PORTFOLIO 2022

Product Design

Halil **ARIKAN**

Hello! I am Halil.

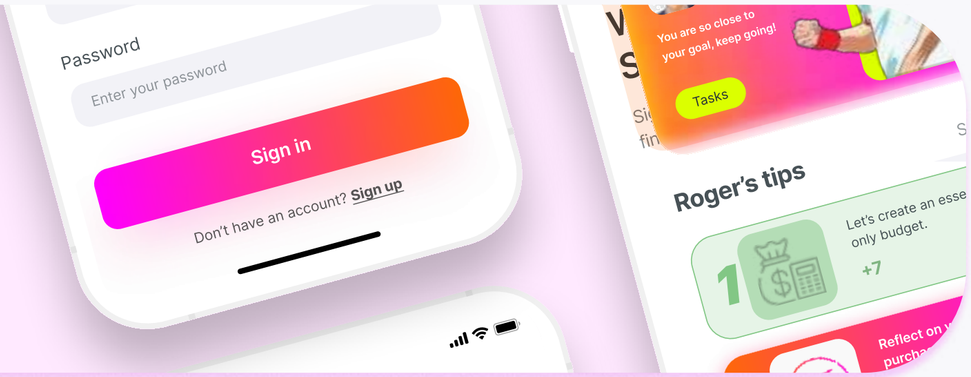
I'm a product designer, with a Master's degree in Interaction Design from Domus Academy Milano, and passionate about improving human experiences through design, solving complex problems, and connecting dots. I love learning new things, expanding my perspective, and working with open-minded people to create stunning products. I am working hard and challenging myself every day to become a great designer.

In my spare time, I enjoy listening to podcasts, watching videos about traveling and self-improvement, playing the guitar and basketball, and dancing.

01.

Shaman

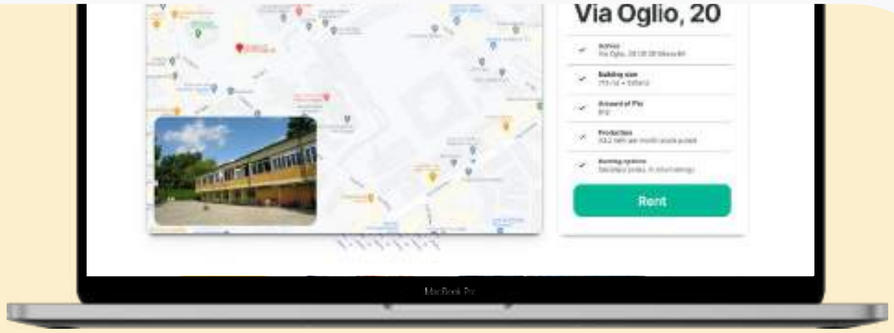
Finance Mobile Application



02.

Energy Places

Rental Service for PV Panels



03.

GeneratAR

AR Composing Experience

04.

The Mystery Box

A welcome/promotional Kit

01 Shaman

Finance Mobile Application

Group Project, 7 Weeks
April 20 2021 - May 28 2021

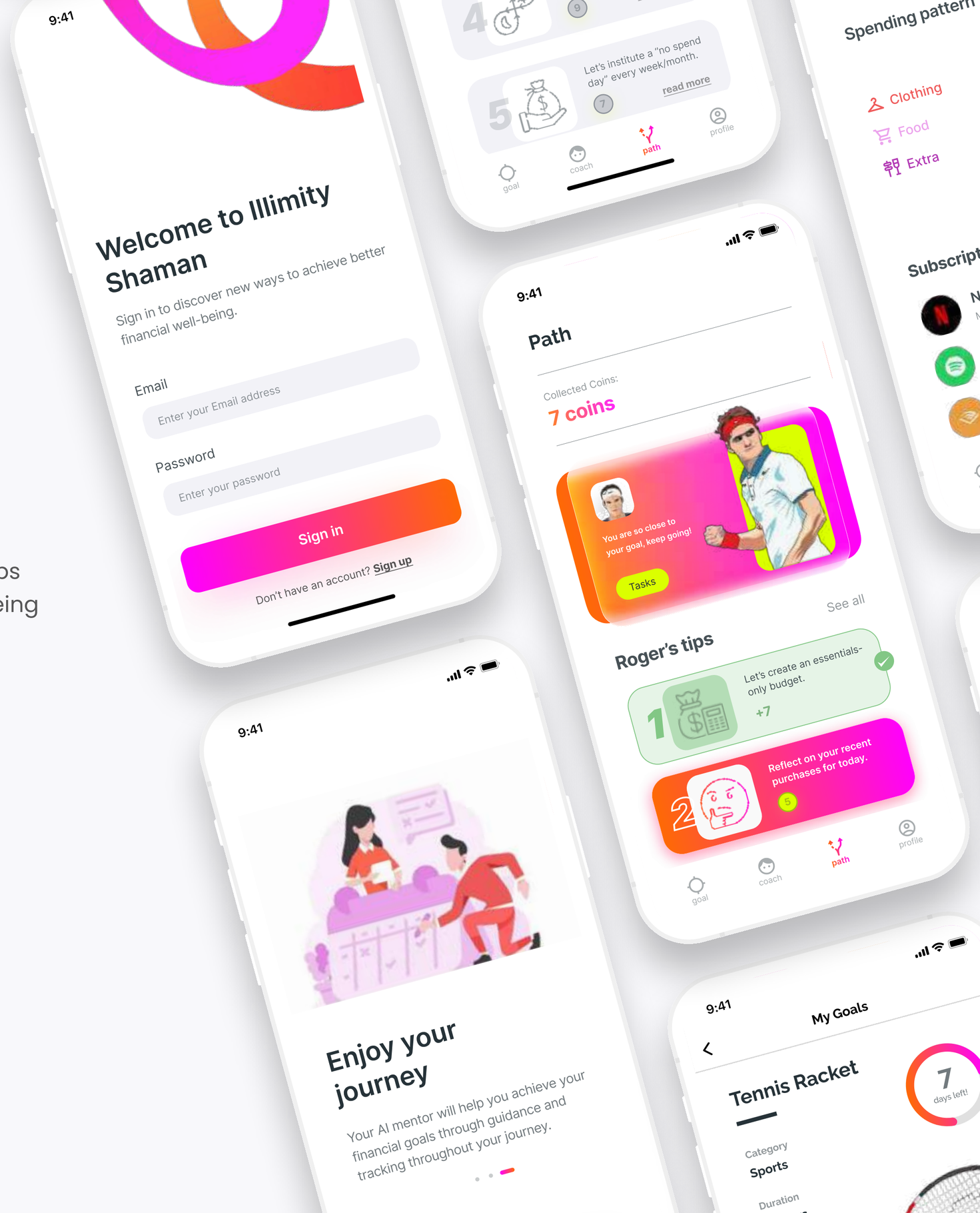
Abstract

Shaman is a finance mobile application which helps people to achieve their financial goals and well-being by providing AI driven coaching and tracking.

Project Leaders: **Andrea Piccolo, Ilaria Scarpellini**
Project Mentor: **Michele Aquila**
Collaboration with: **Illimity Bank**
Group Members: **Soham Das**

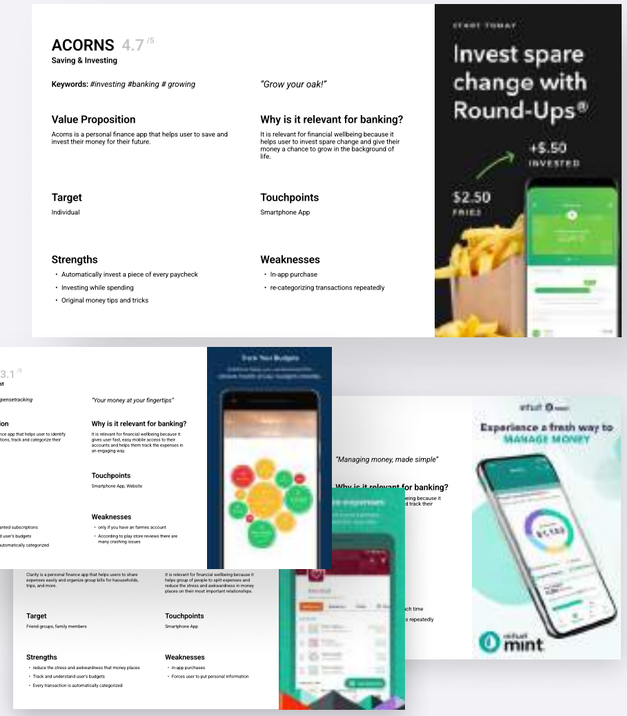
DOMUS ACADEMY MILANO

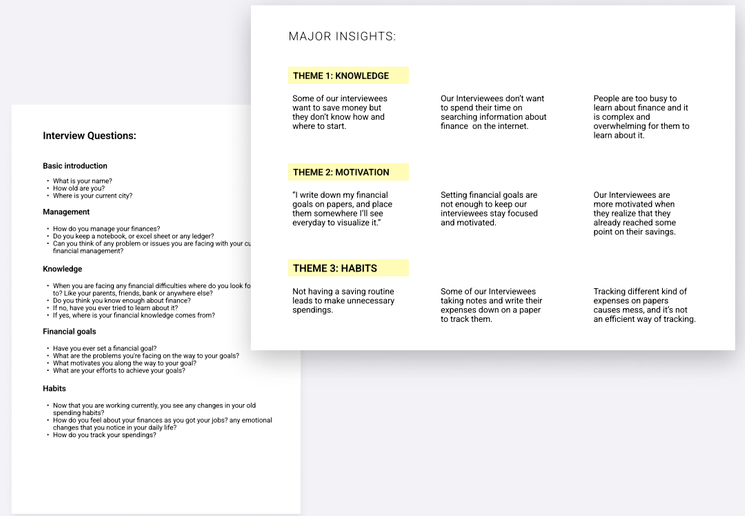
illimity
BANCA OLTRE LA FORMA



Shaman Research

DISCOVER PHASE





Case Study Analysis

In order to undertand how financial wellbeing are covered, we **analyzed** four of the most recommended **finance mobile app** on the App store, and found that while they all provided solutions for budgeting, tracking and investing, none of them touched on the topic of **motivation and behaviors.**

Banking Panaroma in Italy

We **conducted** 7 of the most popular **Italian banks and their services** in order to analyze their value proposition, strengths and weaknesses, and found that solutions were more **performative, individualistic and specialized** but balanced between **traditional and disruptive**.

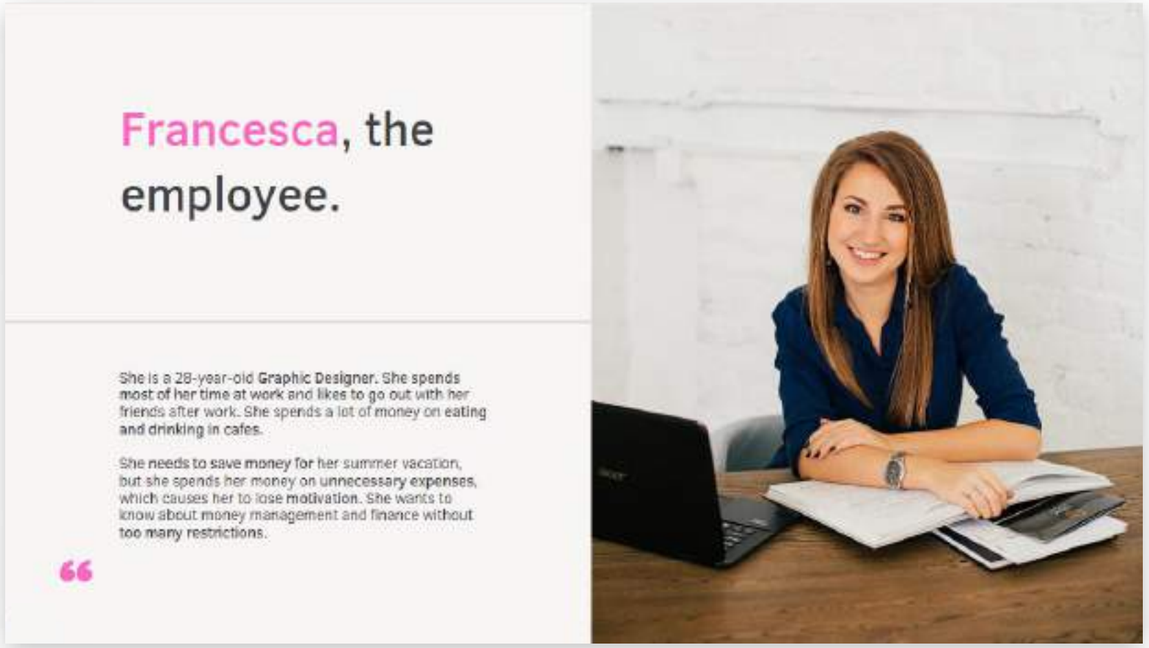
Interviews & Affinity Map

We conducted a series of 9 interviews to understand how people manage their financial matters, what do they **know** about finance, what are their **efforts** to reach their financial goals and what do they **think** about their spending pattern.

After analyzing user research findings, we categorized them into **9 major clusters and 3 themes** to reflect in our ideation phase later.

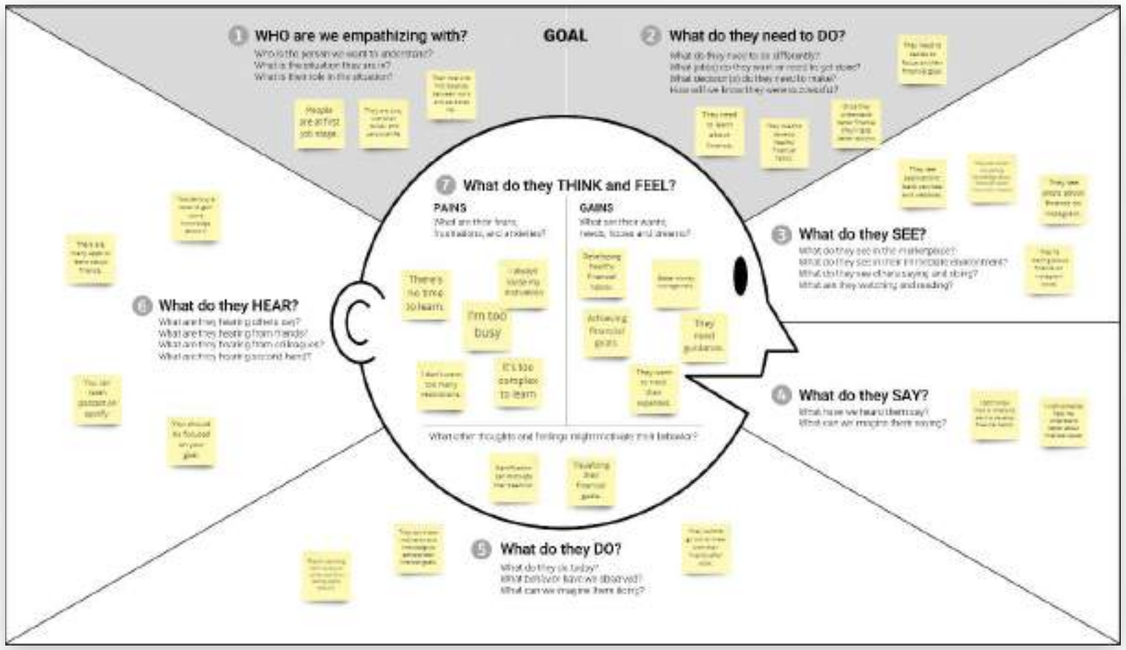
Shaman Research

DEFINE PHASE



User Persona

As the first step of the define phase, we created user persona that helps us understand better the limits and opportunities to take into consideration when designing.



Empathy Map

After creating our user persona, we used empathy map canvas in order to analyze the perspective of our persona by answering the questions.

CHALLANGE:

How might we help people develop healthy financial habits and stay motivated to achieve their financial goals?

Shaman Ideate

LOW FIDELITY WIREFRAMES

BUTTON

TEXT

SCREEN

HEAD

SHAPES

Onboarding Screens

Illimity Logo

Set financial Goals

We help you achieve your financial goals and well-being through coaching and tracking.

Get Started

Learn from your coach

Choose your AI coach to get helpful tips and information about finance and gain new financial habits.

Get Started

Enjoy your journey

Your AI coach will guide you, track your spending and motivate you throughout the journey.

Get Started

Accounting Screens

Welcome to Illimity Shaman

Sign in to discover new ways to achieve better financial well-being.

Email

Enter your Email address

Password

Enter your password

Sign in

Don't have an account? Sign up

My Profile

Francesca Martelli

francesca_m@email.com

Email

francesca_m@email.com

Password

••••••••••

Income

€ 1180

Sign in

Add new card

CURRENT BALANCE

€2,350.00

4225 9765 0008 6141

FRANCESCA MARTELLI

EXPIRY 09/24

Card holder's name

Francesca Martelli

Card number

4225 9765 0008 6141

Expiry Date

09 / 24

CVV

722

Get started

Goal Screens

My Goals

Search for goals

Sports | Fashion | Technology

+

My Goals

Seem like you haven't set a goal yet.

Upload Image

My Goals

Seem like you haven't set a goal yet.

Photo Gallery

Camera

Cancel

Please wait...

Goal name

XX

Category

xxx

Duration

xxx

Price

€xxx

About

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum suscipit libero sagittis, accumsan elit non, placerat lorem. Vivamus sapien eros, dapibus vitae bibendum sit

See others

Coach Screens

Select your coach

Tap to select your financial coach to see further steps towards your goal!

Coach name

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum suscipit libero sagittis, accumsan elit non, placerat

Select your coach

Tap to select your financial coach to see further steps towards your goal!

Achievements:

- Lorem ipsum
- dolor sit amet
- consectetur
- adipiscing elit
- Vestibulum suscipit
- libero sagittis,
- accumsan elit non

Coach name

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum suscipit libero sagittis, accumsan elit non, placerat

Congratulations!

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum suscipit libero sagittis, accumsan elit non, placerat

Let's do it!

I'll do it later

Wallet Screen

Savings:

€xxx

History See all

Invoice Date +€xx

Invoice Date +€xx

Invoice Date +€xx

Add money

Path Screens

Market

Search for items

Category | Category | Category

CATEGORY Wallet Name Price

CATEGORY Wallet Name Price

CATEGORY Wallet Name Price

CATEGORY Wallet Name Price

Path

Collected Coins:

Xx coins

Motivational quotes from financial coach.

Market

Coach tips See all

1 Lorem ipsum dolor sit amet, consectetur elit. +7 read more

2 Lorem ipsum dolor sit amet, consectetur elit. 5 read more

Roger's tips

Here are your tasks, Francesca! Complete the tasks and collect your coins to reach your goal.

1 Lorem ipsum dolor sit amet, consectetur elit. +7 read more

2 Lorem ipsum dolor sit amet, consectetur elit. 5 read more

3 Lorem ipsum dolor sit amet, consectetur elit. 4 read more

4 Lorem ipsum dolor sit amet, consectetur elit. 9 read more

5 Lorem ipsum dolor sit amet, consectetur elit. 7 read more

Profile Screens

My Profile

personal | cards | habit

Francesca Martelli

francesca_m@email.com

Email

francesca_m@email.com

Password

••••••••••

Income

€ 1180

My Profile

personal | cards | habit

BANK NAME

**** **** **** 6141

FRANCESCA MARTELLI

Balance

€xxx

History See all

Invoice Date -€xx,x

Invoice Date +€xx,x

Invoice Date -€xx,x

My Profile

personal | cards | habit

Spending pattern

Category

Category

Category

Subscriptions See all

Invoice Monthly -€xx,x

Invoice Yearly -€xx,x

Invoice Monthly -€xx,x

Shaman Ideate

HIGH FIDELITY WIREFRAMES

#FE6905 - #FF00FE

#263238

#82C785

#DBFF00

#F2596B

Onboarding Screens

illimity Shaman

Set financial Goals

Upload a picture of your financial goal to the app to see your AI mentor offered based on your financial habits.

Get Started

Learn from your coach

Choose your AI coach to get helpful tips and information about finance and gain new financial habits.

Get Started

Enjoy your journey

Your coach will help you achieve your financial goals through guidance and tracking throughout your journey.

Get Started

Accounting Screens

Welcome to Illimity Shaman

Sign in to discover new ways to achieve better financial well-being.

Email

Enter your Email address

Password

Enter your password

Sign in

Don't have an account? Sign up

My Profile

Francesca Martelli

francesca_m@email.com

Email

francesca_m@email.com

Password

****

Income

€ 1180

Next

Add new card

CURRENT BALANCE

€2,350.00

4225 9765 0008 6141

FRANCESCA MARTELLI

EXPIRY 09/24

Card holder's name

Francesca Martelli

Card number

4225 9765 0008 6141

Expiry Date

09 / 24

CVV

722

Get started

Goal Screens

My Goals

Seem like you haven't set a goal yet.

Upload Image

9:41

My Goals

Seem like you haven't set a goal yet.

Photo Gallery

Camera

Cancel

Please wait...

Tennis Racket

Category

Sports

Duration

28 days

Price

€229.90

7 days left

About

I want to buy this new racket because I believe that it matches with my own playing style and body shape.

See others

My Goals

Search for goals

Sports

Fashion

Technology

SPORTS

Tennis Racket

€ 228.90

Coach Screens

Select your coach

Tap to select your financial coach to see further steps towards your goal!

COACH ROGER

Meet with Roger! He believes that you have to save before you spend, not the other way around.

Select your coach

Tap to select your financial coach to see further steps towards your goal!

Achievements:

- Create an essentials-only budget
- Save 8 euros daily
- No spend day for each week
- Pack your lunch
- Learn 50/30/20 Rule

COACH ROGER

Meet with Roger! He believes that you have to save before you spend, not the other way around.

Congratulations!

Bravo Francesca, you did an excellent job and achived your goals succesfully! Would you like to set another goal?

Let's do it!

I'll do it later

Wallet Screen

Savings:

€16,09

History

See all

Lidl

January 25th

+€8.29

Invoice #27648

January 23th

+€5.00

Mc Donald's

January 20th

+€2.08

Add money

Market

Search for items

Animals

Trees

Boxes

ANIMALS

Pig

20 coins

ANIMALS

Whale

24 coins

ANIMALS

Turtle

28 coins

ANIMALS

Elephant

28 coins

Path Screens

Path

Collected Coins:

7 coins

You are so close to achieve your goal, keep going!

Market

Roger's tips

See all

Let's create an essentials-only budget.

+7

read more

Reflect on your recent purchases for today.

read more

Roger's tips

Here are your tasks, Francesca! Complete the tasks and collect your coins to reach your goal.

Let's create an essentials-only budget.

+7

read more

Reflect on your recent purchases for today.

read more

Talk about your financial goal with your friends

read more

Create a daily financial routine for your goal.

read more

Let's institute a "no spend day" every week/month.

read more

15:03

Wednesday, 27 October

Shaman

Your speding was down 30% last week

26m ago

Shaman

Let's save 7 euros for your goal today.

3h ago

Coach Roger

Mag Cafe / 28 euros? :(I suggest you to reflect on your recent purchases.

Yesterday

Coach Roger

Tip: Eating vegetables is good for both your financial & physical health.

Mon, 10:00

Coach Roger

You are so close to achieve your goal. Keep going!

Sun, 12:56

Profile Screens

My Profile

personal

cards

habit

Francesca Martelli

francesca_m@email.com

Email

francesca_m@email.com

Password

****

Income

€ 1180

My Profile

personal

cards

habit

BANK NAME

**** **** **** 6141

FRANCESCA MARTELLI

Balance

€1,216

History

See all

Lidl

January 25th

-€32.71

Invoice #27648

January 23th

+€800.00

Mc Donald's

January 20th

-€7.98

My Profile

personal

cards

habit

Spending pattern

Clothing

Food

Extra

Subscriptions

See all

Netflix

Monthly

-€17.99

Spotify

Yearly

-€99.99

Audible

Monthly

+€14.99

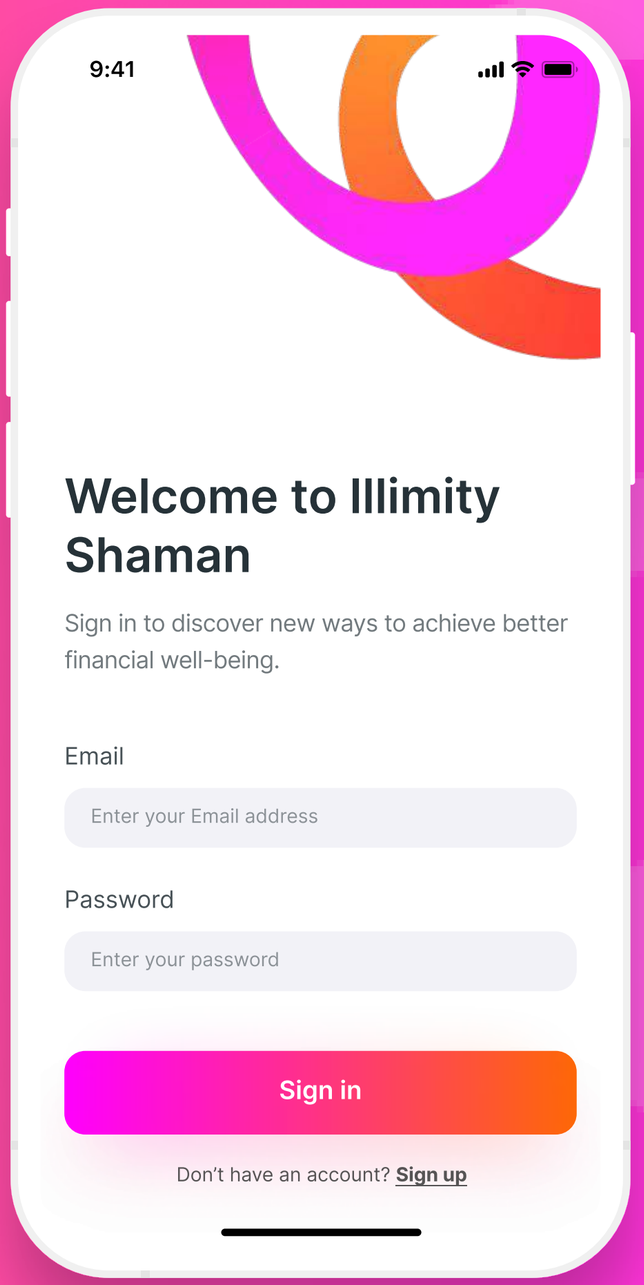
Shaman Concept

FINAL DESIGN

Finance Mobile Application

Set financial goals, meet with your coach, and follow the path to achieve your financial wellbeing.

A finance application which helps people to achieve their financial goals and well-being by providing AI driven coaching and tracking.



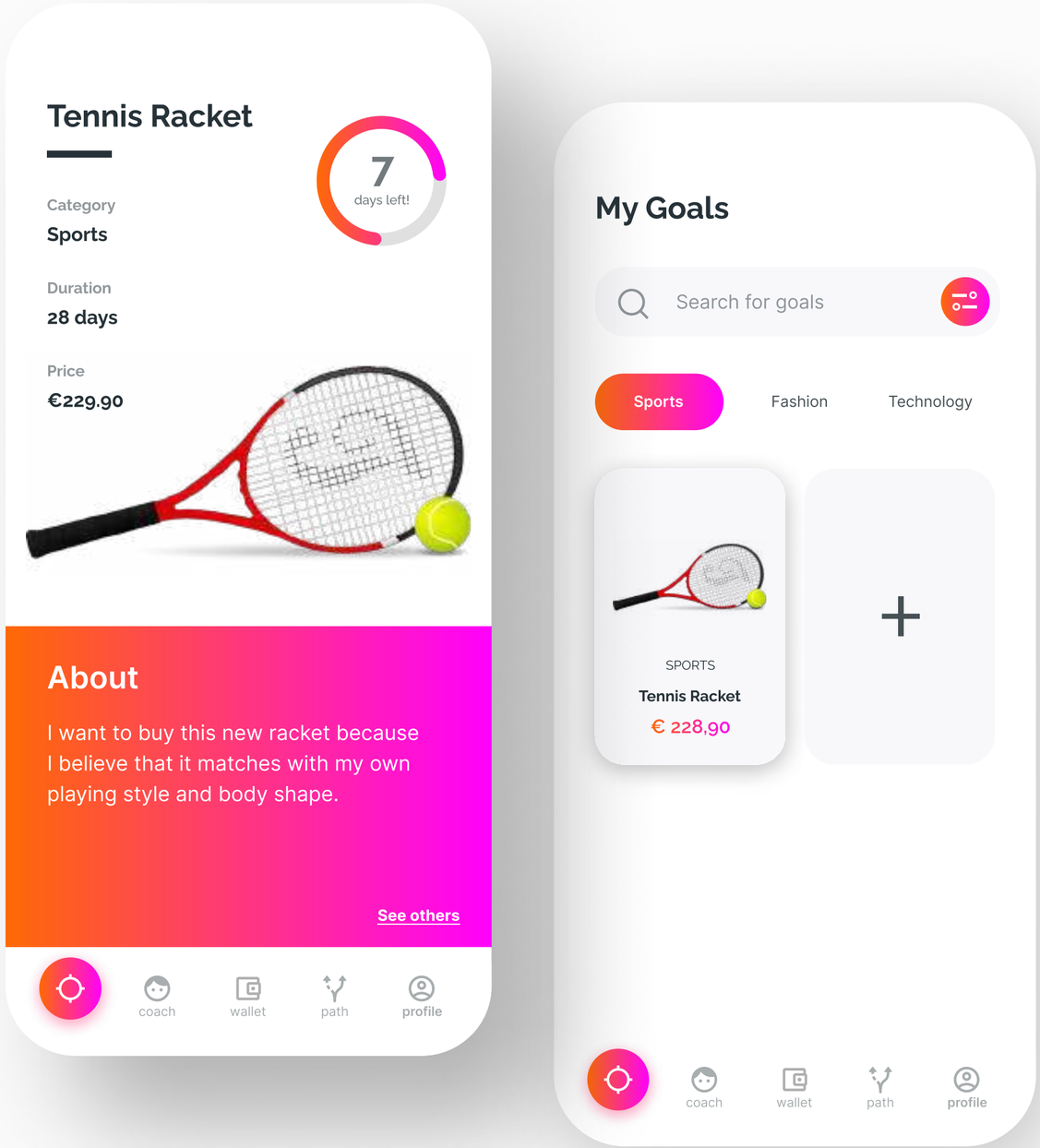
Shaman Concept

APPLICATION FEATURES

MY GOALS

Set goals that will allow you to enjoy life

Users can set financial goals by uploading the image of the goal to the app. Shaman uses Artificial Intelligence and determines the estimated time to reach the goal based on the user's spending habits.



Shaman Concept

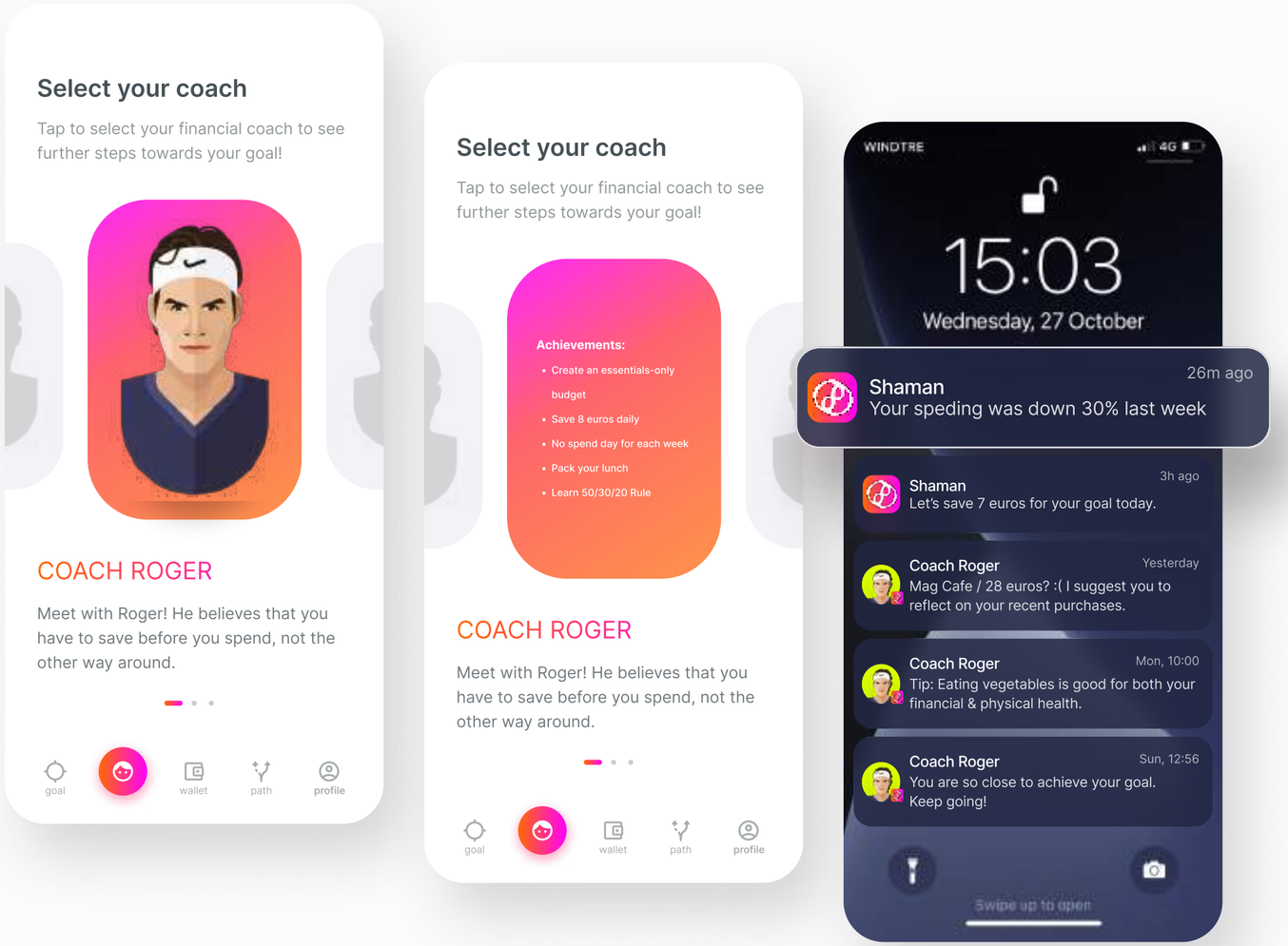
APPLICATION FEATURES

THE COACH

Choose your coach to see the next steps

Shaman offers 3 different AI coaches that can motivate the user based on their goal. Users can check their tasks before selecting them.

Coach will give useful information and guidance to educate the user on finance. Users will receive notifications and be tracked by their coaches to stay motivated on the way to their goals.



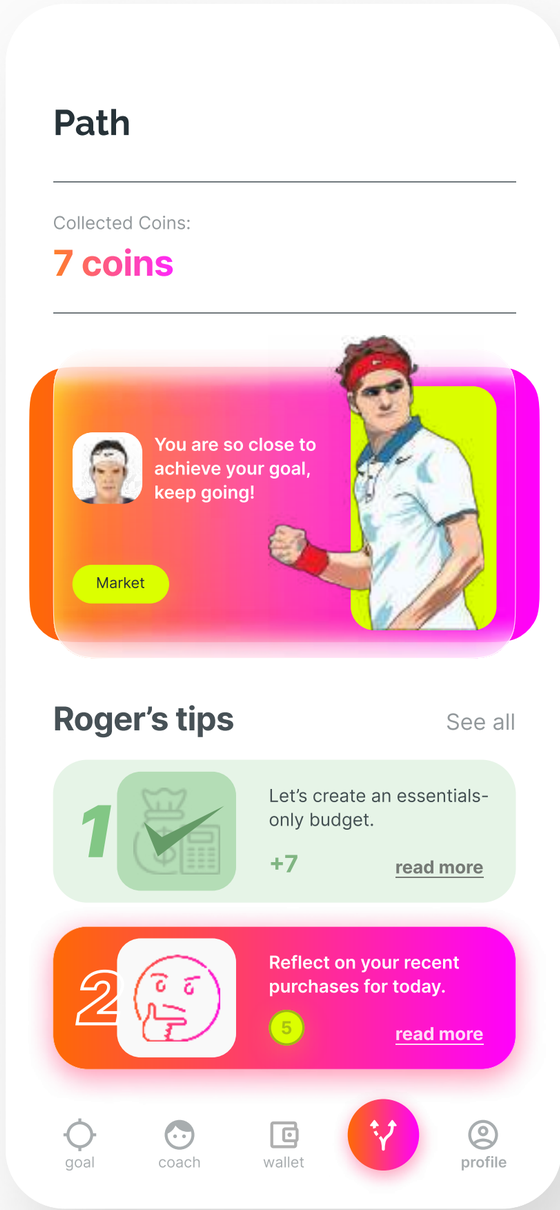
Shaman Concept

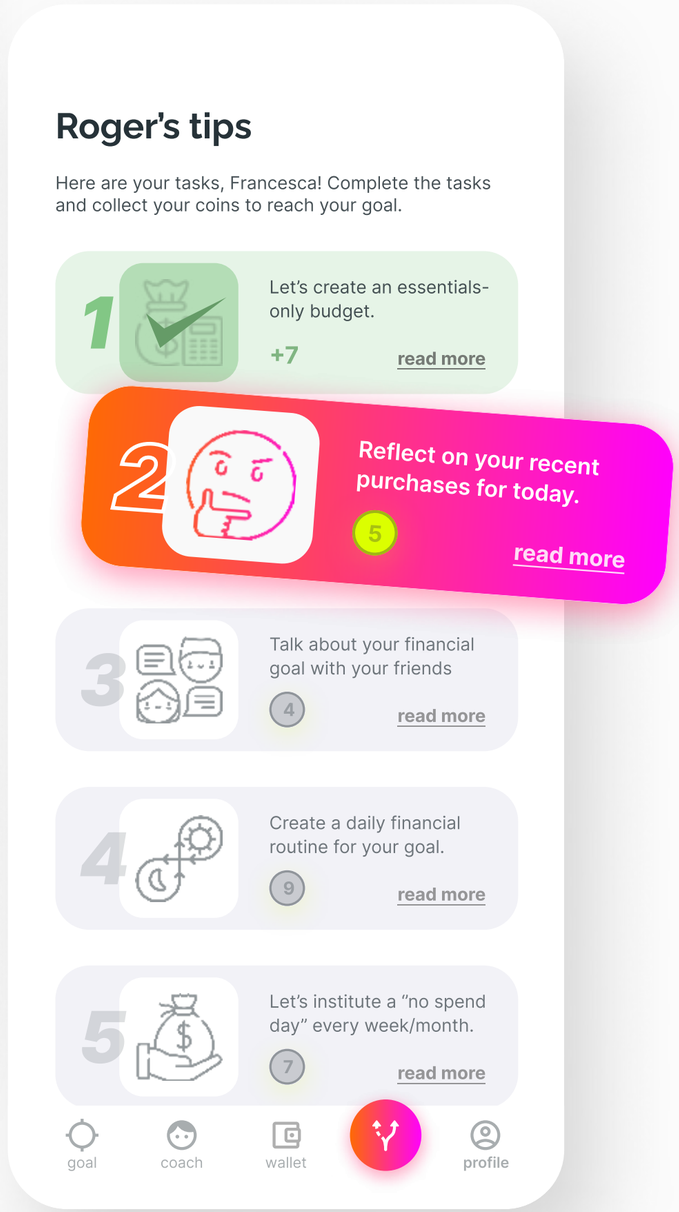
APPLICATION FEATURES

PATH SECTION

Follow your tasks and check coach’s tips

In Path section, users can collect coins by completing the coach's tips. While developing sustainable financial habits with their coaches, users can also buy another fantastic digital wallet from the market.





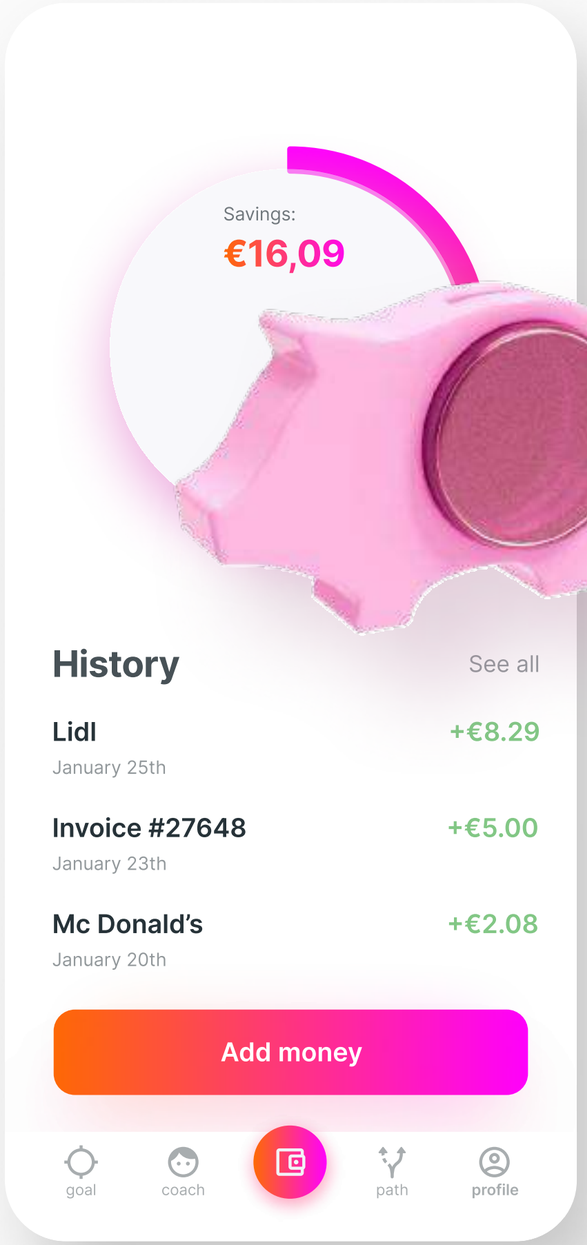
Shaman Concept

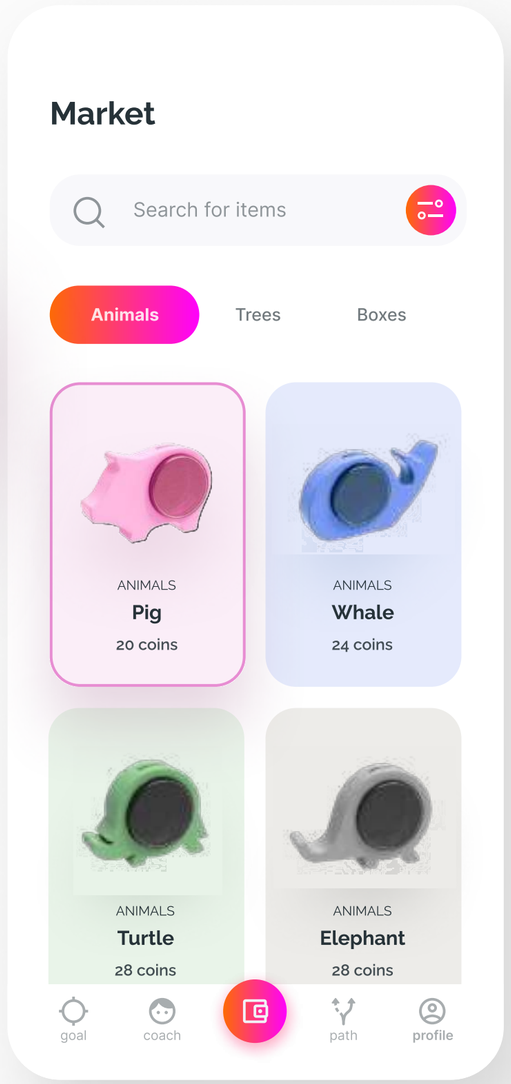
APPLICATION FEATURES

DIGITAL WALLET

A digital way of saving money

Shaman transforms the way of saving money in the moneybox from physical to digital in order to offer the best saving experience to its user. **The same but digital!**





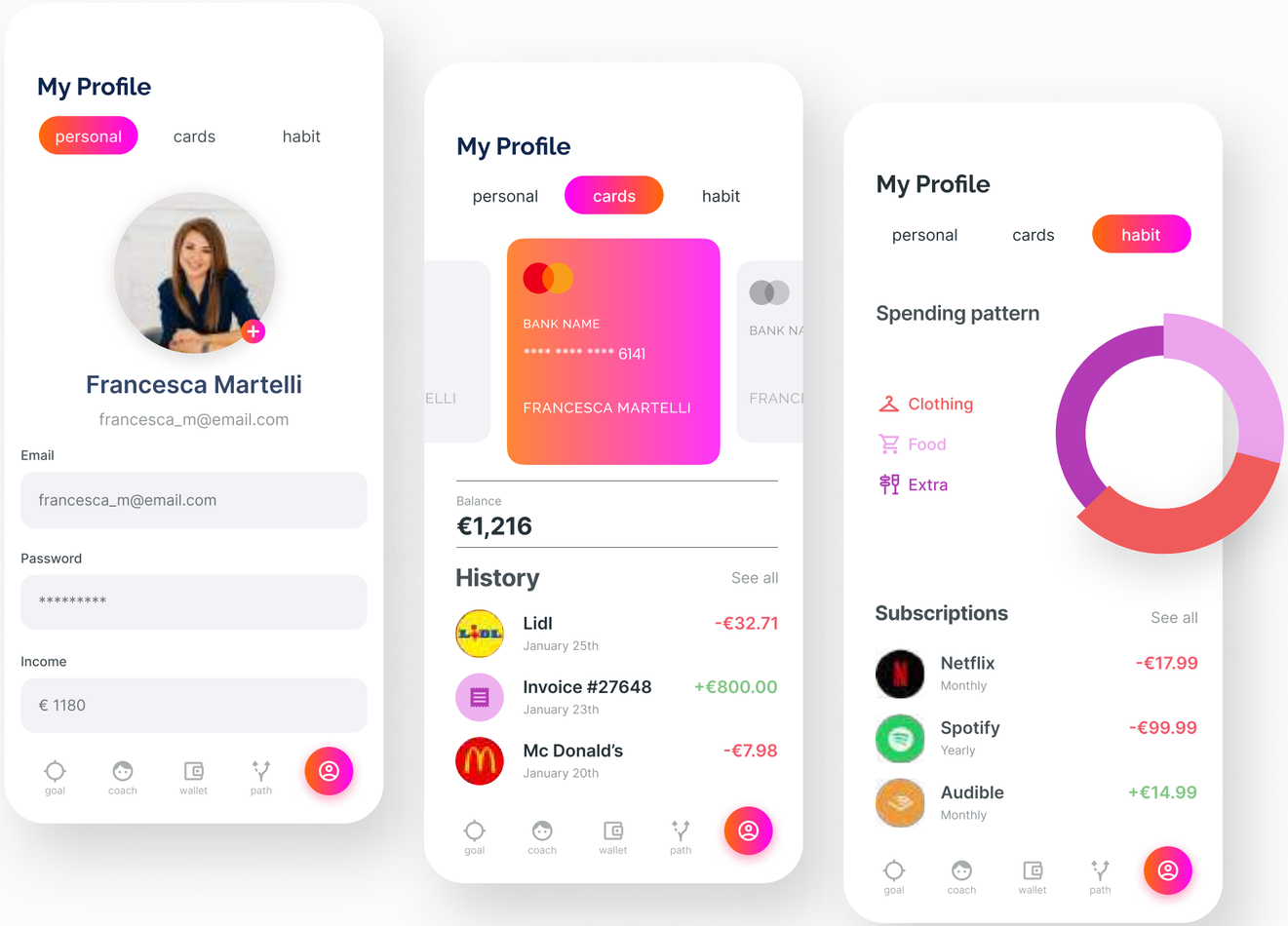
Shaman Concept

APPLICATION FEATURES

MY PROFILE

Check your spending habits and more

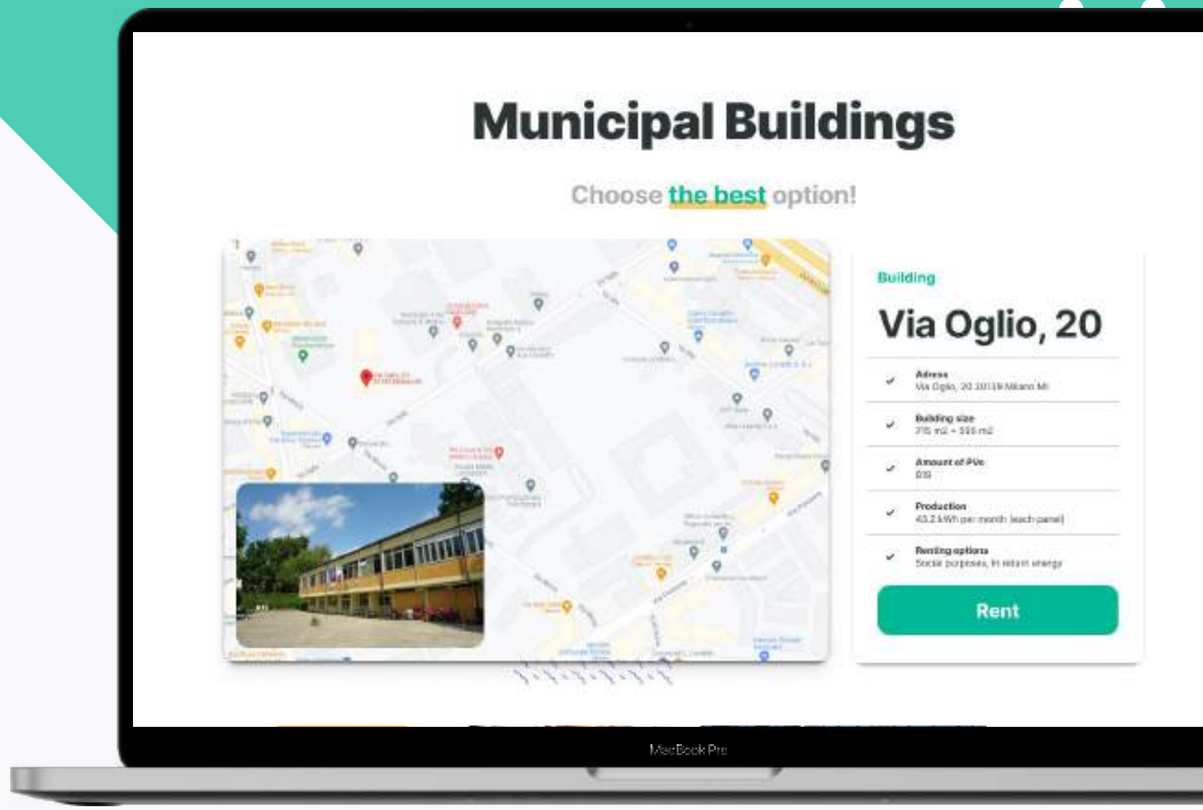
Through My Profile section, users can check their personal information, last expenses, and spending pattern. They can also see all the unnecessary subscriptions.



02 EnergyPlaces

Web-based service for solar panel installation

Individual Project, 4 Weeks
Jun 15th 2021 - Jul 16th 2021



Abstract

Energyplaces is a web-based service in which the municipality leases available municipal buildings and areas to energy communities to allow the installation of photovoltaic solar panels. It aims to help energy communities collaborate with the municipality and utilize the buildings in the neighborhood to develop solar panels.

Project Leader: **Silvio Cioni**
Project Mentor: **Michele Aquila**
In conjunction with: **Comune di Milano**

DOMUS ACADEMY MILANO

Comune di Milano

EnergyPlaces Research

DISCOVER PHASE

BRIEF :

The aim of the City of Milan is to utilize the buildings in Via Sile 8, together with the other buildings, as a hub to activate an energy community in the Corvetto neighborhood, able to involve local citizens, businesses and associations.

What is Renewable energy?

Renewable energy is energy that is collected from renewable resources that are naturally replenished on a human timescale. It includes sources such as sunlight, wind, rain, tides, waves, and geothermal heat

What is RECs?

Renewable Energy Communities (RECs) are non-profit organizations, with open participation and with social and environmental purposes, which allow citizens to collaborate with small businesses and the public administration to share renewable energy resources.

What are the Benefits of RECs?

Consumer

Energy communities can work with eligible electricity suppliers to provide their users with **cheap and competitive electricity prices**. In some cases, electricity can be given to those in need free of charge to **fight poverty.**

Local Economy

The fact that the bank used in the projects realized within the community is local, the **local citizens** are investors and the contracts are made with **local contractors** result in high added value. Instead of buying energy produced using fossil fuels from non-local companies, **profits** from using clean and renewable energy **remain within the community.**

Planet

The European Union is **taking action to prevent global warming**. In order **not to be affected by climate change**, it is necessary to switch our system to a renewable energy system as soon as possible. Energy communities invite citizens to invest and become partners in renewable energy projects. Thus, citizens can **contribute to nature and the environment** by involving the projects and **reducing their carbon emissions.**

An Old Roof

One of the issues to be considered during the installation of the solar panel is **the life of the roof**. It's not a good idea to have an installation on an old roof. If we take into consideration that an average solar panel last for **20 years**, the roof life should have at least the same life.

Unsuitable Roof

To get the maximum benefit from solar panels, it must be ensured that the roof provides **the right conditions**. Mostly the panels should face South or West to get the most sun. If planning has not been done years in advance, it is absolutely necessary **to test** whether **the roof is compatible** with solar panels.

Water Flow

After the solar panels are installed, it should be ensured that **the roof carries the rain water** away from the building. If the installation of solar panels is not taken care of, **shelves and cables may cut off the water flow and block the drains**. Repairing a roof with solar panels due to such problems can be much more troublesome.

Maintenance

Roofs should be regularly inspected and maintained, with or without solar panels. But a roof with panels will need it even more. In addition, many problems may arise in terms of covering the roof in solar panel installations. It should not be forgotten that **dusty or waterlogged panels will cause more loss than profit.**

Roof Matters
Milan, Italy

Roofmatters provide **consultancy** and **coordination** on **roof applications** in order to increase the efficiency of the roofs that we forget while dealing with daily issues and to ensure the installation of green roofs.

By placing greens on the roofs, they create **roof gardens** and **protect buildings** from extreme heat or extreme cold. In addition, these areas help to create a cleaner environment by reducing CO2 emissions.

Renting Solar
Lorient, France

Lorient, a French city in Brittany, has partnered with Oncime, and they created a **solar panel rental system** with great success. They installed solar panels in schools, administrative buildings, and office buildings, and supplied the required energy directly from these buildings.

Oncime has a contract with the City of Lorient. According to the contract, the municipality has to pay **monthly rent** in order to **use the solar panels** as they wish. As a result, buying electricity from a supplier in France is much more **expensive** than renting a solar panel.

Citizens Power Plants
Vienna, Austria

If the majority of the population in your city lives in apartments, you need to reconsider the idea of **installing an individual renewable energy system.**

Wien Energie installs solar panels in **suitable buildings** in order to be able to rent to its citizens. **Citizens can own a panel** with a price of 950€ per panel, with a maximum of 10. Citizens then **lease** the panels back to Wien Energie and **earn an annual profit.**

EnergyPlaces Research

DEFINE PHASE

Target Group

First Plant

Although the energy communities in this group are using renewable energy through other sources, they are not yet using renewable energy produced from solar panels and want to have their first garden.

More Production

The energy communities in this group are already generating or purchase renewable energy from solar panels and sharing it with their members. However, they want to install more solar panels to increase their production capacity, but they do not have enough space.

Social Purpose

The energy communities in this group will serve a social purpose, for example, they may want to provide free energy to the local school building in their neighborhood, and in such a case the municipality is flexible in offering them the option of free rental.

Moodboard

CHALLANGES:

> How might we help the municipality to find budget for solar system installations?

> How might we help energy communities to develop solar systems without worrying about roofs?

EnergyPlaces Ideate

PROBLEMS & SOLUTION

Municipality

The municipality wants to take action to reduce carbon emissions in the city and prevent air pollution. In order to achieve this goal, the **municipality can use its own assets** such as local school buildings, hospitals, train stations etc. in the neighborhood. Currently, the municipality produce renewable energy by using Photovoltaic solar panels in its own city hall. Although many **buildings exist as opportunities** for the **installation of solar panels**, the municipality has **limited financial capacity** for this.

Communities

There are many residential and commercial buildings located in the Corvetto neighborhood that are **willing to invest in rooftop Photovoltaics**. However, these people are worried about whether their roof is suitable for solar panel construction, they **do not have enough space** on their roofs, their roofs are **exposed to the shade** too much, they live in an apartment thus they **do not own the building**, or **they are worried** that their roof may be **damaged.**

ENERGYPlaces

A web based service for energy communities and the municipality to install solar panels on the available municipal buildings.

ENERGYPlaces

Energyplaces offers **a web-based rental system** to meet the needs of both the municipality and the communities. By using this service, communities can **access any related information** they may need to build solar panels in suitable public buildings in their neighborhoods, and can contact with the municipality.

The municipality is **speeding up legal processes** for communities and they are **working collaboratively** to build solar panels on suitable public rootops and together build a more sustainable future.

With this service, communities do not have to worry about their own roofs and services such as **maintenance and repair**. Even if communities do not own buildings, they can profit from solar gains and thus have the flexibility to move another flat.

EnergyPlaces Concept

FINAL CONCEPT

EnergyPlaces

Web-based service for solar panel installation

Energyplaces is a web-based service in which the municipality **leases available municipal buildings** and areas to energy communities to allow the **installation of photovoltaic solar panels**. It aims to help energy communities to collaborate with the municipality and choose the best option in order to develop solar panels.

With the service, the municipality gives energy communities the possibility to **utilize available public buildings** in the neighborhood.

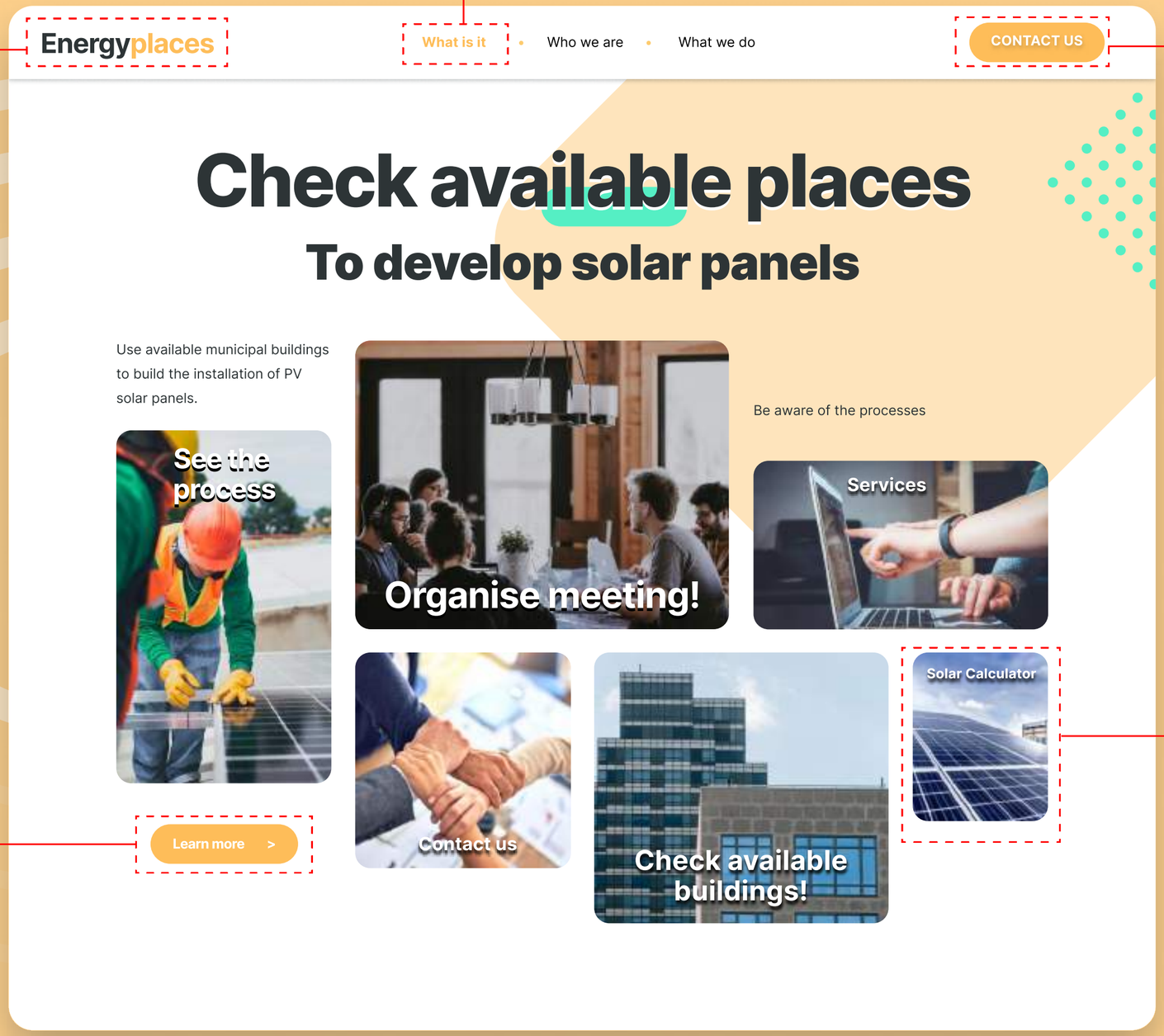
EnergyPlaces Concept

WEB FEATURES

User can learn about the service by clicking ‘What is it’ section on the top of the page.

Logo is posited on the top left corner of the screen.

User can contact with the municipality directly by clicking ‘contact us’ button.

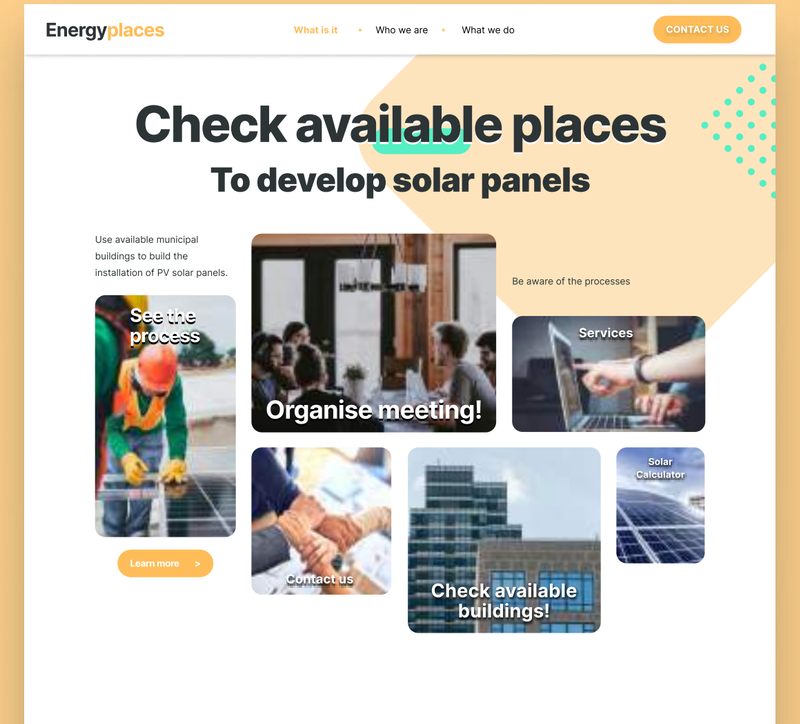


By clicking the ‘Learn more’ button, users is directed to the next page.

Each image take the user to the other pages related to the text on the images.

EnergyPlaces Concept

WEB PAGES



What is Energyplaces?

Energyplaces is a web-based service in which the municipality leases available municipal buildings and areas to energy communities to allow the installation of photovoltaic solar panels. It aims to help energy communities to collaborate with the municipality and choose the best option in order to develop solar panels.

What are the services?

Energyplaces provides these services in order to speed up legal processes and be sure that the building is ready for the installations.

Facilitation

After you select the building for installations, we will help you to facilitate legal processes.

Learn more

Preparation

We prepare the buildings in order to be sure that they're ready for installations.

Learn more

Maintenance

After the preparation processes we provide you Maintenance and Consultancy

Learn more

Solar Calculator

How many kilowatt hours (kWh) do you use per month?

Enter your usage

What percentage of this power do you want to offset with solar?

Enter the percentage of power

Calculate

Calculate Size

Minimum PV Size (in watts)

Result of minimum PV size

Recommended PV System Size (in watts)

Result of recommended PV size

What are the services?

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Learn more

Municipal Buildings

Choose the best option!

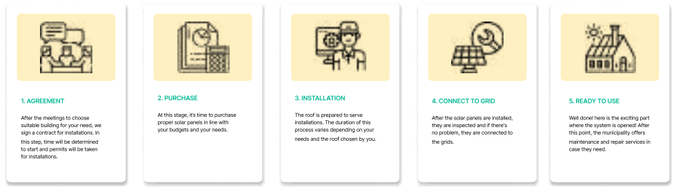
Building

Via Oglio, 20

- Adress: Via Oglio, 20 20139 Milano MI
- Building size: 715 m2 + 595 m2
- Amount of PVs: 919
- Production: 43.2 kWh per month (each panel)
- Renting options: Social purposes, In return energy

Rent

Project Steps



Renting Options

weekly monthly • yearly

Social purposes

Free / FOREVER

- Preparing
- Intallation
- Maintenance

Tell us about it

Produce more energy

Rent / MONTH

- Preparing
- Installation
- Maintenance
- Rent with money
- Rent in return for energy

Check buildings

First plant

Rent / MONTH

- Preparing
- Installation
- Maintenance
- Rent with money

Start the first plant

Municipal Buildings

Choose the best option!

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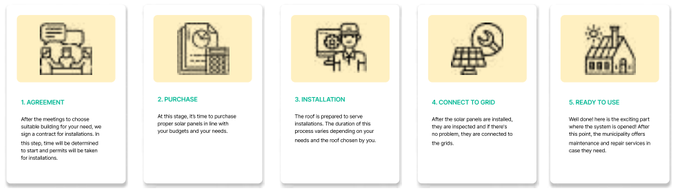

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Check buildings

First plant

Rent / MONTH

- Preparing
- Installation
- Maintenance
- Rent with money

Start the first plant

FOLLOW US

FOLLOW US

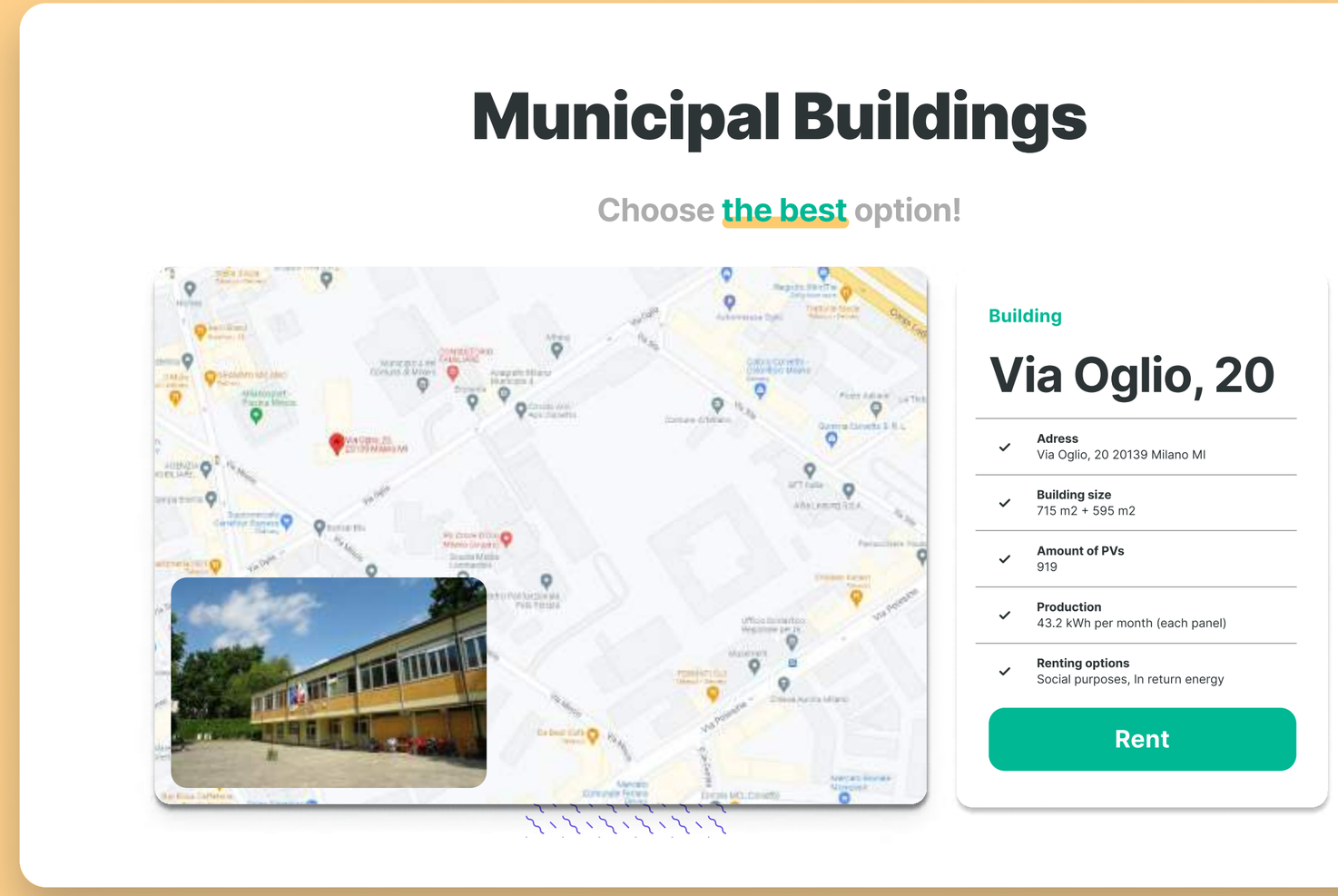
hello@energyplaces.com

INFORMATION

Solar panel information
Photos from via Sille
Get in Touch
Processes
Privacy Policy
Terms of Service
Services
Resources

KEEP IN TOUCH

Your name
E-mail
Leave your message
SEND



Municipal Buildings

This is the page where users can **check** and **decide** which buildings could be **the best option** for them. Once they select the building, images of the building will pop up taken from different perspectives. Also they can get **useful informations** about the building such as **production, size** and **capacity** for solar panel installations.

EnergyPlaces Concept

SERVICES

What are the services? 🚚💨

Energyplaces provides these services in order to speed up legal processes and be sure that the building is ready for the installations.

Facilitation

After you select the building for installations, we will help you to facilitate legal processes.

Learn more

Preparation

We prepare the buildings in order to be sure that they’re ready for installations.

Learn more

Maintenance

After the preparation processes we provide you Maintenance and Consultancy

Learn more

Facilitation

After Energy communities select the building for the solar panel installations, the municipality will help them facilitate all the legal processes.

Preparation

The preparation includes services such as making adjustments beforehand, checking and examining the roof, dealing with trees that will cause shadows on the solar panels, measuring the area and checking if the roof can bear the weight of the solar panels.

Maintenance

The maintenance services include removing any kind of dust, snow or leaves that may prevent the panels from absorbing sunlight. The repair services include fixing broken glass, corrosion or cracked that may cause the panels to be repaired.

EnergyPlaces Concept

STEPS

1. Checking Buildings

Energy communities check available public buildings in their neighborhood, through Energyplaces. This is the step where RECs can easily access to useful information such as how many solar panels they should buy, how much energy they can produce, and so on.

2. Organising Meetings

RECs choose one of the rental options suitable for them and sign a contract with the municipality for installations. In this step, they determine time to start installation of solar panels and the municipality speeds up the process about permits.

3. Purchase

At this stage, energy communities purchase proper solar panels in line with their budgets and their needs.

4. Installation

When the predetermined time comes, the installation of the panels starts. The roof is prepared to serve the installation. The duration of this process varies depending on the needs of the communities and the quality of the roof chosen.

5. Connect to Grid

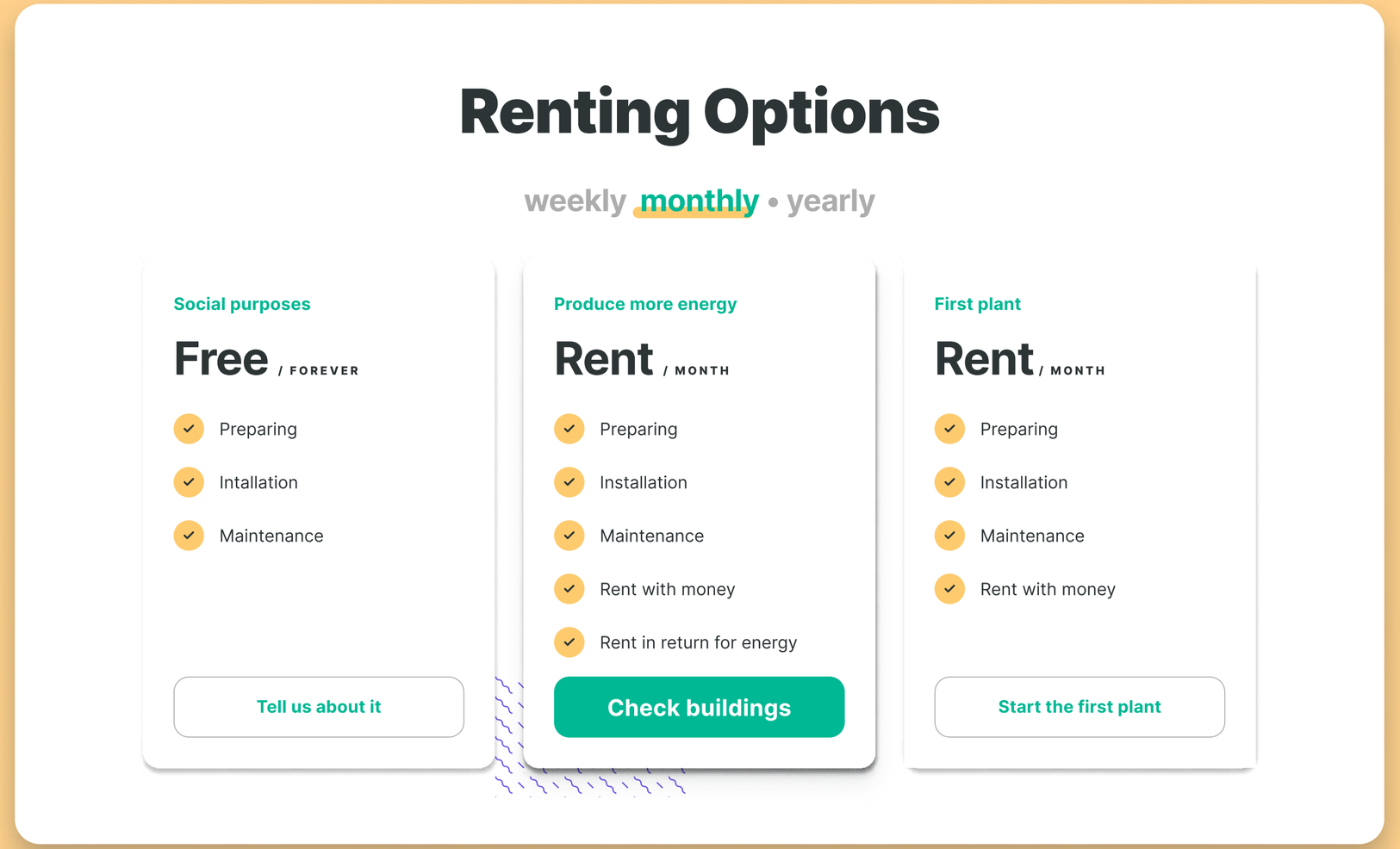
After the solar panels are installed, they are inspected and if there's no problem, they are connected to the grids.

6. Ready to Use

The system is opened and the use of Solar panels is started! Now communities can take justified pride of contributing to nature and the environment by using renewable energy.

EnergyPlaces Concept

WEB FEATURES



Social purposes

Energy communities can rent the available buildings free of charge if there is a social purposes such as, giving free electricity to local school in the neighborhood.

Renting for money

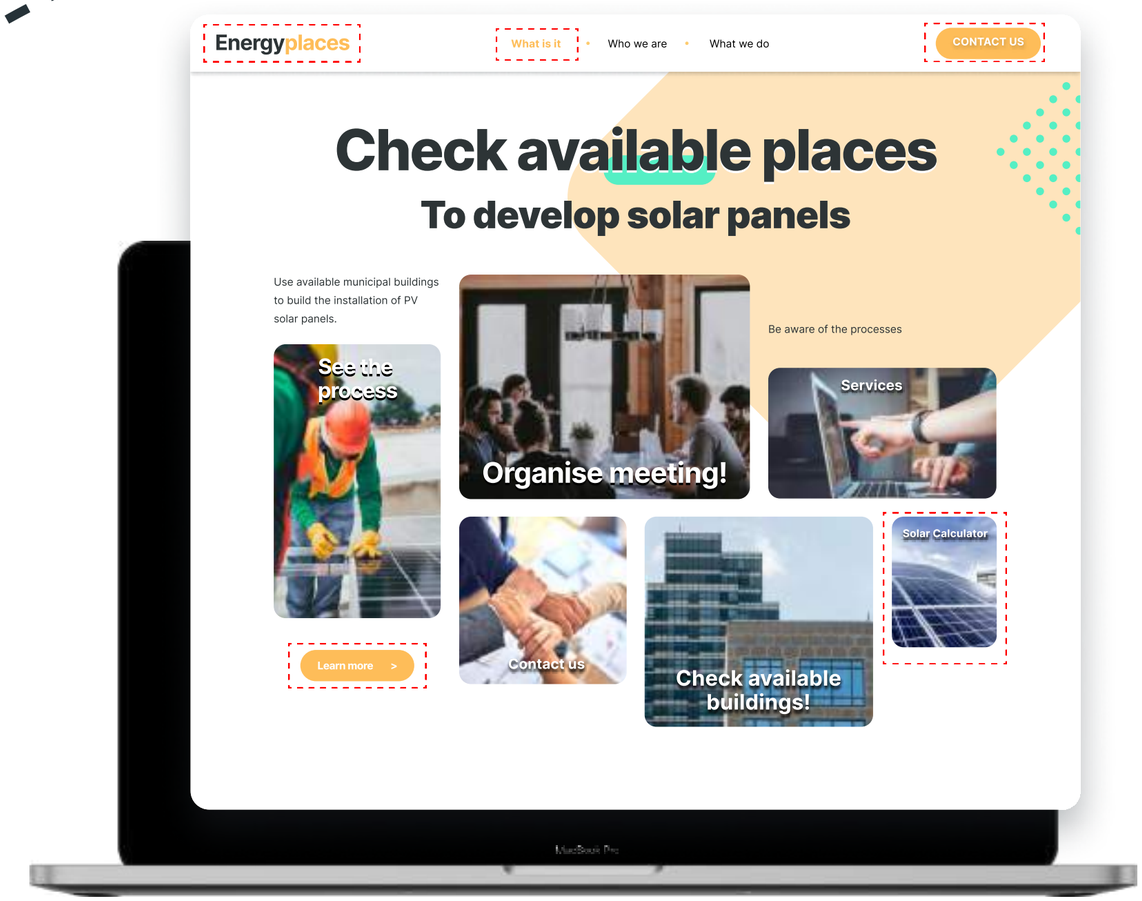
Energy communities can rent the available buildings with money if there is a special need for their community.

In return for energy

Energy communities can rent the available buildings in return for energy. In this case, Instead of paying with money, they can exchange the energy produced from installations

ENERGYPlaces

A web-based service for energy communities and the municipality to install solar panels on the available municipal buildings.



Comune di Milano

Energy Communities

03 GeneratAR

Collaborative Composing Experience

Individual Project, 8 Weeks
Nov 16th 2020 - Feb 5th 2021

Abstract

GeneratAR is a collaborative composing experience that allows users to generate compositions by adding small loops and playing with the colors of the sounds through Augmented Reality.

Project Leaders: **Michele Aquila**
Project Advisor: **Andrea Pedrina**
Collaboration with: **Khronos Group**

DOMUS ACADEMY MILANO

KHRONOS GROUP

GeneratAR Research

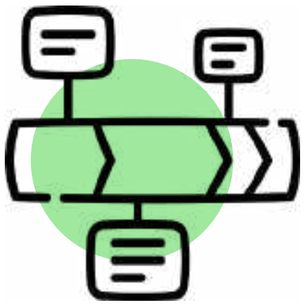
DISCOVER PHASE

BRIEF:

To envision new trends and directions for AR-based exhibition design and visitor experiences of the future.

1. Understanding

First, I started to research about augmented reality and its **best examples** in the world. Then I continued my process of undertanding by researching **the potential of AR** and how it can be useful for exhibitions.



2. AR & Music

AR encourages **more engagement**, **grabs visitors attention** and helps the audience **interact more with the content** of the exhibition.

While analyzing the examples in Ar practices and exhibition designs, I started to think about **the possibility of making music** through AR experience.

Could we **generate music/sound** in a **collaborative way** by using the possibilities of AR technology?
Do we necessarily need to know about music to create compositions?

3. Envisioning the future

In order to envision the future of AR based exhibitions, I followed these three stages by answering the questions and **collected 10 examples for each**:

1- Listen to the present: What are the best practices in the contemporary field of exhibition design?
2- Patterns from the past: What are the failures, success stories, and repeated patterns?
3- Trends for the future: What are the drivers that will guide the future of exhibition design in 3-5 years?

Lidar Scanner

Lidar stands for light detection and ranging, and has been around for a while. Thanks to Lidar technology, we can **measure the dimensions of the area** around us and **make arrangements within that area.**

Augmented Reality

Homo Est Animale Sociale

New and upcoming Technologies, in many ways, change the way we stage events. But, at the core, they will remain the same: **an opportunity for people to convene and engage**. And it's our nature as humans to **be together, not alone.**

Creativity

Extended reality

Current and future exhibition visitors **crave for a digital playground** in which to have **interactive, tangible experiences** that are part of a bigger story.

Collaboration

From Architecture to Mediatecture

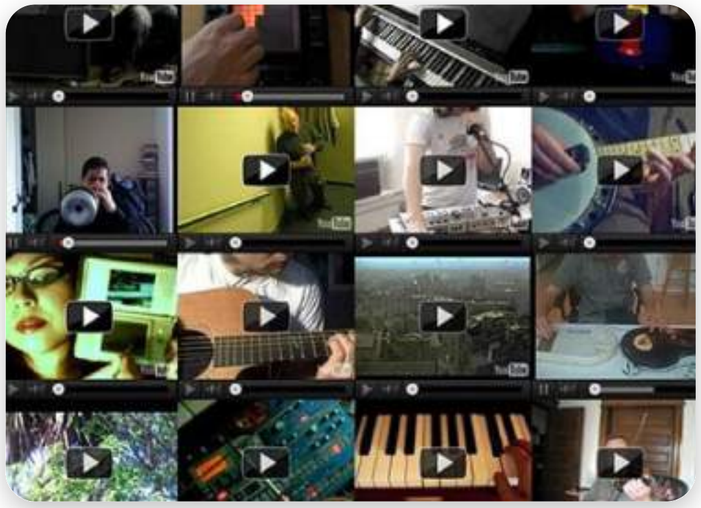
With the rise of technology **the focus** started to shift towards **what was happenning with in the space,** rather than on the space itself.

Curiosity

3D Projection Mapping

3D projection mapping is the art and science of **using physical spaces and objects as the surface for a projection**, instead of a conventional screen. The end result is a visually striking, almost "magical" effect that has to be seen to be fully experienced.

The average projection mapping service costs about **$10,000 per one-minute of 3D video content**. But in addition to the cost of the video development time, you'll also need to take into consideration the cost of the **projectors, media server, and hard drive.**



In Bb 2.0

In Bb 2.0 is a **collaborative music** and **spoken word project** conceived by Darren Solomon and developed with contributions from users.

On the website, there are **several videos** that can be **played simultaneously**. Users are asked to play the videos in the order they want in order to **create compositions.**

Dd not touch

Do Not Touch is an **interactive, crowdsourced music video** for the track Kilo by the band Light Light.

Viewers are asked to do some basic tasks and answer basic questions. **While they navigating, their arrows recorded.**

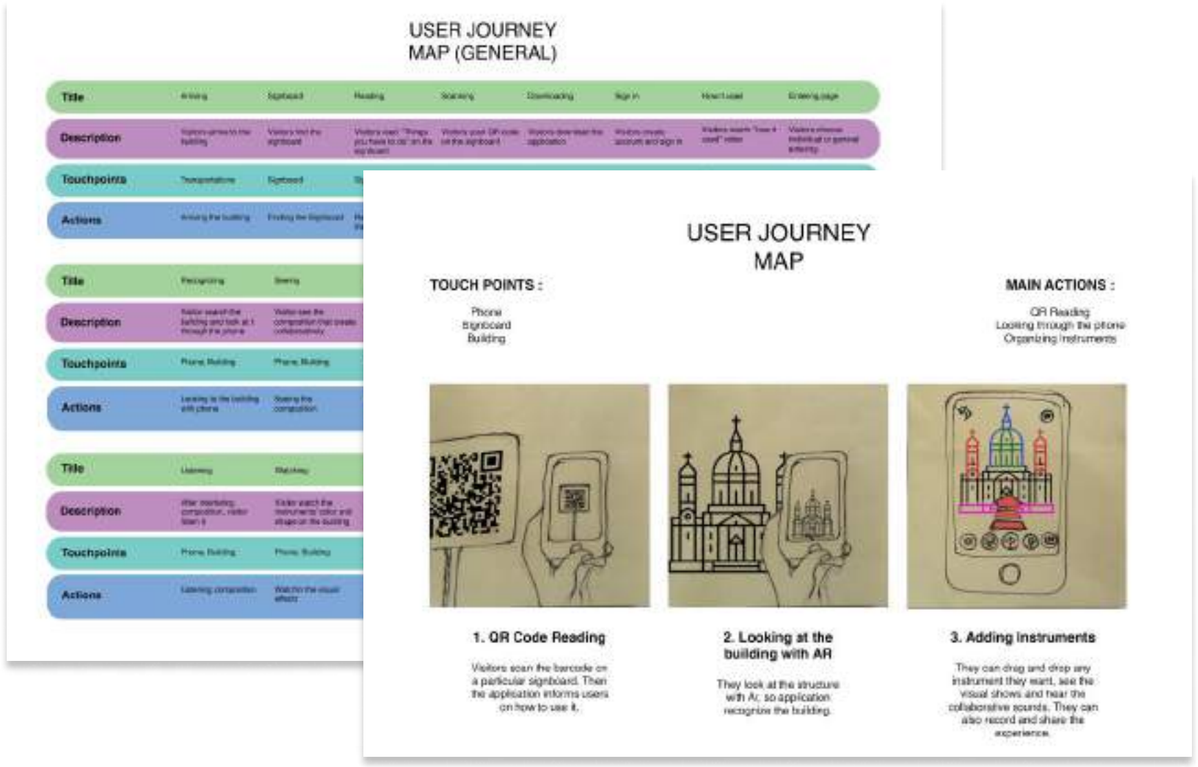
Reactable

The Reactable is a round translucent table, used in a darkened room, and appears as a backlit display. **By placing blocks** called tangibles on the table, and **interfacing with the visual display** via the tangibles or fingertips, a virtual modular synthesizer is operated, **creating music or sound effects.**

It allows several players **to use the installation simultaneously** and promotes **collaborative compositions.**

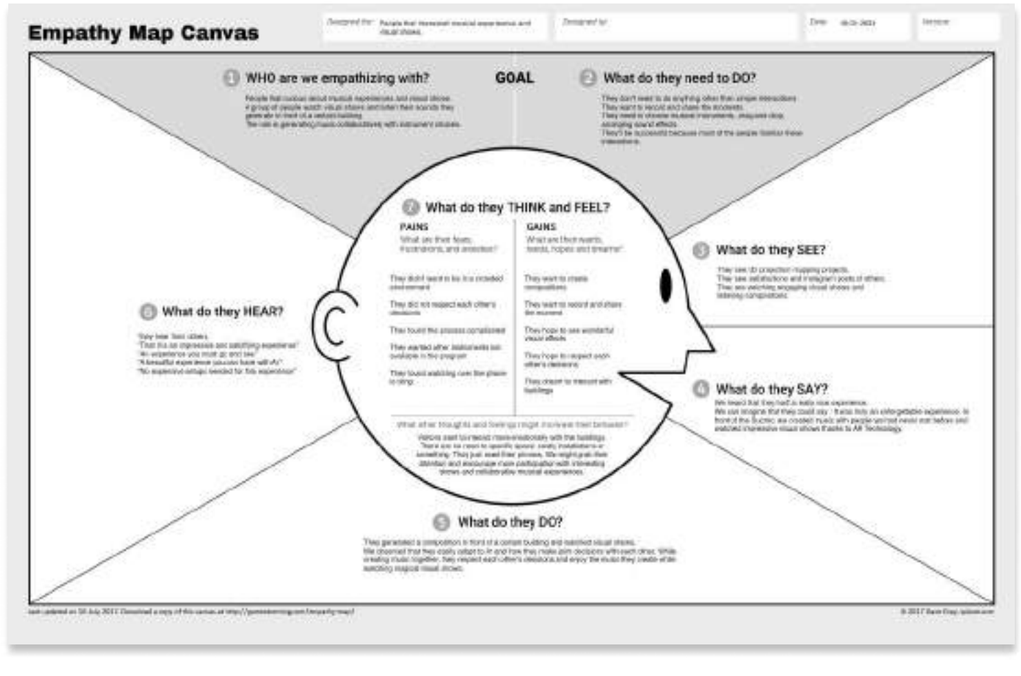
GeneratAR Research

DEFINE PHASE



User Journey Map

Finally, I created a user journey map to get a clear picture of the steps that the user would need to follow to achieve their goal, and how could we simplify their tasks.



Empathy Map

Next, I used empathy map canvas and answer the questions in order to understand the perspective of the visitors that are interested in musical experiences and visual shows.

CHALLANGE:

How might we design an experience that allows visitors to generate compositions in a collaborative way through AR?

GeneratAR Ideate

LOW FIDELITY WIREFRAMES

Usage Steps:

1- Onboarding
2- Accounting
3- Starting
4- Understanding
5- Generating
6- Recording
7- Sharing

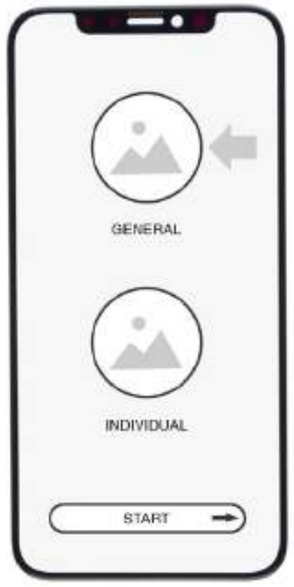
1

Onboarding

2

Accounting

3



Starting

4

Understanding

5

Creating

6

Recording

7

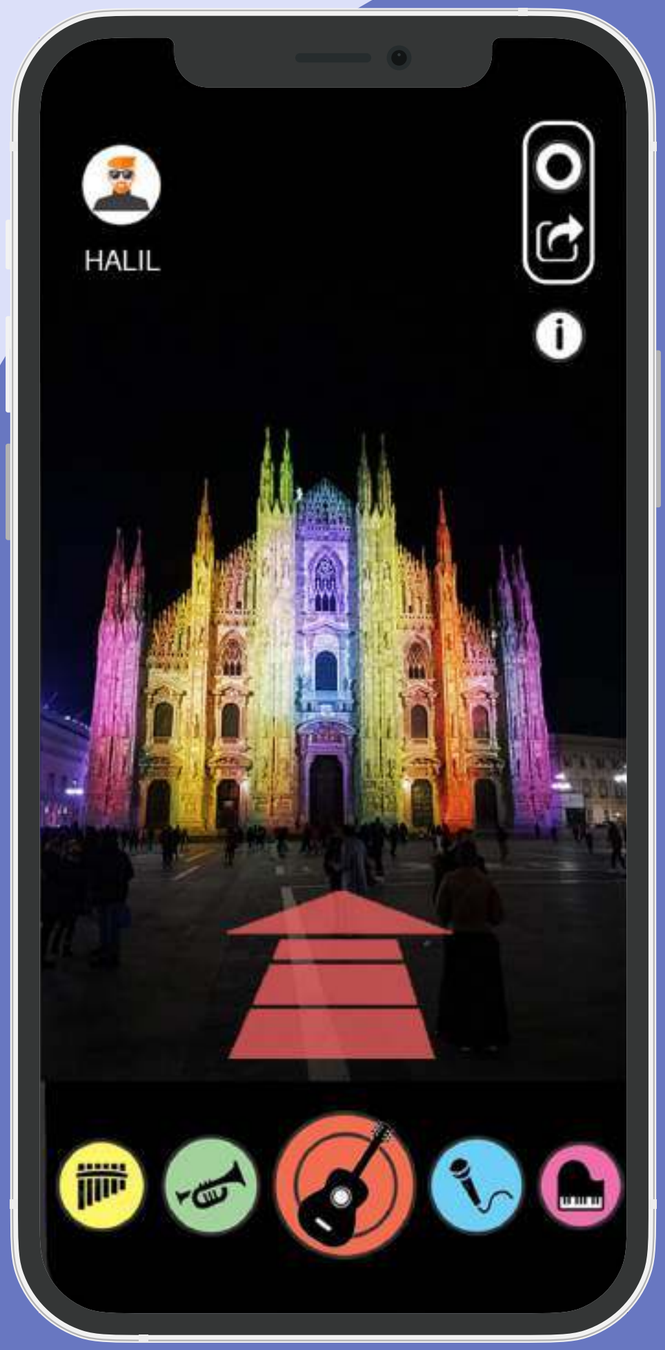
Sharing

GeneratAR

Collaborative Composing Experience

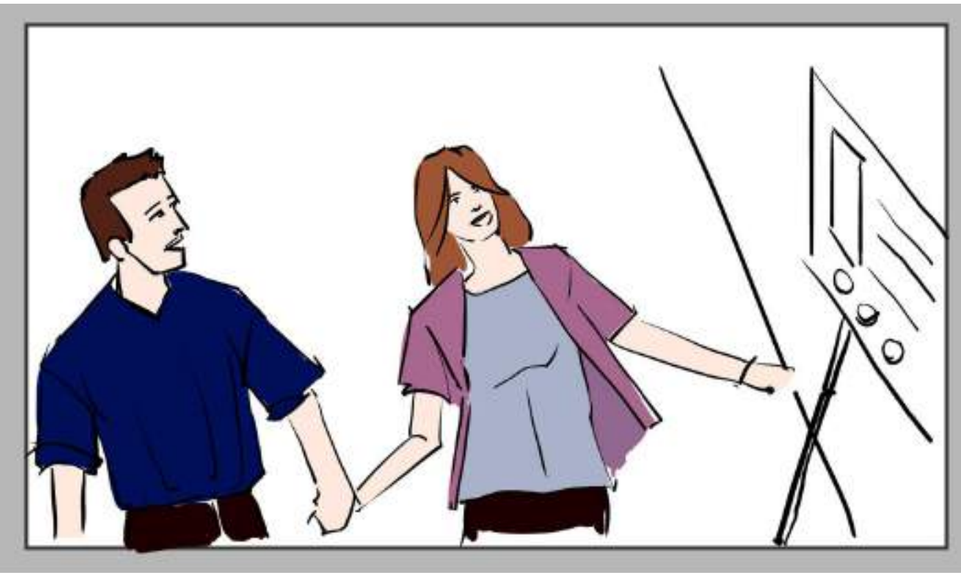
GeneratAR is a collaborative composing experience that allows users to **generate compositions** and **play with the colors of the sounds** through Augmented Reality.

Audiences are asked to generate compositions with the **small loops** that already exist inside the app and play with the colors of the sounds. It allows multiple people to **play randomly** and promotes collaborative compositions. **No musical knowledge is required. No need for costly 3D mapping setups!**



GeneratAR Concept

STORYBOARD



1. Arriving

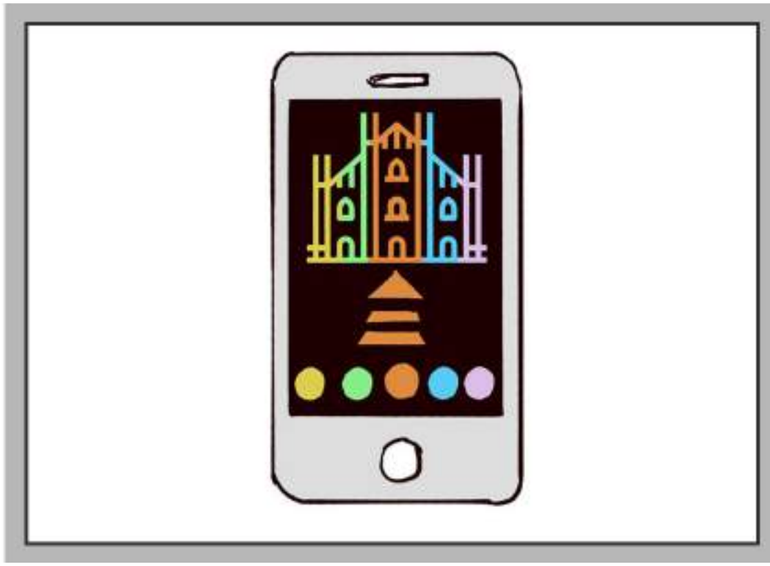
First, visitors come to the place where there will be a 3D mapping event. They find the signboard and scan the qr code to join the event.

2. Understanding

If it's their first time to use the app, they get information about how to use the app. Before get started they wear their headphones and scan the building with their phone.

3. Recognizing

Once they joined to the event, they hear the composition and meet with the instrument icons at the bottom of their screen.



4. Arranging

All the instruments have a specific color and small sound loop. Visitors can add or remove intruments from the existing composition and position their colors as they wish on the building surface.

5. Sharing

If visitors like the composition, they can record and share their collaborative artwork in their social media adresses.

6. Engaging

Finally, visitors are in front of the historical buildings and having a gain the experience. Instead of expensive and costly 3D mapping setups, they can generate compositions in a collaborative way through AR.

GeneratAR Concept

APP FEATURES

Selecting Options

Adding Instruments

Arranging Colors

Recording Composition

Sharing Composition

CHOOSE

GeneratAR provides two types of enter: single and multiple. User can create their own composition individually by selecting single section. In multiple section, they can only intervene to the existing collaboration.

ADD

Users can find all the instruments that they want to add to the composition by swiping at the bottom of the screen. Each of them has their own color and small sound loop. No musical knowledge is required. Users are asked to add or remove sounds from composition randomly and it always matches with some of the others.

Adding can be done by drag and drop the intrument to the surface of the building, and users can hear the loops before adding. If some instruments are added to the composition more by the audience their sound will be heard more dominant.

After dragging and dropping the instrument on a building surface, users now can play with the color of the instrument. They can interact with the color, arrange its position and size.

RECORD & SHARE

In case users like the end result of the composition, they can record and share their collaborative artwork in their social media adresses.

GeneratAR Concept

STORYBOARD

Navigating

In this scenario, there are 6 instruments playing in the composition which are shown with their symbols below. Visitors are navigating with the colors of the instruments randomly and having fun on the surface of the building.

Realizing

After some point, some instruments are removed by the visitors and they unconsciously collect the same colors in the same areas. In this scenario, visitors begin to realize that they can create an Italian flag on the building.

Composing

Finally, all intruments except the ones that have red and green colors, are removed. In this way, they create an italian flag and formed a composition collaboratively without even speaking with each other.

GeneratAR Concept

RECOLLECT

1. Challanges

The starting point of GeneratAR was **generating music through AR**. But, it wasn't really **fit in AR** since it is meant for **seeing** something, and sounds don't even have their appereance to see. So, for me, the most challanging part of this project was trying to find the best solution and interaction to **visualize sounds**.

Another big challenge was generating compositions **collaboratively**. Since I wanted this project to be for everybody, It should be **as easy as possible** in a way that **no need for musical knowledge** to generate compositions.

2. What I learnt

Since GeneratAR was my first project in the field of interaction design, I spent most of my time learning about UX, UI and interaction design and the **limitations**. During the research phase, I had a chance to have knowledge about **AR, VR techonolgies** and **exhibition design** field.

3. What can be improved

Even though I had limited time, I tried my best to design the user interface elements but I already see a lot of things that I want to change or improve such as **colors, typefaces** and **icons**.

4. What's next

With the advancement of technology, perhaps in the future we can consider the possibility of **using Augmented Reality to experience stunning 3D projection mapping projects** instead of costly 3D mapping setups.

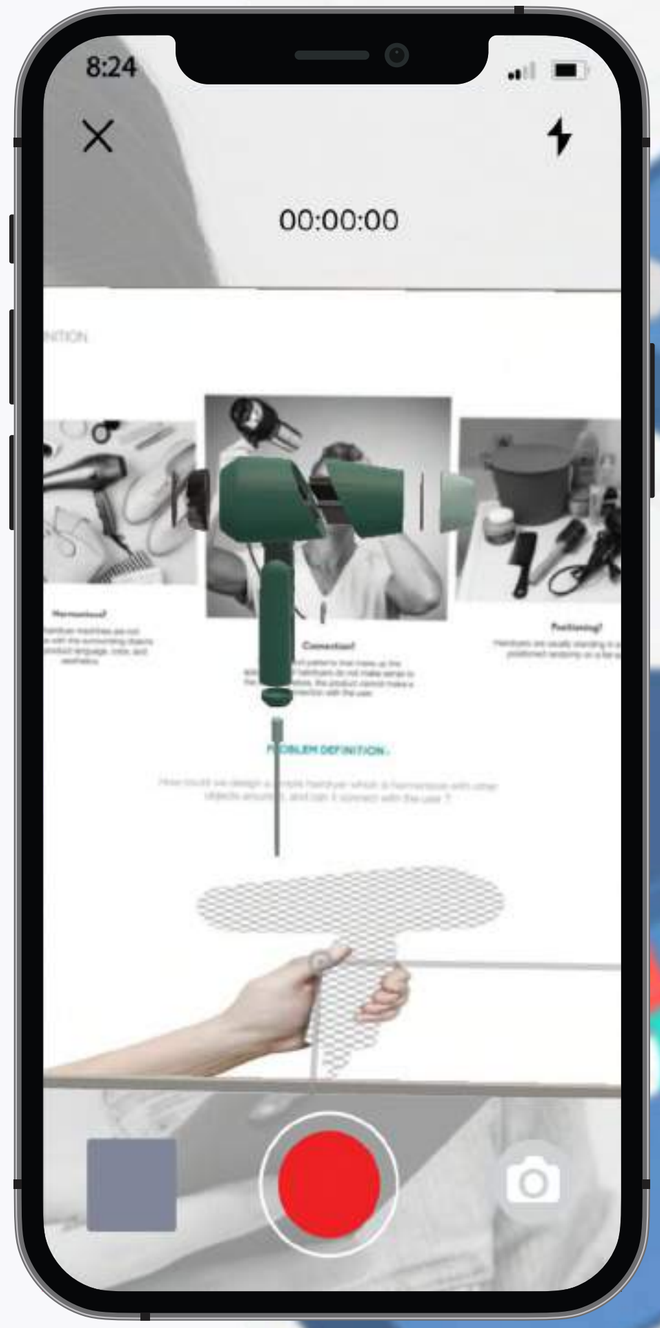
GeneratAR Concept

RECOLLECT

04 The Mystery Box

A Welcome/promotional Kit

Group Project, 4 Weeks
Mar 2nd 2021 - Apr 2nd 2021



Abstract

A welcome/promotional kit given by Domus Academy to prospective students as a way to experience what the academy has to offer. It is a mystery box with different layers - a pop up layer giving you more information about overall courses and a second layer showing individual projects all in augmented reality.

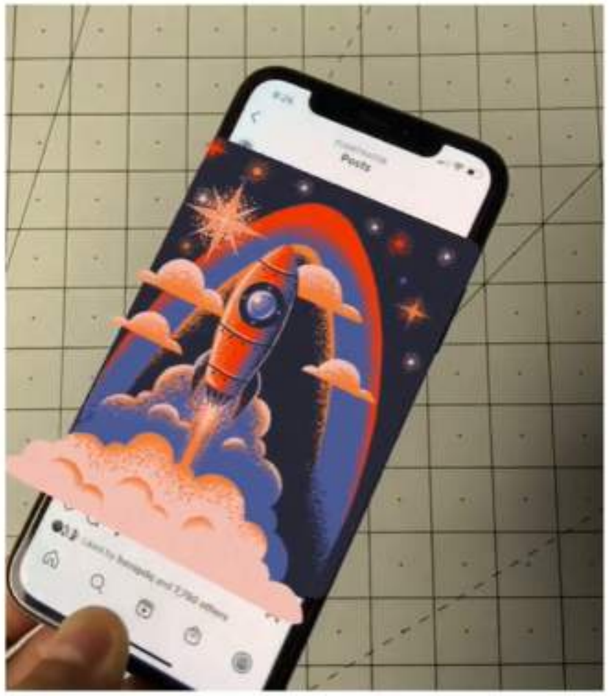
Project Leader: **Nima Gazestani**
Project Expert: **Giacomo Ferrari**
Project Mentor: **Michele Aquila**
In conjunction with: **Khronos Group**
Group Members: **Dipayankanti Pradhan, Shruti Ranade**

DOMUS ACADEMY MILANO

KHRONOS GROUP

MysteryBox **Research**

INSPIRATIONS



Michael Fugoso :

Michael is an illustration designer, but he makes his illustrations 3-dimensional by using AR and shares his experiences with his followers.

Simone Rocha x H&M :

HM used augmented reality to make the storybook comes to life.The gorgeous pop-up book features 5 intricate paintings by a painter that serve as backdrops to a cast of characters adorned in the collection.

The Number 8 :

The number 8 for #36daysoftype is a fusion of physical and digital - using the Glowforge to laser cut the lower part of the 8, Cinema 4D for the fracture effect, and Aero to bring them together.

BRIEF :

To design an AR based Interactive solution for companies/shools/institutions to show projects at the Milan Desgin Week.

Context/ Data

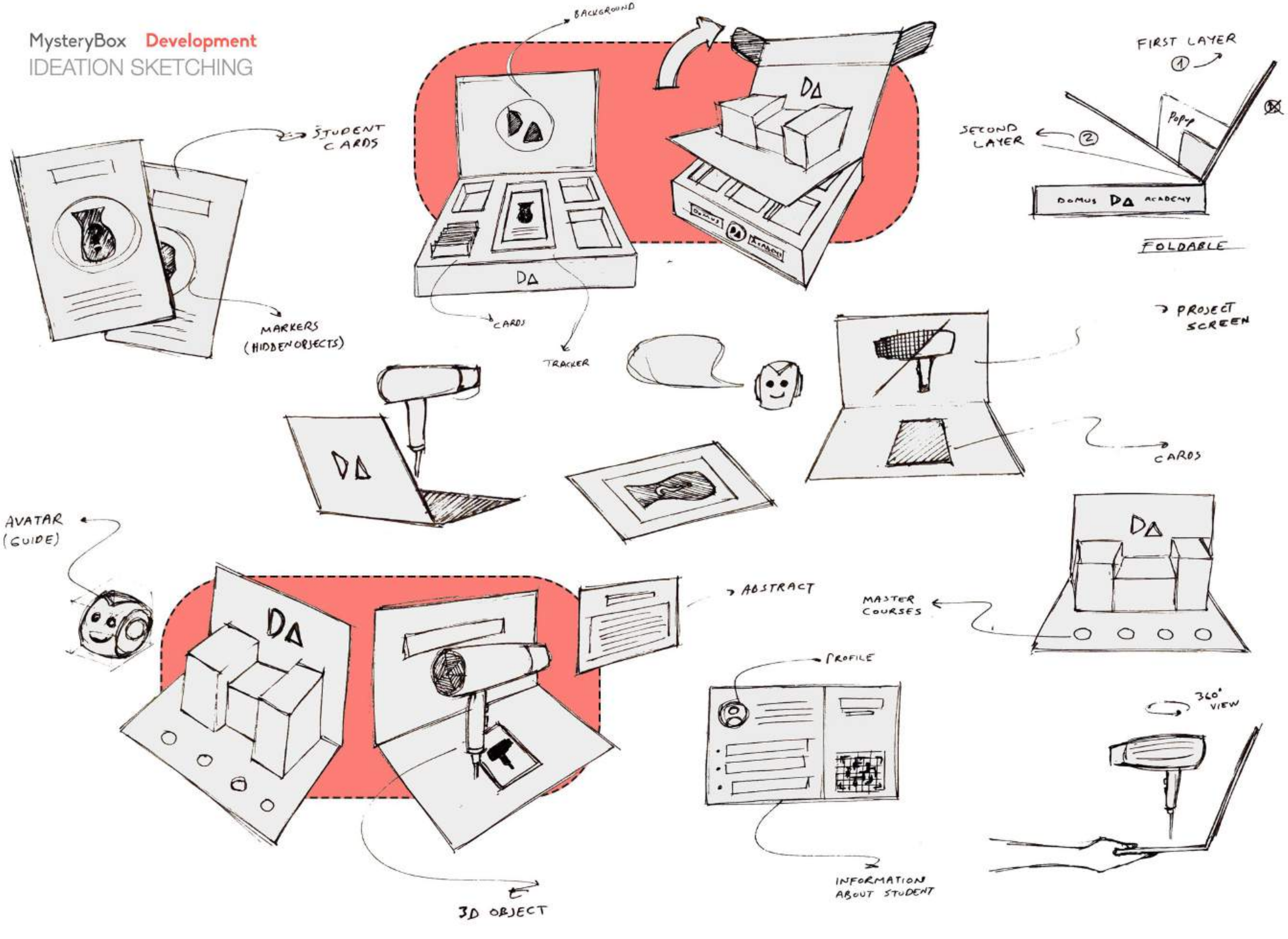
During our initial research, we took inspiration from H&M's recent campaign with Simone Rocha which showed a pop up card, when scanned made the painting come to life in augmented reality.

Also adding to that concept we like the idea of hiding and revealing objects inspired from the Netflix Show Narcos media campaign. They removed all the adult content and replaced it with alpha channels. This interested the people more and fed into their curiosity. Thus our Mystery Box follows the theme of a pop up card with elements hidden which are revealed only when viewed through AR.

Based on the concept on Hiding & Revealing objects, we decided to incorporate that in the tracker images as well as poster design which would be included in the box.

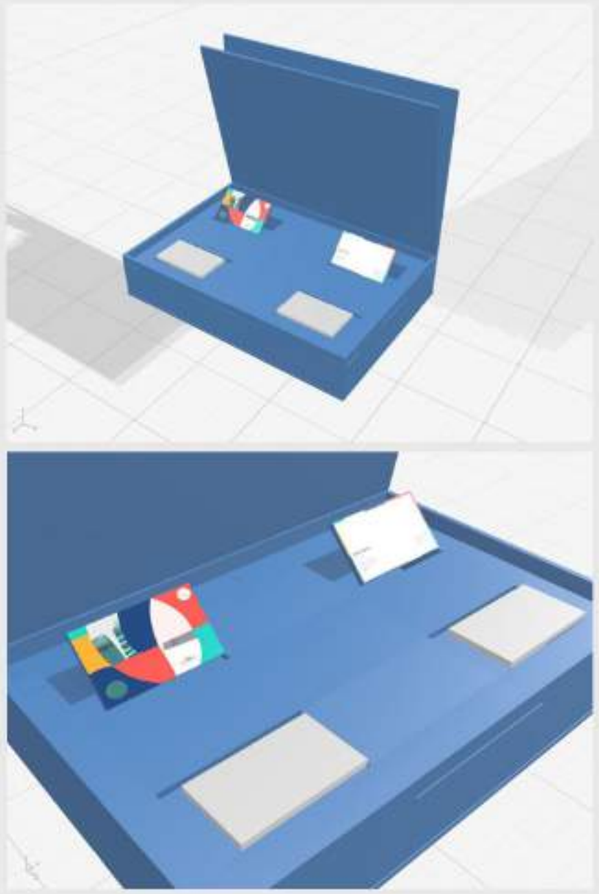
MysteryBox **Development**

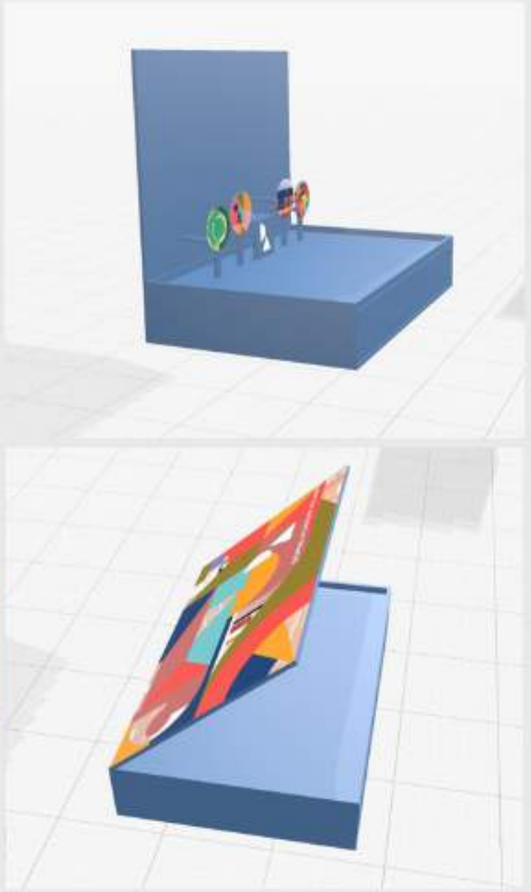
IDEATION SKETCHING

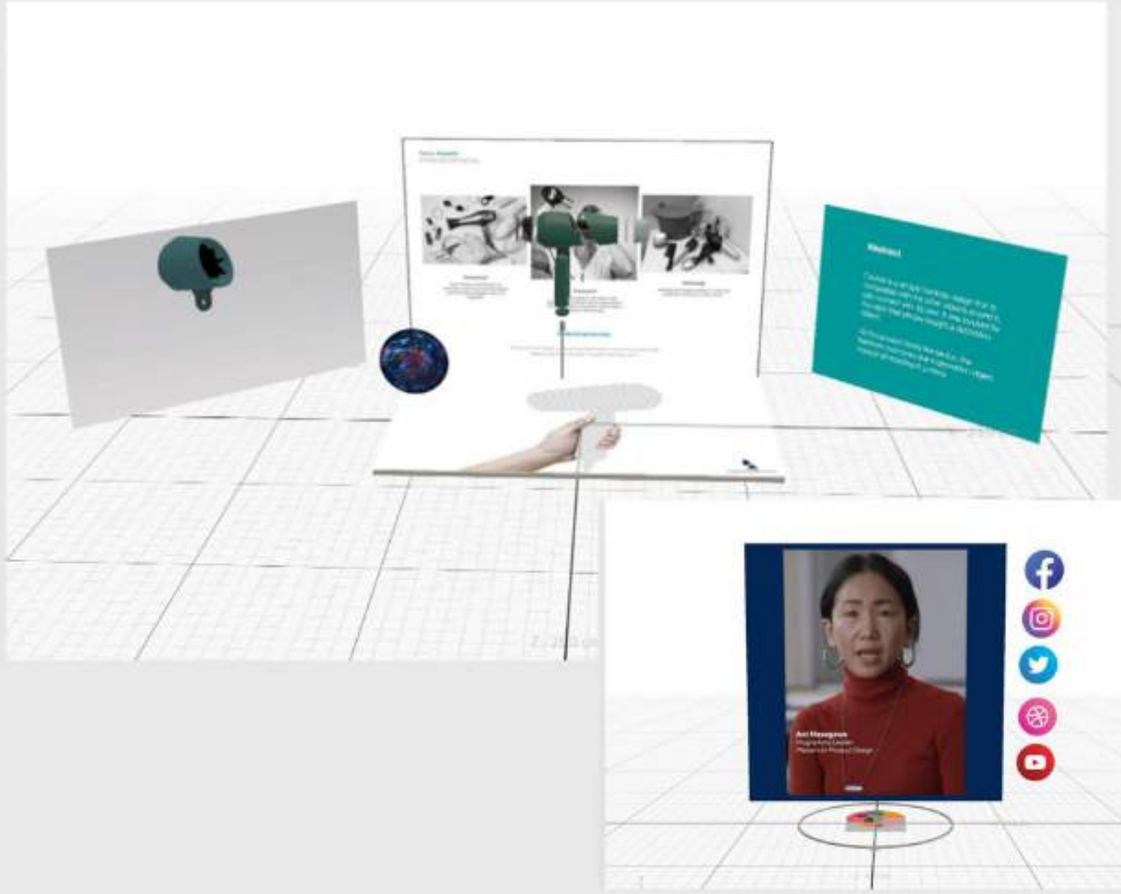


MysteryBox **Concept**

FINALIZATION







What is it?

'The Mystery Box' is a welcome or a promotional kit given by Domus Academy to students looking to join in the future or those interested in knowing more, as a way to experience what the academy has to offer.

It is a mystery box with different layers – first, a pop up layer giving you more information about the courses offered that you can be a part of. A second layer has a tray with cards that act as trackers, submitted by the students with their details on it, showcasing their individual projects that can be viewed in augmented reality. Thirdly, a poster will be included in the box for the receivers to keep separately in case they would like to come back and revisit a particular course for more information.

How does it work?

On opening the box, the user will find an instruction card with steps on how to download the application to view the experience in AR. You then open the pop up layer which will have trackers for each master course, on scanning you see the image of the course being revealed and the video playing which talks more about what the course includes.

When you turn the card you find a tray below with multiple cards that work as trackers. The hide and reveal design is present on these as well and work in the same way. They can be placed anywhere and you can scan and view the student projects of the respective course. Posters included inside can be collected and scanned for more of the same information.

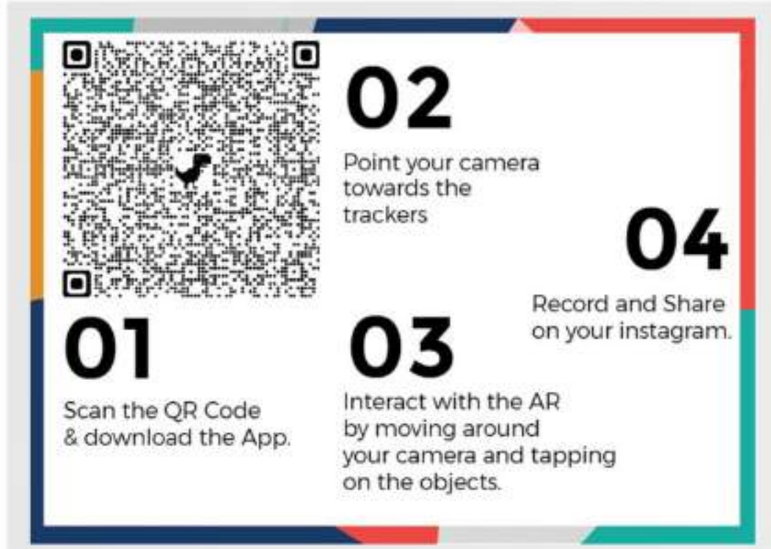
MysteryBox **Development**

TRACKER DESIGNS

Image Tracker Designs for the Master Courses - Hide & Reveal Concept

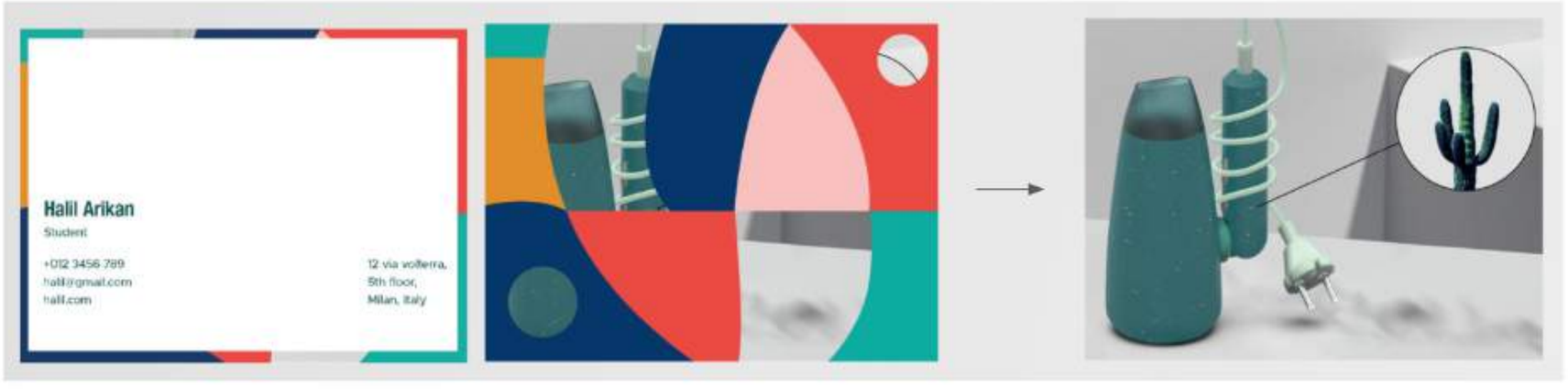
Interaction Design | Product Design | Service Design | Interior & Living Design

Instruction Card Design



An Instruction Card will be provided in the box to help guide the user with the AR experience.

Image Tracker Design for the Student Cards



Students can submit their projects on individual cards to be included in the kits.

MysteryBox **Concept**

POSTER DESIGN

Front Page

Back Page

The poster included in the box is an informational brochure with individual AR trackers included for more information about the different master courses offered.

The poster will have a design representing the theme for that year for Milan Design Week.

MysteryBox **Concept**

FUTURE POSSIBILITIES

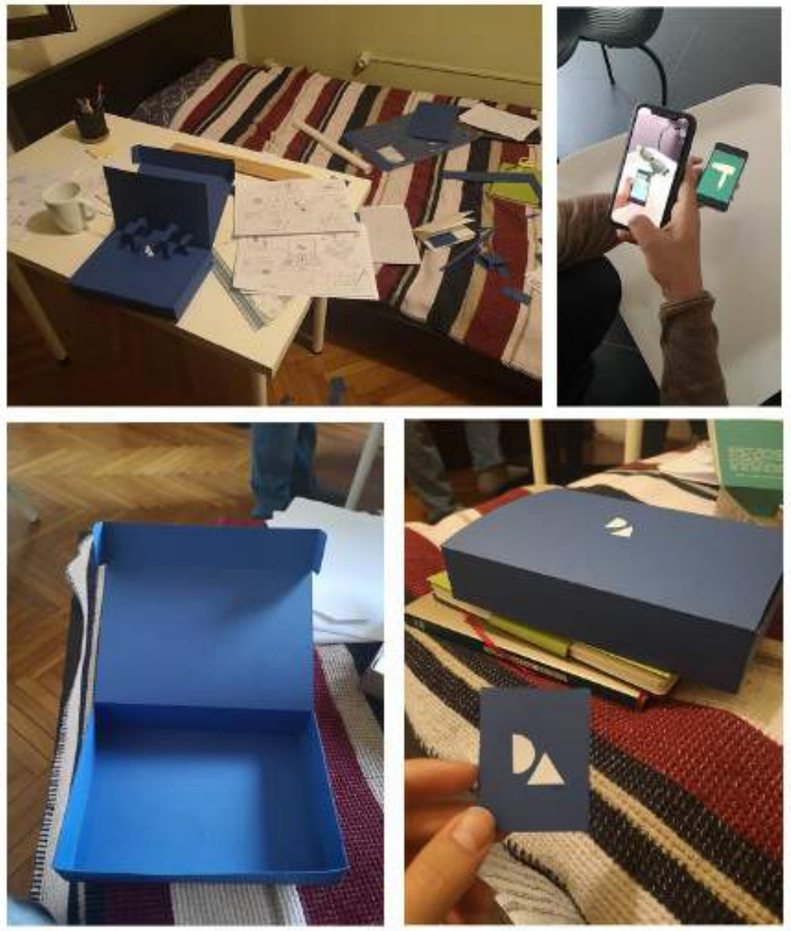
Value and Potential

The Mystery Box as a concept can be pushed further into different industries and not only be restricted to institutions and schools. Following the concept of a mini exhibition that you can view from the comfort of your home, it can for example be used by the automobile industry to showcase a new line of cars.

By introducing a printable version of the box, we can make it less expensive to produce and the user can download the pack and create their own box and trackers at home adding to the tangible experience.

With respect to the current scenario, postcards with AR invitations designed can be sent to the students families for a virtual graduation experience

Some photos from the prototyping process.



QR Codes for AR experience

Domus Academy
Promotional video

Product design
AR view

Thank you!

Do you wanna find more?
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