

Portfolio

CODING FOUR - COLLABORATIVE
APP DEVELOPMENT STUDIO

2022

Abstract



The brief explains the need to develop an app to be used by a community by improving the experience of an area to aid them in some way. To do that you need to have a good understanding of the community and their needs and habits. The app chosen to develop, assists people visiting galleries in retrieving information about artworks in the form of fun facts, historic information, and so on.

Community

The community chosen to focus on is people with interest in art. That could be a very big group, but as facts state, any age group can visit a gallery with the wish to simply look and appreciate some art.

The goal was to create this app to provide the information often lacking at galleries, which then often leaves the observer confused and without all the facts to fully appreciate an artwork and the thoughts behind it.



Design process

UI and UX



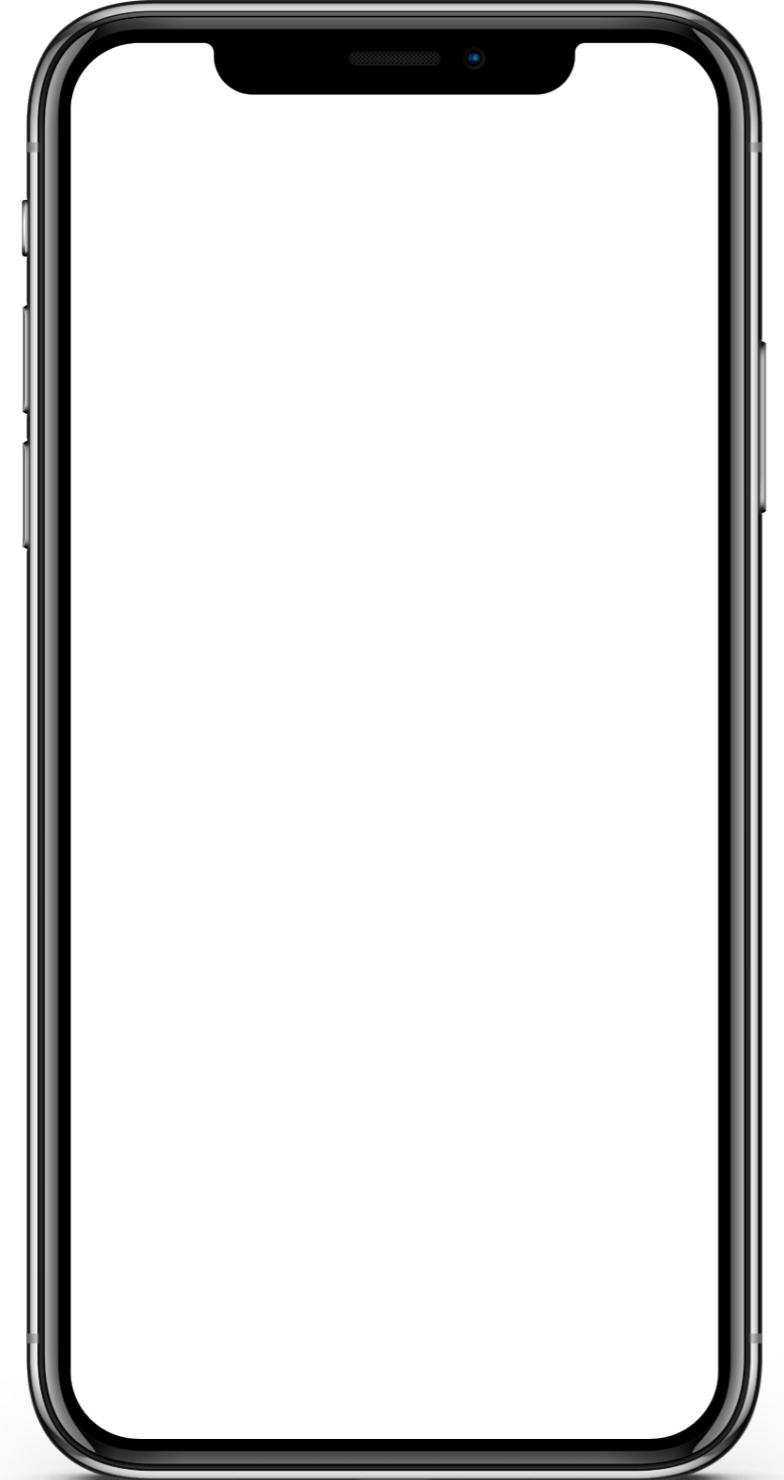
When considering possible ideas and design, the importance of including everyone in the community in the thought process became clear. While reading up on UI and UX, there was focus on, specifically, older people who have a bigger difficulty when it comes to understanding and using apps. The goal was to make the app as user friendly as possible for them so they could use all resources provided for them.

Some main points to consider for a user friendly app was:

- To not rely solely on color, but include icons, as well as us sufficient contrast.
- Easy to read font with big enough space in between.
- Familiar visual cues and an all time visible navigation style with a back button to main menu.
- Simple gestures like tap and swipe.
- Adaptable to different screen sizes and compatible to devices.
- Avoid redirection outside of app.
- If offline, app must say so and sync at next opportunity.

Design process

Elements



The main elements to include were originally a museum/home page, artist page, artwork page, location page, category page, as well as a search page. Within the development it was quickly discovered the search page would become the home page as of right now, the category page turned into the era's page, and the location page turned into the museum page.

Elements included on the different pages varied in the beginning, but quickly became quite similar in the way of design and content.

Icons were originally planned in the form of a fixed navigation bar at the bottom, as well as a back button in the top corner. However, with the content on the page being quite elaborate, as well as not feeling the need to include five icons where one could do just fine, the plan changed.

There was a consideration as to the content provided, whether to focus more technical than basic information as to the user group. However, this being a basic first development of the app, the technical aspect is something possibly added later on.

Design process

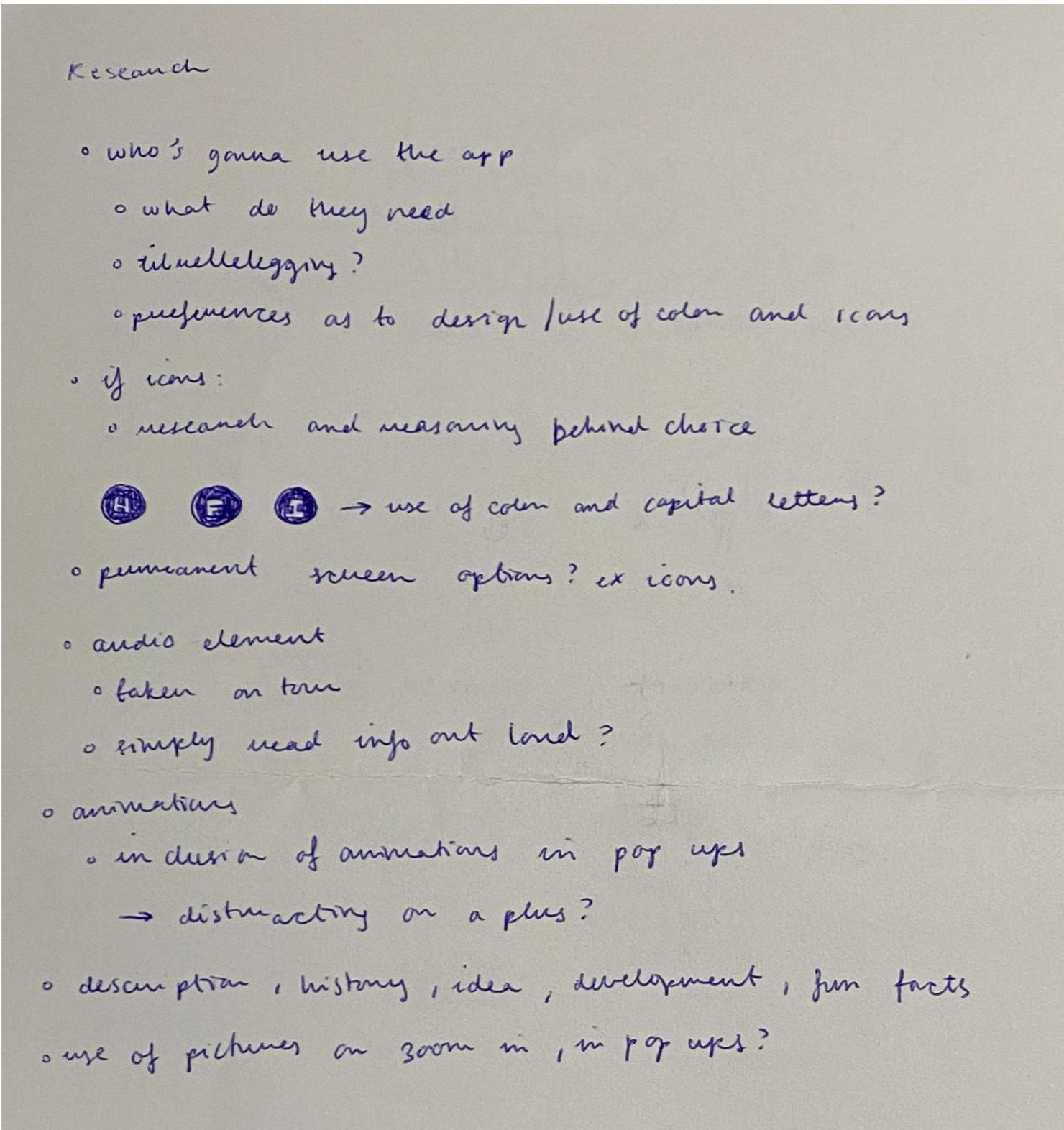
Theme



In earlier sketches the theme wasn't much considered other than relying on the fact that a simple, non-distracting design was the plan as to not take away from the actual content. Inspiration was collected from Pinterest as to possible themes to go for. The possibilities ranged from graphic, typography, shapes, to illustrations. The type of font wanted was tied to the theme as they all gave off different vibes with what fonts worked best.

Initial sketches

Ideas



First sketch or note-taking was on what was the original idea; AR. The idea was to provide users with information about certain artworks in the form of icons or symbols on your screen by holding your phone in front of the artwork. AR became too big of a challenge considering the time frame and current abilities. The app was then made into a database with the option to search for the wanted information about an artist, artwork or era.

Initial sketches

Ideas

Initial sketches were divided into the different pages to cover in the app.

Search page:

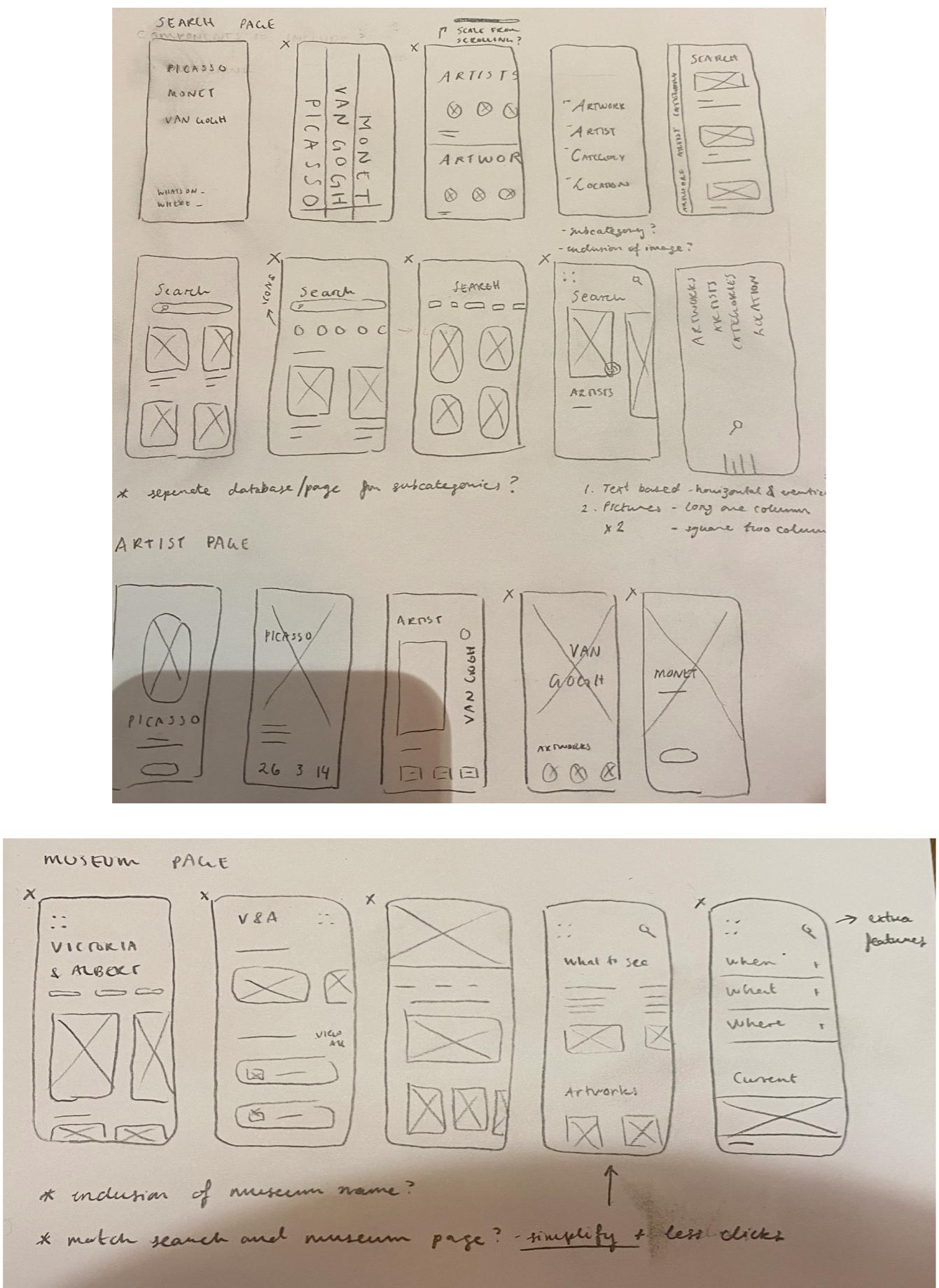
The search page was going to cover some quick choices as to artists or artworks accessed. That idea developed into rather including the categories where the information was organized instead.

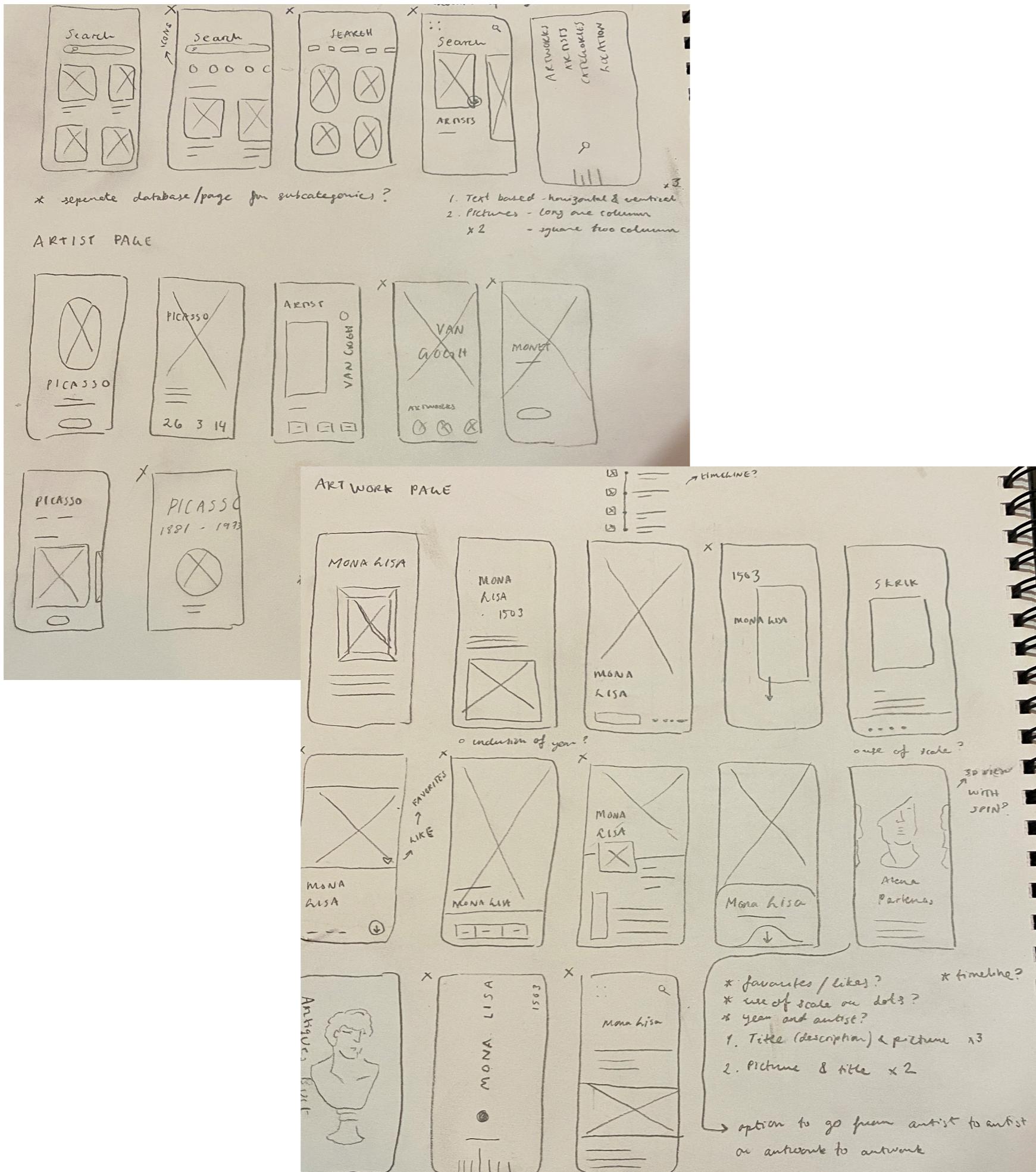
There was some consideration as to how the information was to appear on the page; having to swipe to access more information. That way the page is simpler and more accessible.

Another thought was if the focus should be on pictures or typeface, however I eventually landed on an inclusion of both.

Museum page:

The museum page, which was later removed, or rather combined with the search page. It was going to include a quick look as to what you could see at the museum in the form of artists and artworks. The page became unnecessary and was therefore removed.





Initial sketches Ideas

Artist page:

Content to include on both artist and artwork page was difficult to conclude on. The focus was therefore first on the landing page. The landing page would only provide quick facts as to years an artist was alive, their name and maybe the era their paintings embodied.

Overlapping text and image was quickly disregarded as it became messy and wouldn't be easily distinguished for people with bad vision. The design was to be as clean as possible.

Arwork page:

Same as the artist page, the content wasn't decided on yet at this stage. It was however at this stage that the use of a scrollbar and more "seperate" pages to have a simpler way of navigating was considered. The inclusion of swiping from one artwork, or artist, to the next at the top at the page was to make the app easy to naviagte and use.

Wireframes

Artist page



The first wireframes were incredibly simple to get an easy impression as to the placement of elements with the combination of text and image. By looking at this, an idea as to the background color came to be as the white was too sharp. Some research was conducted as to what color is most comfortable for ones eyes and later ended up using a more yellow color in the wireframes. A grey color for the font was chosen instead of black to not make it as harsh.



Wireframes

Theme

The next wireframes were more focused on what theme worked best as to the placement of elements previously decided. Quickly disregarded the graphic designs, as well as the ones using too distinguishing colors. The ones that worked best were the ones using more interesting fonts in the form of serifs, as well as with a different background color than the normal white. The theme ended up being a combination of the two.

Wireframes

Search page



The development of the search page was quick in the sense that it was easy to see what worked best and what didn't. The content was not to be jumbled together, as well as not provide too much information at once further confusing the user.

The focus was first more on text as to simplify the design, but ended up including some pictures in a small and simple way in the end. Some experimentation was done as to the inclusion of sub-categories and how they would appear.

Wireframes

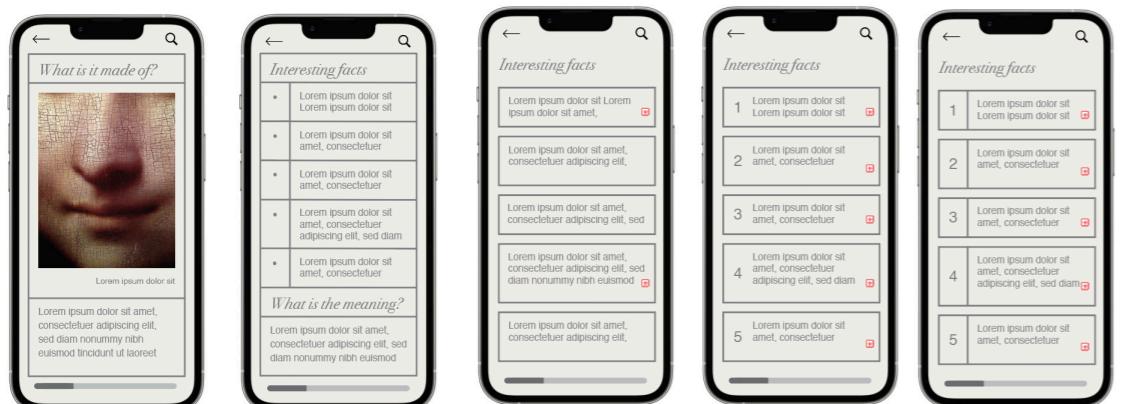
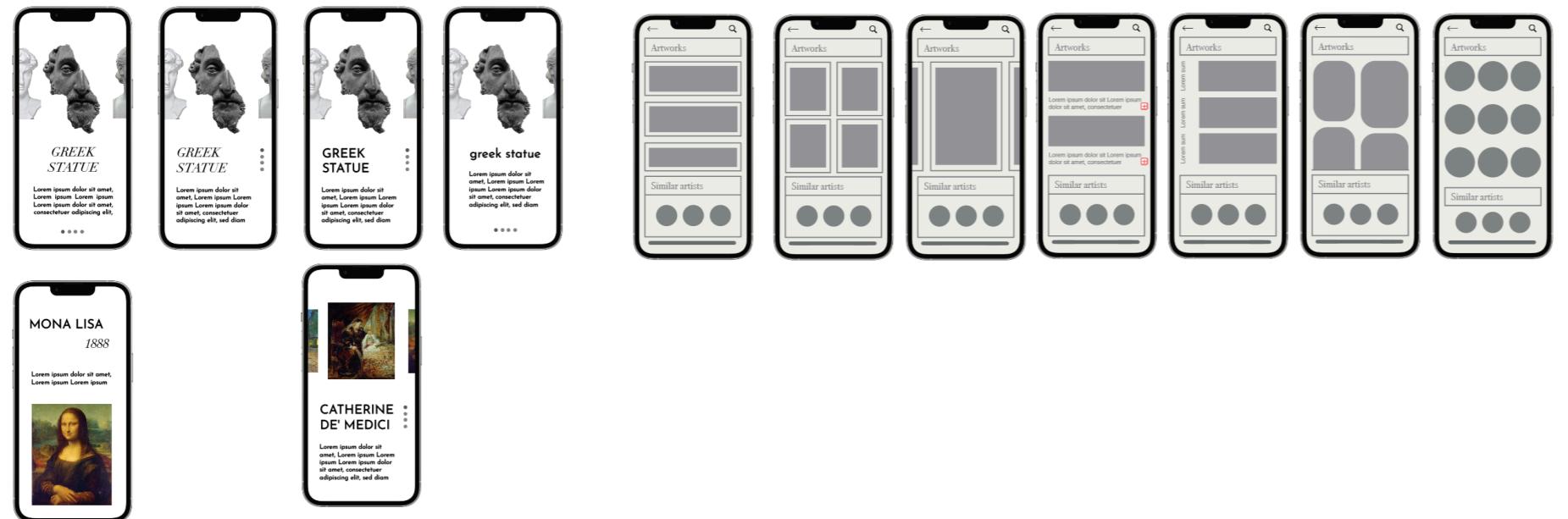
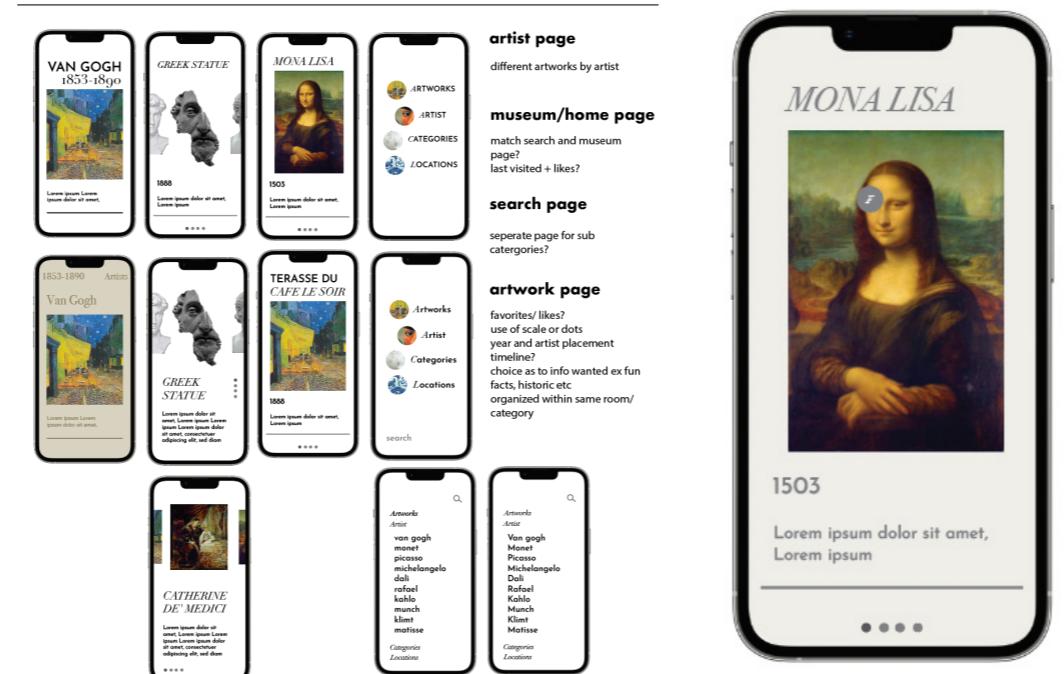
Home page



As previously explained, a home page was originally planned. However, as you can see here, the search page was already considered as a way of including the same elements that would have been on the home page.



A possible start page with the choice of a museum was also designed as a possible further development.



Wireframes

Artwork page

The development of the artwork page was where the discovery as to the presentation of the content, as well as the possible inclusion of fun facts by clicking icons on pictures, was figured out.

After deciding on a main style and layout for the landing pages, the layout of the rest of the pages were next. The framed format wasn't planned, but found it worked and enjoyed it being a little different than the first pages already decided on.

There was a lot of text in the beginning, but balancing it out with pictures was a focus.

Experimentation Icons



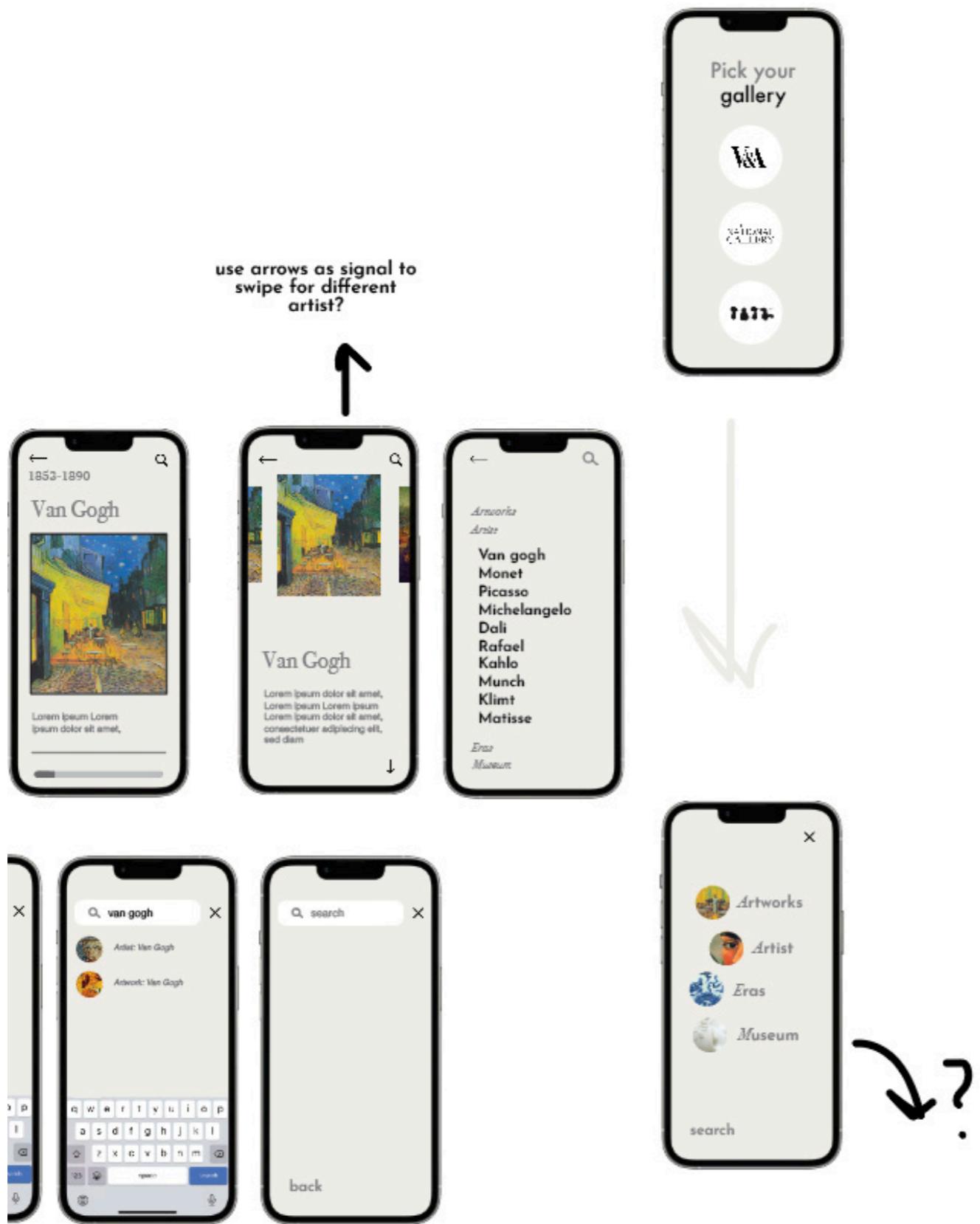
At this stage, it was time to think about the navigation bar and how the icons were to appear. The original plan was to have the normal layout with a fixed navigation bar at the bottom so the navigation was always visible.



However, after quickly deciding on what needed an icon and finding some simple inspiration, it turned out distracting and "too much". The search menu being the home page, a button to return to that page would be enough as one can access all of the other categories on that page. Again, the design was to be as simple as possible with no unnecessary elements.

Wireframes

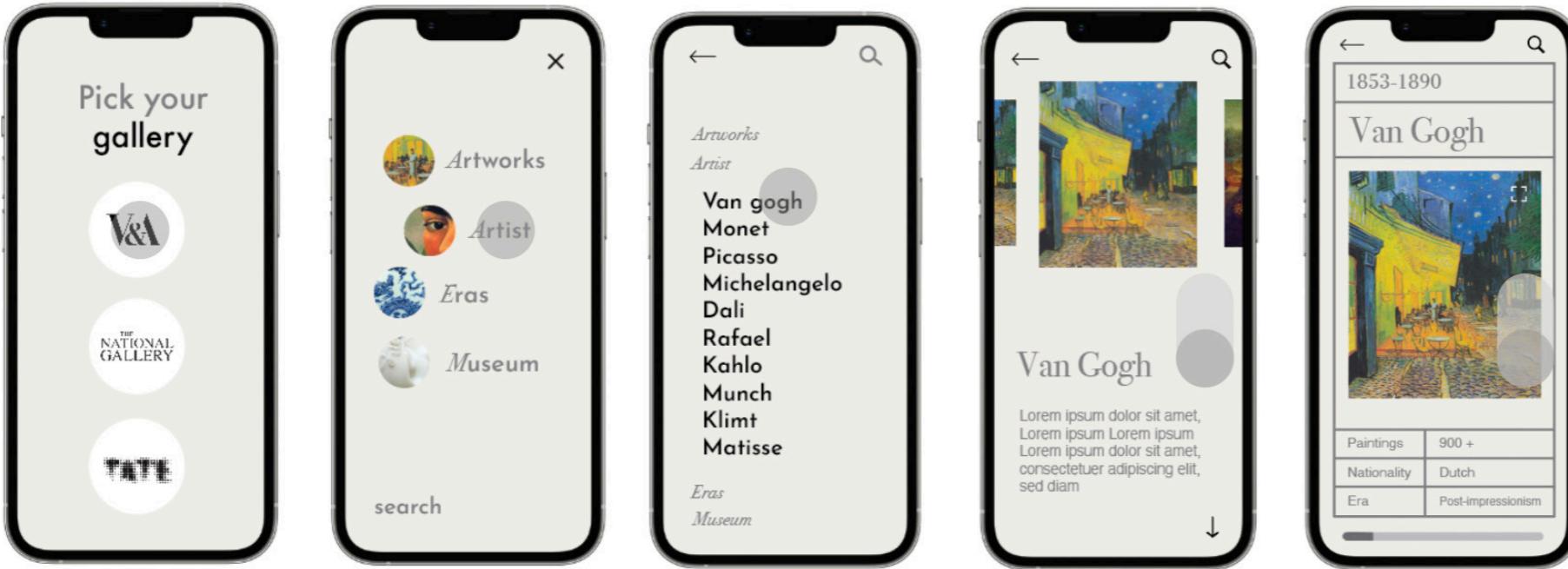
Flow



The next step was to think about the flow of the app and how one would move and navigate through the app. A network was drawn up to visualize just that, as well as a presentation created to show all pages in the app and how one would move through it to easier see what was missing, what should be included and what might be confusing. One could see what had originally been missing and improve the flow of the app in the design.

Wireframes

Finshed

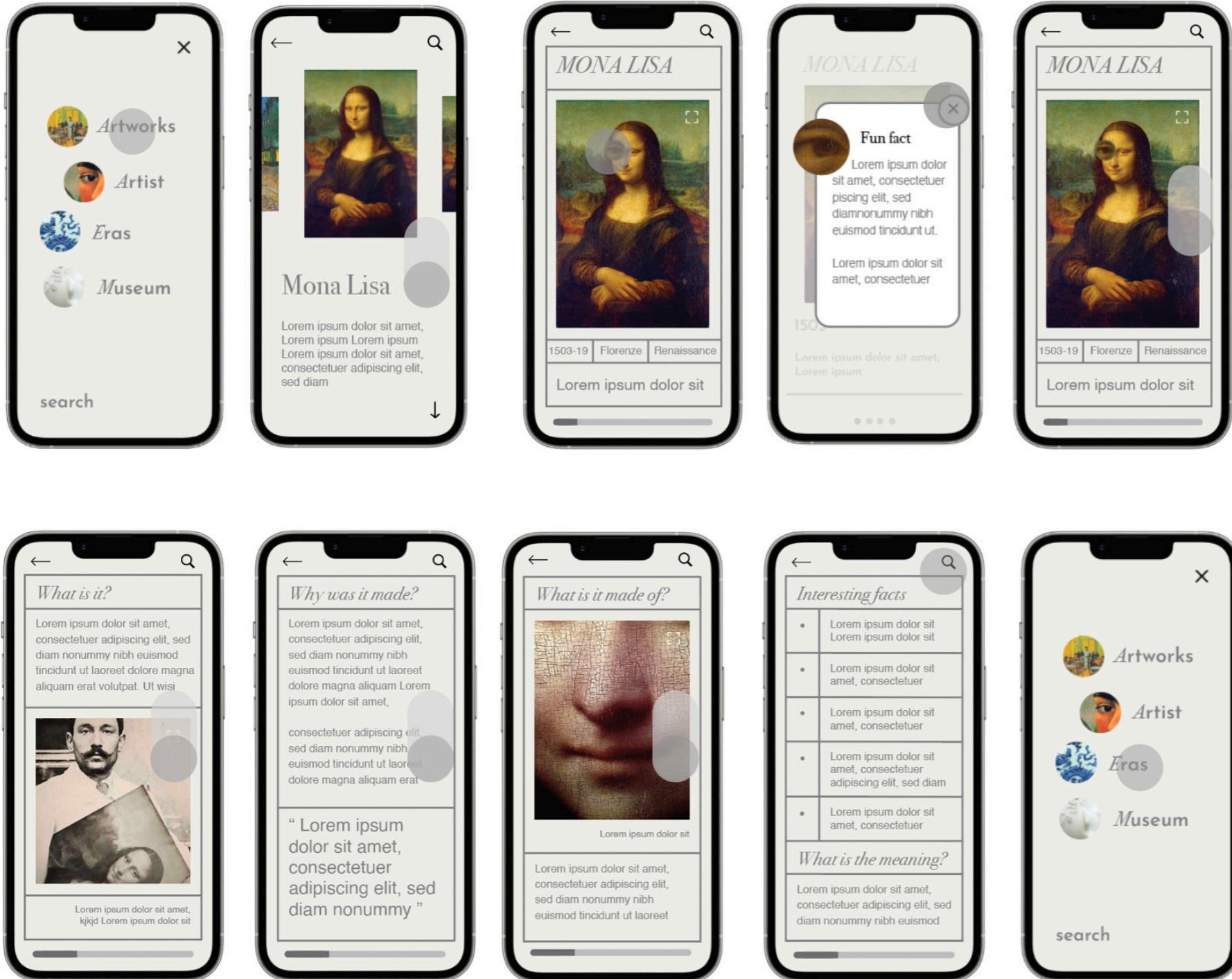


The following wireframes are the finished ones portraying the idea as to how the content is to appear, as well as the structure and theme followed.



Wireframes

Finished



Wireframes

Finished

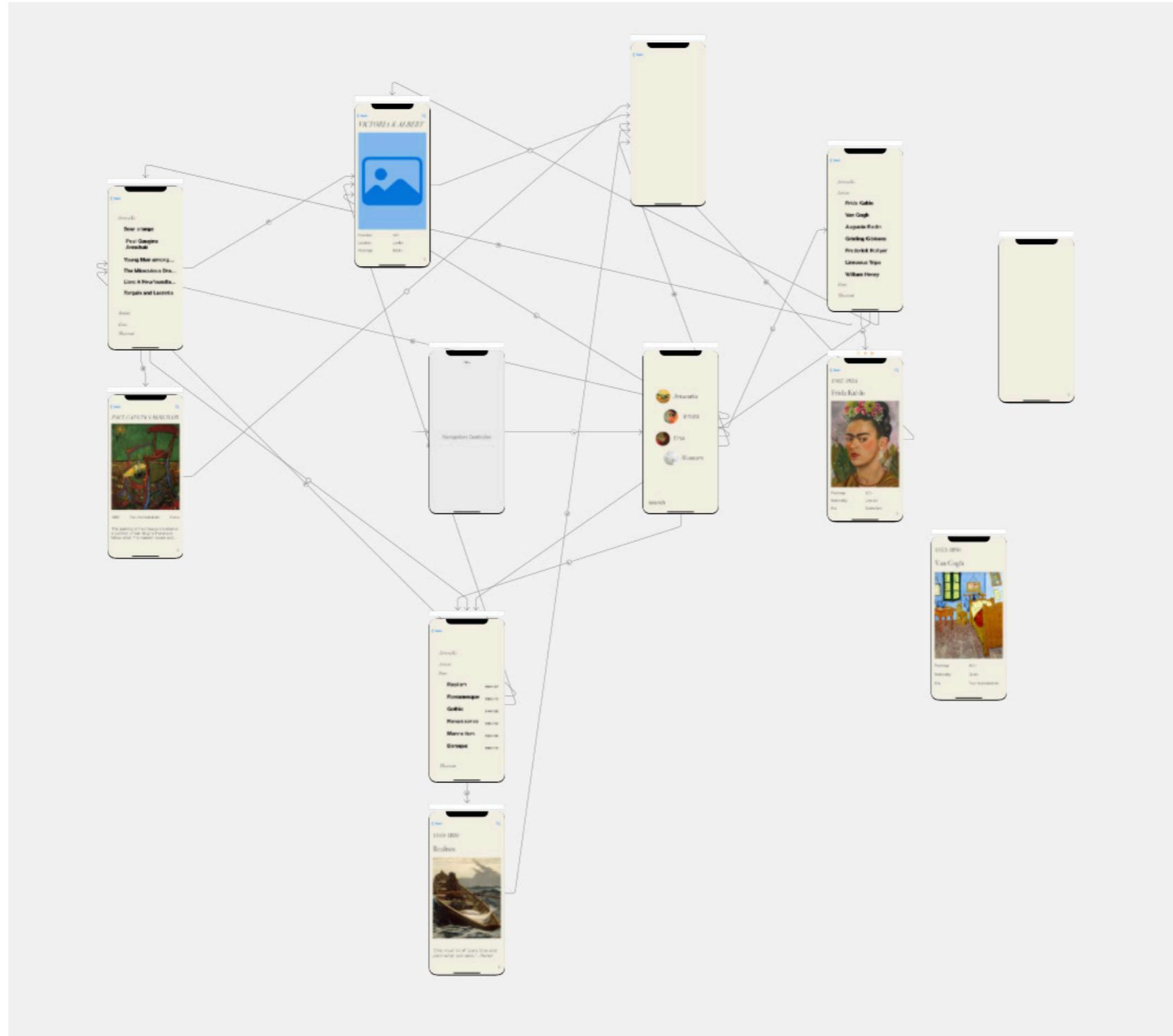


Wireframes

Finished



Finished project

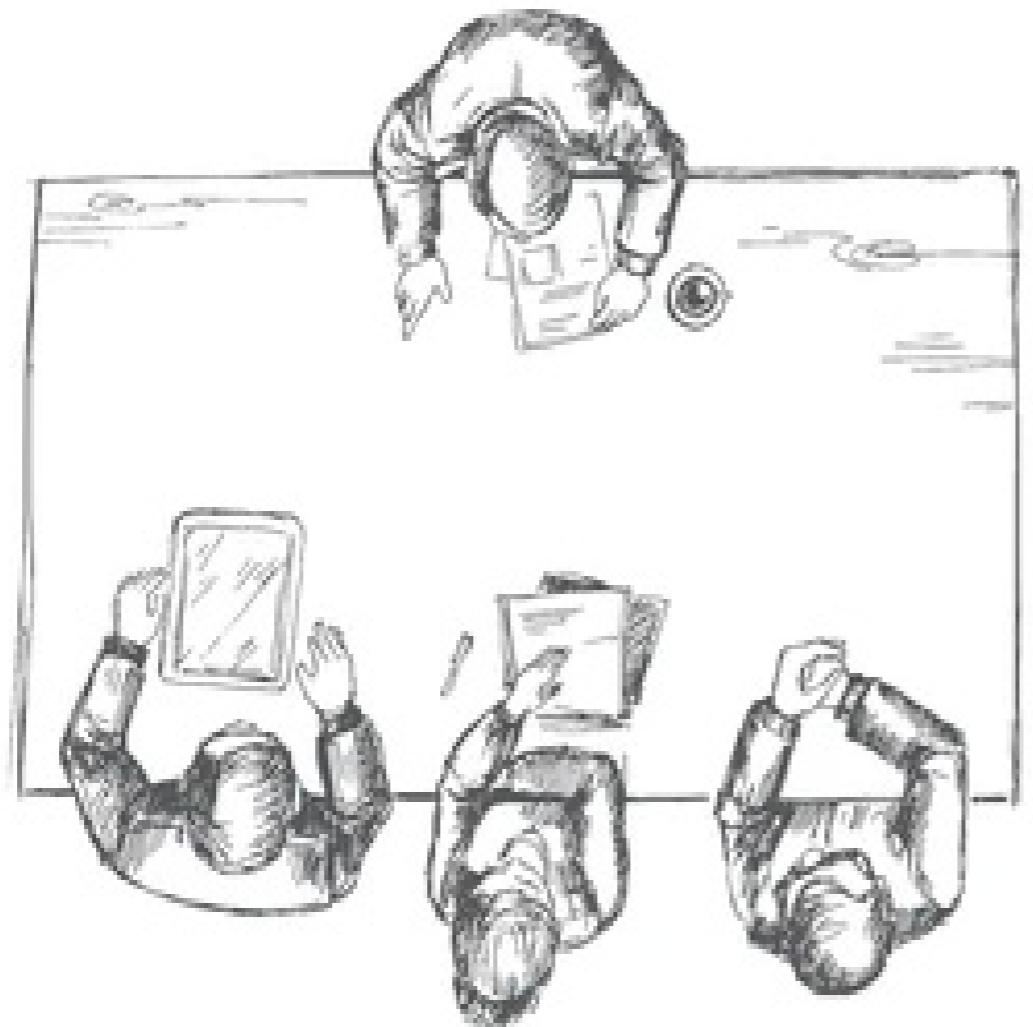


Some changes made in the coding process of the app was to skip the border originally planned around the content as it wasn't a necessity at this time.

Another change was to make the screens scrollable instead of navigating them through swiping as it's easier to place the data by having more freedom in the length of the scroll view.

Considerations

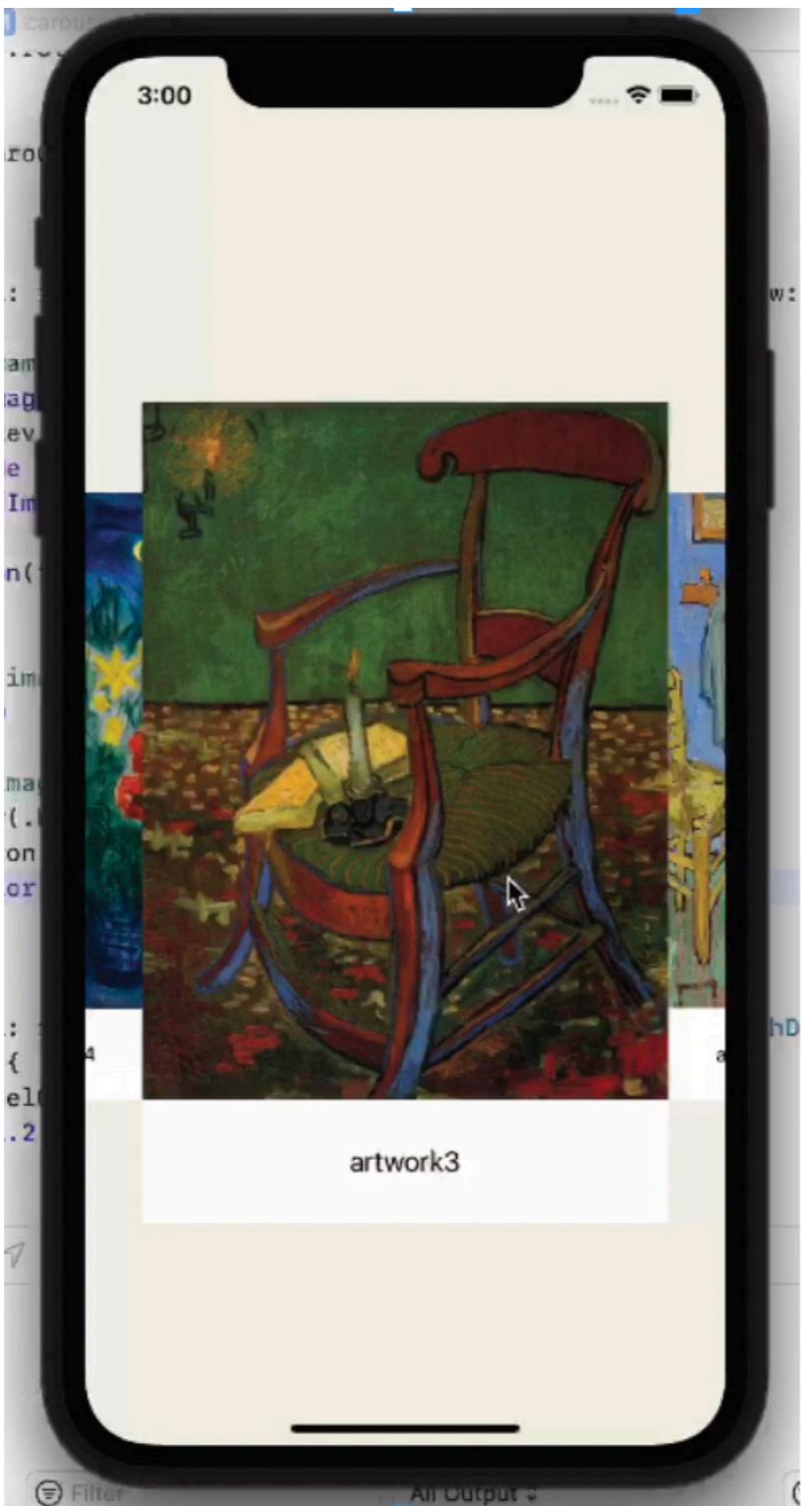
Possible improvements



If the work with the app was to be continued, there are certain improvements to be made:

- Read more about segues and how they work as to linking different screens when the number of screens are increased as the result of a big amount of data.
- Responses as to the design and how compatible it might be with different museums.
- Conduct interviews as to content of app as the current data is based of own ideas and suggestions.
- Test existing apps to see what is already out there and what might be improved. (The apps currently out there require payment to use the features.)
- Data would be collected and implemented in app. An idea was to group the artworks in different gallery rooms together in the app so it's easy to use when at the actual gallery.
- Possible sup categories on screen.
- Code a circle image function as I was unable to do that. The code worked one minute, but then broke the next. I therefore used png's to show how it would look.

Biggest challenge



There were many challenges in the development of this app:

- One big challenge were the constraints. In scroll views you need to be very specific as to the constraints and placement. There were often problems with the elements placing themselves completely wrong even though Xcode showed the constraints were in place.
- The image carousel was another big challenge as many different ways of doing it was tried, none of which worked. Either the code was too old, the pods couldn't be accessed or the code simply didn't work in the files accessed. When it finally did work, the placement of elements were wrong as the labels weren't compatible with the pictures.
- The search bar was another challenge in that one had to figure out how to create a separate View Controller which only affected that one screen, instead of them all. It took me some time to figure that out.
- The screens being shown modally instead of the show (e.g. Push) was an annoyance as it took a long while to figure out why it was happening; why the navigation bar wasn't appearing. Turns out the Initial View Controller is very important.

Considerations

Further development



There are several functions and resources to be implemented with further development:

- To scan an artwork so the app automatically recognizes the artwork without the need to search for it.
- An audio element in the form of speech recognition for users who can't easily use their hands, as well as a screen reader that voices out the information on a page.
- Communication with others in the form of a Q&A or posts with artworks. Maybe a connection to Instagram where pictures using specific tags are visible.
- Feedback to implement and consider.
- A profile for users so they can easily view last visited, likes or saves and personal settings.
- Scalable text, as well as dark or light mode.
- Multi-device synchronisation.
- The last improvement would be to go back to the original idea and implement AR where you hold your phone up to an artwork for the information then to appear in the form of icons or something similar.

Sources

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