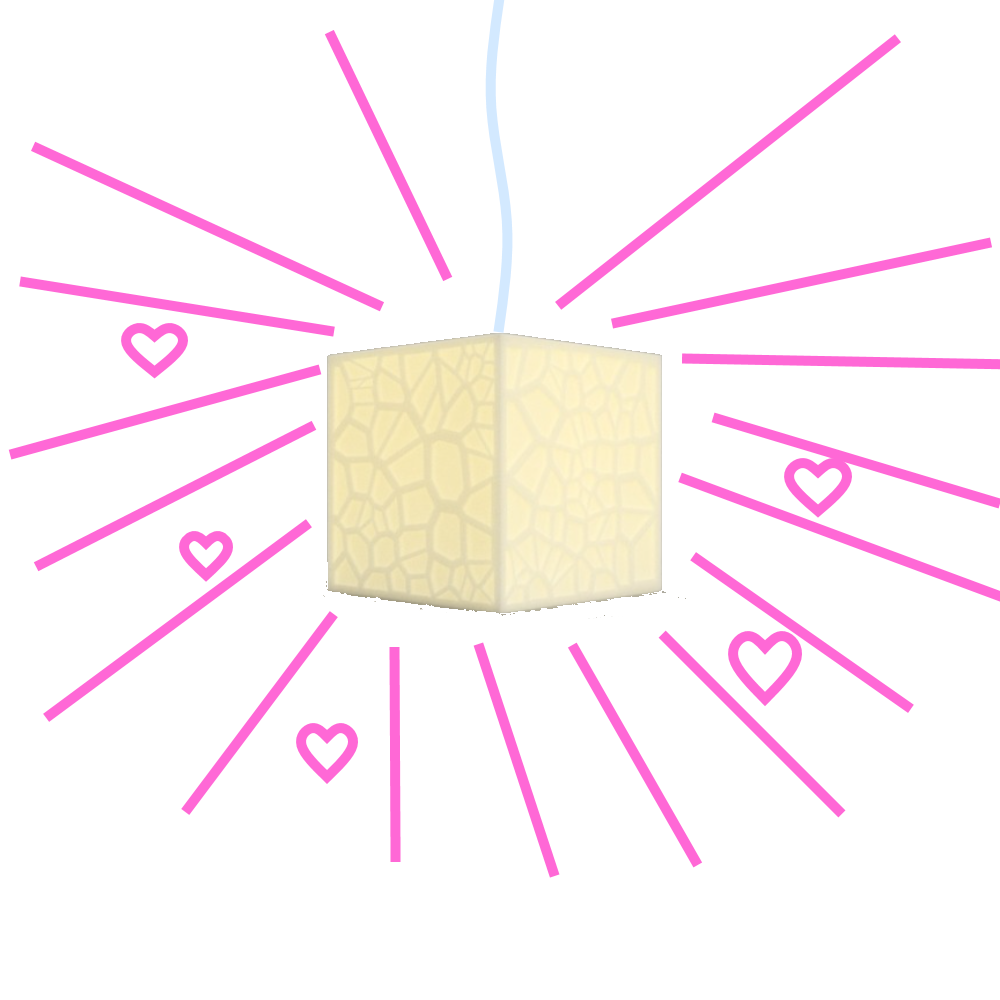
Pressure Cooker Project

Ik-denk-aan-jou-lamp

(I-think-of-you-lamp)



Calvin Bots, Max van Hattum en Sander Wesseldijk

8-2-2022

1. Introduction

Context

With our Pressure Cooker project we wanted to make something nice for patients at the oncology department of an hospital. In this document it will become clear to you what we have come up with to relieve some of the loneliness a patient might feel when dealing with the disease; cancer.

Objectives

With this project we were asked to come up with any solution to a loneliness feeling a patient might endure during their stay at the hospital. Keeping in mind that one of the constraints was that the solution should not be too technical, we thought of something warming, to make them feel unforgotten and perhaps make their life a little less painful.

The I-think-of-you lamp is a lamp hanging above the foot-end of a patient’s bed. The lamp will light up when a family member clicks on a simple button to express their thoughts to the patient. The lamp will stay on for 5 minutes and can light up in different colors. If multiple persons would press the button in the same time frame, the colors will combine in the lamp to show that multiple people are thinking of the patient at the same time.

1. Methodology

The Lamp – Arduino ESP8266

// elke lamp eigen id vertellen

The Infrastructure behind the lamp – Reverse Proxy

The Infrastructure behind the lamp – API

The API is a simple REST API made with node and express. There is a route available where the lamp can identify itself and then check if it should turn on.

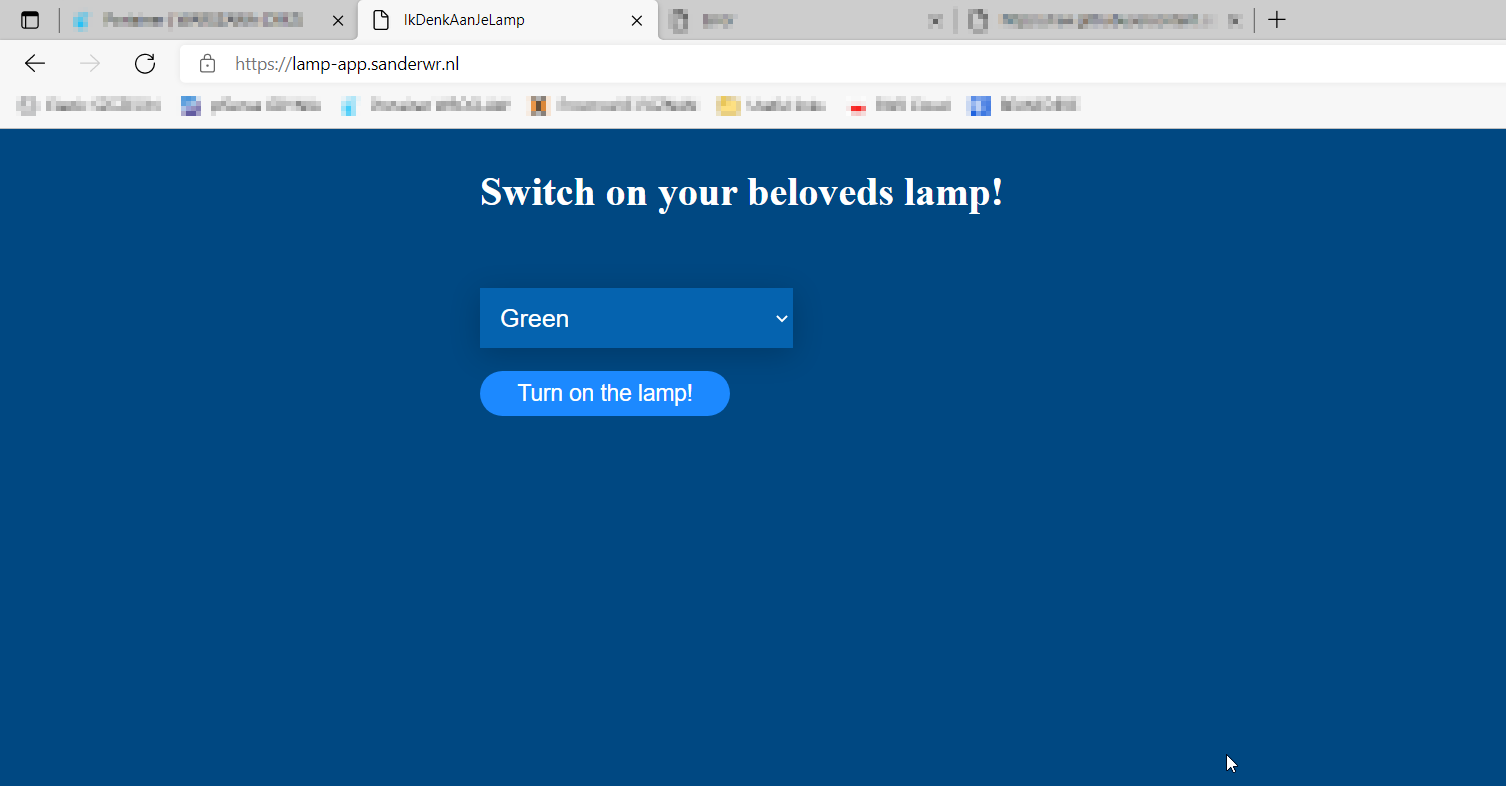
Another route is present where requests can be processed to turn on the lamp of the patient.

The API is wrapped in docker so that it can be started easily.

The Infrastructure behind the lamp – APP

The application that the friends and family see is very simple and for this demo just one HTML file. There is an option to select a color and to then activate the lamp. There is a delay of five minutes so that they can’t accidentally enable the lamp for a long period of time.

1. Results



1. Appendices