

Data Visualisation

2018-2019



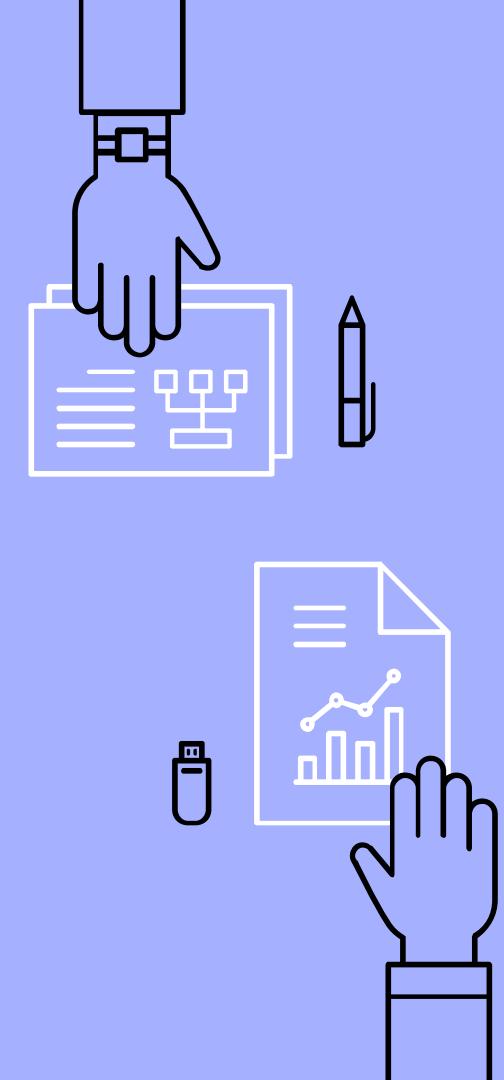
HELLO!

My name is
Bojan Van Damme

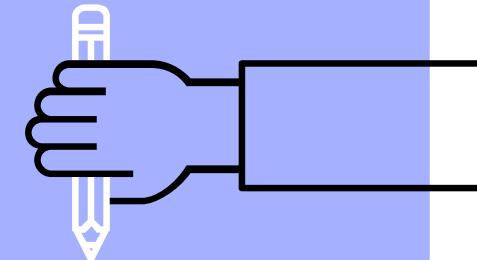
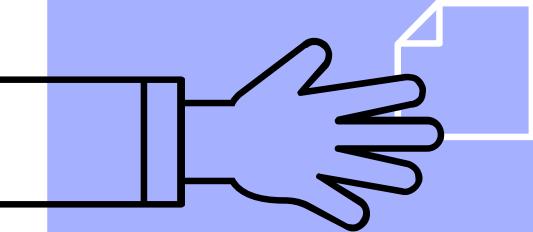
And this is my data
visualization portfolio

OVERVIEW

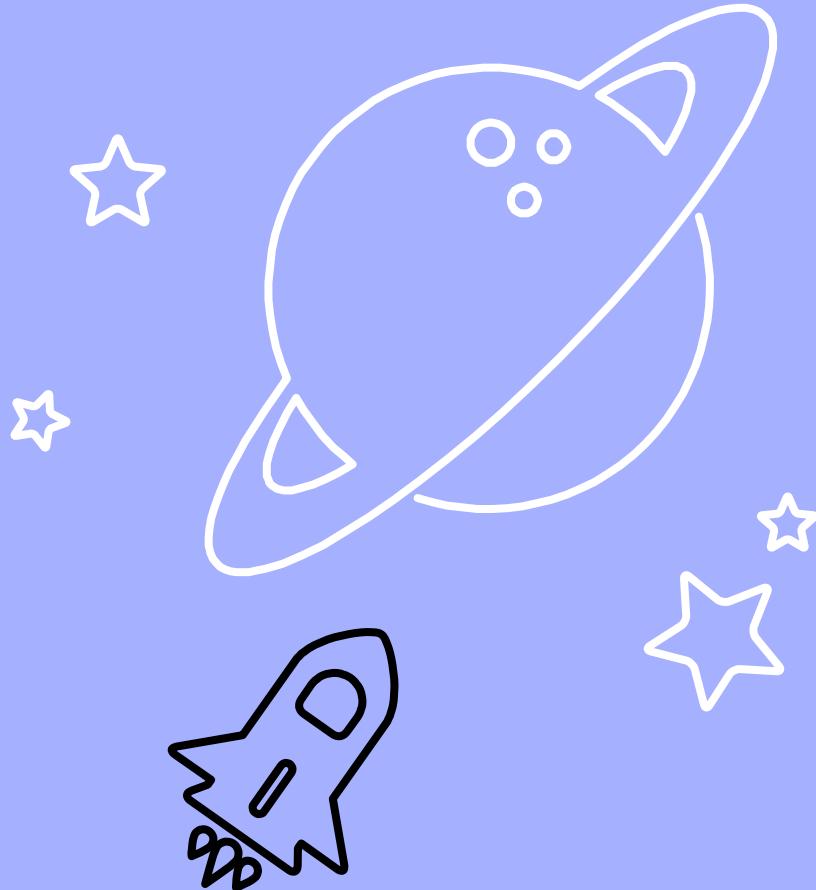
- ▷ Assignment 1
- ▷ Assignment 2
- ▷ Assignment 3
- ▷ Assignment 4
- ▷ Assignment 5



Assignment 1

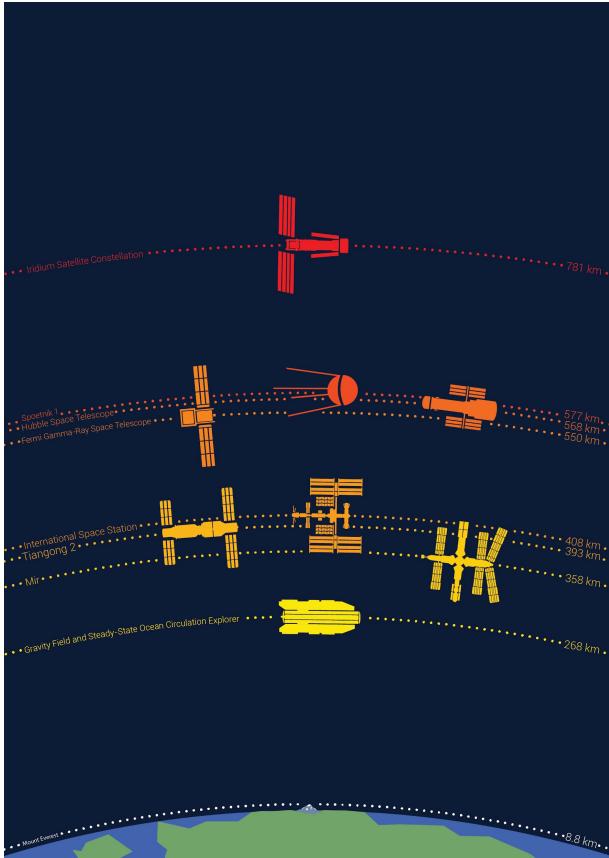


Space Crafts in Low Earth Orbit





1.

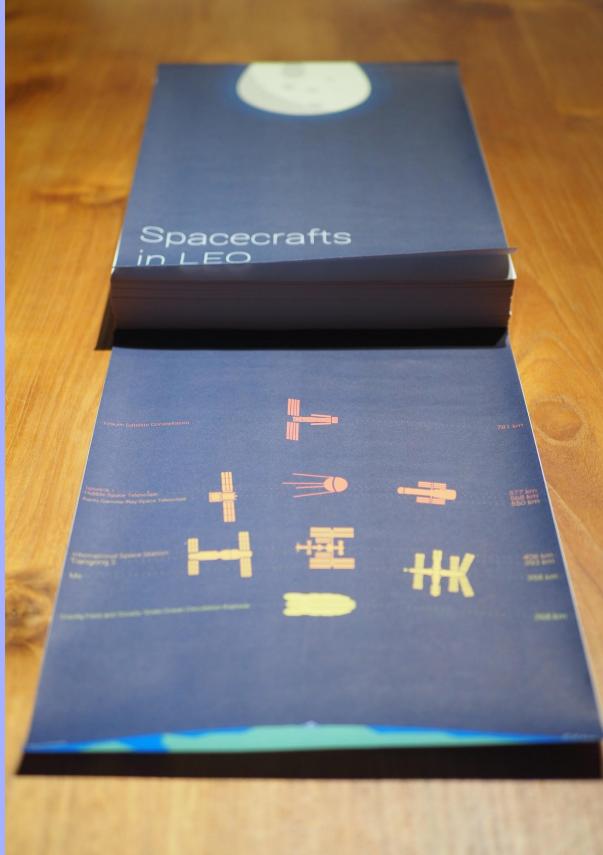


Properties

- ▷ Intent
 - A.1 Explanatory
- ▷ Appearance
 - A.2 Static

Result

Assignment 1 is a visualisation of the distance between different space crafts in Low Earth Orbit, compared to Earth and the Moon.



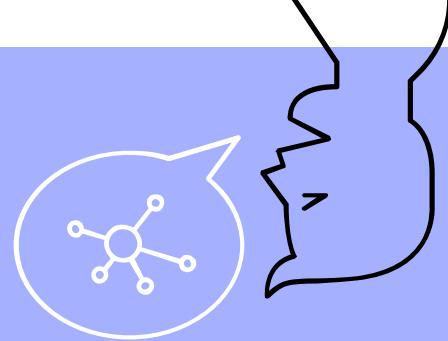
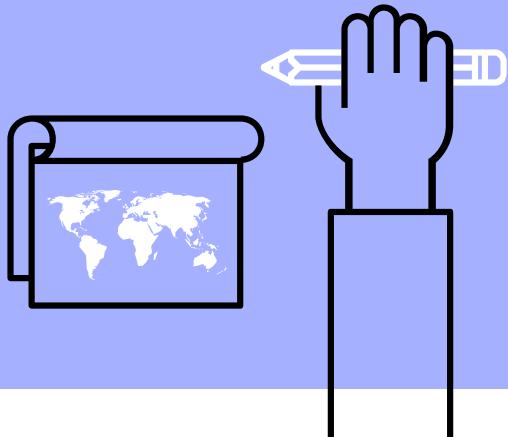
Process

I wanted to do something with space, so I looked for certain space crafts in space and found a lot of famous ones were located in the LEO, Low Earth Orbit. So I calculated all the distances for on a poster, and drew them in comparison to Earth.

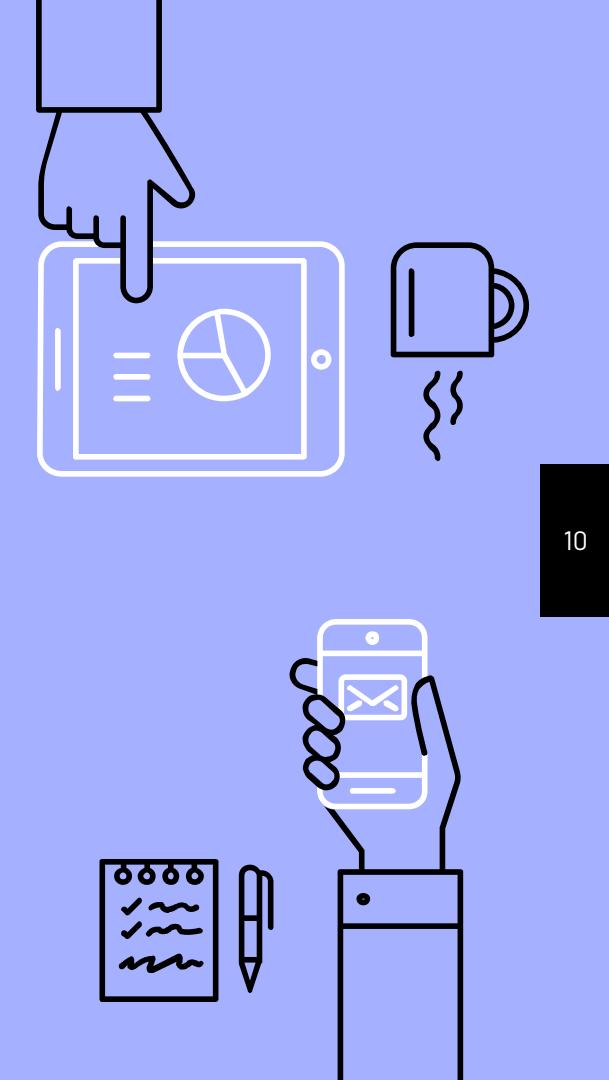
This was not good enough for the teacher so I also compared all the data to the distance to the moon. Since this was impossible to place on 2 posters, but rather 322. We decided to make the other 320 pages to be put down as a bundle.



Assignment 2



RGB 3D Print



Properties

- ▷ Intent
 - A.1 Exploratory
- ▷ Media
 - B Physical
- ▷ Appearance
 - A.2 Static
- ▷ Other
 - A.x 3D

Result

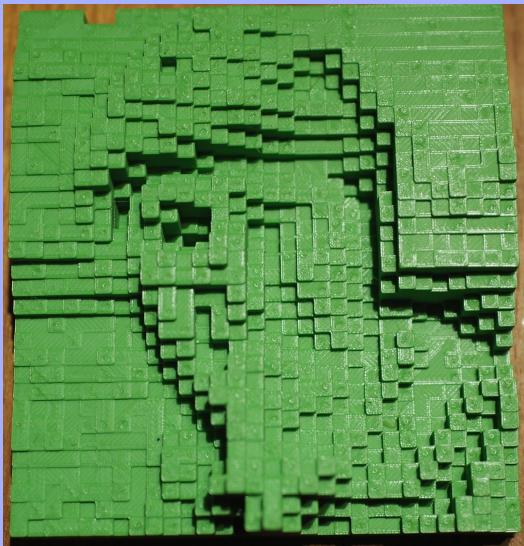
Assignment 2 is a visualisation of a low resolution picture, which I have separated into the 3 color channels. R G and B each have their own 3D model, the height of each pixel represents the amount of Red, Green or Blue in that pixel.



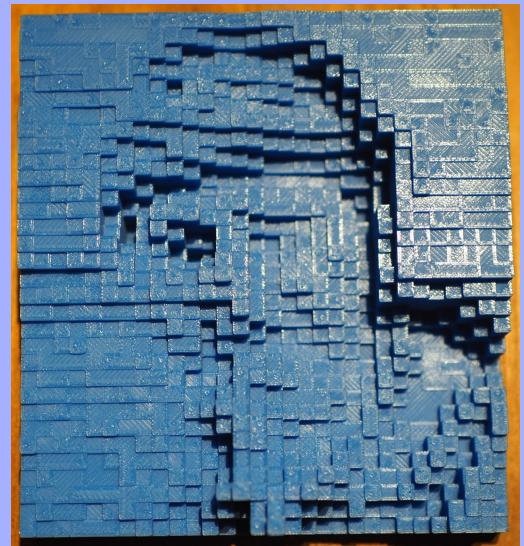
Red



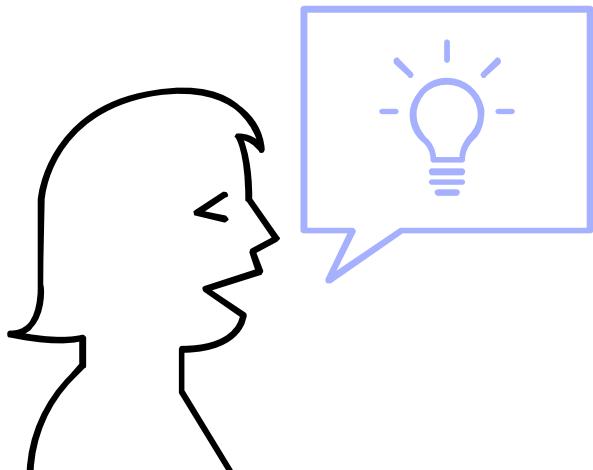
Green



Blue



Process



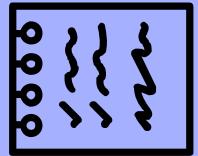
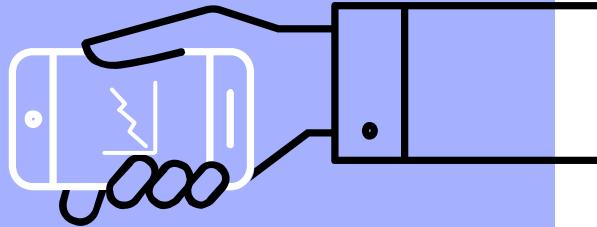
I wanted to see if you could visually see an image, when it was made in 3D, and the height was determined by the R,G or B value. I first started with finding how I could split an image into its 3 color channels. This was possible in Photoshop so i ended up with 3 different 30x32 images.

I then manually raised every pixel in fusion 360 according to the value I got with the eyedropper tool in Photoshop.

This I did with the first 5 lines of the image, to have a prototype to show the teacher. He then advised me not to do it manually, but write a Python code and use Blender.

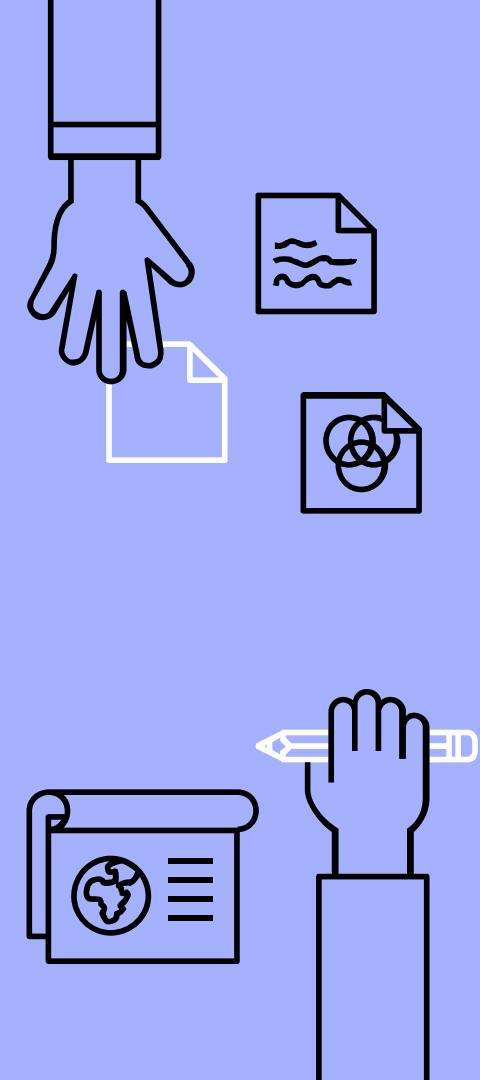
I then did all the other colors using this method, generating row after row according to an array. The arrays I still had to make by hand with Photoshop.

Assignment 3



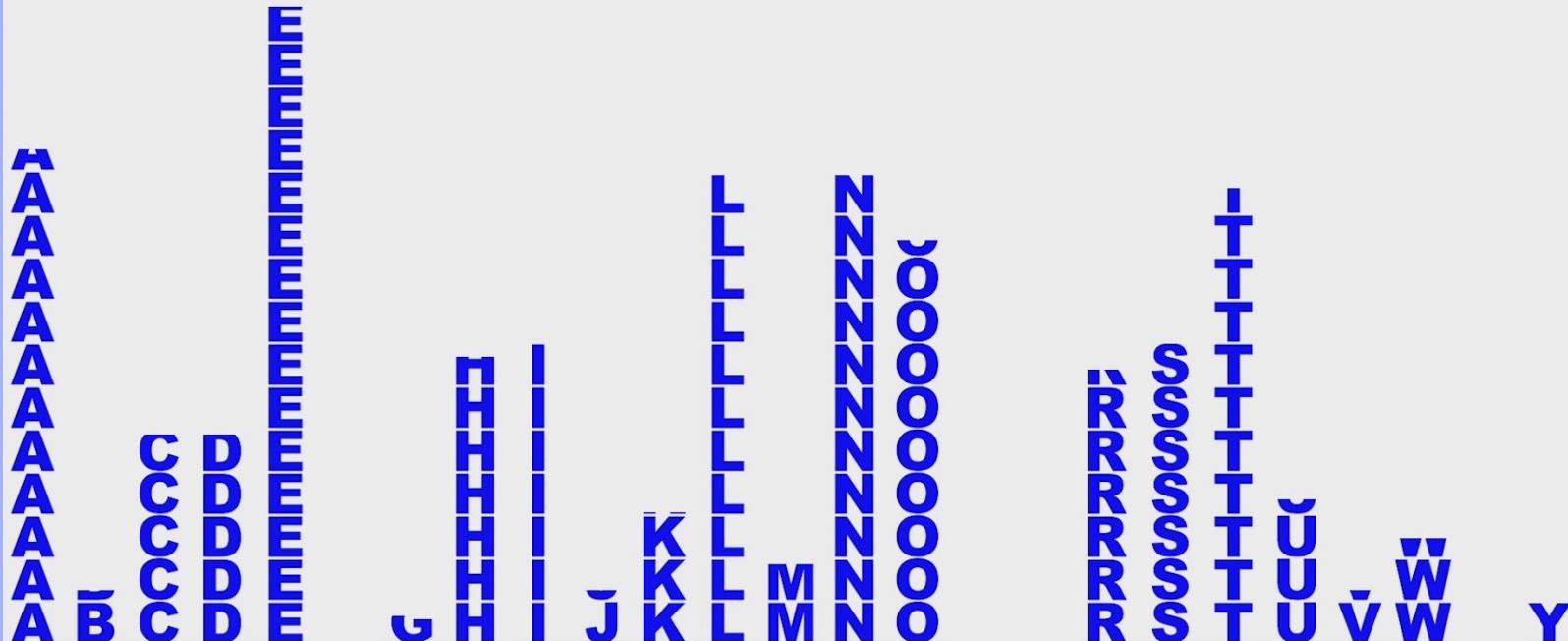
Process

I started by making it possible to store the amount of each typed letter with the letter. After this I created a basic bar chart with a bar for each letter. Eventually I made it look like the barchart filled up big A's, B's, C's,.... .



Bojan Van Damme

We don't need no education
we don't need no thought control
No dark sarcasm in the classroom
Teacher! Leave us kids alone!
Hey, teacher! Leave us kids alone!
All in all, it's just another brick in the wall
All in all, it's just another brick in the wall



Properties

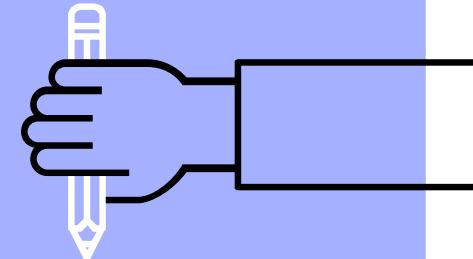
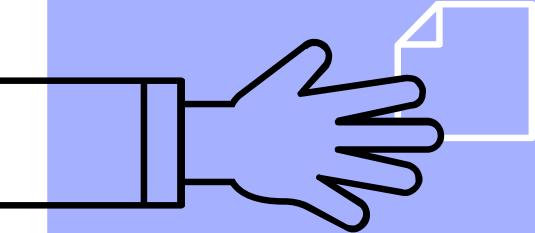
- ▷ Intent
 - A.1 Exploratory
- ▷ Appearance
 - A.2 Interactive
- ▷ Other
 - A.x D3

Result

Assignment 3 is a website where when a person types in a textbox, the amount of times a certain letter is typed gets visualised.

Another
Brick
In
The
Wall

Assignment 4



Properties

- ▷ Intent
 - A.1 Explanatory
- ▷ Appearance
 - A.2 Linear
- ▷ Other
 - A.x Node-based

Result

Assignment 4 are 2 videos, which show 5 of the biggest LEGO sets for each year, starting when LEGO first began in 1949 up until 2019. And compares their amount of bricks. One video is a fast video, to compare the amount, the other is a slower video so you can read information about each set.

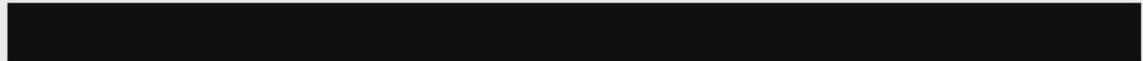




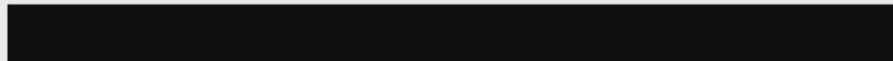
The 5 Biggest LEGO Sets Each Year

2017

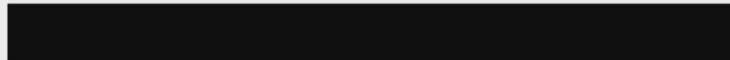
UCS Millennium Falcon
75192-1



Taj Mahal - 2017 Version
10256-1



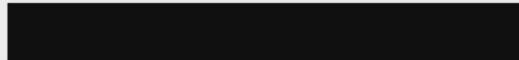
NINJAGO® City
70620-1



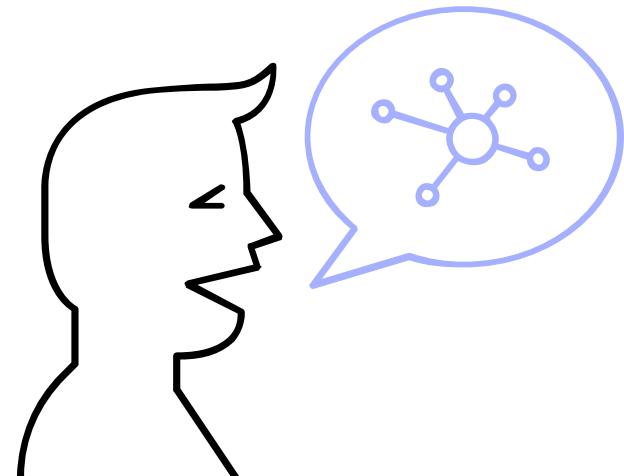
Assembly Square
10255-1



The Joker Manor
70922-1



Process



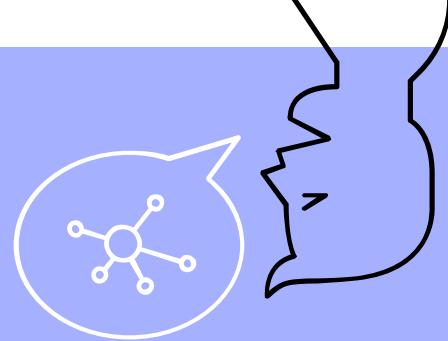
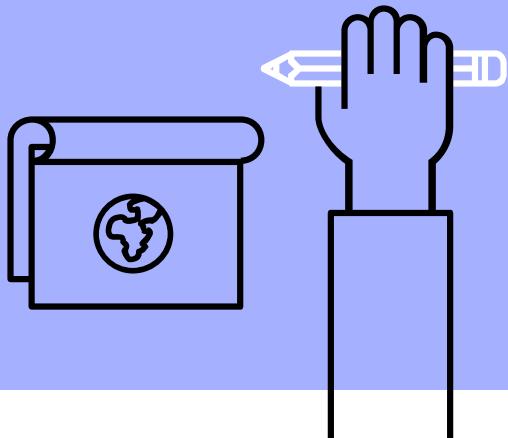
I wanted to do something with the sizes of different LEGO sets. So I found a dataset online with all the LEGO sets created since 1949 with the amount of bricks of each.

I then imported this CSV file into Node Box and created a visualisation that goes over every year, and visualises the top 5 biggest boxes.

After that I exported all the needed images of a range from 1949-2019. I then created a Premiere Pro sequence which resulted in my slow video.

In my opinion the slow video was too slow to compare the amount of bricks over the years, but faster would be unreadable. So I created a second video. In this video the extra information isn't there to distract and the video can play faster to visualise the increase of sizes.

Assignment 5

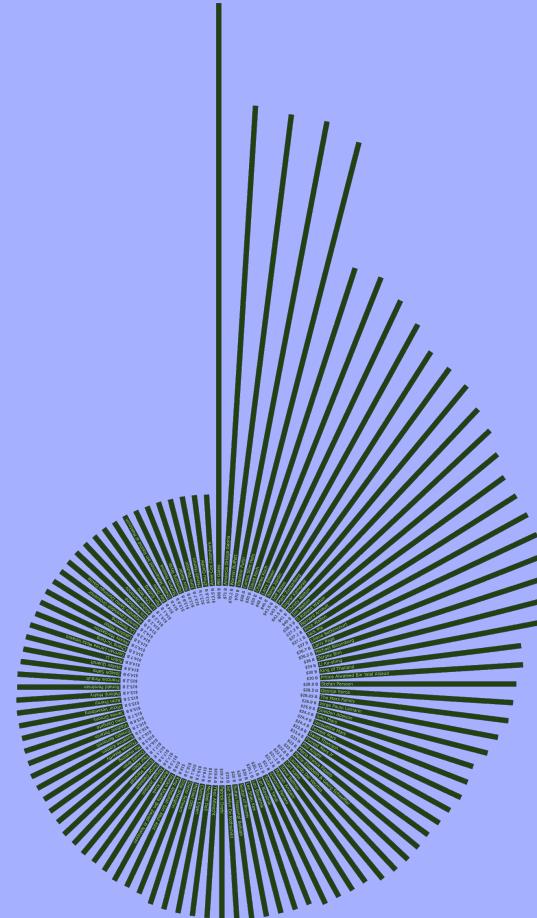


Properties

- ▷ Intent
 - A.1 Exploratory
- ▷ Appearance
 - A.2 Static
- ▷ Other
 - A.x Node-based

Result

Assignment 1 is a visualisation of the distance between different space crafts in Low Earth Orbit, compared to Earth and the Moon.



THE MILLION DOLLAR BILL



Top 100 Richest People

Process

I found a dataset online which showed the top 100 richest people in the world. I wanted to created something in Node Box again, so I played with it until I came to a visualisation I liked. The numbers were so big i had to divide it by 25 million to get a nice visualisation. I then thought of making it into a Dollar Bill, as an extra "fun for the eyes" look. So I designed a simple dollar bill and placed my Node Box data visualisation in it. And in the end, since Bill Gates is the richest, I came up with the name "The Million Dollar BILL".