This is a school project designed for an experience in store for adidas.

The project consists in:
-a software for a digital installation developed in openFrameworks.
-a web app linked to the previous software, developed with angular 2 and node.

INSTALLATION SOFTWARE

We exploit 3 addons to create the several phases of the experience in front of the big screen:

the addons we use:
1) “openCV”: allowed the computer to associate the pixels registered from camera, and therefore give them a meaning -> this is basically Computer Vision, based on machine learning (a.k.a. can detect movement, shapes and so on)
2) “the template matching”: allowed us to match the adidas logo with the live camera.
3) “ofxFlowTools”: a block of code which simulates a moving fluid on screen

We basically programmed a state machine. Each state is consequent to the other.
The last state will lead you to the web app (through the framing of a qr code)

THE WEB APP

a qr code leads you to the web app: https://energeticdashboard.firebaseapp.com/home

you need a smartphone and an internet connection.

software:
We developed two complementary part:
-the back-end with javascript, using node js
-the front-end with angular 2

What you do in front of the **installation**, you see the results in real time on the **web app**.
How? those two parts are linked by **the backend**.

the back-end is a API server built with node (using express).
it sends the data to a tunnel on serveo.com.
the front-end make an API request for the data to serveo and receive them.
the front-end is uploaded on our url on firebase app, a free hosting for web apps.
to upload the front-end on firebase, you have to buil your app: use the command ng serve.
the files will be saved in the dist folder.
after that they are ready to be uploaded on firebase.
-install firebase on your pc
-follow the firebase guide to install
-copy the dist folder into the firebase-folder on your machine
-your angular web app is online

back-end ———> server node ——> serveo.com ———> front-end ——-> web app