

Smart Traffic Light System

Authors :-Rawiyah Bahitham-Aroob Khayyat-Asalah Albakistani

Areej Alamoudi-Asma`a Bahitham

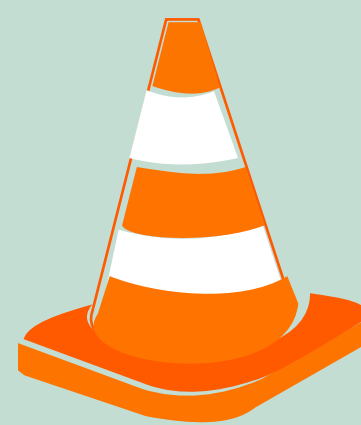
Supervised by: Dr.Abdulbaset Gaddah

Computer Science Department , Umm Al-Qura University, Makkah,KSA

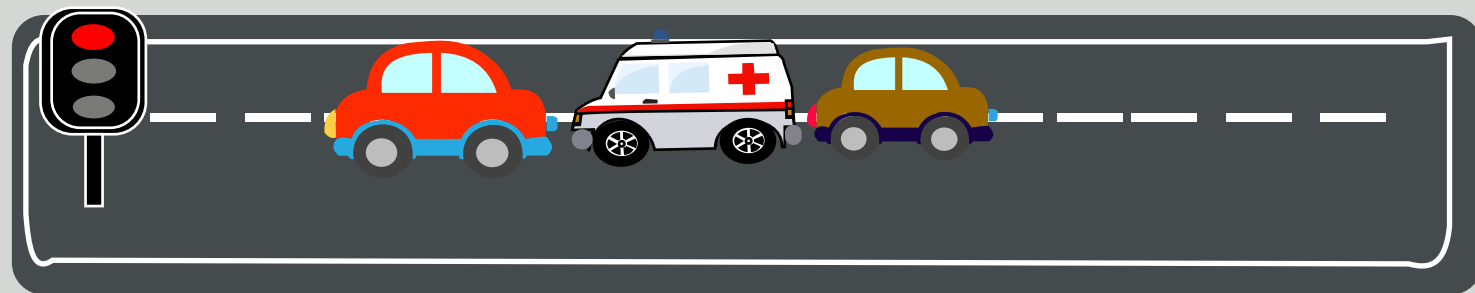


Abstract:

Nowadays the use of traditional traffic signal is not enough to solve the traffic problems. such as , some people facing death because Emergency vehicles are late maybe from many cars in that road or longer time from traffic light to be green. Therefore, from this point we want to solve this issue by adding some features to traffic light system The System processed this previous issue by images processing which taken from cameras in each crossroads, so if it seen any Emergency vehicles in any crossroads gives to it apriority to passing by make a light traffic green.



Purpose Of The Project:



Make emergency vehicles reach their destination as quickly as possible to save people's lives

Future Plans:

- Enabling the construction of a special road for emergency vehicles. No other vehicle can park or cross through it
- Add more services to the system such as the emergency vehicle connection to the traffic lights to send their coordinates now and where you want to go, allowing the traffic signal system to send the shortest route for it using Google Map
- When there are two roads, the traffic light opens when a higher density is found in one of the two roads

Implementation And Tools:



Google Cloud Platform

Provides the Google Cloud Vision API that helped us make image detectionsof ambulances

TEACHABLE MACHINE



is a web tool that makes creating machine learning models quick andeasy that categorizes sound ambulance and other sounds.



python



Notepad++

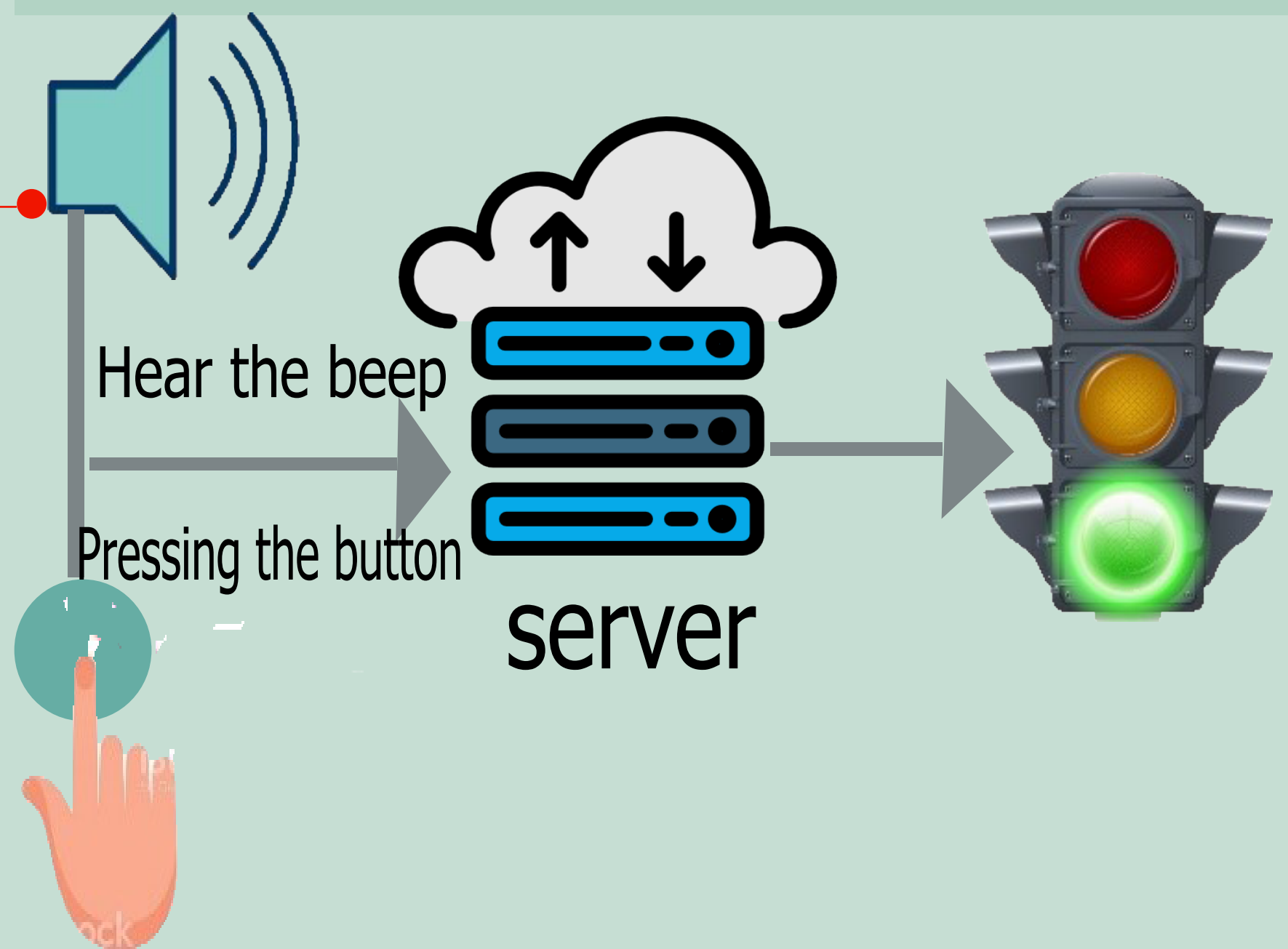


php



Web Server

How The System Work:



Conclusion:

On the whole, our project will facilitate the movement of ambulances and reduce waiting minutes using image processing . This makes ambulances faster and reach the desired location In the end, this project was a pleasant and beneficial experience for us and made us think about the millions of lives that will be saved.

Communicate As:

rawiah1502@gmail.com aroobkhayyat@gmail.com

Dr.Abdulbaset Gaddah
aagaddah@uqu.edu.sa

References:

