Software's function
is to make the
complex, simple"*

Grady Booch

The second one is that the software's function is to make the complex, simple. Seeing the upgrades made to natural processes by the software, it's logical to think this too, isn't it?

Idea



+



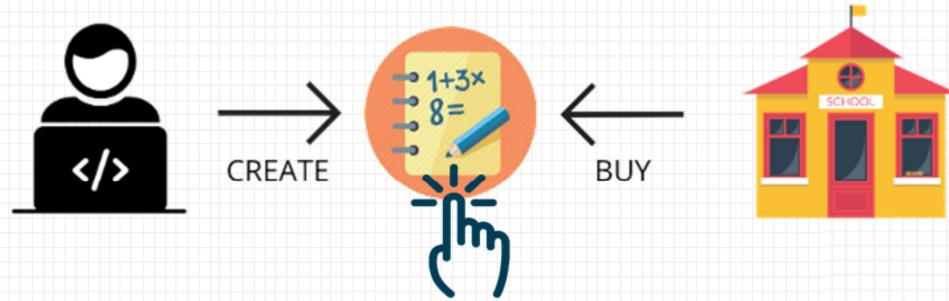
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ClimbCode

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Then what would happen if we combined those two concepts: Education and Software? The answer to this is ClimbCode, our web platform, which acts as a supporting tool for teaching with the help of programming and software.

MVP & Business



Interactive

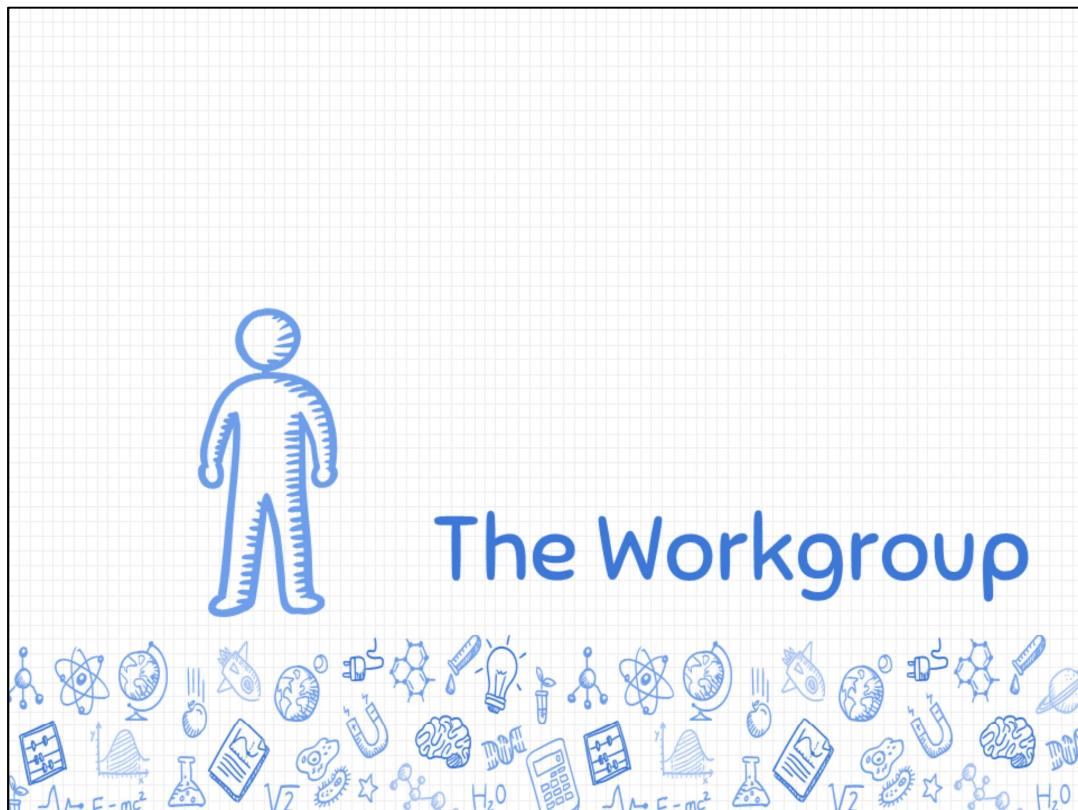
7

How do we grant this support? Simple, by interactive exercises, a better version of the original paper exercises made by independent programmers. Those exercises are bought by schools in order to increase their content catalog they have for supporting their subjects.



Learn Programming?

But then, is it imperative to know programming to use our platform as a school? Of course not! Our interactive exercises are ready to use for teachers and students without any programming knowledge.



Once we've seen what we have in our hands, these are the seven people behind ClimbCode's development:

The Workgroup



Alejandro Román Rodríguez
Project Manager



Álvaro Domínguez Núñez
Business Manager

10

Alejandro Román, the project manager, Álvaro Domínguez, the business manager...

The Workgroup



Miguel Ángel Baños Carreton Alejandro Garrido Resina
Front-End Developer Front-End Developer

11

Our front-end developers: Miguel Ángel Baños and Alejandro Garrido...

The Workgroup



Andrés Fernández Alés
Back-End Developer



Álvaro Sánchez López
Back-End Developer

12

And our back-end developers: Andrés Fernández, Álvaro Sánchez...

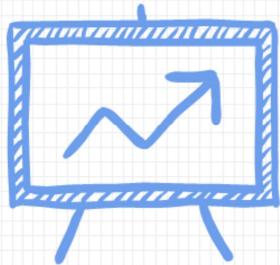
The Workgroup



Jesús Sosa Sánchez
Back-End Developer

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And Jesús Sosa. These are the seven members of the workgroup.

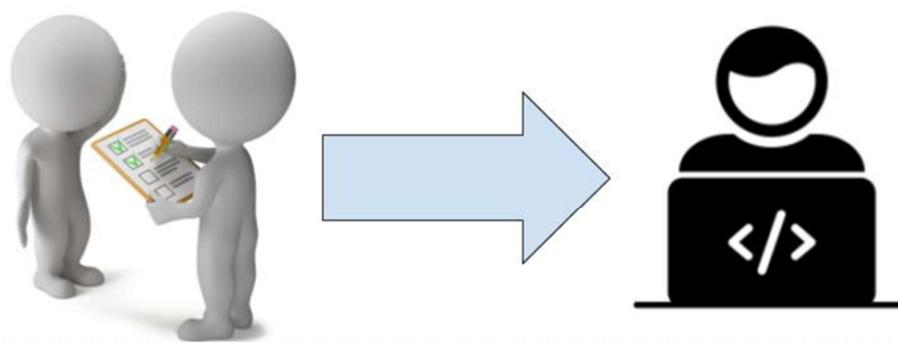


Pilot Plan



Now we go straight to the pilot plan of the project.

Pilot Plan

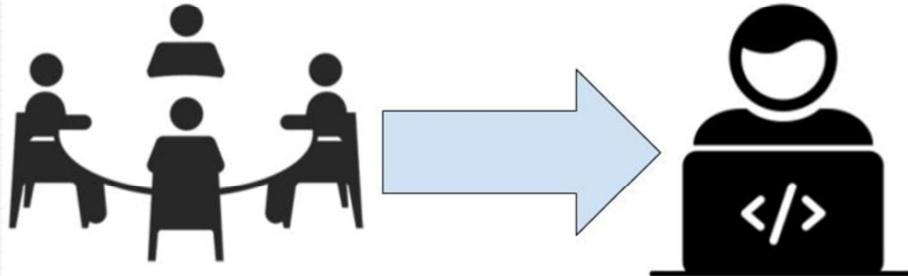


1: Survey for programmers

15

Due to the need of initial content for ClimbCode in matters of interactive exercises, we've set a pilot plan based in two phases, each of them having two steps. In the first phase, having the interactive exercises' creation system built, we will focus in programmers, trying to reach them and having them as potential content creators. In order to do so, first we'll make a survey asking them how much effort would they spend creating content if they could earn money with it, and what do they think about the means of doing so.

Pilot Plan

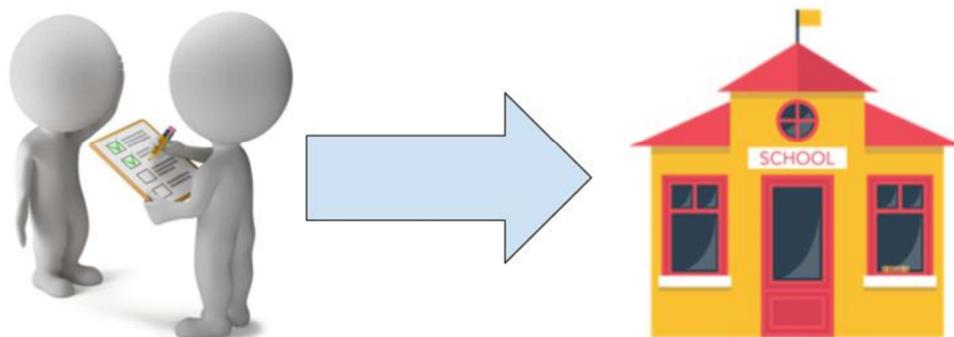


2: Meeting with programmers

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Then, we'll proceed with a meeting with a group of these programmers, showing them how the interactive exercises' creation system works, and receiving feedback from them in order to upgrade it to their possible needs.

Pilot Plan

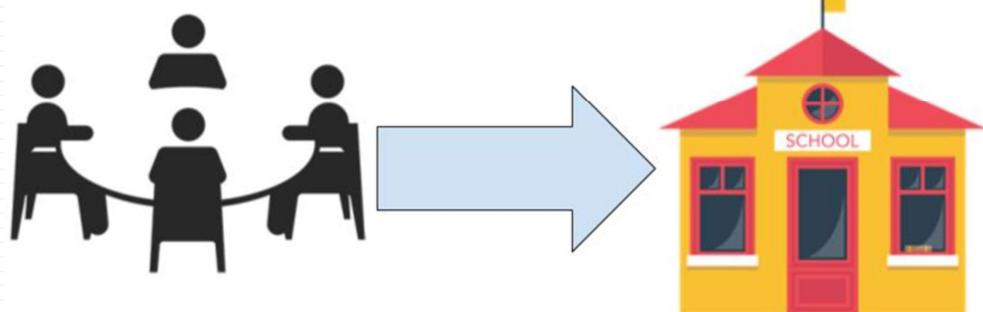


3: Survey for schools

17

After finishing this first phase, and once we've developed the whole first version of our interactive exercises' system allowing them to be stored in our database, we'll start the second phase of our plan. In this one, we'll first make another survey, this time for schools and teachers, asking them about their means for doing exercises in their lessons, if they would like a more automatic way for doing so and the impact they think it would have in the students.

Pilot Plan

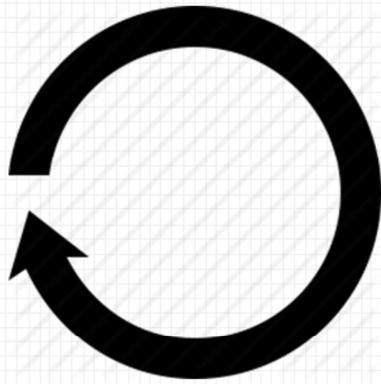


4: Meeting with schools

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Once the survey is completed, we will meet with many teachers, showing them how the execution of our interactive exercises works and receiving feedback for them.

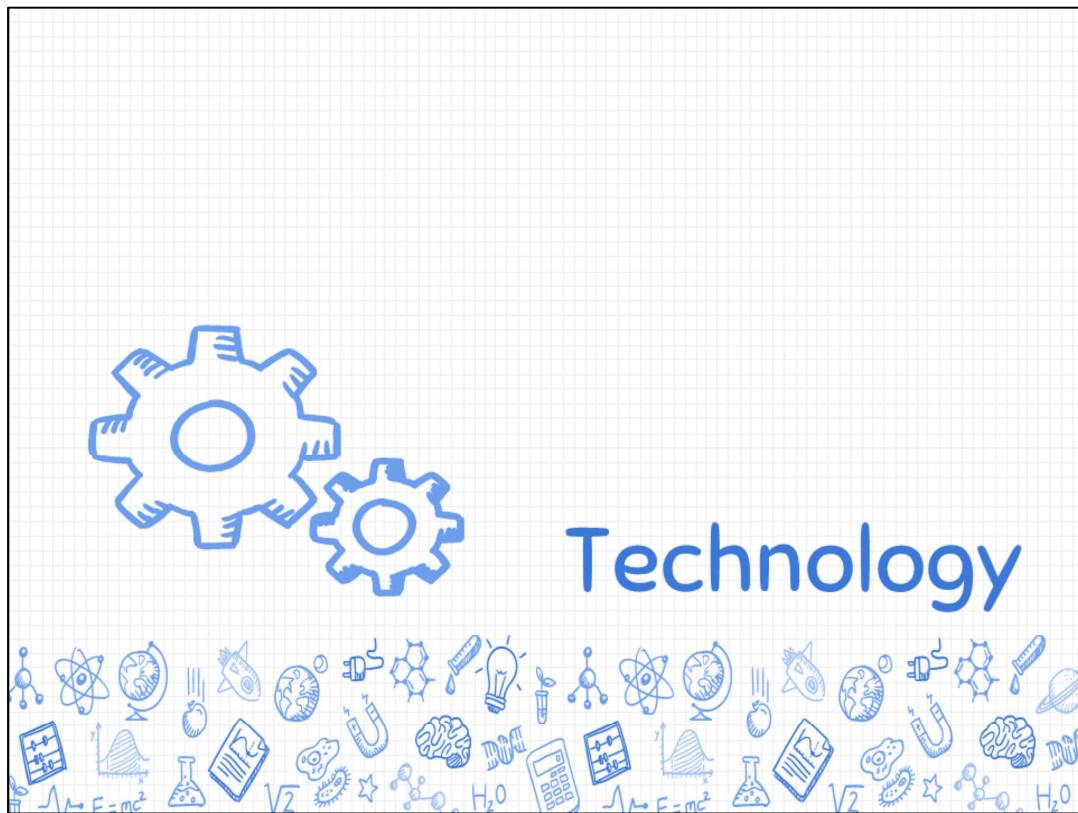
Pilot Plan



5: Repeat 2 & 4

19

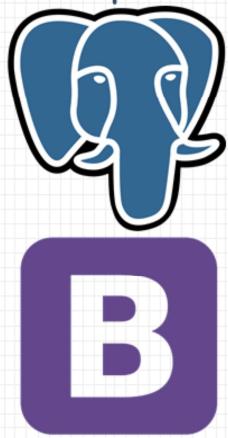
Finally, and while we have time for it, we will repeat the meetings mentioned in both phases, in order to get more feedback from our changes, and more possible customers for our product.



Now we'll see the technologies we're using to develop ClimbCode.

Technology

Development:



For the main development of our project, we're using PostgreSQL, Django and Python for our back-end, and Bootstrap for our front-end.

Technology

Deployment:



22

For the deployment of the project, we've used mainly Digital Ocean, but at first we approached to Heroku before we discovered that it was worse than Digital Ocean in many key features. Despite that, we still have a version deployed in heroku in case that the Digital Ocean one doesn't work.

Technology

Interactive Exercises:



Chart.js



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For the interactive exercises' system, we're using JavaScript, with Ace for a little help with the syntax, and Chart.js for creating the graphics and pictures for the exercises.

Technology

Knowledge:

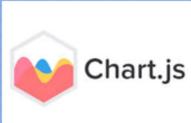


24

Finally, for our knowledge management we're using a git repository hosted in GitHub.

TECH. RISK			
NONE			
SLOW LEARNING			
LOW EXPERIENCE	X	X	X
25			

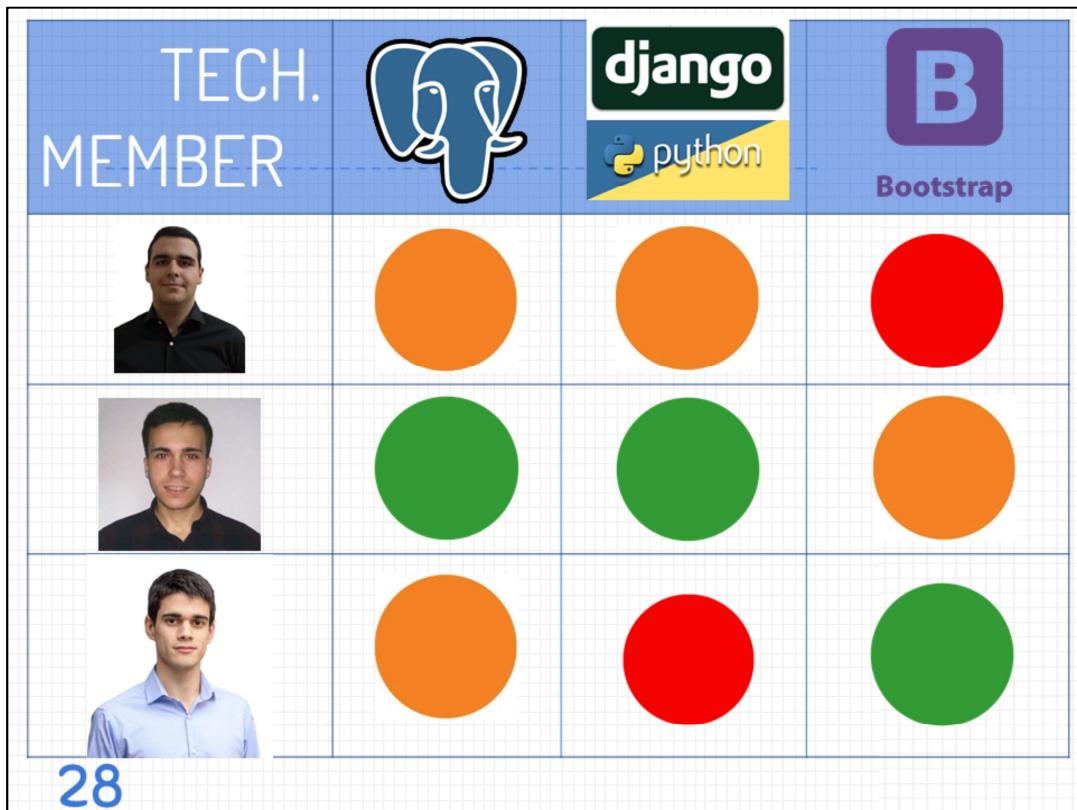
The main risks from these technologies when we started the project were the low experience the team had with them, as we see in PostgreSQL, Django, Python, Bootstrap, JavaScript and ACE. That had the danger that catching up with them could cause some delays into the project's development.

TECH. RISK	 		
NONE			X
SLOW LEARNING		X	
LOW EXPERIENCE	X		
26			

But the main risk was Chart.js, because the only thing we know about creating graphics with JavaScript was that there were plugins for doing so, so we had to start learning it from the beginning, and that learning could've been slow, delaying the whole main feature of our project. Fortunately it didn't result in anything bad. Finally, the only technology that didn't have any risks since the beginning was the one related to our knowledge management, because everyone in the workgroup was already working with it and had a lot of experience with it, too.

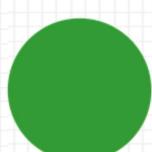
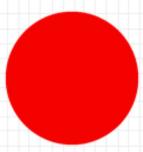
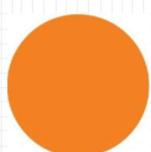
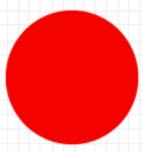
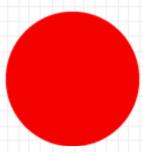
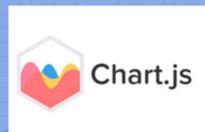
TECH. RISK		
NONE		
SLOW LEARNING	X	X
AVAILABILITY RISKS		X
27		

And last, our deployment technologies had the risk that we didn't know them at first, so learning them wasn't going to be an easy task. Also, Heroku had another availability risks that could result into usage problems.



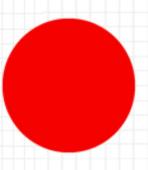
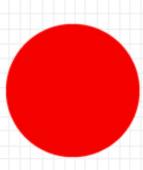
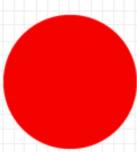
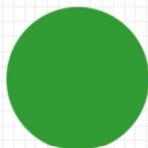
Currently, this is the situation of our technologies' knowledge, where red means that the member doesn't know it, because it isn't in his functions. Yellow means that the member knows the vital things needed for the project from that technology, either because he knew them before starting it or because he's learnt them during these weeks. Green means that the member knows plenty of features of the technology, having no problems with it.

TECH. MEMBER



29

TECH. MEMBER



30

TECH.
MEMBER

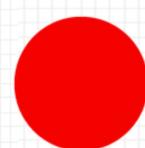
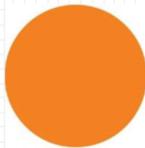
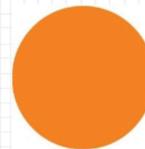
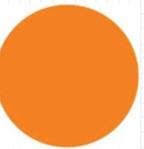
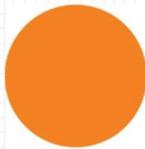
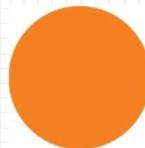
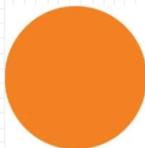


django

python

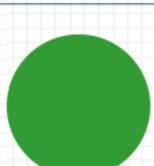
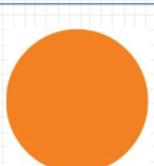
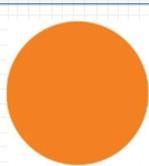
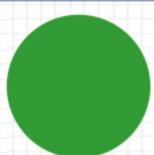
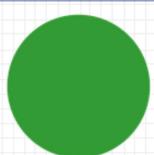
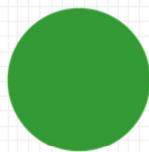
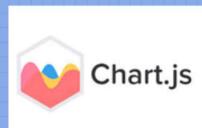


Bootstrap



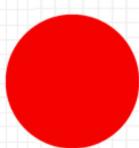
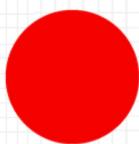
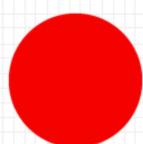
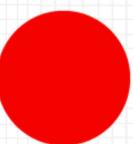
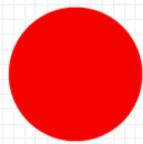
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TECH. MEMBER



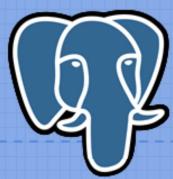
32

TECH. MEMBER



33

TECH.
MEMBER

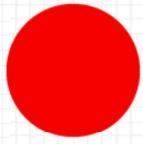


django

python

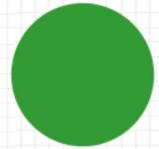
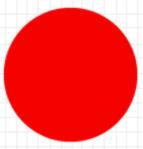
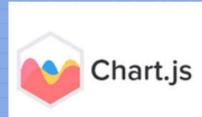


Bootstrap



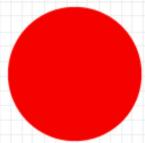
34

TECH.
MEMBER



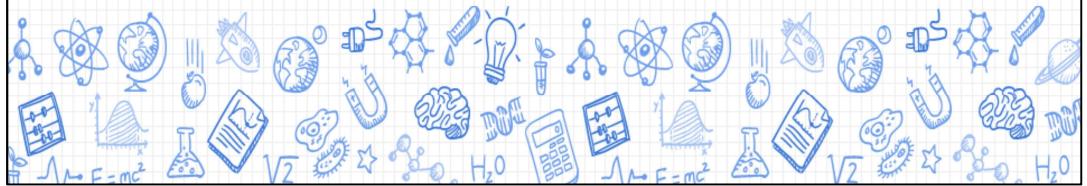
35

TECH.
MEMBER



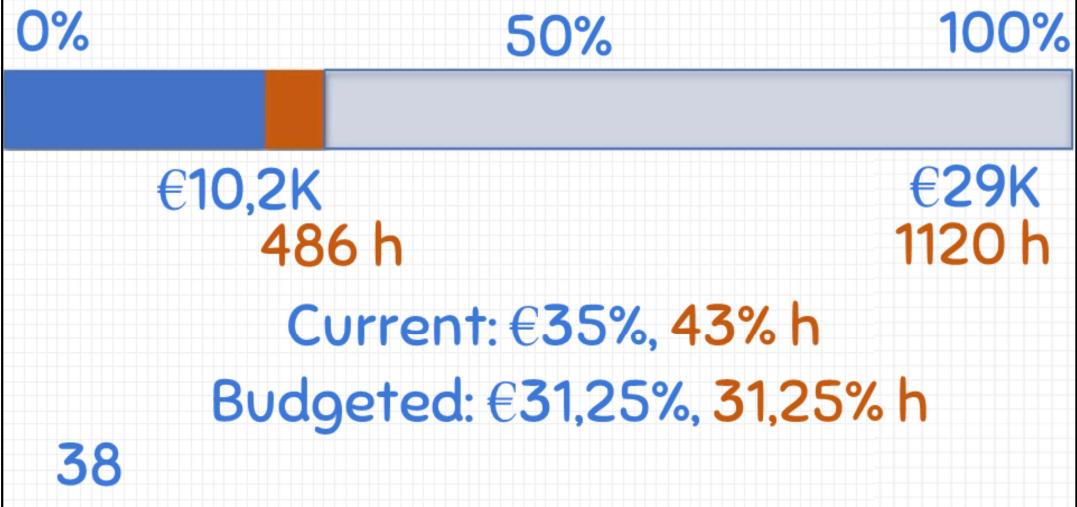
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Status



And last, but not least, we'll talk about the current status of our project.

Status

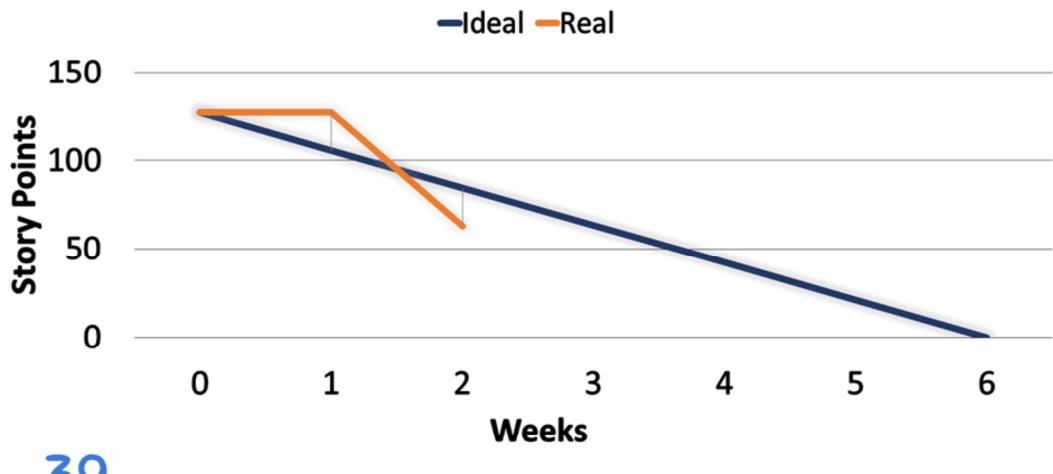


Currently we've spent a total amount of 486 hours and 10200 euros, which is a 43 and a 35 percent from the total, and different from the 31,25 expected this week.

(The problems which resulted in these variations will be explained later)

Status

Product Burndown



39

This investment is translated into this burndown graphic, in which we can see that we have remaining a total of 60 history points from the 130 we had in the beginning of the sprint.

Status

Sprint 1:



CREATE



READ



UPDATE



DELETE

C

R

U

D



Interactive

40

About the features we wanted to implement this sprint, we pretended to implement the creation (not storage) of interactive exercises and the main CRUDS for managing subjects, teachers, students, schools and programmers. We've successfully done all this tasks.

Status

Deployment URL: www.climbcode.tk

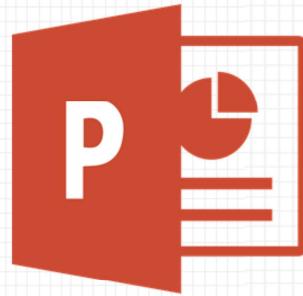
Demo URL:

https://www.youtube.com/watch?v=jbcEwWBvkek

41

And to prove it, we've done this demo of our platform, in which we can see the main feature done in this sprint: The tools the programmer has for the creation of an interactive exercise.

Status



EVERYONE

42

Now speaking of the tasks made by the team all the members have participated into the meetings in order to know how was the project developing, and also into the presentation's review, with a total of 4 hours and 21 minutes per group member approximately.

	100%	HOURS	PROGRESS
 JS	10h 20m	100%	
 Chart.js	4h 59m	100%	
43			

Now, speaking member by member, Alejandro Román has spent 15 hours 19min working on the implementation of the interactive exercises' creation system, both in the graphics and JavaScript sections.

	100%	HOURS	PROGRESS
	4h 28m		100%
	12m		100%
	43m		100%

Álvaro Domínguez has been working in the creation of the presentation, the upgrades report of this week, the business plan of the project...

	100%	HOURS	PROGRESS
 Design	1h 42m	100%	
 Creation	2h 50m	100%	
45			

The design of the first interactive exercise and its creation into the platform, with a total of 9 hours and 55 minutes.

	100%	HOURS	PROGRESS
	15h		100%
	2h		100%
	1h		100%
46			

Miguel Ángel Baños has spent a total of 18 hours working on the implementation of the interactive exercises' creation system, both in the graphics and JavaScript sections, and also in the creation of the first interactive exercise.

	100%	HOURS	PROGRESS
	15h 1m	100%	
	6h 53m	100%	
47			

Andrés Fernández has been working in the implementation of the CRUDS in the Django model, and into the deployment of the platform, spending a total of 21 hours and 54 minutes.

	100%	HOURS	PROGRESS
django	14h 39m	100%	
	2h 25m	100%	
48			

Also, Jesús has been working in the implementation of the CRUDS in the Django model, and into the deployment of the platform, spending a total of 17 hours 4 minutes.



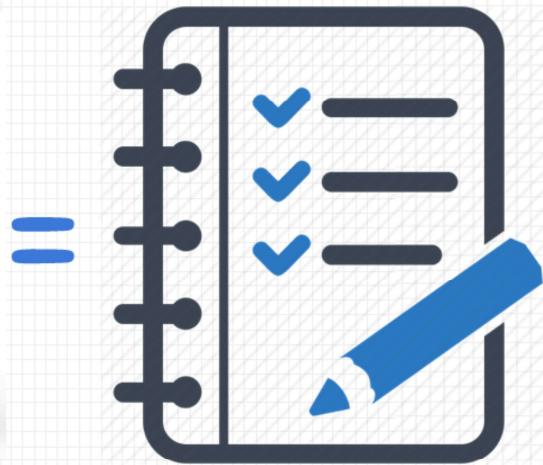
Álvaro Sánchez has also worked into the Django Model, with a total of 17 hours and 12 minutes.

	100%	HOURS	PROGRESS
 Bootstrap	7h 21m	100%	
 Creation	1h	100%	
50			

Finally, Alejandro Garrido has spent 8 hours and 21 minutes working on the creation of the first interactive exercise and the front-end of the platform, including the main page and its style.

Status

Problems:



51

During this week we've found two main problems. The first one was that it was difficult for us to see which problems did we have, so we decided to solve that by creating a document in which we save all the problems we've finding and their possible solutions.

Status

Problems:



=

STORY
POINTS

52

The other problem was that we didn't measure well our tasks, and that led to the huge difference between the hours spent by each team member. To prevent this from happening again, we've decided to put history points to our requirements, and relate them to our tasks in order to know how hard are they and making all members work the same time with the same effort.

Status

Sprint 2:



Interactive

53

That would leave us in the next sprint with the transactions' system, the storage of the interactive exercises and the security features of our platform...

Status

Sprint 3:

STANDARD



54

And in the third sprint, with the implementation of our style standard, and filters for searching exercises.



And that's the end of our presentation! Thank you for watching, and if you have any doubt you can contact me at alvdomnun@alum.us.es.