DIGIEDUHACK SOLUTION CANVAS

DIGI EDU HACK 2023

Describe it in a tweet

Describe your solution in a short catchy way in maximum 280 characters

Title of the solution:

Challenge addressed:

Team name:

Challenge category:

Innovativeness

What makes your solution different and original?
Can anything similar be found on themarket? How innovative is it?

Solution description

Please describe your solution, its main elements and objectives as well as a brief implementation plan with some key overall milestones, resources required and eventual barriers foreseen. What is your final product/service/tool/activity? How could the solution be used to enhance digital education in the your challenge area? How could the successof the solution be measured? How will the solution provide benefits to the challenge owner?

Target group

Who is the target group for your solution?
Who will this solution affect and how?
How will they benefit?

Transferability

Can your solution be used in other contexts?
What parts of it can be applied to other context?

Sustainability

What is your plan for the implementation of the solution and how do you see it in the mid- and long term?

Impact

What is the impact of your solution? How do you measure it?

Context

What is the problem you are facing?
What is the challenge that you are solving?

Team work

Explain why you are the perfect team to develop this work and what are the competencies you all bring in so the solution is developed successfully. How well did you work as a team?
Could you continue to work as a team in the future?

European Commission

FINAL DOCUMENT: SOLUTION

Video: https://youtu.be/nZULukFvqhw - (optional) VIDEO 2.0 - DEH ENG.mp4

1st Prototype (Figma of integration between FriendU and LMS):
https://www.figma.com/proto/HZca90ksj6SZBvVQ4T4C3E/Untitled?type=design&node-id=75-89&t=Rnw55bEet3kjIGIT-1&scaling=contain&page-id=1%3A2&starting-point-node-id=75%3A89&mode=design

2nd Prototype (FriendU functional platform):
https://chatgpt-messenger-yt-fdacc.web.app/

Team Members: FriendU

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- Diego Antonio Ramos Hinostroza

- Renzo Reyes Rocha (Mentor)

Casuistry

At the Peruvian University of Applied Sciences, Professor Daniel Barrios faces a constant challenge. He must manage three courses, each with two classrooms, and serve more than 200 students in total. His work involves creating at least six different exams each month, considering the diversity of teaching modalities, since some of his classrooms are virtual and others are in-person. However, the most crucial thing is that these exams must be unique, maintaining the appropriate level of difficulty based on the expected achievement of the course.

This manual test creation process becomes a constant burden for Daniel, who spends countless hours searching for information online, reviewing past tests, and designing questions that meet his standards. This not only causes you constant stress but also leads you to develop a set of questions that do not always reflect the desired depth or fit the learning or performance needs of your students. Furthermore, after creating the exams, he faces the arduous task of marking them thoroughly, and carefully reviewing each student's answers.

During this exhausting situation, FriendU appears, a revolutionary solution. FriendU is a platform powered by generative Artificial Intelligence (AI) that integrates perfectly with the LMS system used by the university (be it Blackboard, Intranet, Google Classroom, Schoology, Moodle, among others). Daniel's story takes a tremendously positive turn when he decides to implement it.

By entering the platform and creating a user, Daniel can easily request the creation of the six types of exams he needs, instruments based on the interrogation method, and one of the four techniques that allow the development of the most basic skills to consolidate knowledge. Here, he can set precise parameters and provide the necessary documents. Most impressively, FriendU takes advantage of the information available on the university platform (such as Blackboard) to structure exams that suit your needs. This solution makes it possible to maximize student learning, especially individual learning. Daniel can specify the desired achievement goal and detail the guidelines for it.

FriendU works to automate the process of creating and marking exams, drastically reducing the time required, as it generates interactive assessments with the content necessary to assess cognitive abilities. Questions can be asked that respond to lower-order processes, such as remembering, understanding, and applying. It is even possible to ask questions with more complex processes, such as analyzing and evaluating, since AI helps build situations or cases with coherent, relevant, and updated data, allowing students to reach the level necessary to develop higher-order cognitive skills.

Being an extremely versatile platform, it can process the documents provided by the professor and those available on the university platform (such as Blackboard), extracting relevant information that allows it to offer solutions, create and correct exams, and provide summaries or detailed analyses according to the teacher's needs.

The story becomes even more compelling when it is discovered that FriendU not only has these skills but also that being interconnected with the platform, it is able to create and export the assessment in the same LMS, functioning as a complete assistant in every sense. The interconnectivity with the university platform allows FriendU to function as a comprehensive resource. You can search for information, solve problems, and offer solutions in a variety of styles.

Daniel's story becomes a powerful testament to how FriendU has completely transformed its approach to teaching and assessment. With this innovative solution, teaching becomes more efficient and effective and, most importantly, dramatically reduces the stress associated with creating and marking exams. It offers Daniel and other teachers an invaluable tool that improves the quality of education and provides students with an exceptional academic experience since teachers can now dedicate greater efforts to other tasks that allow them to continue enriching the teaching process in higher education.

FriendU has two versions: the first is FriendU Classic, in which the user has access to the platform, chat, documents, analysis, and all the functions described above. The second option is FriendU Bett, which in addition to including all the features of the first, is connected in real time to the internet. This allows the AI to access up-to-date news, information, and documents to create cases more elaborate and realistic in the creation of the different exams.

Aspects	Comparison	
	FriendsU	ChatGPT
Algorithms	The FriendsU algorithm will be based solely on the academic aspect, with public information available from both other universities and the UPC.	The algorithm is inefficient for the student in many cases since it does not have the knowledge bases on the topics covered by the university's courses, and on other occasions, it will not be as precise or specific about the academic resources of the university.
Integration with UPC library	By being integrated with the materials available at the university, the platform will be able to provide known resources on the topics that teachers and students are working on, saving the time of intense searching to review the academic material required in projects or evaluations.	Do not access specific information or data provided by the university. It also requires a rigorous training process to process information from new digital sources by the user.
Adaptation to curricular frameworks	It integrates the topics to be worked on for each course within the curricular frameworks in the algorithm, the bot is prepared and contextualized to be able to help with the student's needs.	It works with external sources that in some cases turn out to be of dubious origin.

Prototype Manual

In the first prototype, there is the interactive Chatbot, to which they can ask questions, and request summaries, among others, and it will be linked to its platform as well as the LMS of the educational institution.

To exemplify the case, we use the blackboard LMS. In this basic prototype, you can see the interconnectivity of FriendU within the learning management systems of universities.
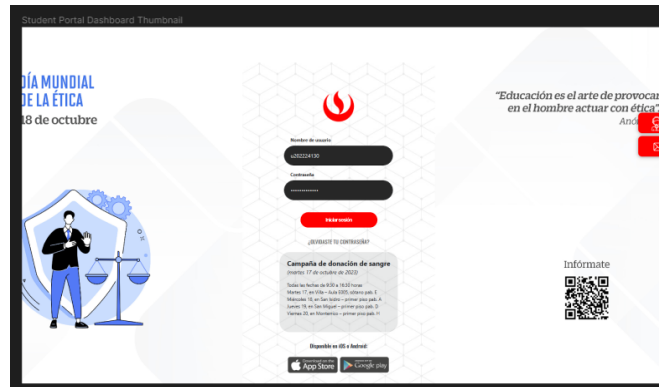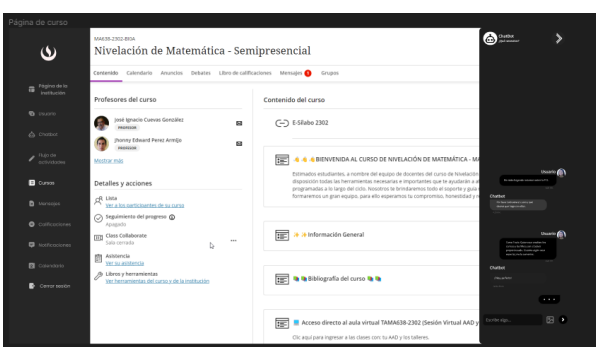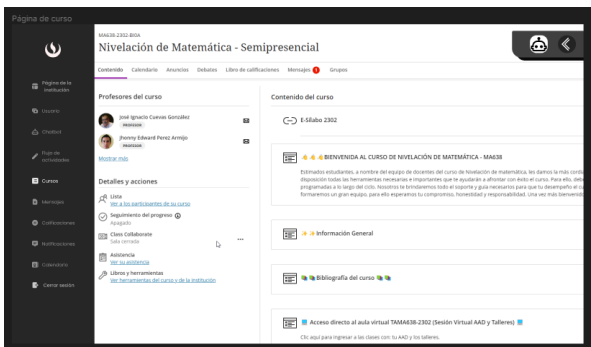

Virtual Classroom login
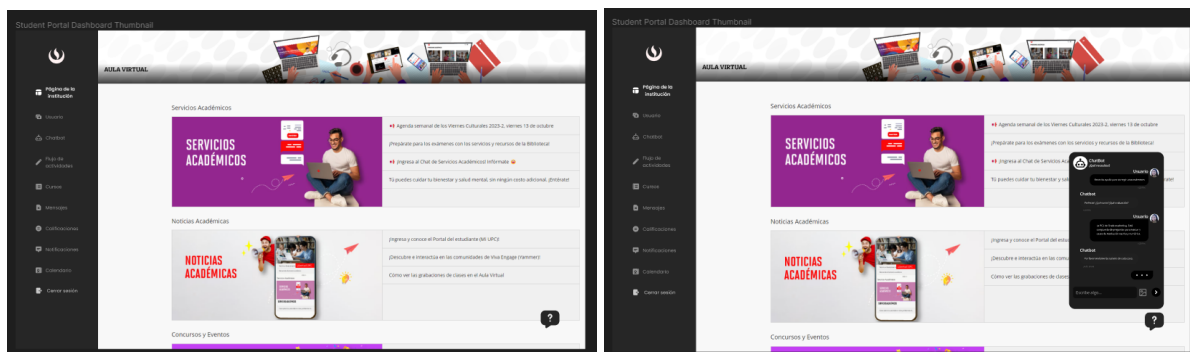
On the main page of the Virtual Classroom, you will see a small globe icon at the bottom right, which if clicked will open a small chatbot. The user can chat, assign tasks, and ask whatever they like. This is Friend U that, although it has its platform, is interconnected with the MLS systems, in this case, the Virtual Classroom, so you will have access to all the documents uploaded, along with the information within them. Likewise, in the toolbar on the left, you can see that there will be a specialized page, only for FriendU.
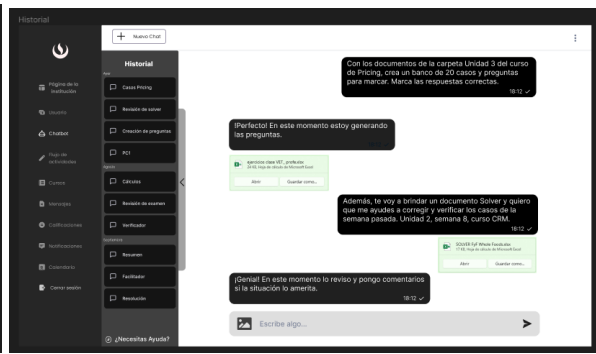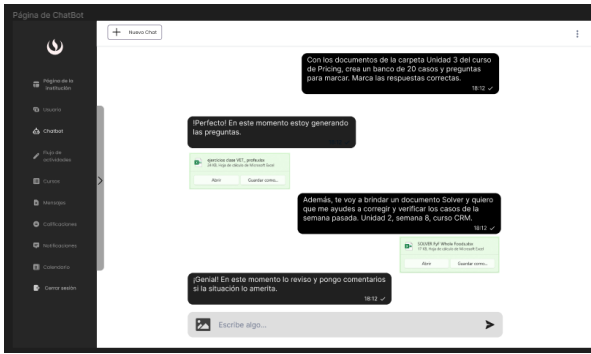
In these images, we have the main FriendU Chatbot, where you will have access to the history, the chat with the AI and its parameters, a toolbar that allows you to send photos, and documents, among others, and its configuration.


Finally, in the courses section, there will be an option to open chat in the upper right. So that the AI can be accessed from any page within the Virtual Classroom.

FriendU Functional Platform

Assuming that the functional prototype is 100%, it is proposed that within this space users can ask questions, consult summaries, upload files, and create new chats. Currently, it will not be possible to test the three options of Home, Folders, and Exams. However, "Home" is expected to be the main page, the login point, where users will be able to log in, create an account, and set up their profile. Under "Folders", a file window will be provided where users can organize their documents into folders by course. And under "Exams," options will be offered for users to choose exam style, difficulty level (achievement goal), and other assessment-related preferences.
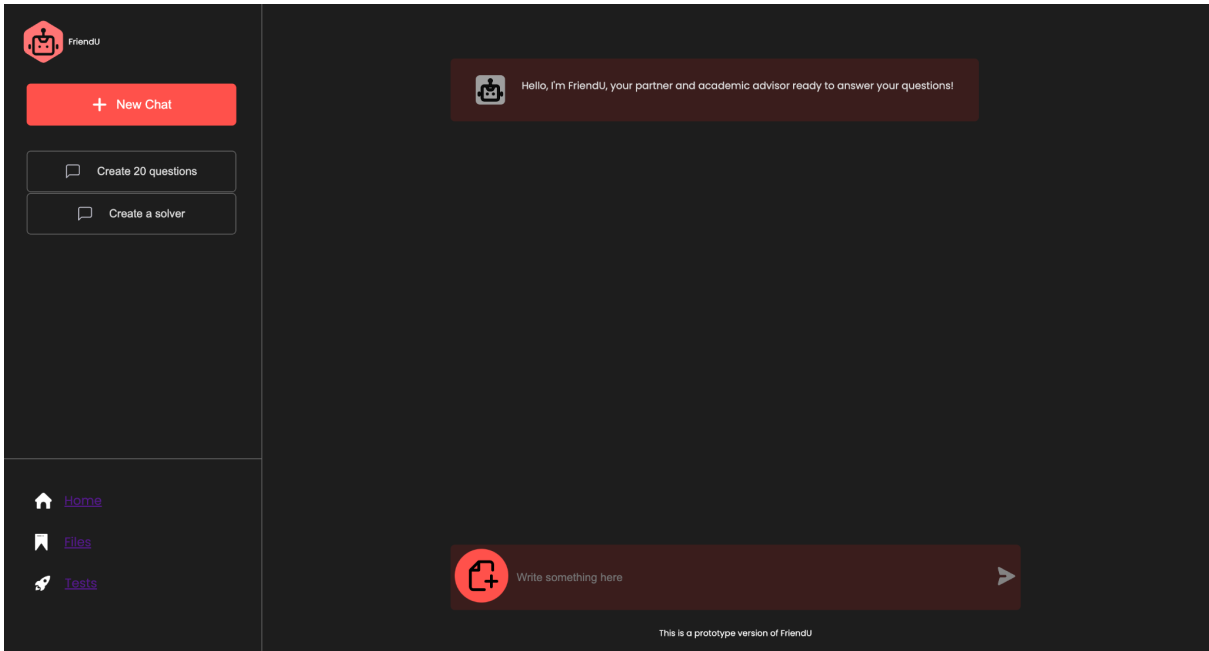
This functional FriendU Chatbot is the same one that will be interconnected with the LMS of the universities so that it works together with the teacher in the creation and correction of evaluations, facilitating processes, and providing support.
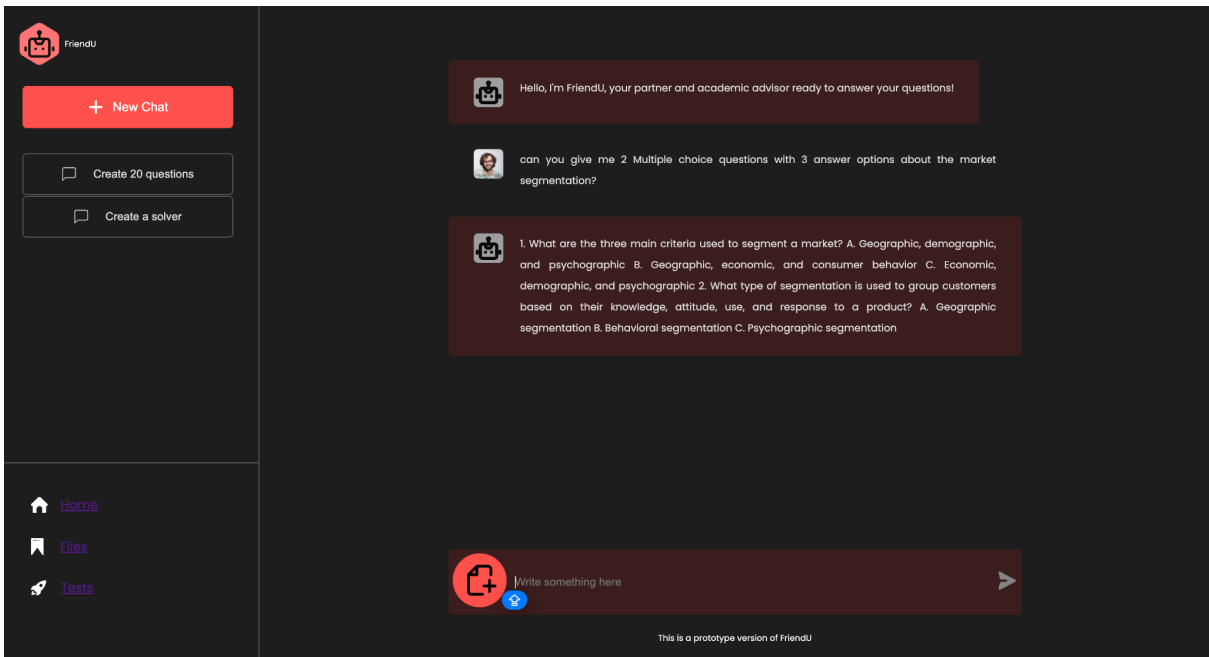

In the image, you can see some interactions with FriendU.
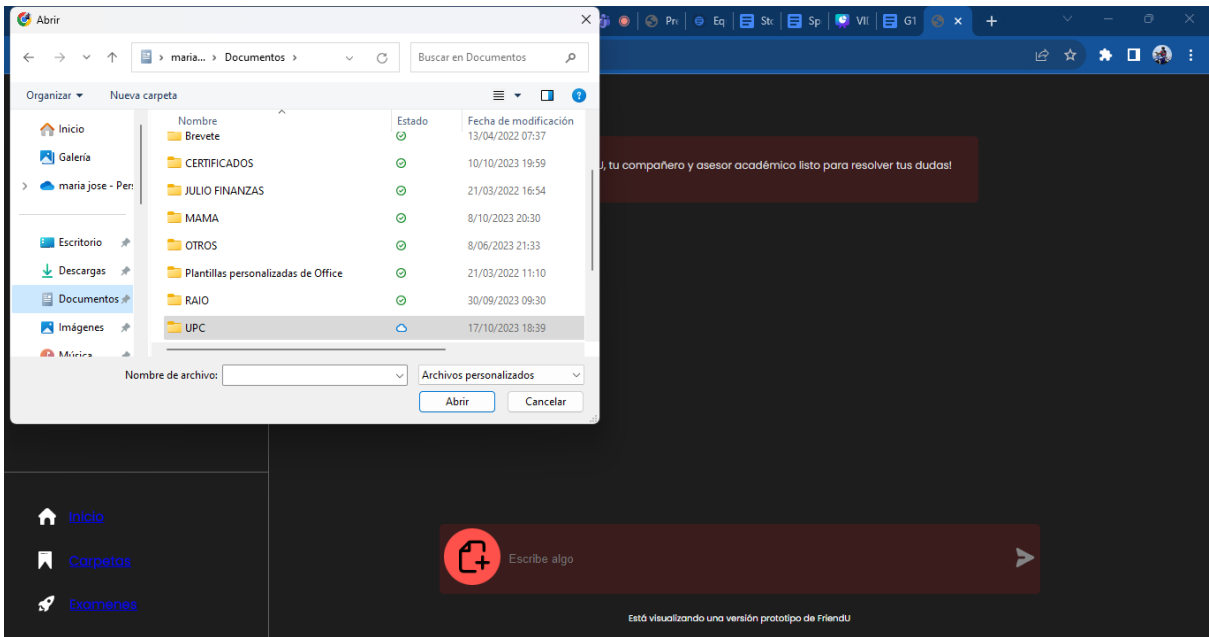
Additionally, selecting the more documents icon at the bottom will open the computer folder and allow you to select and send documents. (since it is a prototype, it will not allow the selected files to be sent, nor will it read them).
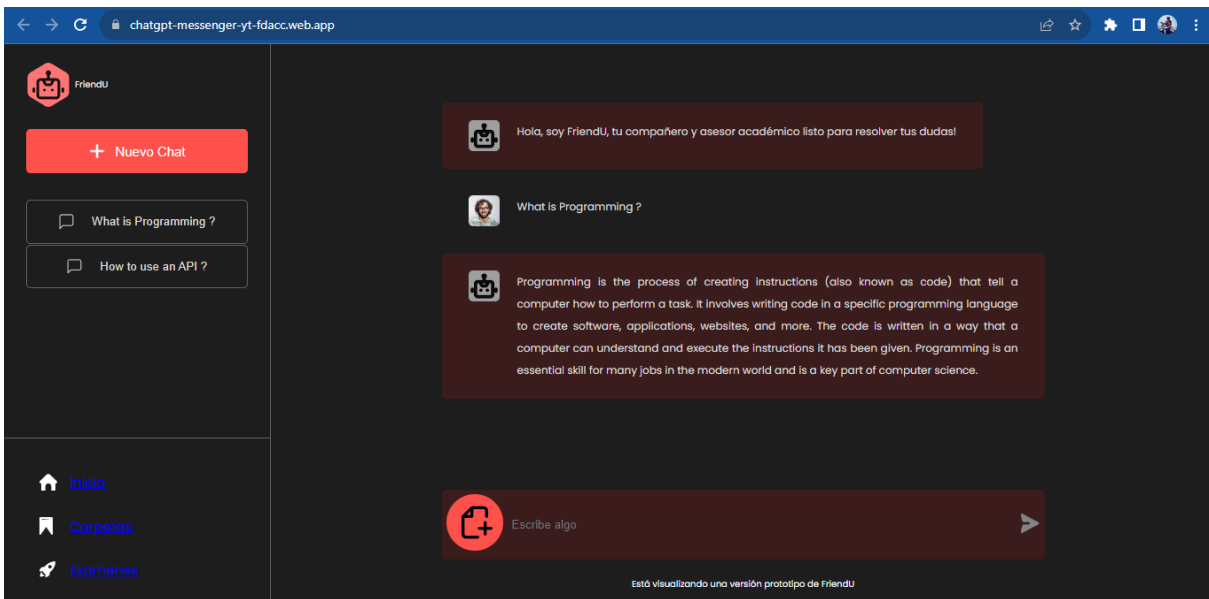
On the left-hand side, you can see the options for the predetermined questions, which are adapted and updated as appropriate.
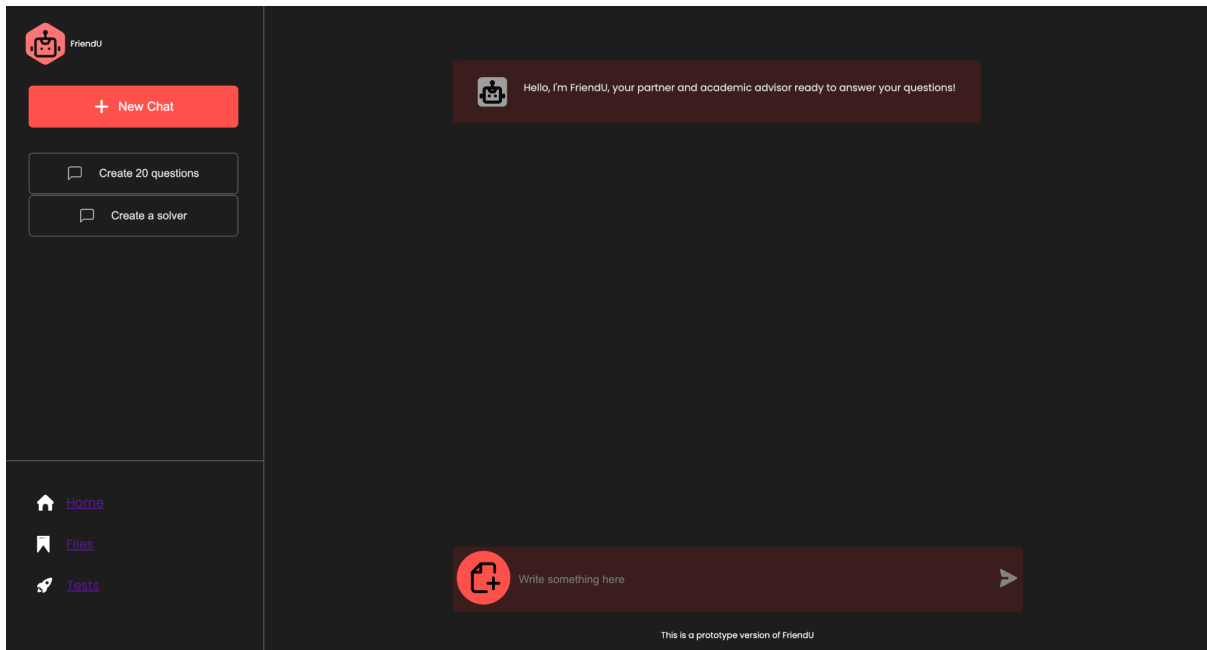
Finally, clicking + New Chat will delete the entire current conversation and give you a clean chat page to start another conversation.

This prototype continues to be an essential part of the fundamental functionalities that FriendU proposes for teachers, as detailed in the case study presented previously. With FriendU, not only will basic educational tasks be carried out, but it will also allow the development of instruments directly in the LMS system. What we are presenting here is just an initial glimpse of the immense potential we hope to achieve with FriendU.
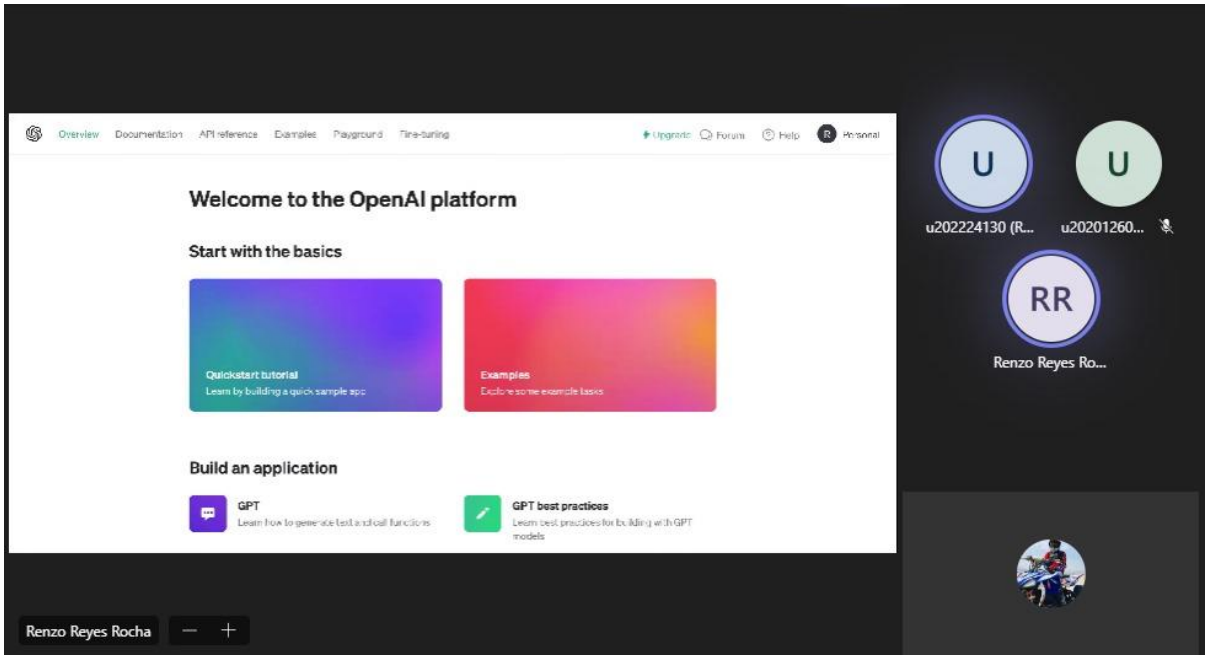
EVIDENCES

Coordinating what things can and cannot be done to develop the idea.
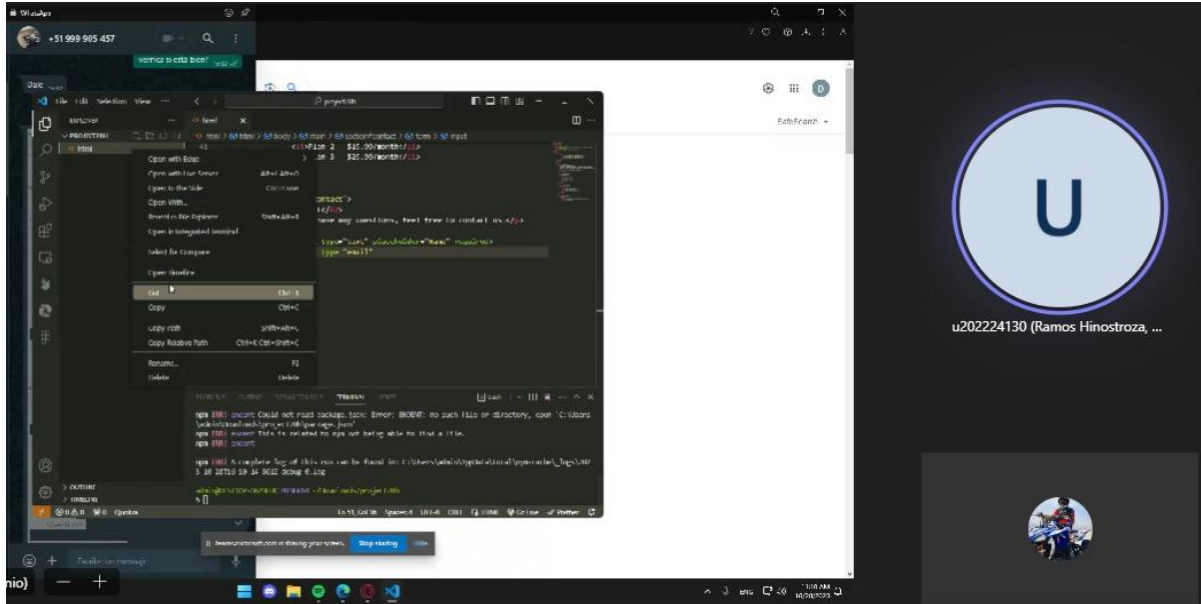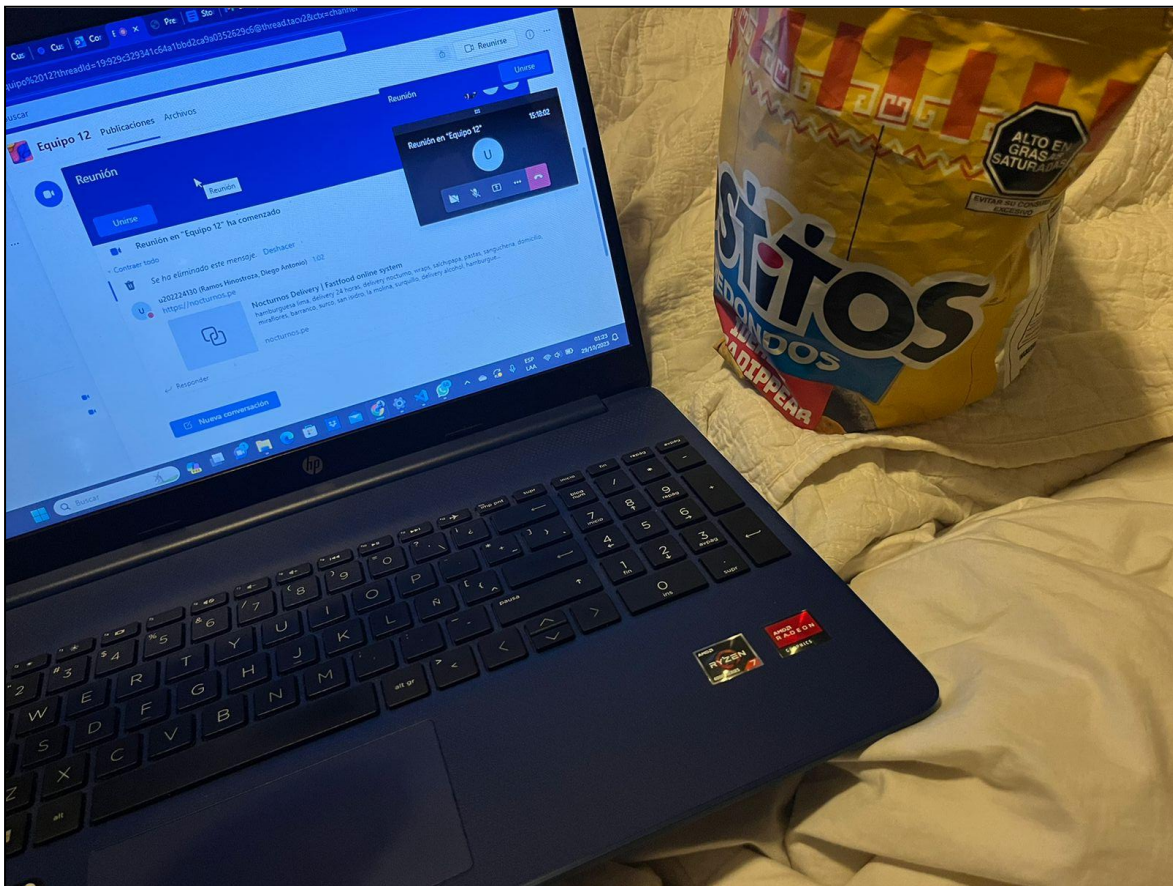

Talking to our mentor to give us feedback, and recommendations and see how to create the API that would join the DB, a plugin type to interconnect the platform with the MLS.
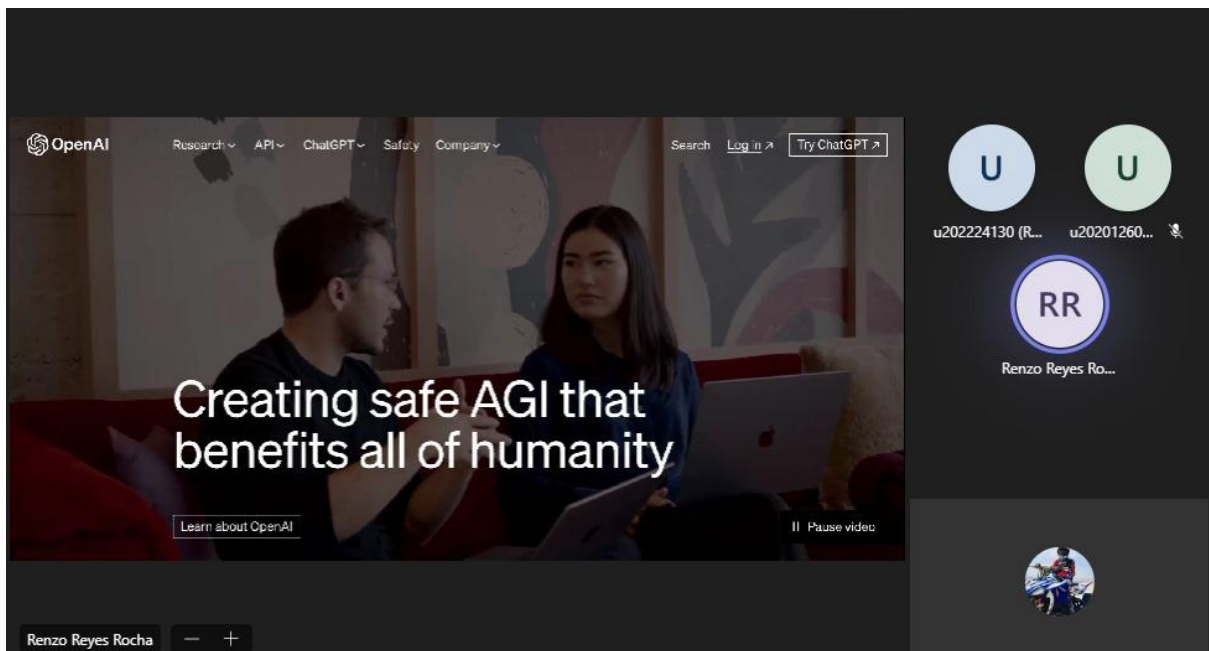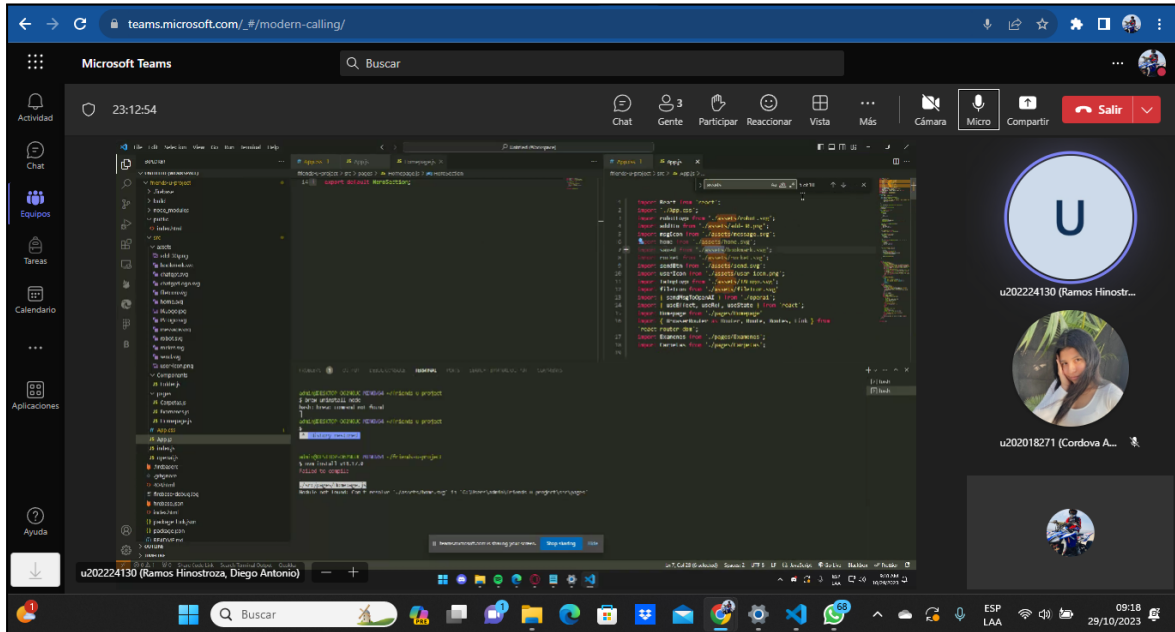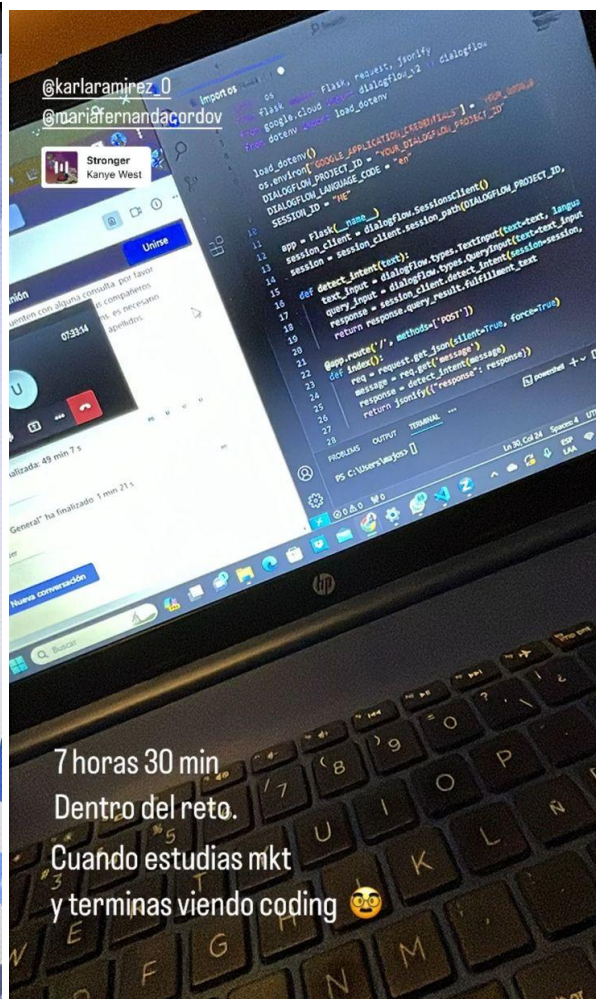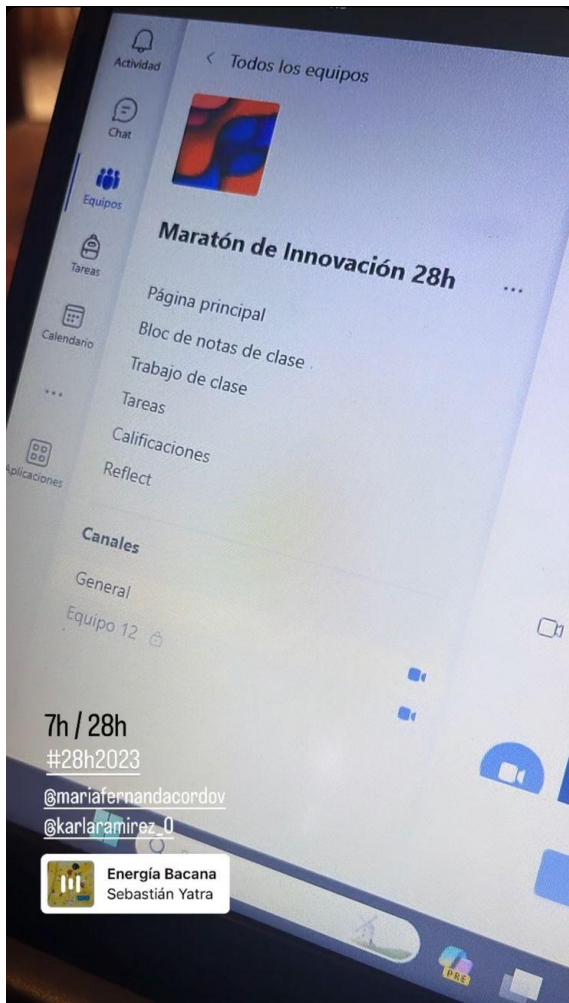
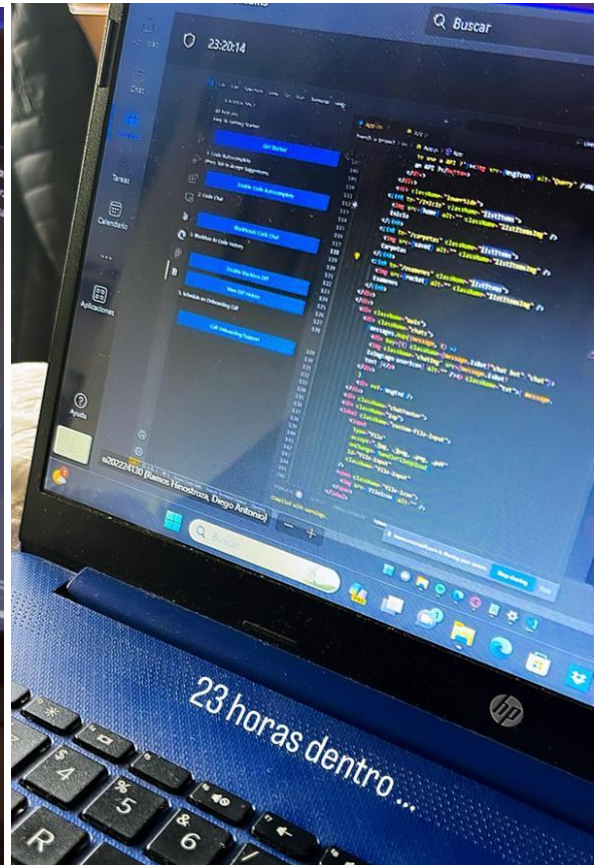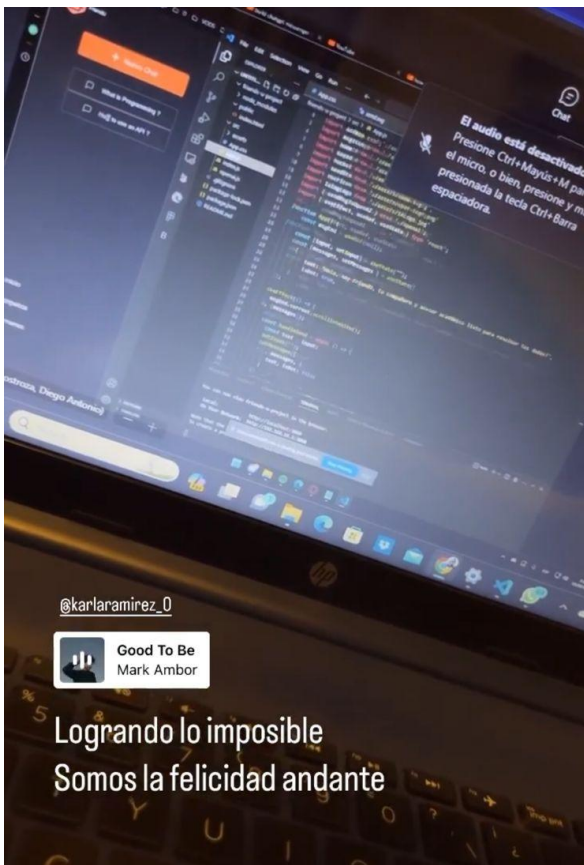Advancing and discussing ideas and the speech for the video and the cases to be presented.

Putting together the code for the prototype

Our ups and downs of energy and updates during the 28 hours.

teams.microsoft.com/_#/mod

Buscar

11:12:19 Participar Reaccionar Más

U

@karlaramirez_0

death bed (coffee for you...
Powfu, beabadoobee

11h y seguimos ...

16:28:51 Participar Reaccionar Más

@karlaramirez_0

16 horas y seguimos ...

El audio está desactivado
Presione Ctrl+Mayús+M par
el micro, o bien, presione y m
espaciadora, la tecla Ctrl+ Barra

@karlaramirez_0

Good To Be
Mark Ambor

Logrando lo imposible
Somos la felicidad andante

23:20:14

23 horas dentro ...

Bloopers and video editing process
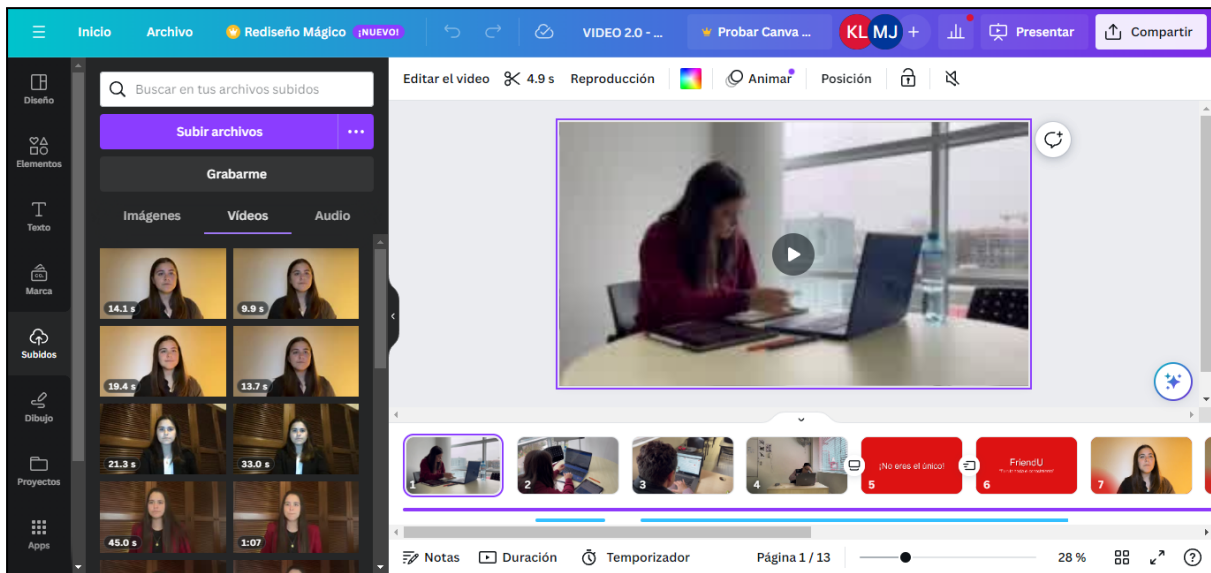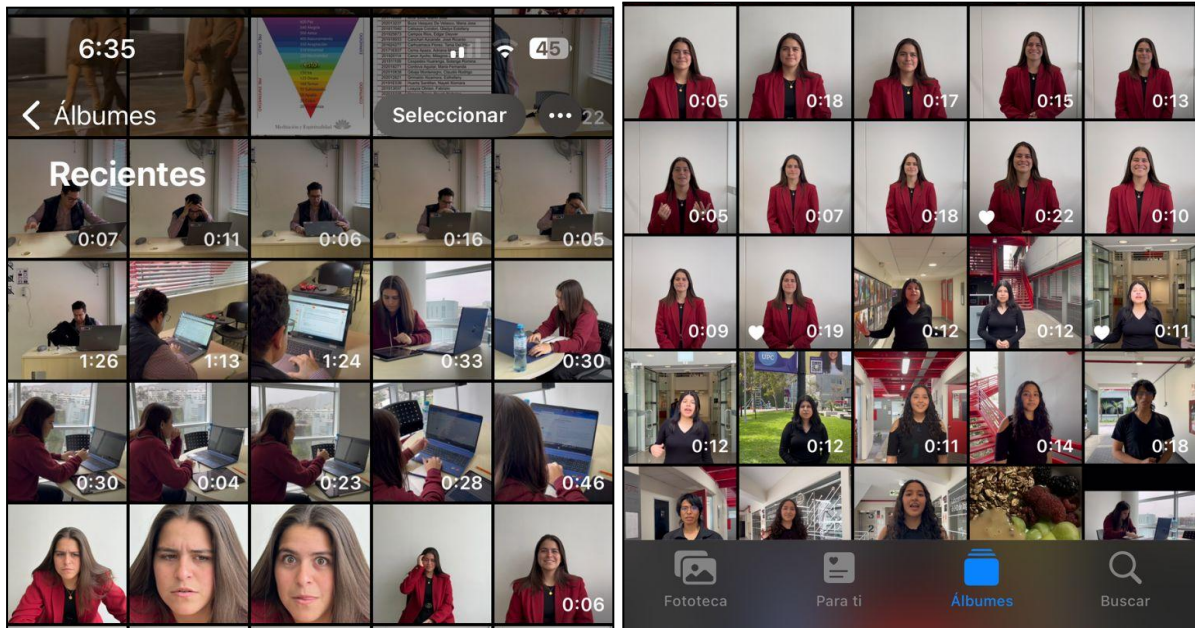
Integration of Feedback to the solution

Storytelling

Versión Final

En la Universidad Peruana de Ciencias Aplicadas, el Profesor Daniel Barrios enfrenta un desafío constante. Debe gestionar tres cursos, cada uno con dos salones, y atender a más de 200 estudiantes en total. Su labor implica crear al menos seis exámenes distintos cada mes, considerando la diversidad de modalidades de enseñanza, ya que algunos de sus salones son virtuales y otros son presenciales. Sin embargo, lo más crucial es que estos exámenes deben ser únicos, manteniendo el nivel de dificultad adecuado en función al logro esperado del curso.

Este proceso manual de creación de exámenes se convierte en una carga constante para Daniel, quien dedica innumerables horas buscando información en línea, revisando exámenes anteriores y diseñando preguntas que cumplan con sus estándares. Esto no solo le genera un estrés constante, sino que también lo lleva a desarrollar un conjunto de preguntas que no siempre reflejan la profundidad deseada ni se ajustan a las necesidades de aprendizaje o desempeño de sus estudiantes. Además, después de crear los exámenes, enfrenta la ardua tarea de corregirlos minuciosamente, revisando detenidamente las respuestas de cada estudiante.

En medio de esta agotadora situación, aparece FriendU, una solución revolucionaria. FriendU es una plataforma impulsada por una Inteligencia Artificial (IA) generativa que se integra perfectamente con el sistema de LMS que utilice la universidad (sea Blackboard, Intranet, Google Classroom, Schoology, Moodle, entre otros). La historia de Daniel da un giro tremendamente positivo cuando decide implementarla.

Al ingresar a la plataforma y crear un usuario, Daniel puede solicitar fácilmente la creación de los seis tipos de exámenes que necesita, instrumentos basados en el método de interrogatorio, una de las cuatro técnicas que permite desarrollar las competencias más básicas para consolidar el conocimiento. Aquí, puede establecer parámetros precisos y proporcionar los documentos necesarios. Lo más impresionante es que FriendU aprovecha la información disponible en la plataforma universitaria (como Blackboard) para estructurar exámenes que se adapten a sus necesidades. Esta solución permite valorar al máximo los aprendizajes de los estudiantes, especialmente los individuales. Daniel puede especificar el objetivo de logro deseado y detallar sus directrices.

FriendU trabaja para automatizar el proceso de creación y corrección de exámenes, reduciendo drásticamente el tiempo requerido, ya que genera evaluaciones interactivas con el contenido necesario para evaluar de manera excepcional las habilidades cognitivas. Se pueden solicitar preguntas que respondan a procesos de orden inferior, como recordar, comprender y aplicar. Incluso es posible pedir preguntas con procesos de mayor complejidad, como analizar y evaluar, puesto que la IA ayuda a construir situaciones o casos con datos coherentes, relevantes y actualizados, permitiendo a los estudiantes alcanzar el nivel necesario para desarrollar las habilidades cognitivas de orden superior.

Siendo una plataforma sumamente versátil, tiene la capacidad de procesar los documentos proporcionados por el profesor y los disponibles en la plataforma universitaria (como Blackboard), extrayendo la información relevante que le permita ofrecer soluciones, crear y

Feedback

Existen 4 métodos/técnicas de evaluación
(1) método de observación
(2) método de interrogatorio
(3) método de análisis de desempeño
(4) método de análisis de tareas

Exámenes → Son un instrumento de evaluación basados en el **método / técnica de interrogatorio**
- Test de preguntas abiertas o cerradas

Recomendación: Para este método, brindamos este tipo solución que ayuda a valorar aprendizajes, sobretodo individuales.

Complejidad → Se define en función al logro esperado en el curso.

Recomendación: En donde se menciona complejidad, mencionar que "la complejidad adaptada a los logros de aprendizajes propuestos en el curso".

Niveles de complejidad → Herramienta (Taxonomía de Bloom) ¿Cómo las personas aprenden las cosas de los más básicos a los más complejos?

1. Recordar	Técnica de interrogatorio muy buena para los 3 primeros peldaños: Habilidades cognitivas de orden inferior.
2. Comprender	
3. Aplicarlos	

Recomendación: La creación de estas evaluaciones ayuda a todo lo que son las habilidades cognitivas de orden inferior. Ayudan a crear evaluaciones interactivas con retroalimentación, eficacia y personaliza para garantizar o consolidar estos peldaños.

A un nivel más profundo, se requieren otras técnicas correspondientes a los últimos peldaños:

4. Analizar	Para analiza y evaluar se puede utilizar la técnica de interrogación siempre y cuando tengas información compleja para analizar, no solo preguntas.
5. Evaluar	
6. Crear	

Recomendación: FriendU ayuda a construir situaciones casos reflexivos con data coherente, relevante, actualizada que te permita llevar a tus estudiantes a un nivel en el que desarrollen su habilidades cognitivas de orden superior.

Ve que esta solución te brinda dos tipos de ayuda:
- Creación de bando de preguntas: (lo más fácil) VF, relaciones, ABC u otros, habilidad e orden inferior. Súper necesarias. Aquí entra la narrativa del profesor, que si pierde mucho tiempo corrigiendo.