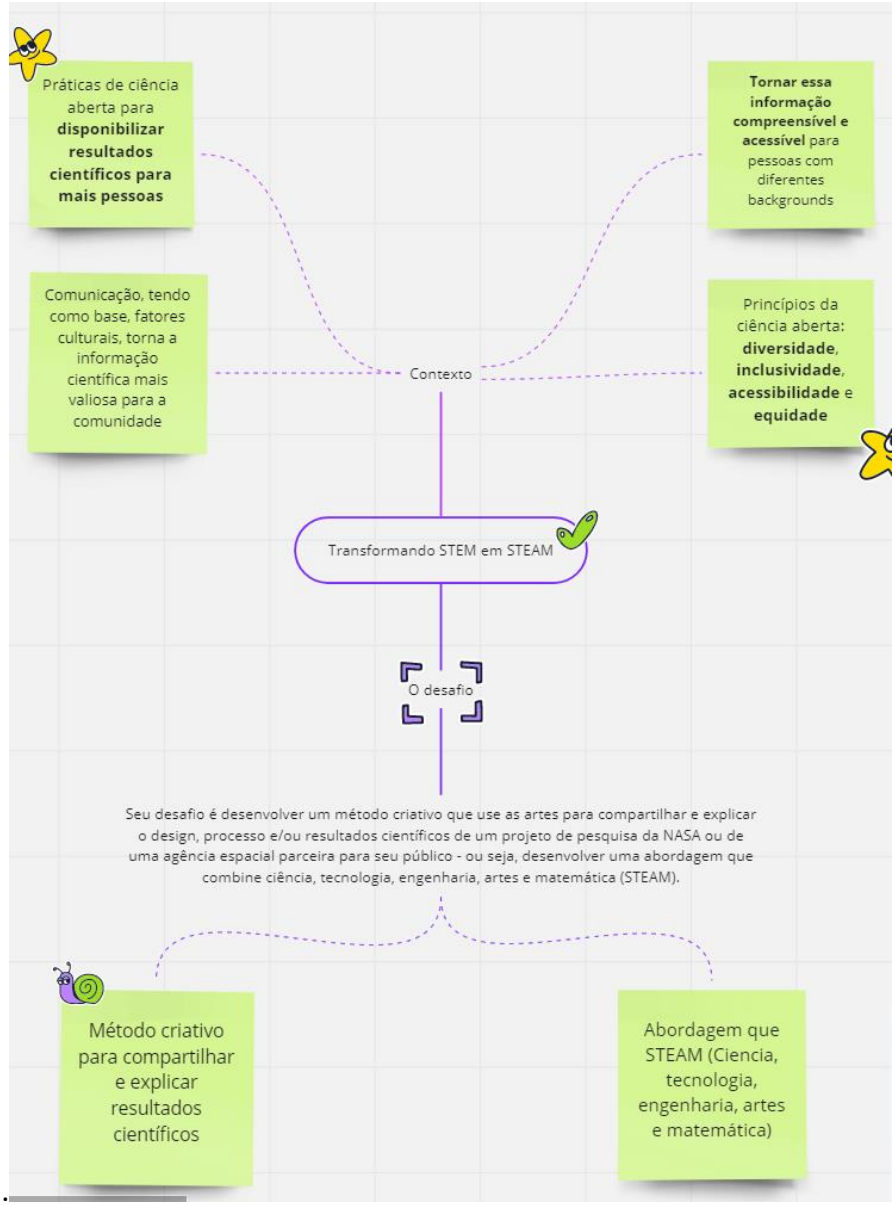
1. **Initial processes**

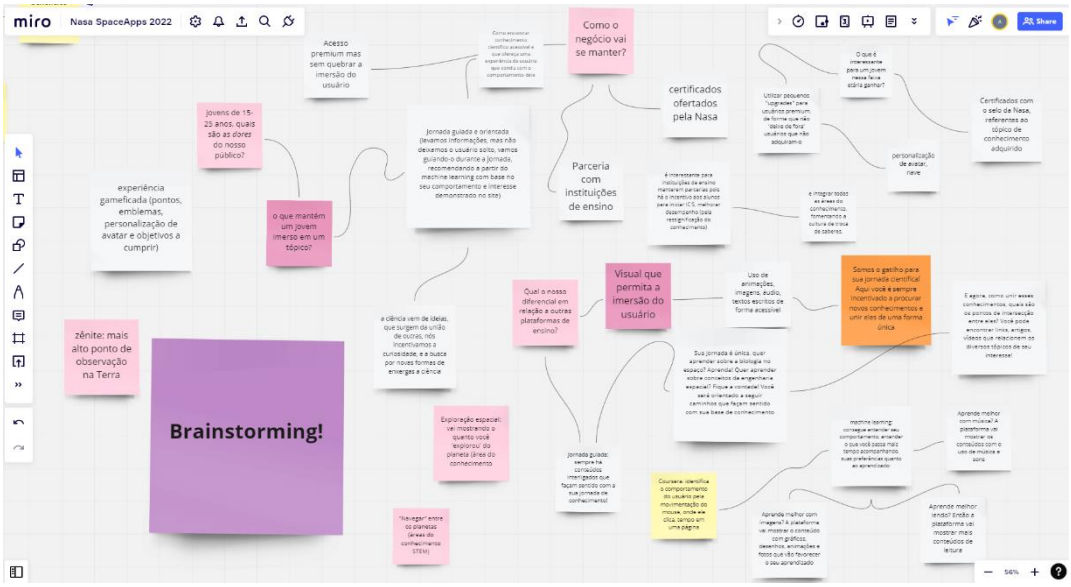
Before starting the Brainstorming, a joint reading of the challenge was carried out to organize and align the group's understanding of the proposed challenge, in this way, for easy visualization of the members, the 'collaborative digital whiteboard' platform, Miro..



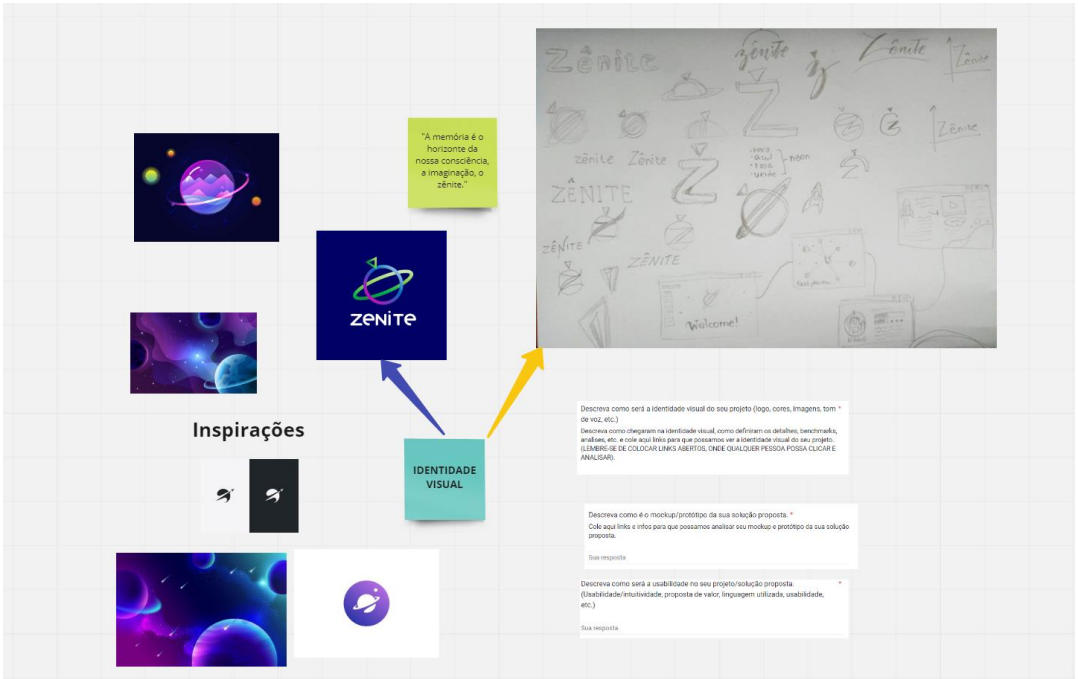
Line of reasoning established in the group regarding the understanding of the challenge.

2. **Brainstorming**

To carry out the Brainstorming, we used the same platform, which provided us with a digital whiteboard where we were able to advance in the first steps of our project, and freely share ideas that add to the product..

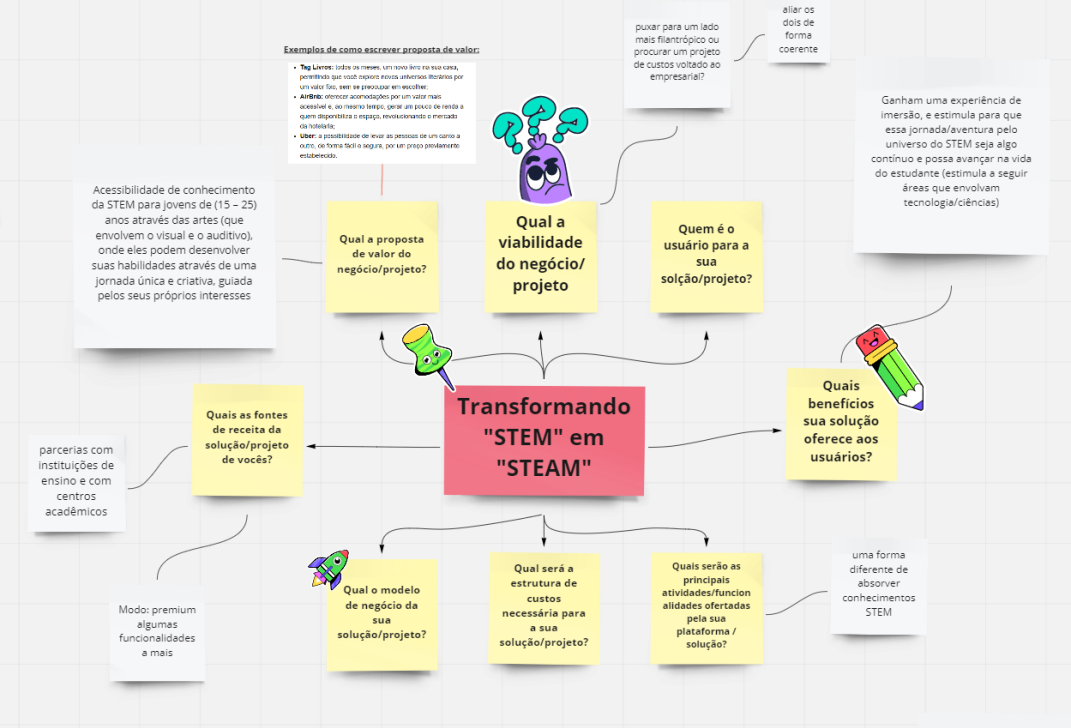


Brainstorming of the initial ideas and eventual doubts that arose in the process as well as the proposed solutions.



Initial ideas for the visual solution of the project; In the upper right corner, the photo of the pencil sketches of the logo and ideas for the platform screens.

The group also remained online on the Discord platform, where we shared links, articles and relevant materials for the development of the idea. After a meeting with one of the mentors we were able to better clarify these and start developing our business model.



Initial ideas for the visual solution of the project; In the upper right corner, the photo of the logo drafts and ideas for the platform screens.

3. **The transformation of STEM through the use of the Arts**

According to the State Education Agency Directors of Arts Education, STEAM is an approach that represents how the world works. STEAM provides an opportunity to make the educational environment more like the real world, thus allowing young people to develop connections between academic content and practice. The use of the arts, in the application of Zenith, goes beyond the use of illustrations and sounds, and seeks to set the user in a new universe, resignifying the learning of science and encouraging their imaginative capacity, forming curious and creative people, who see in the sciences a universe of possibilities.

4. **The Zenite**

It is a digital platform for scientific dissemination and guided learning that aims to promote the accessibility of STEM knowledge for young people (15 to 25 years old) through the arts - involving the visual and auditory -, where they can develop your skills through a unique and creative journey guided by your own interests. Using Zenite, explorers gain an immersion experience, and are constantly encouraged so that this adventure through the STEM universe is something continuous and can perpetuate in their lives (thus encouraging more young people to follow areas involving technology/sciences) while that the platform also allows understanding the use of the arts as an essential tool for their learning.

5. **Mission, Vision and Values**

Zenite's mission is to bring all young people a unique learning experience, captivating the new generation to learn and develop in STEM areas using the arts as their main tool.

We aim to reach the maximum number of young people in the world, taking scientific knowledge in an immersive way.

We cultivate values such as: Innovation, empathy and accessibility

6. **Design Thinking: understanding the problems to be solved**

Design thinking is a process of critical and creative thinking that makes it possible to solve problems in a collective and collaborative way, always thinking about the profile of the public to be served.

Given that, it was used as a tool to arrive at a solution that really meets the needs of our audience. After brainstorming and outlining lines of reasoning to solve the problem, we sought to find the main strengths and weaknesses of our product, as well as the opportunities and threats that could be faced.

Having established this phase, we understand that there is a vast opportunity in accessing technology among most young people, so an alliance between the arts and IT could provide the target audience with a new perspective on their learning journey, which goes beyond the which is usually found on the internet.

Another inherent point is the personalized and guided user journey. At Zenite, the explorer can always be making connections between content based on the platform's artificial intelligence, which recognizes the interests of the latter (preference for videos, audios, illustrations, animations, practices) and recommends new content consistent with the user's level of learning. until the moment. This system is constantly being updated, adding to its database new information on preferences and content of interest that may arise. Thus, the student does not feel lost about the next step, as he is always being guided towards new paths that satisfy his tastes.

7. **Branding**

“The point where the vertical of a place meets the celestial sphere.”

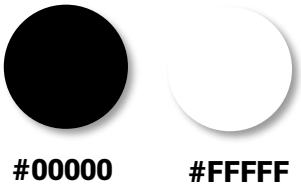
Through the use of this concept, we want to infer the proposal to look “up”, to seek the highest point, in the observer's reference. Curiosity, innovation and the constant search for knowledge meet when the explorer looks beyond the usual.

7.1 **Visual Identify**

From the choice of young people and adults as a target audience allied to the theme of STEM (Science, Technology, Engineering and Mathematics) applied to the universe of NASA, we sought to build an identity that referred to space, but without losing the seriousness of the platform. , and thus, seeking to make the user experience more immersive.

As a result, neutral colors were used, which could harmonize with the various screens on the platform.**Logotipo**

For the logo composition, simple geometric shapes were used, keeping the minimalist look. The triangle on top of the planet points to the Zenite (highest point of the observer).



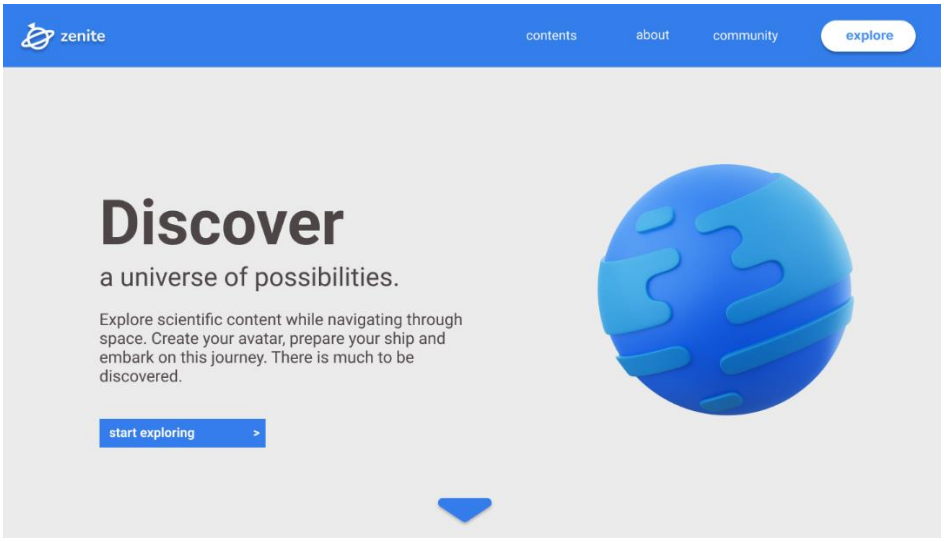
Planet logo and an arrow pointing to the zenith.

This color theme will be used both on the platform and in other advertisements that the product will develop.

Brand mockup using the main colors.

On the platform, two secondary color palettes were used: The first used on the homepage, with light and receptive tones:

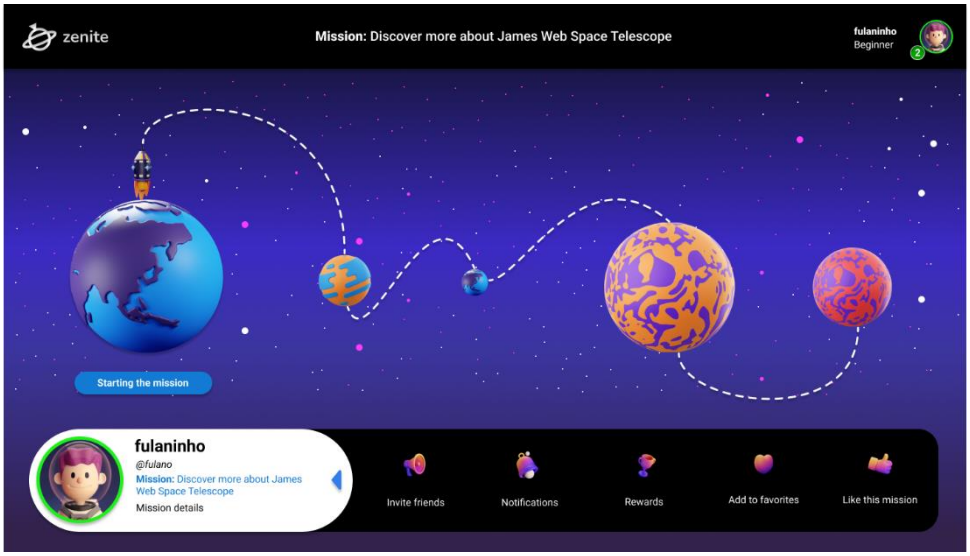
#4AA9E #64A6F6 #155CD #4E4646



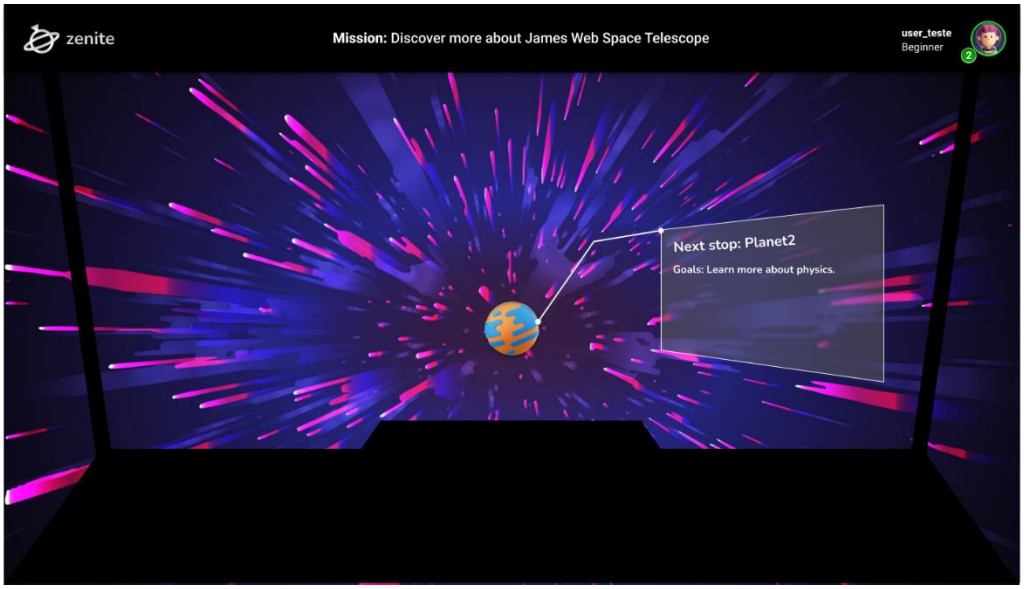
Platform homepage design using secondary color palette 1

Below is the use of the secondary color palette 2, applied to the user's navigation on the site, already immersed in the spatial theme.

#FD3CFE #422EE7 #3A2AB #000000



Design of the navigation page, the user has a view of the areas of knowledge that he has already explored (Science, Technology, Engineering and Mathematics), in the image, the user 'so and so' is a beginner user (informed by the green border on his avatar) and is on a mission to learn more about the James Webb Space Telescope.



Design of the immersion page in the new planet (area of knowledge, in this case: Sciences - Physics) in the image, the explorer so-and-so is inside his ship and is entering the orbit of this new world.

7.2 **Slogan**

"Memory is the horizon of our consciousness, imagination the zenith."

In our slogan, we re-signify the sense of imagination, scaling it to the universe of arts and sciences. Learning creatively, with images and interactions, make the explorers experience something more welcoming and rewarding for them, because during their journey, they are guided on a personalized journey, with each user defining their paths, their new galaxies to be explored. . Therefore, it is up to the navigator to guide his journey in a unique way, using his imagination to build it.

8. **Tecnhnologies**

8.1 **Architecture and technical characteristics**

ReactJs: It is a framework that remains on the market as a modern and flexible technology for building user interfaces, being indicated for the creation of SPA (Single Page Application), that is, a single page that does not need to make many requests. In addition, there is the use of Components - this way there is no storage of various information in a single place - in this way, you can have a break in the page structure and thus separate concepts that store logic that can be used in other applications, making it much more productive compared to other methodologies for building pages.

NodeJs: Suitable for scalable applications, lightweight, being flexible to use both on the back-end and on the front-end, in other words this technology has a high scalability, in addition it is a technology that supports several current services such as Cloud .

AWS: To host our application, we would use the AWS service, ElacticBeanStalk, as it is a service that offers practicality and scalability for deploying applications, so it is only necessary to upload your code and then Elastic performs the loading and implementation of your application, capacity provisioning, load balancing and scalability, taking advantage of the ability to monitor your application in real time while it is live.

GitHub: Free repository service, which provides advantages such as graphs and objective information about the progress of projects, sharing, using version control like Git.

8.1 **Functional Requirements**

RF01: The system must validate registration data for new users;

RF02: For each site content, the system must allocate a unique identifier (ID-content);

RF03: The system must query the content database to make recommendations;

RF04: The system must change registration information, if requested;

RF05: The user must be able to query the history of accessed content

8.2 **Non-functional Requirements**

Efficiency RNF01: The system must be of high performance, in order to be able to update itself while the user browses the site;

Reliability RNF02: The system cannot fail during the period of use, performing its functions as expected in order not to interfere with the user's immersion;

Portability RNF03: The system should run on the following platforms: Web and Mobile; RNF04 Ethical: The system must not reveal to operators any personal information about other users;

Integration RNF05: The system integrates with other applications such as: NASA's official website;

Usability RNF06: The system should provide easy usability journeys, allowing the user to have quick access to the contents;

Maintenance RNF07: The system should cover repair activities (of any defect existing in the system) and the activity of changing/evolving existing features on the platform;

Performance RNF08: The system must execute the processes within a period of 3 seconds for each page.

Usability RNF09: The system must provide content recommendations, based on user interactions.

8.2 **Database**

NoSQL DynamoDB Database. This database structure has the advantages of elastic scale, as it supports Internet-scale applications that require a high level of concurrency and connections from several users, has media metadata storage, thus bringing low latency and multi-regional replication in all regions. from AWS for video streams, media and etc, it is as it has no operational overhead, there is an opportunity to create in our application, explorer classification and other information such as session history, progress and etc.

9. **Final Considerations**

Thus, it can be concluded that the integration of the Arts in the universe of sciences and technologies is capable of transforming the educational process, allowing a new perspective of the learning process to be created, making it immersive and interesting at all times. In this way, the digital solution, Zenite, is able to carry out this union, in order to maintain the user's interest from beginning to end, through its intelligent and guided system.