National Institute of Technology <u>Tiruchirappalli</u>



Department of Computer Applications

Report on Internship

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<u>Abstract</u>

This Pandemic showed us that the lack of information and unavailability of basic equipment can endanger lives. What they lack was details of O2 refilling centers and medical equipment like Pulse oximeter, thermometer, etc. So sole purpose of this project is to provide details and easy access to equipment. This can be implemented in three modules using the Django framework, 1st is Donation Box (After a person gets recovered from Covid-19 he/she can donate the Medical Equipment to a needy person), 2nd is Oxygen Re-Filling centers (Will provide details of Oxygen re-filling centers in a range of distance using Google API), 3rd is Product Comparison (different e-commerce companies products will be compared, So that patients can get the products on time and less expensive). The technology used are Django framework for backend, Google map API, tkinter and python libraries. A novelty this project has is that no other platform exists which provides details of the O2 refilling center and no Donation Box medium is present combined. This project will provide all medical details and easy access to equipment at one point which will help in saving lives and help society to be more connected.

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Introduction

The chief aim of this Project is to provide an easy access and ease in availability of resources and services. It contains three modules which provide details of Oxygen-refill centres, a donation box and third is price comparison on amazon and flipkart. Tool and Technology used to build this are Django Framework, Google Geolocation API, Places API, Maps JavaScript API and Directions API and tkinter and Python libraries. Inspiration to develop this Project came from the situation that India faced during 2nd wave of Covid-19. After so much development in science and technology we were unable to fulfil the basic requirement of people. If someone had the equipment's they didn't have the global connection with the people in need. So, this project tries to fill that gap. In current scenario there is no platform which has been designed keeping in mind the requirement of people and their necessity. So, This Project will surely help the society for to better reach. Further in different chapters this report shows how it works and provide accurate results on time.

Analysis and Requirements

Since the start of the COVID-19 outbreak, prices have surged. Surgical masks have seen a sixfold increase, N95 respirators have trebled and gowns have doubled and these factors helped in increasing the count of persons which had basic needs. So, as the data was large and needed to be saved to provide better details MySQL was used. MySQL is preferred over NoSQL because data needed to be consistent and database schema was fix. Django framework was preferable over others due to its scalability, ORM(Object relation Mapper), Template Handling, Form handling and the its based on MVT model. Any changes in any other layer won't affect the overall performance of the project. To get the data of user one registration page was added containing few basic questions regarding user details, so that user can be contacted easily.

Requirements:

Language: Python, JavaScript

Operating System: Windows, Linux

Package: Python libraries, Django framework

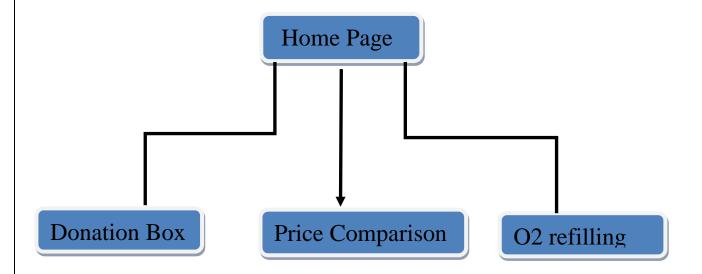
Tools: Tkinter, Google API's

Database: MySQL

IDE: Vscode

Design and Tables

Design



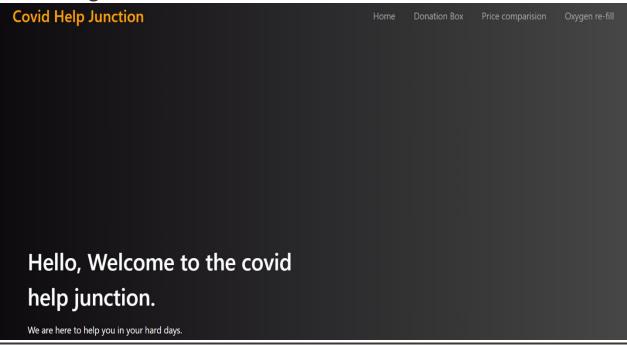
Tables

MySQL

```
nysql> desc user_profile_profile;
                                            Default
 Field
                             Null | Key
            Туре
                                                       Extra
                             NO
NO
NO
                                            NULL
NULL
 id
            int
                                     PRI
                                                       auto_increment
            varchar(100)
int
 image
user_id
                                            NULL
                                     UNI
 rows in set (0.01 sec)
ysql> desc donationbox_post;
 Field
                                 Nu11
                                                Default
                 Туре
                                       | Key |
                                                           Extra
 id
                 int
                                          PRI
                                                            auto_increment
                                  NO
                                                NULL
 title
                 varchar (100)
                                                NULL
                                  NO
 content
                 longtext
                                  NO
                                                NULL
 date_posted
                                 NO
NO
                 datetime(6)
                                                NULL
 author_id
                 int
                                         MUL
                                                NULL
 rows in set (0.00 sec)
```

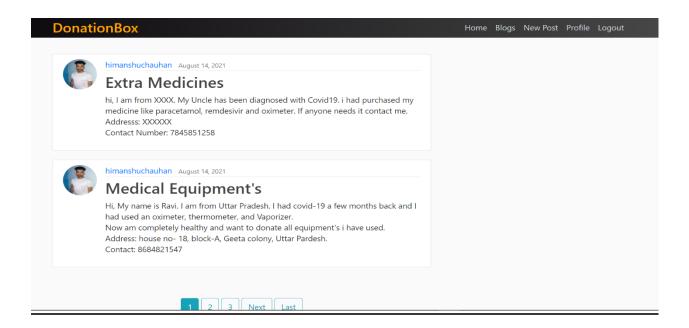
Coding and Implementation

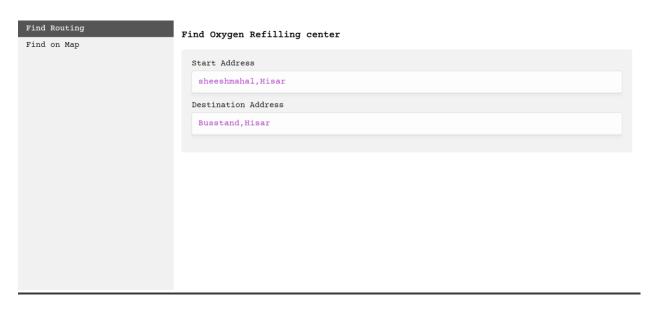
Home Page:



Donation Box:







As Django provide different app creations so three apps were created with each app having details of their tables in models.py which contain details of table to store the data and the logic for that app is saved in views.py. So, when the Http request comes Django searches the URL and return the logic associated with that URL. Then that logic render template using the data from models.py and logic from views.py.

Conclusion and remarks

All the responses of the project has been checked on the development server. Deploying of project should be done carefully as the API key is visible in settings.py. Besides current specialization we can add more module like volunteers where a person can help a family which is completely quarantined for their daily outside work like buying groceries or we can specialization in current module like adding delivery system in donation box.

Bibliography and References:

https://console.cloud.google.com/apis/library/browse?filter=category:maps&project=numeric-virtue-321910

https://www.djangoproject.com/

https://getbootstrap.com/docs/4.0/gettingstarted/introduction/