SPACE BLOG DOCUMENTATION

By David Ballesteros Ortiz

ÍNDICE

1.- Project description

The client is interested in a website related to outer space and astronomy. His goal is having a blog-type website to reach the maximum audience possible, where he can put interesting information such as news, articles, reviews, between others. Therefore, the goal of this project is making said website with the best possible design while also achieving client's expectations.

2.- Project requirements

Following the client suggestions and first requests we can conclude a few must-have characteristics of the site:

1. The web design has to be heavily based in space, with dark and inspiring colors. The client wants something to catch the user's eye right after he enters the site. He shows a big interest in the visual aspect so we will have to make something stunning.
2. The blog will also need a menu to navigate between the different sections of its own: the main page, the news page, the gallery page and the contact page. It is preferred an horizontal top menu which will remain unchanged throughout the various pages.
3. Another matter of interest for the client is a newspaper service for the users of the blog: We will have to implement a section for it, but he does not want something too intrusive for the user's experience. The client thinks that a user who subscribes to a newsletter because of interest is way more valuable than someone who does it just because a pop-up window is shown on his face.

Having said the main requests from the client, let's talk a bit about the user stories. Quoting the client: "I want the blog to be inspiring for the people visiting it. Something so cool that takes a woah from the user's mouth. One goal of the site is to encourage young people into studying about space or astronomy. But they don't have to be young people, I want everyone who visits my blog to truly enjoy doing it. Maybe even making someone look fascinated at the sky and the stars next time they go outside during night time."
I think we all can agree this client is a true astronomy fan, and I will enjoy working for him. That's why I want to make some stunning visuals for the site and make it one of a kind.
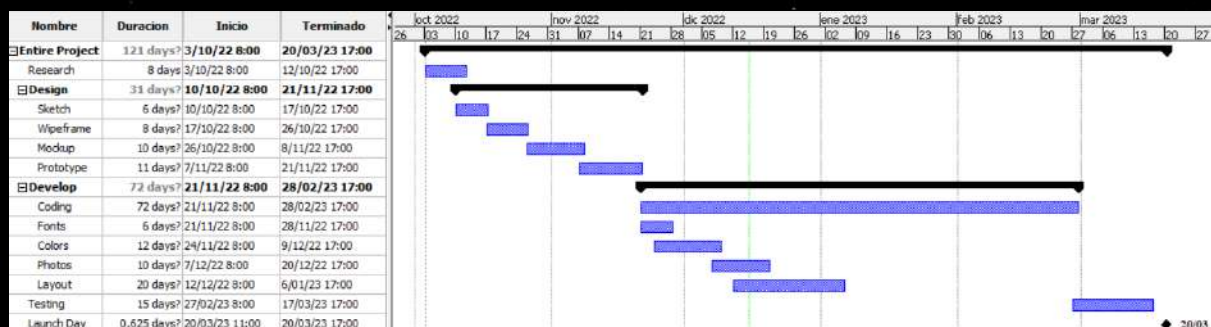
3.- Timeline

The estimated time to complete the project will be around 5-6 months, starting the 1st of October and finishing throughout March.

To visualize the planning of the project, we have built a Gantt diagram.
Here we can see every step in the project's development. From the initial research to the launch day.
Every stage of the project has been given an estimated time to be completed, as well as a start and finish date.

Nombre	Duracion	Inicio	Terminado
⊟Entire Project	121 days?	3/10/22 8:00	20/03/23 17:00
Research	8 days	3/10/22 8:00	12/10/22 17:00
⊟Design	31 days?	10/10/22 8:00	21/11/22 17:00
Sketch	6 days?	10/10/22 8:00	17/10/22 17:00
Wireframe	8 days?	17/10/22 8:00	26/10/22 17:00
Mockup	10 days?	26/10/22 8:00	8/11/22 17:00
Prototype	11 days?	7/11/22 8:00	21/11/22 17:00
⊟Develop	72 days?	21/11/22 8:00	28/02/23 17:00
Coding	72 days?	21/11/22 8:00	28/02/23 17:00
Fonts	6 days?	21/11/22 8:00	28/11/22 17:00
Colors	12 days?	24/11/22 8:00	9/12/22 17:00
Photos	10 days?	7/12/22 8:00	20/12/22 17:00
Layout	20 days?	12/12/22 8:00	6/01/23 17:00
Testing	15 days?	27/02/23 8:00	17/03/23 17:00
Launch Day	0,625 days?	20/03/23 11:00	20/03/23 17:00

4.- Budget

The client's budget is $900. Taking this into account and given the estimated time to complete the project, we have come to the conclusion of making a mainly static website.
If time and resources allow it, some dynamism could be implemented with the use of some basic JavaScript.

5.- Competitors & research

The first step in the development process of the project is the research. We have browsed through a few websites collecting some ideas and taking notes of things we can implement into our own site. After a few days of research, the following aspects have caught our attention.

1. The idea of having an images gallery, taken from Photo Gallery - Space Adventures
2. The vast majority of sites visited had a white background with very basic color palettes and I didn't like them at all. Therefore we will be building around a dark theme, with a palette that contrasts the darker colors with brighter ones.
3. Other sites checked:
   - Nasa's blog: NASA Blogs
   - Space and beyond: The Space & Beyond Blog
   - Space: Space.com

6.- Design principles applied

During the design process we have decided to use some design principles to make the page more visually appealing. Here are a few examples:

1. **The use of negative space.** We don't want a lot of information that may overwhelm the user. Instead, we will be going for a minimalistic style with only the important information. (See wireframe home page)
2. **Simple navigation.** The page will be very easy to use and user-friendly, with little interactions and a compact menu.
3. **Call to action.** Using an accent color, we will take advantage of this resource making the user spend more time on the site, browsing between different pages thanks to a surprise me button. (See Navigation map)
4. **Symmetry and asymmetry in balance.** The use of symmetry will be present in some parts of the site, although asymmetry will also be present to break the monotony. (See wireframe gallery)
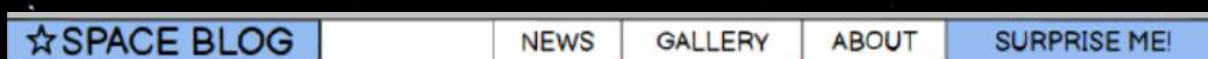
7.- Navigation map

Given the said specifications, we have concluded that the navigation map will be simple and concise, to make it easy to use for everyone.
We have designed the following scheme to picture it out:
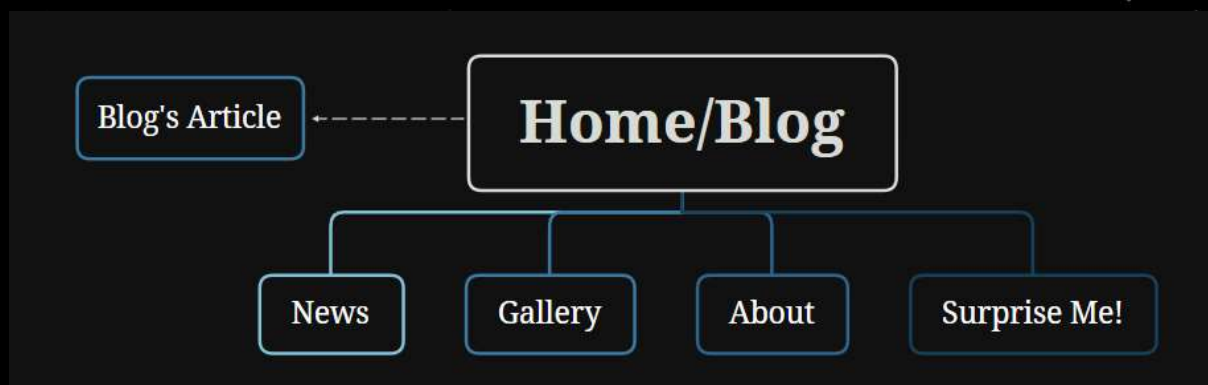
This will translate into a top horizontal menu, with the possibility to navigate throughout the different pages.

Here you can appreciate the use of the call to action principle in the surprise me button. This button will send the user to a random page of the site, for example an article or an image from the gallery.

Also from the Home (or Blog) page we will have the possibility to navigate to an article's page, which will contain the entire article.

3, 2, 1... Lift off!

01/11/2022

We have just taken off for this breathtaking adventure into the unknown. Come with us if you want to embrace yourself into the mysteries of Space.

You will learn amazing facts about Space. From the smallest asteroids to the biggest galaxies. Get to know the unknown by reaching the limits of human comprehension about what is up there.

Read the full article

Total solar eclipse in Proxima Centauri

02/11/2022

Recent research has found that in November 6th a total solar eclipse will occur in Proxima Centauri.

You will learn amazing facts about Space. From the smallest asteroids to the biggest galaxies. Get to know the unknown by reaching the limits of human comprehension about what is up there.

Read the full article

In addition to this, the final version implemented two extra navigation options, used for being redirected to the article's entries part of the main page:

Welcome to Space

Here you will discover what Space actually is like. Search for information, read news and embrace yourself into the beauty of the unknown.

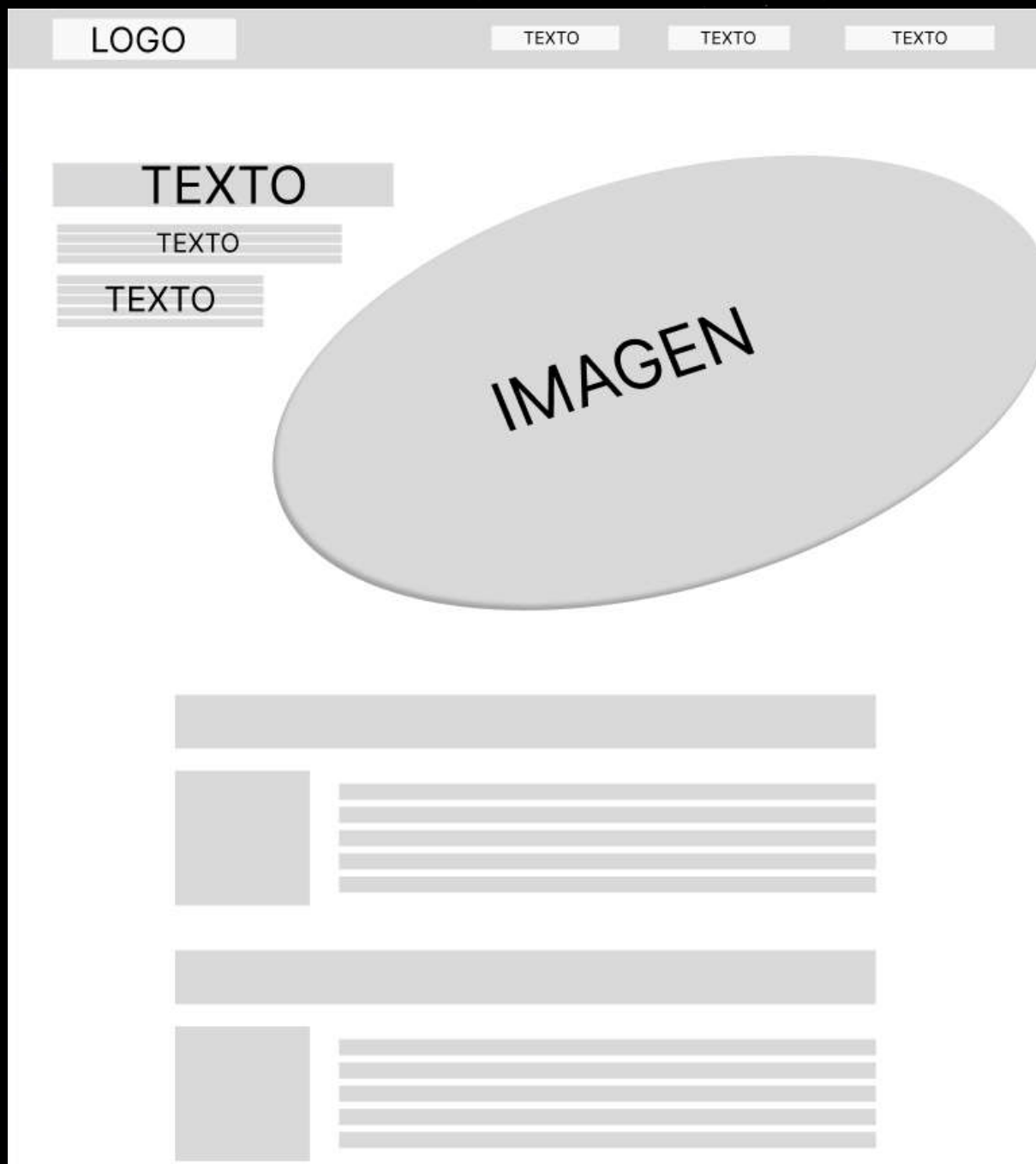Visit our blog

↓

🪐 **SPACE BLOG**   BLOG   NEWS

8.- Prototypes

Throughout the design process we have gone through various stages of the page, starting with a simple sketch and ending with a somewhat functional prototype.
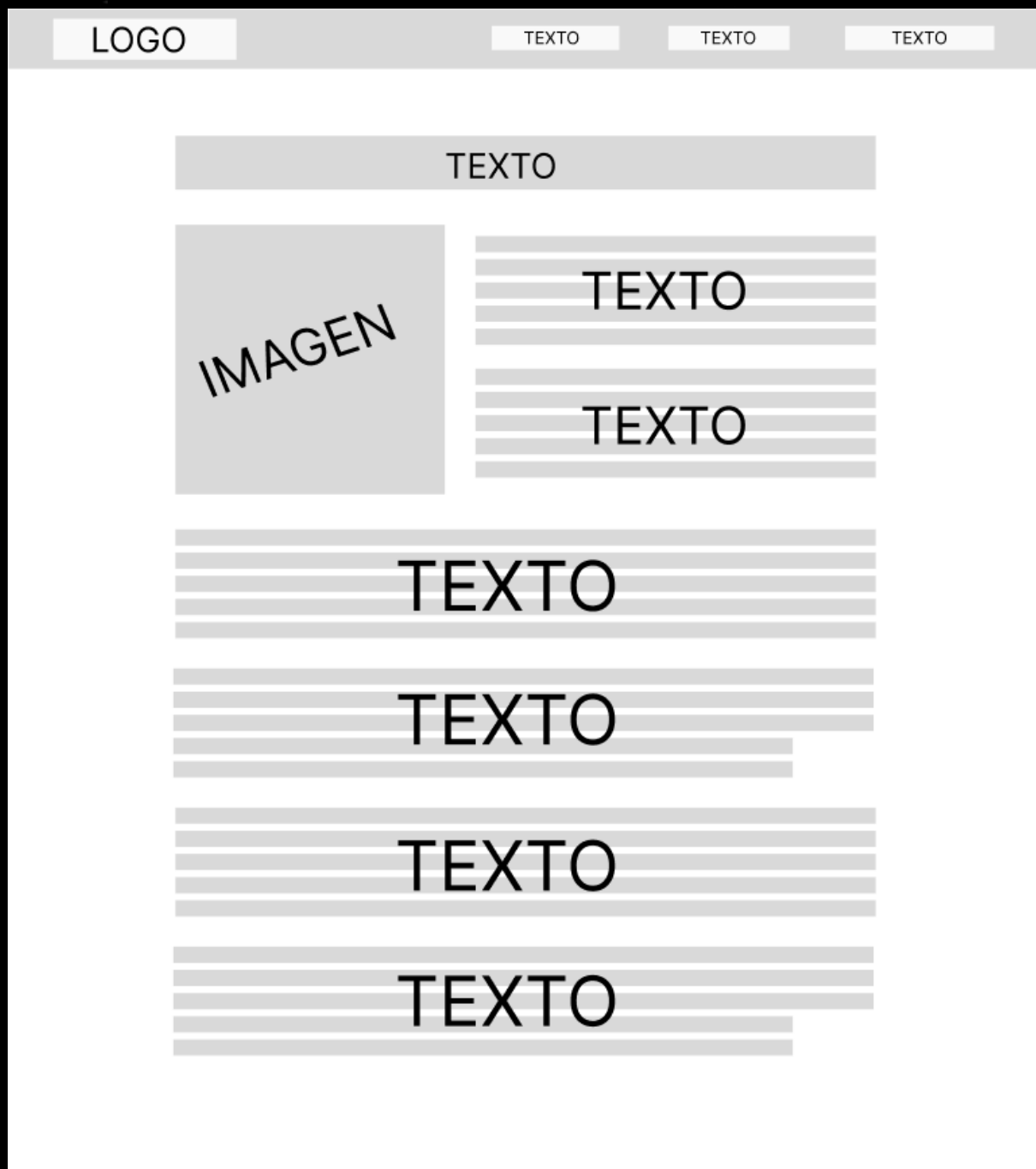
8.1.- Sketch

To start visualizing how the project will actually look, we have designed a sketch of every page the website will have, both in the desktop and mobile version:
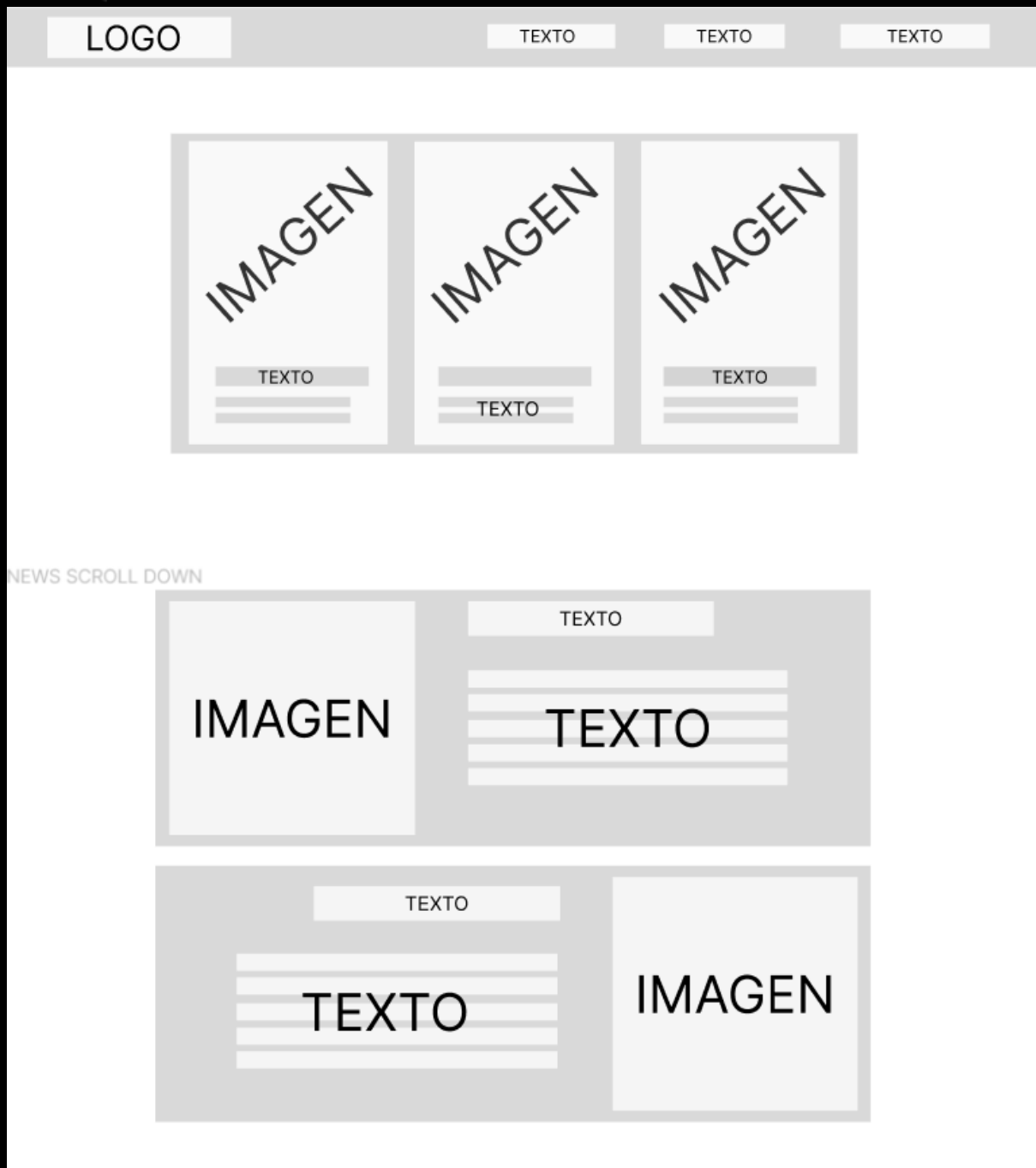
8.8.1. Main Page

LOGO

TEXTO   TEXTO   TEXTO

TEXTO

IMAGEN

TEXTO

TEXTO

TEXTO

TEXTO

TEXTO

TEXTO

8.8.3.- News page

8.8.4.- Gallery page

LOGO

TEXTO   TEXTO   TEXTO

TEXTO   TEXTO   TEXTO

IMAGEN

IMAGEN

IMAGEN

IMAGEN

IMAGEN

IMAGEN

8.8.4.1.- Gallery with an open image
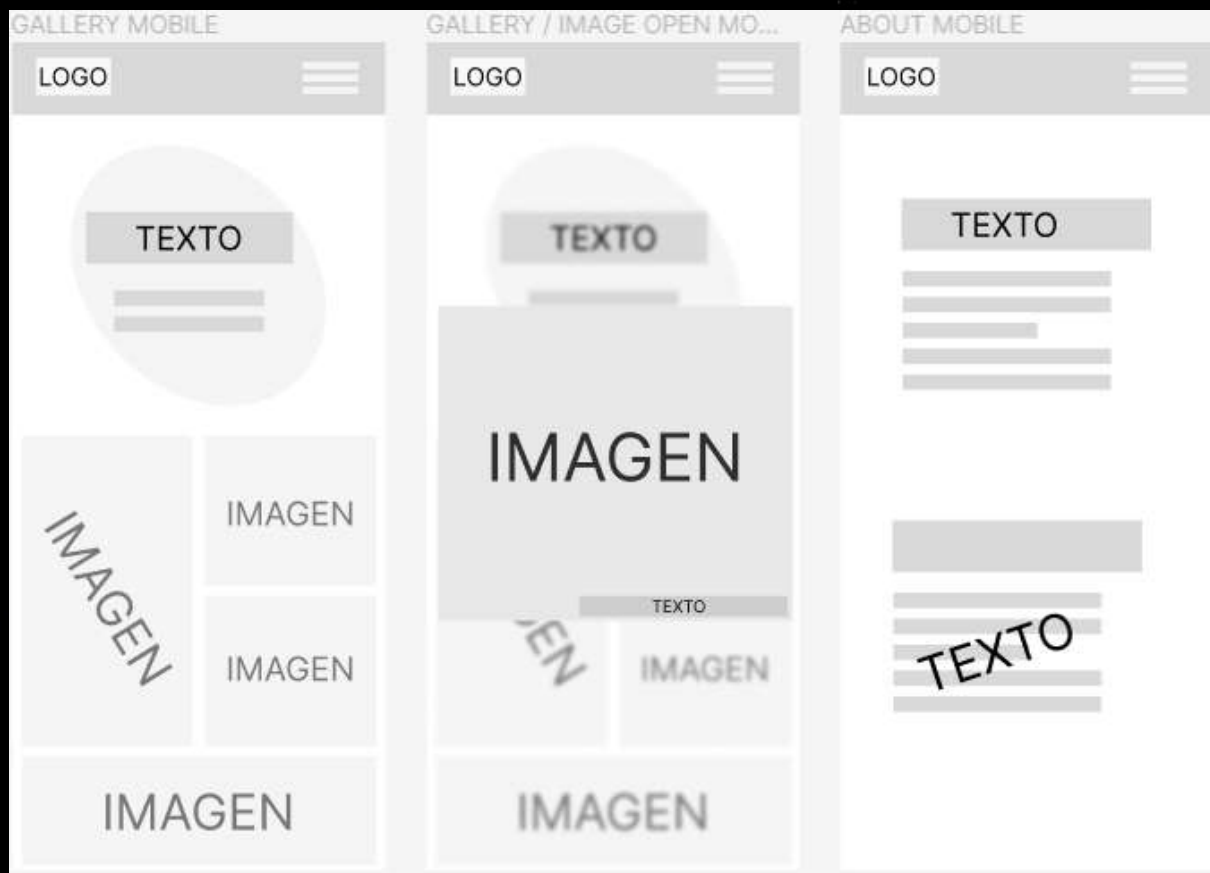
LOGO

TEXTO   TEXTO   TEXTO

IMAGEN

TEXTO

8.8.5.- About page
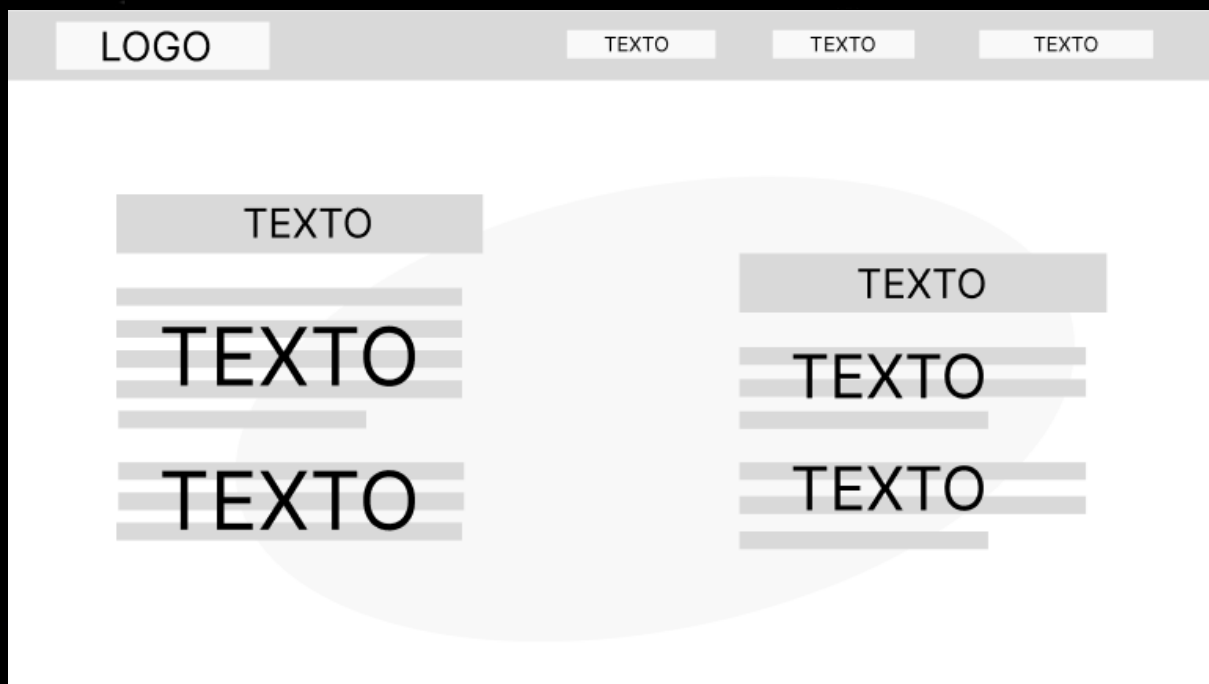
8.8.6.- Mobile versions: Main, article & news
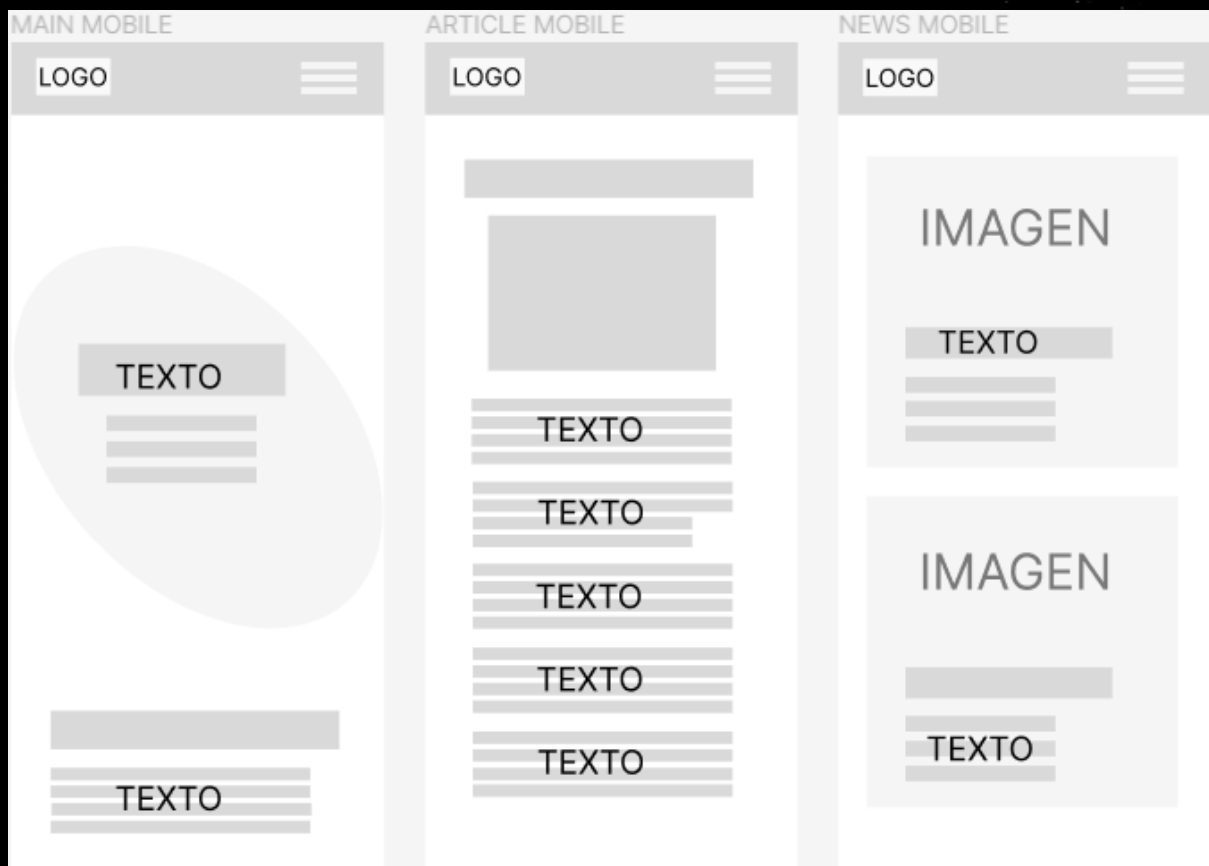
8.8.6.1.- Mobile gallery, gallery with open image & about
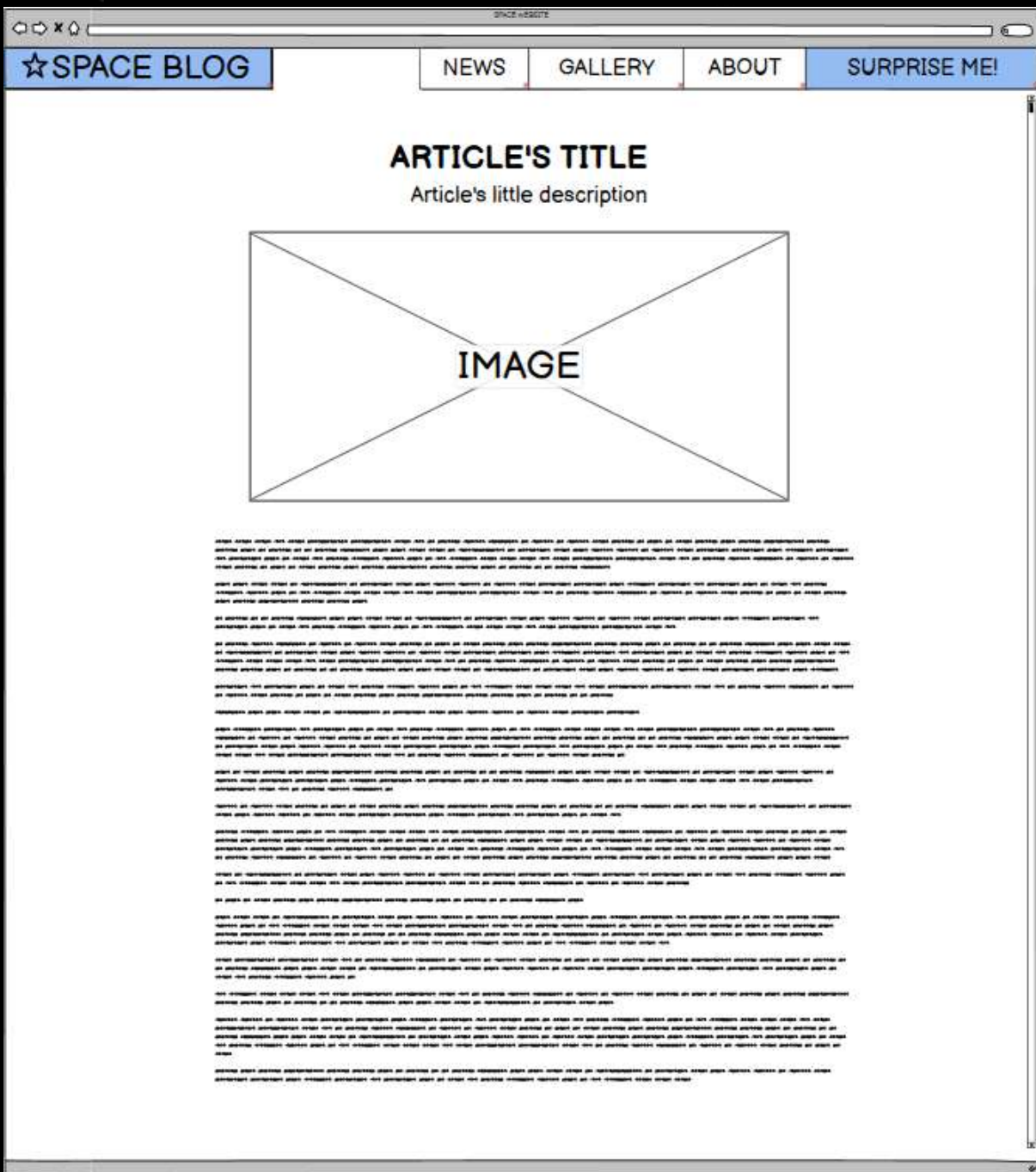
8.2.- Wireframe

8.2.1. Main Page

8.2.2. Article's page

☆SPACE BLOG   NEWS   GALLERY   ABOUT   SURPRISE ME!

ARTICLE'S TITLE
Article's little description
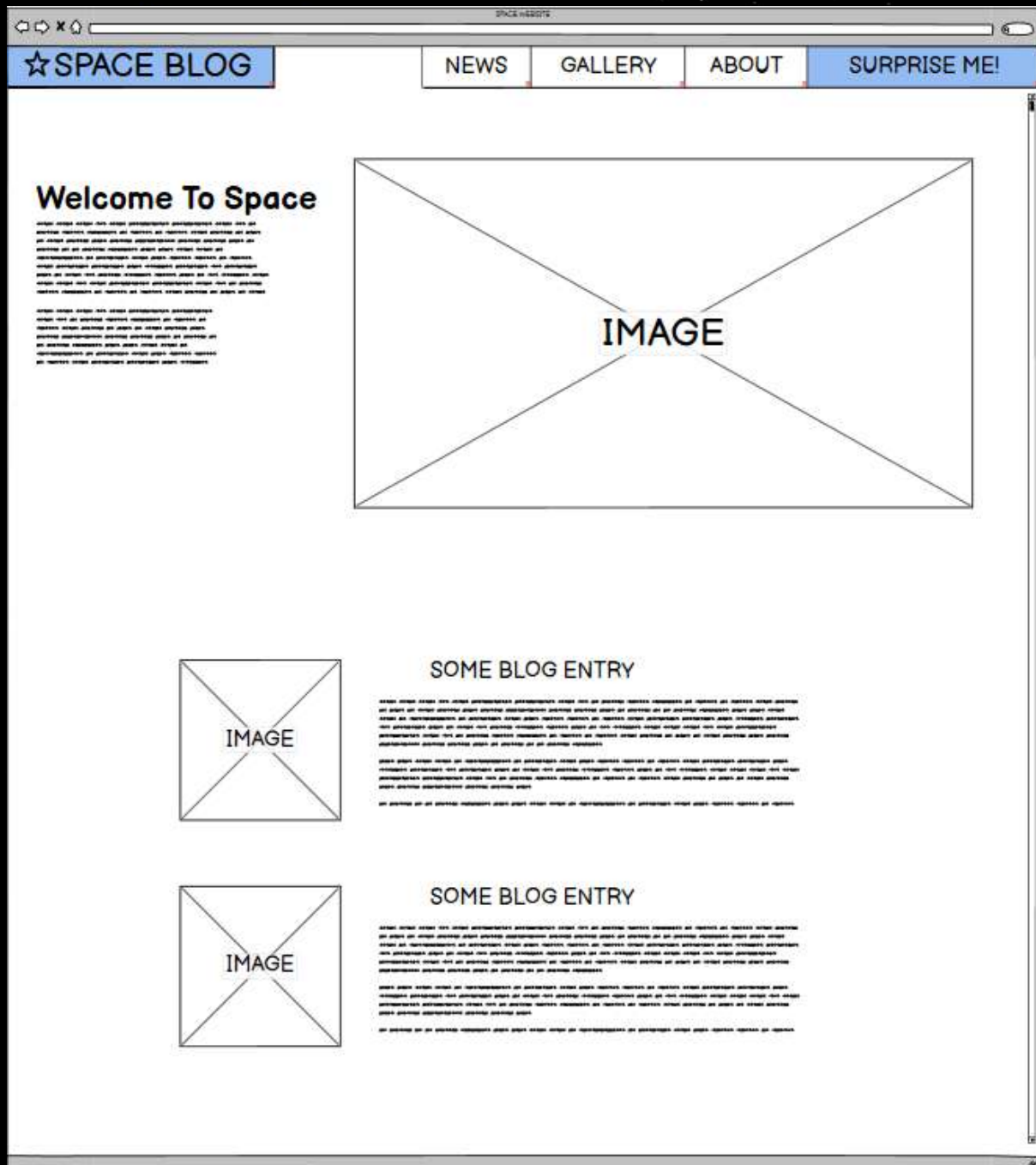
IMAGE

8.2.3.- News page
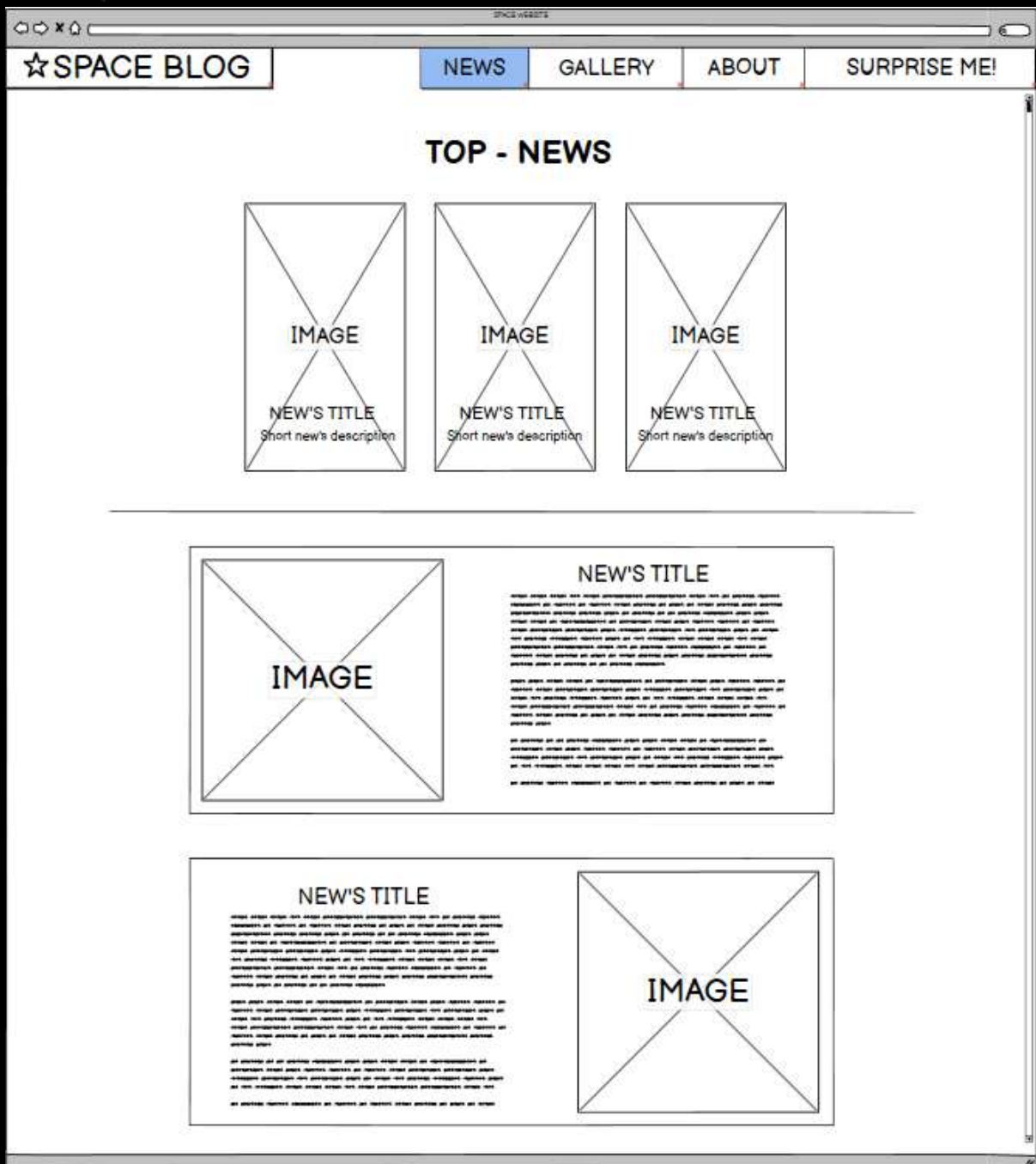
8.2.4.- Gallery page
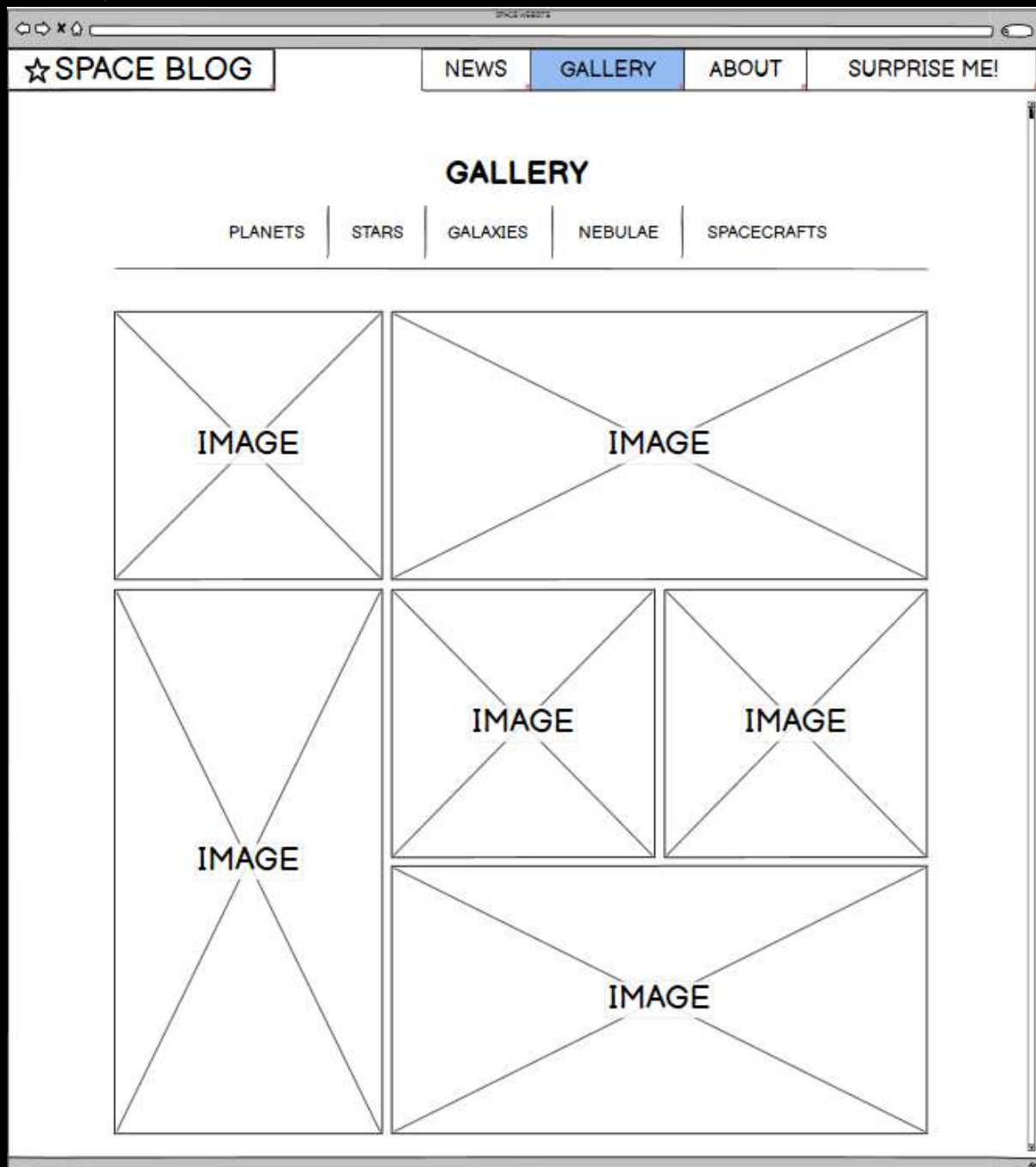
Each category on the top part of this page will show a different set of images, with a slightly different layout each one of them.

8.2.4.1.- Gallery with an open image
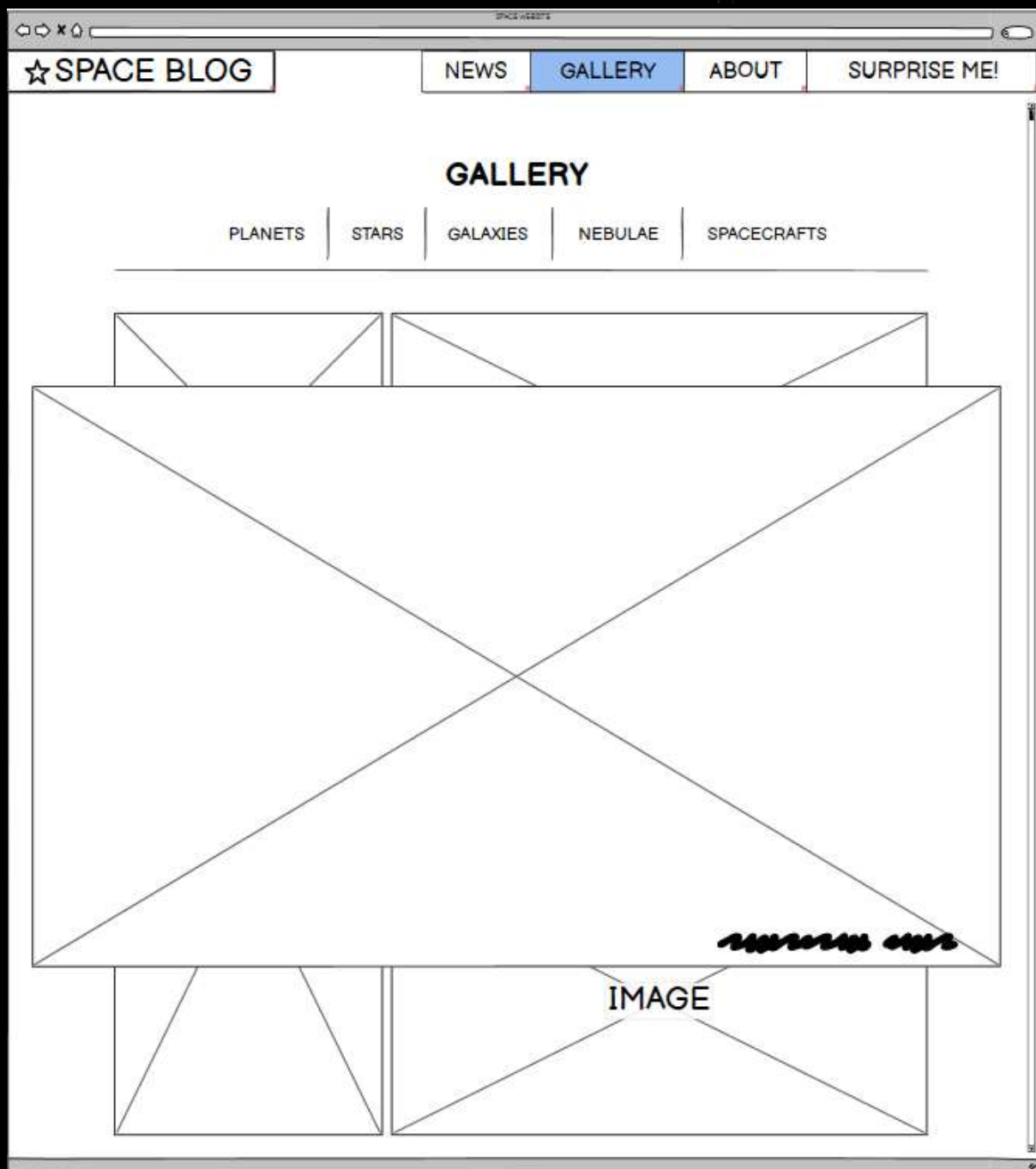
When you click a photo of the gallery it is enlarged to his full size, covering the majority of the page. While the image is in full size, the background will be shown blurry.
You can click wherever you like outside the image to close it and go back to the full gallery view.

8.2.5.- About page
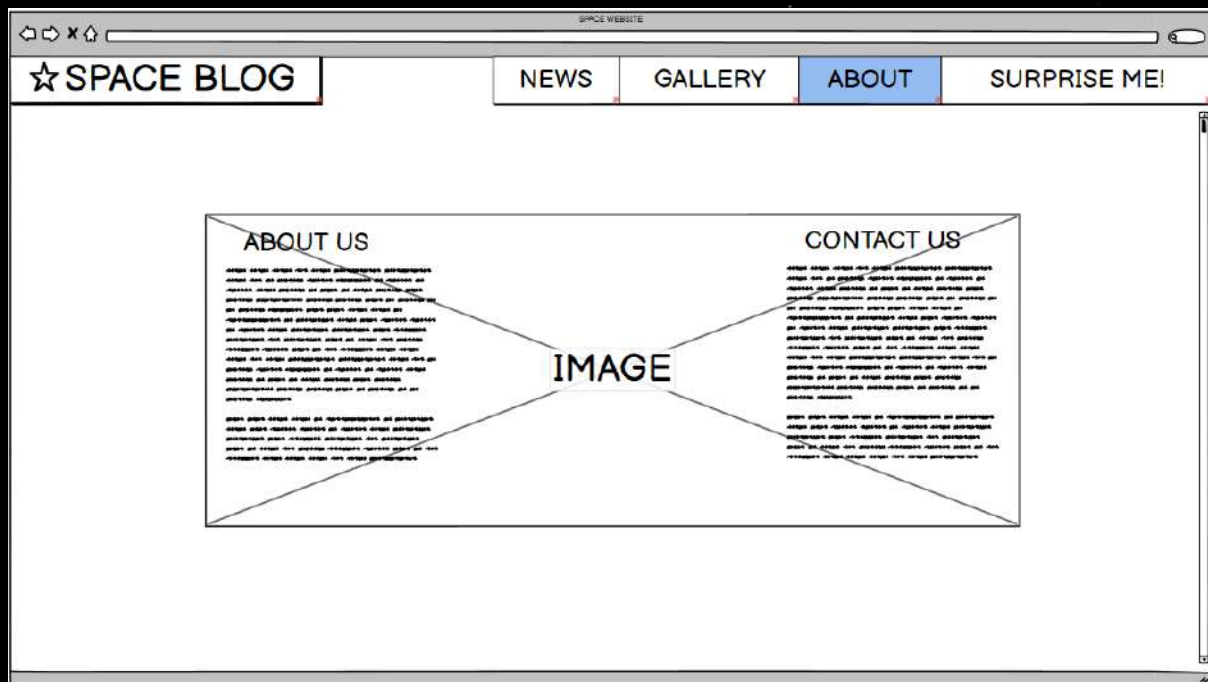
8.2.6.- Mobile versions

1. Home page
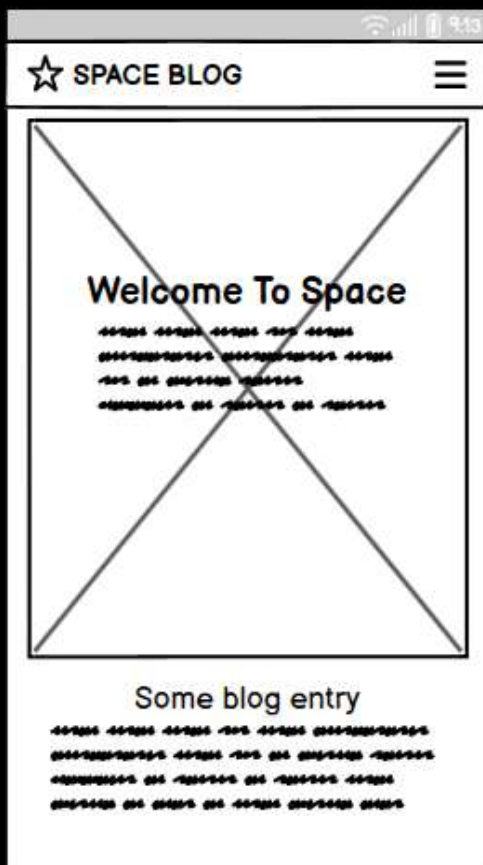
2. Open menu showcase
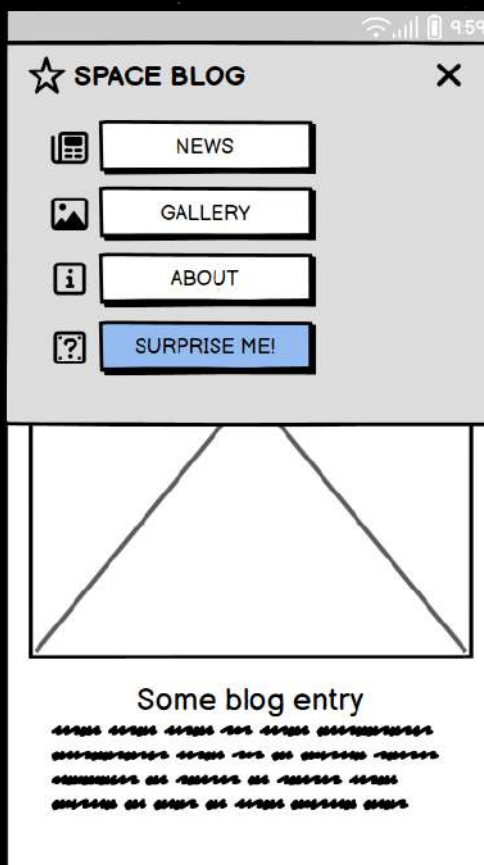
3. Blog's article
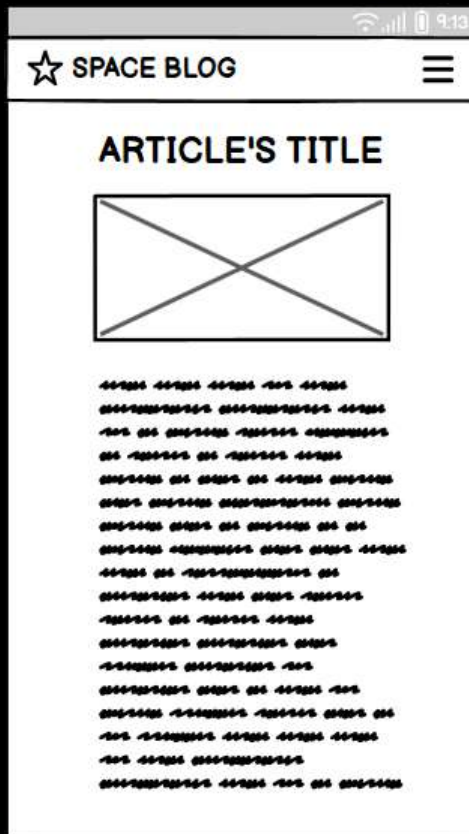
4. News

5. Gallery
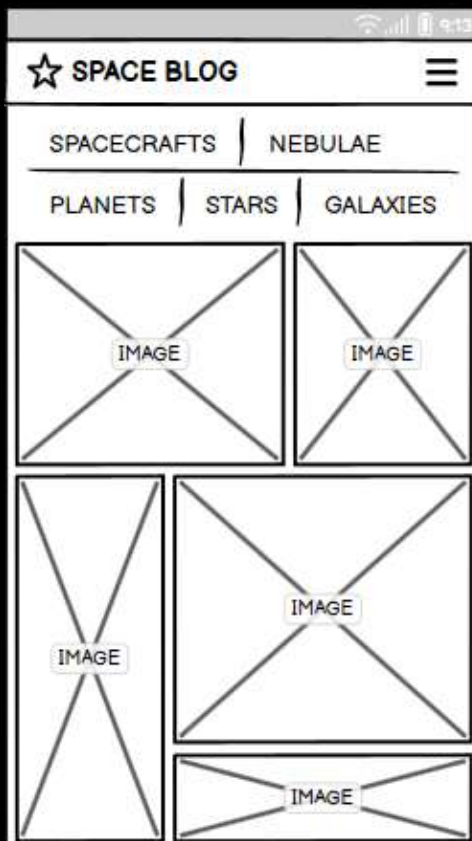
5.1. Gallery with open image
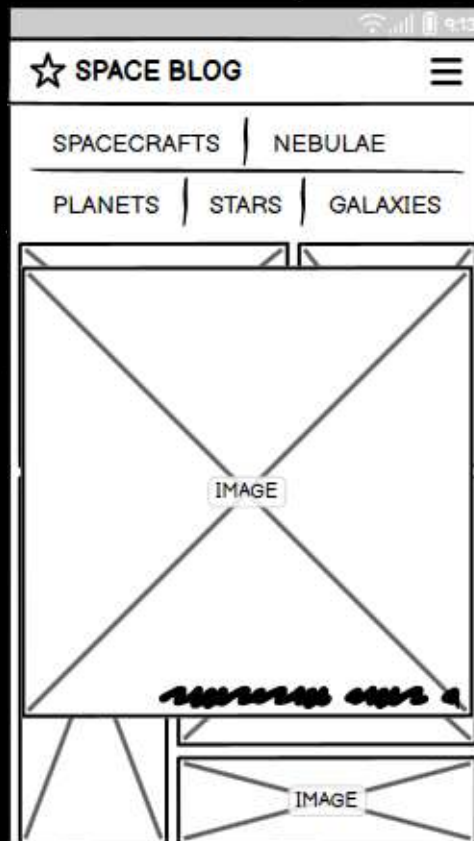
6. About

8.3.- Mockup

After finishing the wireframe we went ahead on designing the mockup.
It contains the full functionality of two pages of the final site, both in the desktop and mobile versions.

8.3.1.- Main Page

This is the main or landing page of the website. It displays a welcome message with a navigation menu on the top as well as the blog section when you scroll down.
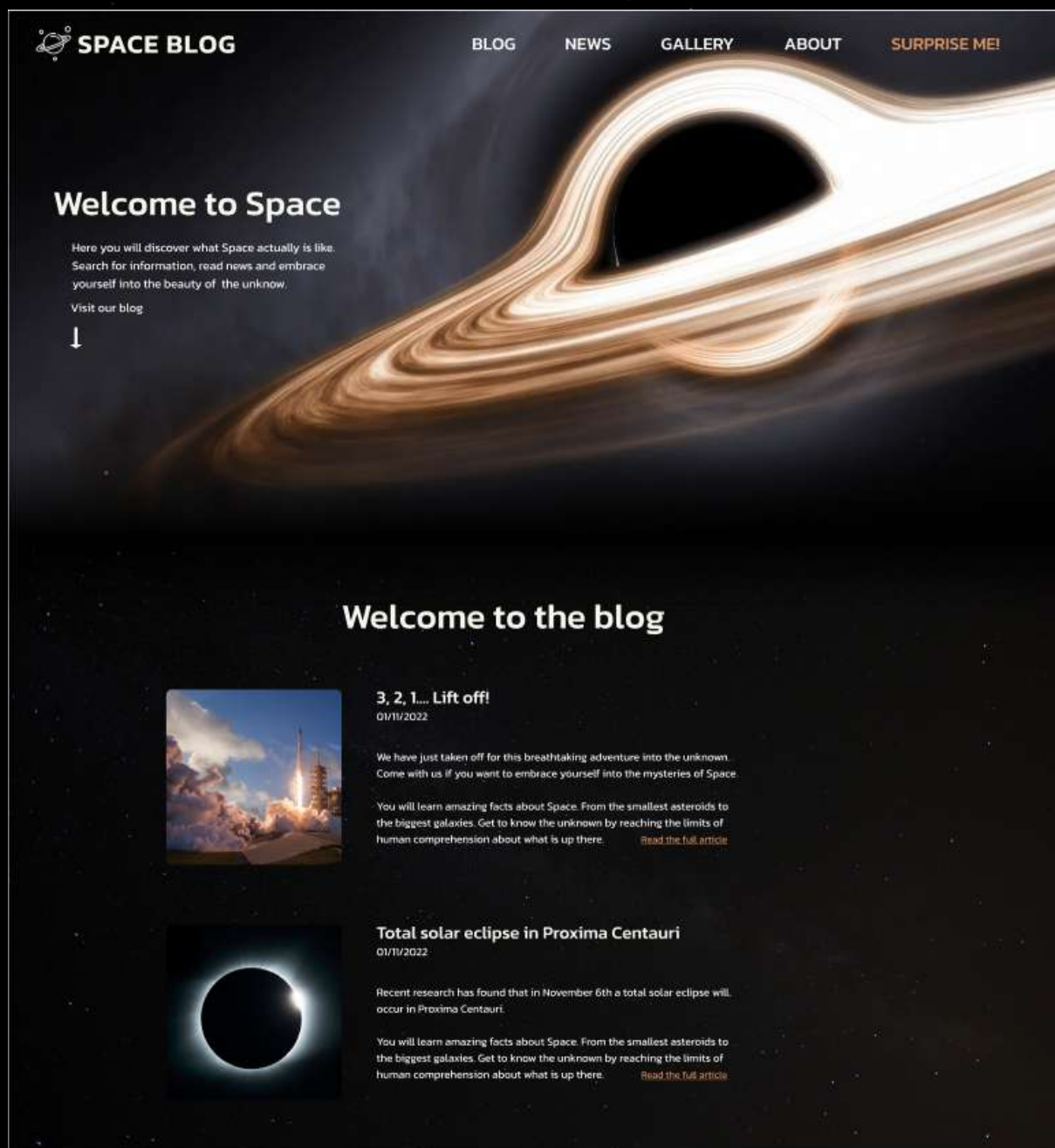
8.3.2.- Article's Page

This is the page you will see when you click any "read the full article" link in the main page.
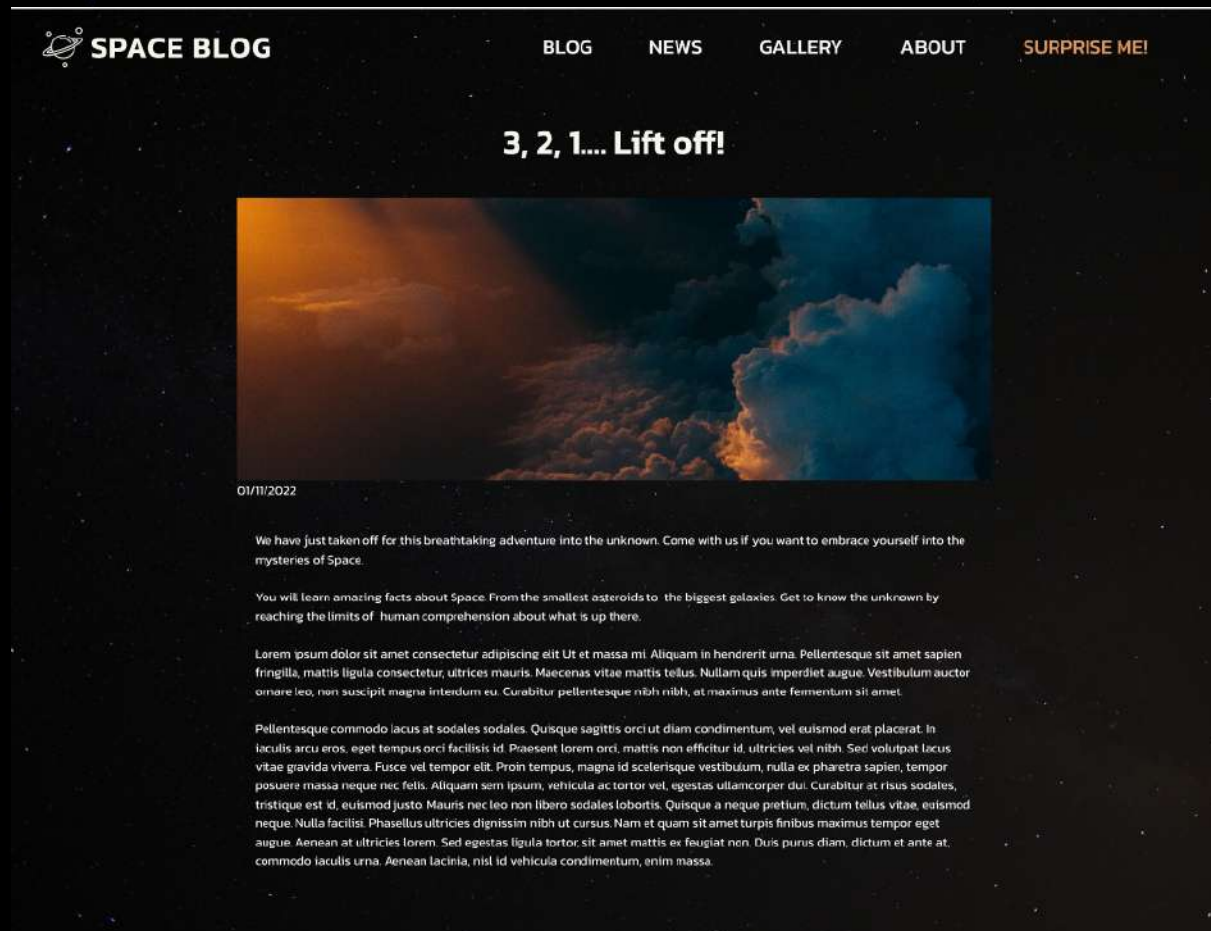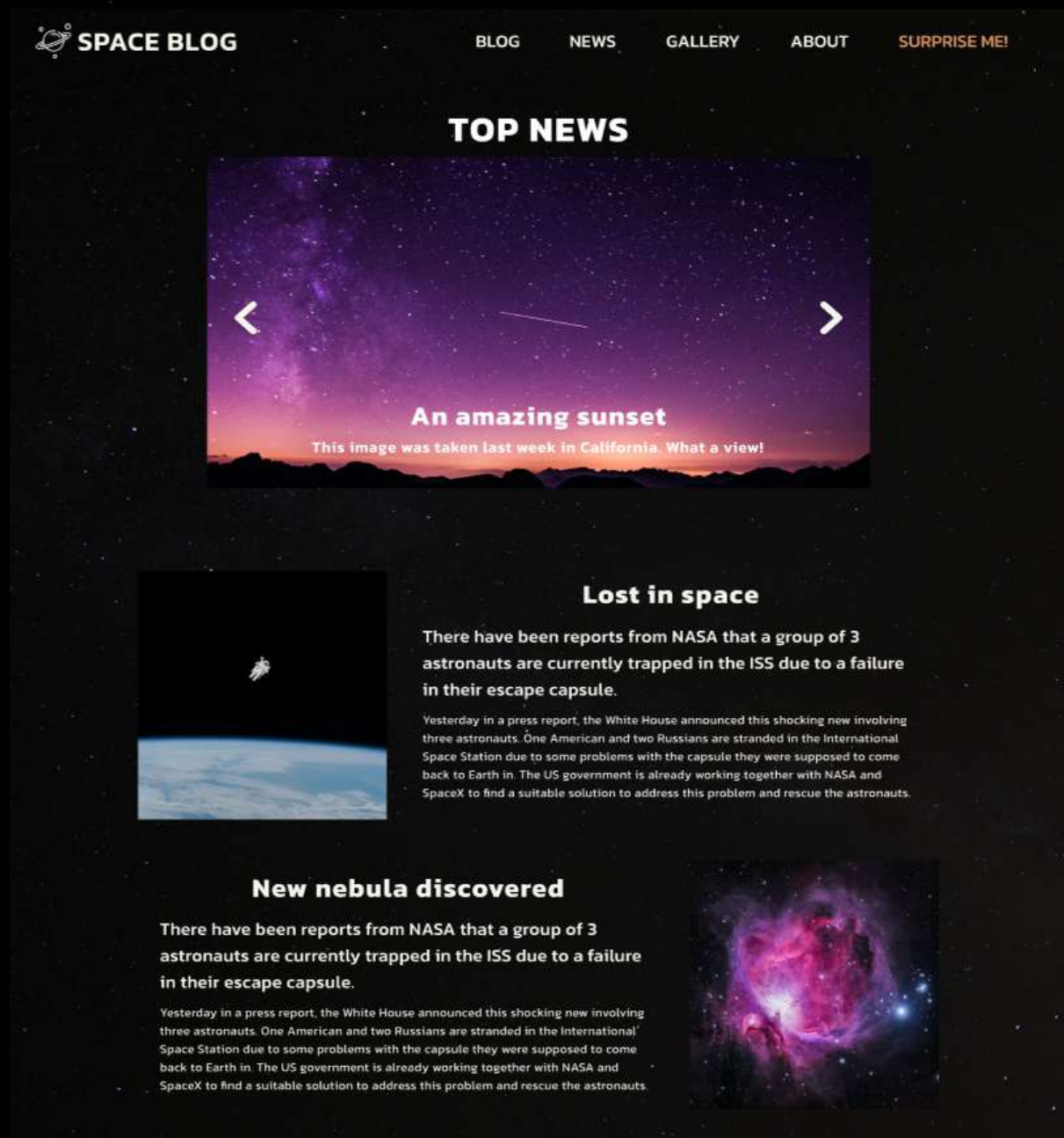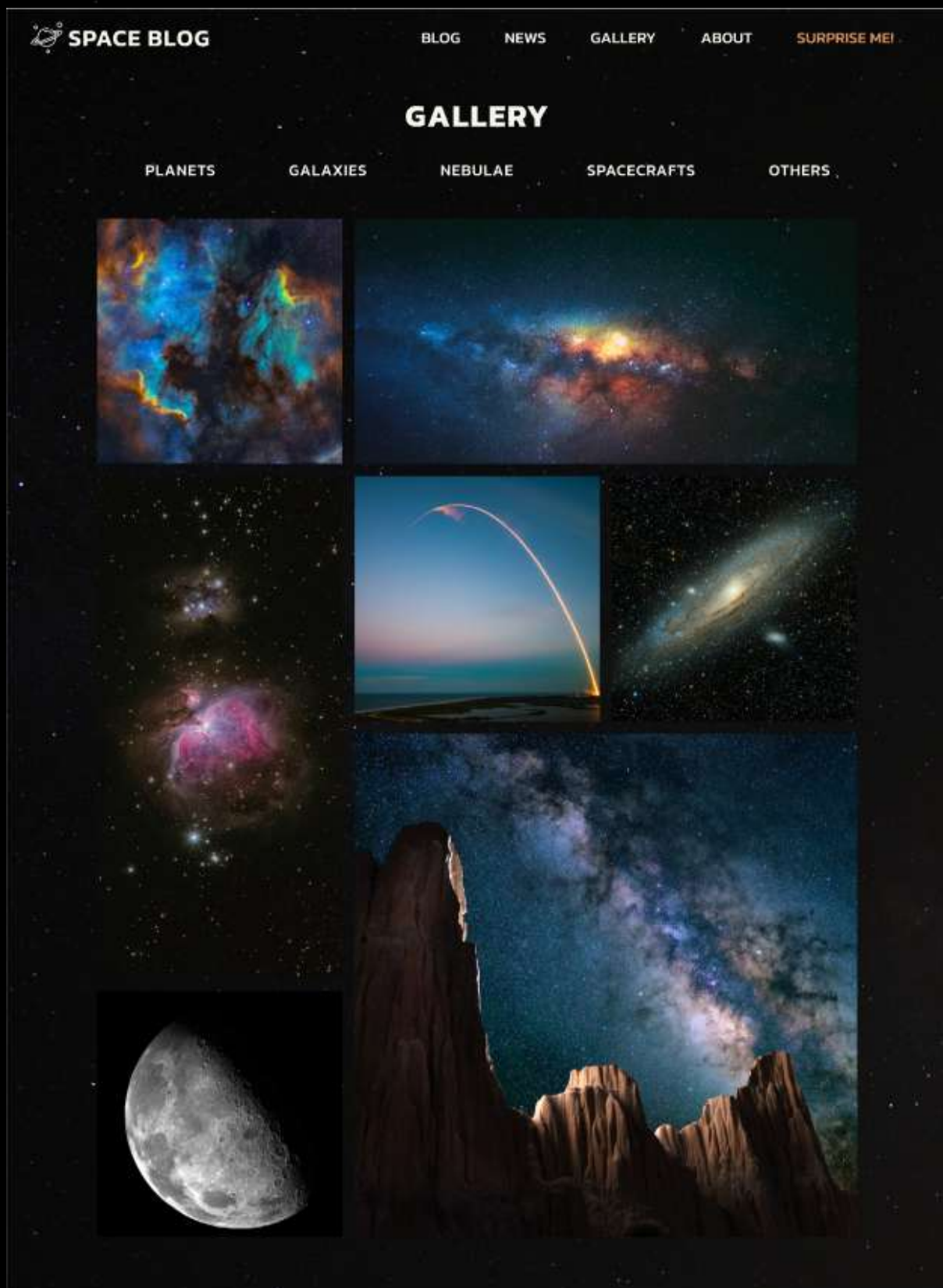
8.3.4.- Gallery's page

SPACE BLOG

BLOG   NEWS   GALLERY   ABOUT   SURPRISE ME!

ABOUT

About Space Blog

This is a project born from a space geek wanting to share with the world how beautiful Space is.

My name is David, I've been fan of Space and the universe from childhood. I could talk about these things for hours, and I'm so passionate about it that I don't even notice.

I think people should know more about Space and the universe, and that's why I created this blog.

People, and especially teenagers nowadays are so focused on their phones and social media that they don't even notice the beauty of the world around them. I want to change that.

Check out our social media to keep up to date!

Contact us

Name:

Email:

Phone number:

Message:

Send

8.3.6.- Mobile versions

These are the mobile versions of the pages shown up.

8.3.6.1.- Home mobile

When scrolling down, a background will appear under the menu section on the top of the screen, to make it more visible against the background.

When You click on the top right burger icon, it opens the menu displaying the different links to access every other page.

8.3.6.2.- Article, news, gallery & about mobile

SPACE BLOG

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01/11/2022

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SPACE BLOG

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Contact us

Name

Email address

Message

Send

SPACE BLOG

TOP NEWS

An amazing sunset
Here we can see an astonishing sunset image taken by Anthony Hawkins in california

Lost in space

There have been reports from NASA that a group of 3 astronauts are currently trapped in the ISS due to a failure in their escape capsule.

Yesterday in a press report, the White House announced this shocking new involving three astronauts. One American and two Russians are stranded in the International Space Station due to some problems with the capsule they were supposed to come back to Earth in. The US government is already working together with NASA and SpaceX to find a suitable solution to address this problem and rescue the astronauts.

SPACE BLOG

GALLERY

PLANETS   NEBULAE

SPACECRAFTS

GALAXIES   OTHERS

9.- Colour palette

We have chosen a dark palette, reminiscent of space colors. With little touches of bright colors for contrast.
At first glance it had a larger variety of colors:

Although it was simplified towards a more minimalist style:

10.- Typography

This was a tough part of the designing process, as many typographies seemed to work with the concept we had in mind for the project, but neither of those quite worked out completely.
Some of the early candidates were:

-Lato: Space blog

-Roboto Slab: Space blog

-Ubuntu: Space blog

-Inconsolata: Space blog

Although at the end, the chosen typography was **Kanit**, due to his minimalism and ease of reading. It also has somewhat of a spacial vibe:

Welcome to space

11.- Icons

In the early stages of design some icons were discussed, to represent the different options in the nav menu of the site:

NEWS   GALLERY   ABOUT

But after some consideration they were disposed of in favor of a cleaner and more minimalist design.
The only icon remaining was the main page icon, chosen due to his simplicity but also being capable of transmitting this interest for space.

All the used icons are under a Free-to-use license by Icons8.
Can be checked here: Icons8

12.- Layout

The layout of the site was chosen according to a minimalist and clean style, where the use of blank space is predominant to make it more eye pleasing.
Taking the example of the navigation menu used:
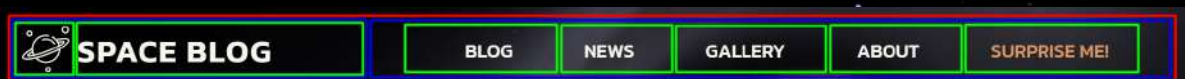
We have taken a modern approach by making it transparent and removing the unnecessary icons.
The menu is built following the box model and using Flexbox to display the different links horizontally.

We have also used FlexBox in other aspects of the site, for example in the blog section, to display the different articles:

Here you can see how we have separated the elements in different divisions, and combining the use of **flex-direction: row** and **flex-direction: column** we get this result where every element is well organized. This also makes it easy in case any changes are needed, just by changing margins or paddings we can get a completely different layout.

13.- Images used

The most important image used in the site is actually not an image, but a loop video. The video has mp4 format, and despite having a full HD resolution (1920*1080) his size is only 2.46 MB.
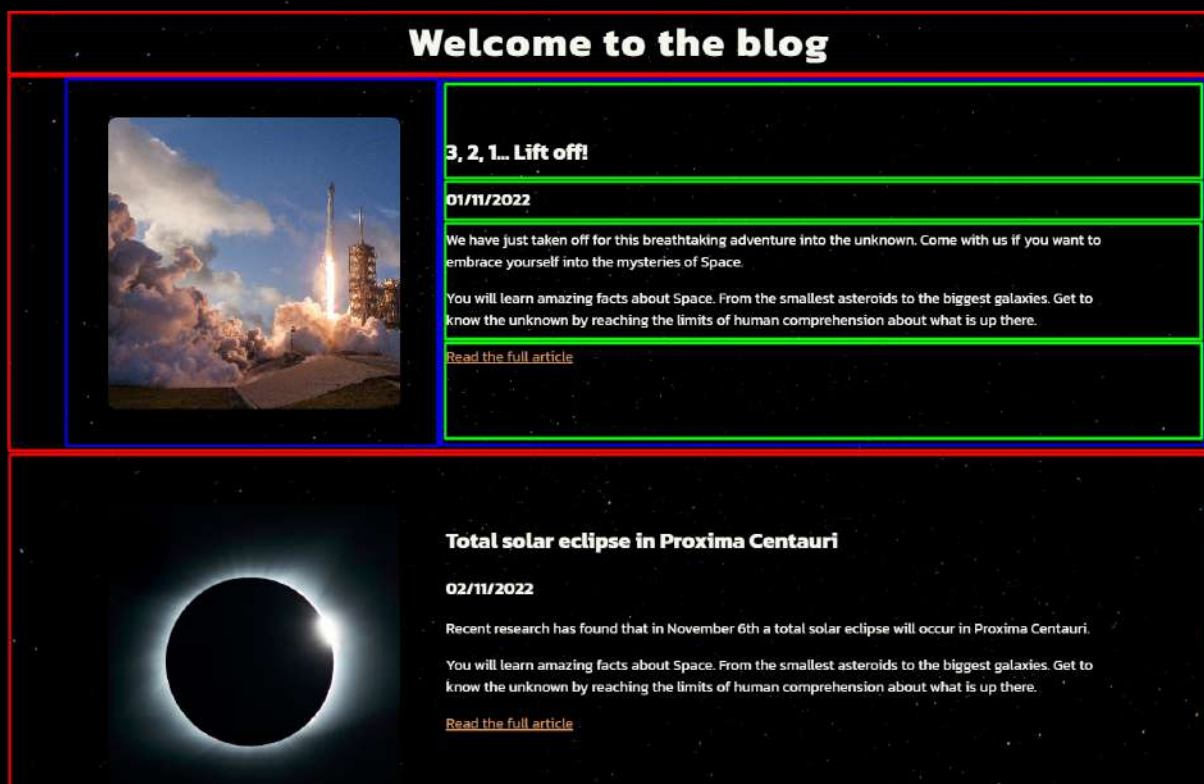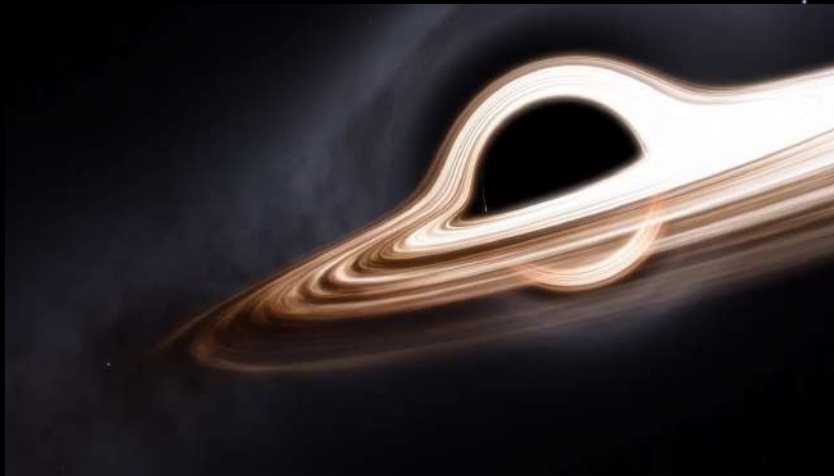

This spinning black hole was taken from a wallpapers' library which has a free-to-use if not for commercial purposes license. Link: gargantua 卡冈图雅黑洞 加上BGM并减小视频大小

The rest of the images used are all from a free images library called Unsplash. This library offers free-to-use images both for personal and commercial purposes. The full license terms can be checked here: License | Unsplash

The resolution of the images vary from 320x320px for the blog entries images, to 1200x450px for the article's pages. All of them are in the .jpg format. In the future more images will be added to the gallery page, those having a wide variety of resolutions still to be specified. Every image used can be checked here.

14.- Project organization

The project is organized in folders, each one containing the different types of files required.
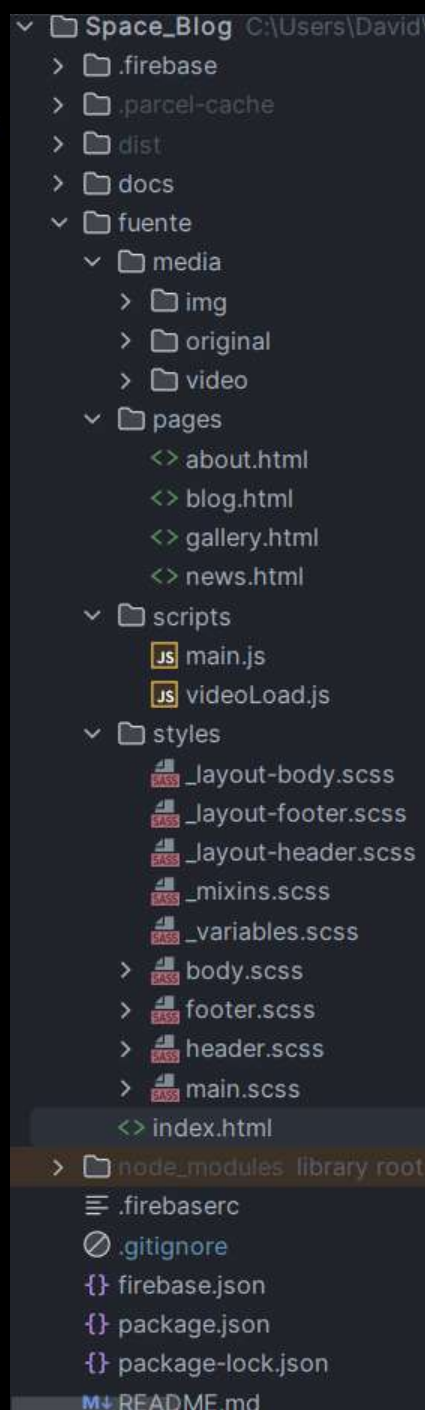
Without taking into account the folders made by plugins or config files (such as firebase, parcel, etc) the main components of the project are the "fuente" folder, the "docs" folder, and the ".gitignore" and "package.json" files.

In the first place we have the **fuente** folder. Inside it we keep all the project files, separating each type into different folders. We have the **media** folder for all the images and videos used, the **pages** folders for the .html files, the **styles** folder for the stylesheets and the **scripts** folder for the javascript files.

We also have the **docs** folder, which contains the documentation related to the project (this PDF). Apart from those folders, we also have the main **index.html** file.

```
∨ 🗀 Space_Blog  C:\Users\David\
   > 🗀 .firebase
   > 🗀 .parcel-cache
   > 🗀 dist
   > 🗀 docs
   ∨ 🗀 fuente
      ∨ 🗀 media
         > 🗀 img
         > 🗀 original
         > 🗀 video
      ∨ 🗀 pages
         <> about.html
         <> blog.html
         <> gallery.html
         <> news.html
      ∨ 🗀 scripts
         JS main.js
         JS videoLoad.js
      ∨ 🗀 styles
         SASS _layout-body.scss
         SASS _layout-footer.scss
         SASS _layout-header.scss
         SASS _mixins.scss
         SASS _variables.scss
         > SASS body.scss
         > SASS footer.scss
         > SASS header.scss
         > SASS main.scss
      <> index.html
   > 🗀 node_modules  library root
   ≡ .firebaserc
   ⊘ .gitignore
   {} firebase.json
   {} package.json
   {} package-lock.json
   M↓ README.md
```

Inside the **media** folder we can find all media files used in the project. We also separate the content into three folders, **img** (for images and icons), **original** (contains the original versions of the images used) and **video** (contains the videos used in the project).

Inside the pages folder, each .html file follows a specific structure, beginning with the head of the page and then the body of it. Inside the body there are always going to be different parts, starting with the header, then the main and finally the footer of the page. All of them with their respective content.

In the styles folder there will be the CSS files for the different pages. They will be separated by specific parts of the pages instead of having one of them for every complete page. This way we minimize code duplication.

Outside the fuente folder there is also a very important component of the project: **the package.json file.** Inside it we can find all the necessary information about the project's configuration, packages installed, scripts defined and author/license information.

Finally there is also the README file. It is a simple markup file with useful information about the project and his purpose.

15.- NPM configuration & usage

To be able to upload our project to a web hosting it's necessary to make optimizations and improvements to our project. To achieve this, we have used Node.js and his package installer: NPM.

The installation of Node is quite simple, we just have to visit his website and download the installer. Once installed we can go to our project's folder and type the command **npm init.** This command will initialize our project and give us the possibility of installing packages.

In addition to this, a **package.json** file will be created. Inside it there will be basic information about our project, like name of it, author, version, packages installed, etc

```json
{} package.json ×
1    {
2        "name": "bootstrap",
3        "version": "1.0.0",
4        "browserslist": ["> 0.2%", "last 4 versions", "not dead"],
5        "scripts": {
6          "parcel:des": "parcel fuente/index.html",
7          "parcel:prod": "parcel build fuente/index.html --public-url './'",
8          "clear": "rimraf dist .cache .parcel-cache .cache-loader",
9          "des": "npm-run-all clear parcel:des",
10         "prod": "npm-run-all clear parcel:prod"
11       },
12       "dependencies": {
13         "bootstrap": "^5.2.3",
14         "bootstrap-icons": "^1.10.3",
15         "jquery": "^3.6.3",
16         "npm-run-all": "^4.1.5"
17       },
18       "devDependencies": {
19         "parcel": "^2.8.3",
20         "parcel-plugin-imagemin": "^4.0.2",
21         "rimraf": "^4.1.2",
22         "sass": "^1.58.0"
23       },
24       "author": "David Ballesteros Ortiz",
25       "license": "ISC",
26       "description": ""
27   }
```

After this simple set up, we should install some utilities that will make our life easier when working with our project.

To install a package we will use the command **npm install "package" "options".**

We will start with **parcel**, a tool that helps us build and configure our project.

It can create scripts for us to use in our developing process, or optimize our project before uploading it.
Other packages we will install are **rimraf** (to clean memory and folders), **sass** (for styling) and **npm-run-all** (allow us to run more than one command in one call).

As we mentioned before, parcel allow us to create custom commands to make our life easier when working with our projects.
We will create the following commands inside the package.json file:

```
"scripts": {
  "parcel:des": "parcel fuente/index.html --no-cache",
  "parcel:prod": "parcel build fuente/index.html --no-cache",
  "clear": "rimraf dist .cache .parcel-cache .cache-loader",
  "des": "npm-run-all clear parcel:des",
  "prod": "npm-run-all clear parcel:prod"
},
```

The first command allows us to run the project in **development mode**, this is without optimization or any special changes made. It is used just for testing or visualization while the project is still being worked on.
The second one is used when our project is ready and we are going to upload it to a hosting service, or in **production mode**. It optimizes the files and images, removing spaces and unnecessary data.
The third command cleans the specified folders, deleting them and freeing memory.
The last two commands combine the previous one to make using them easier.

Apart from making custom commands, parcel give us the ability of **prefixing** our project. This process consists in adding prefixes to some parts of our code to make sure our page works in the maximum possible number of browsers.
To do this, we use the "**browserlist**" command in the package.json file, giving it an instruction for which browsers should be included in the prefixing.
We want to make sure we include the majority of browsers, but keeping in mind that the more we include, the heavier our code and therefore our project will be.
Usually the goal is to reach 90% of global coverage. In order to know how much coverage we are going to get, we can check pages like Browserslist.
It will give us the estimated percentage of coverage we will get with a specific configuration. The configuration will have a similar look to this:

```
"browserlist": "> 0.2%, not dead, last 4 versions",
```

This means we are going to include browsers with at least 0.2% of global usage, which are not dead (still being updated) and the last 4 versions of them.
With this configuration we can go to the browserslist webpage and check that we would get a 93.5% global coverage. Not bad!

Check compatible browsers

```
> 0.2%, not dead, last 4 versions
```

Audience coverage: 93.5 %   Region Global ⌄

| Chrome for Android | Chrome | Safari on i... |

16.- Accessibility tests

To increase the number of users that can interact with our site, we also want to take into account the accessibility of our website. To check this we can use online checkers that will tell us if any major errors have been made.

Two sites we can use are Accessibility Check and Accessibility Checker

These are the results from the tests made.

Errors: 0   Warnings: 30   Notices: 46

Well done! No errors were found!

Audit results for https://spaceblog-f5d14.web.app

Status:

✓ PARTLY COMPLIANT

Although your web page passed our automated scan, a manual audit is still necessary.

Get a Manual Audit

Score:

85

Websites with a score lower than 85% are at risk of accessibility lawsuits

No major errors were found, and the warnings are all for contrast ratios.

17.- Github link

The full project is uploaded to GitHub through the following link:
https://github.com/DavNotDab/Space_Blog