

## **A Project Report On 'CONNECTING HUMANITY'**

"We serve humanity"

We provide an online platform for NGO to connect with the community.

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### **Abstract:**

**Connecting Humanity** is a dynamic web application which yield platform to the Non-Governmental Organizations(NGO) to post their upcoming campaigns and interact with the populace. In this system, Government authorized NGO will register and login into their web-portal after that they can share the details of the upcoming campaigns so that people who need help can check out campaign's details and ask for the help. This system is very useful for the people who are interested in getting the list of nearby NGO , various NGO's activity and find suitable campaign for their self. Additionally, people who want to serve humanity can find nearby campaigns of various NGO and they can participate as volunteers or they can become aware of the needs of the NGO for specific campaigns and donate what NGO have as their needs. This will help NGO to raise their funds and get volunteered.

### **Keywords:**

Social-Media Platform, Connect People

Django Web-application, Serve Humanity

# 1 INTRODUCTION

## 1.1 Introduction to the system

- There are many NGOs who aim to serve humanity to the society, but due to lack of funds and volunteers they are unable to achieve their objectives. If there will be an online platform which allows NGO to post their needs and can get donation globally then most of the NGO's problem will be resolved. So, I have developed a web application "CONNECTING HUMANITY" which connects NGOs, Donner and Needy people.
- In this web portal NGOs can register and post their upcoming campaign , what they require for their campaign (e.g. They can post we need old clothes, 3 volunteers, 2 paid workers , amount of money, etc.),target audience, event date ,time and location. So these latest information of upcoming campaigns of NGOs will be very useful for the people who are in need for help.
- People looking for help can go through the web portal and find their suitable NGO activities and approach it. People who want to serve the society can donate not only cash but even what NGOs need for their particular campaign like old clothes. People who wants to contribute in NGO activities can easily find nearby upcoming NGOs activities and participate in different campaigns .

## 1.2 Purpose

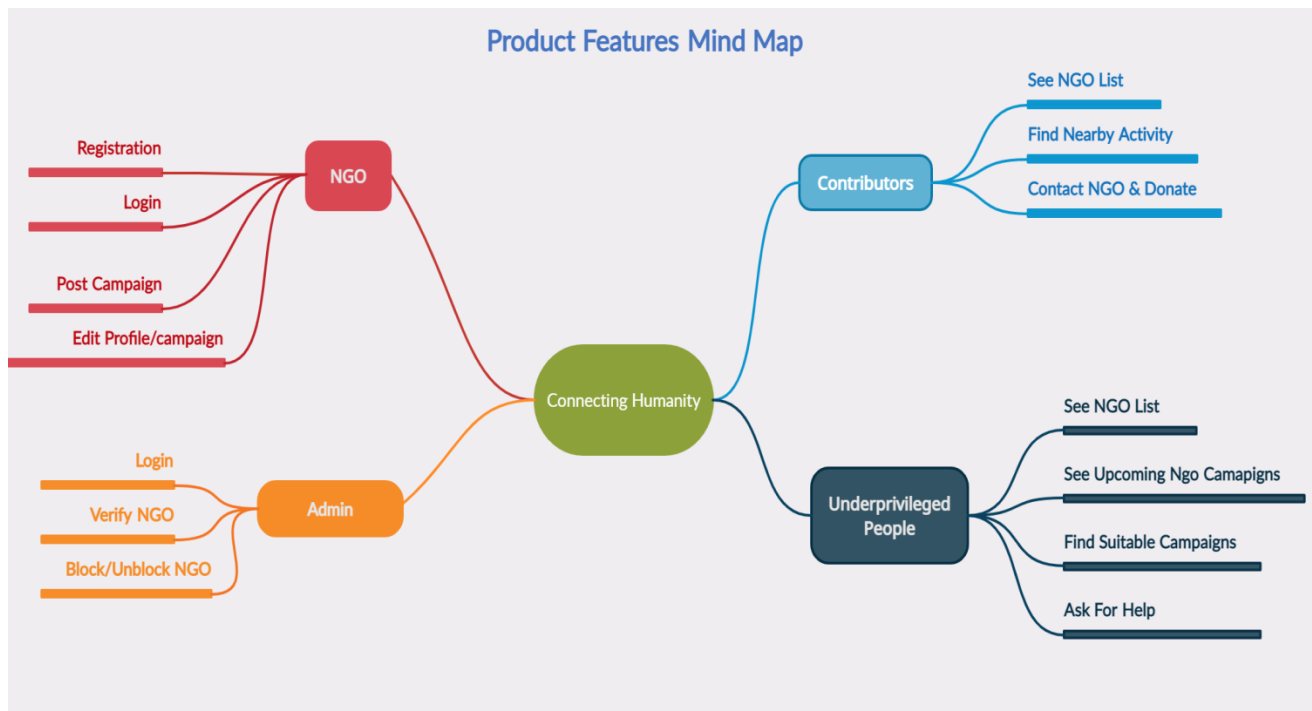
- The main aim of this project is to connect people to serve humanity. This project is focused on the Four United Nation's Sustainable Development Goals.
  - 1)No Poverty
  - 2)Zero Hunger
  - 3)Good Health And Well-being
  - 4)Quality Education

## 1.3 Requirements of Proposed System

- Currently, there are many websites available that provide name and activities of various NGO, but this Information are written by developer so these data is static and outdated information. User can't view the latest data of the NGO.
- There is no particular platform for the NGO to login in the system, post their activity's details, their requirements, raise their funds through online platform and connect with people.

## 1.4 Users and Functionalities:

- There are mainly Four user group in this project:
  - 1) NGO: Different types of NGOs will login in their account and post their upcoming activities details. They can post their requirements for their campaign so that they can find support through web portal.
  - 2)Contributors/Donors: They can see the posts of NGOs and yield their support or donate money to NGO to serve Human kind .People who want to contribute themselves by participating in NGOs activity, they can see the posts of the NGOs and find nearby campaign information and participate.
  - 3)Underprivileged People: People who need help from the NGO, they can see the categorized NGO's list and their upcoming campaigns so that it will ease the process of finding suitable NGO activity and get aided.
  - 4)Admin: There will be admin or back-end team which will monitor all the activity of the web-application. Admin have to authorize NGO and NGO Content. If any NGO post irrelevant data then admin has the power to delete the post and block the NGO.



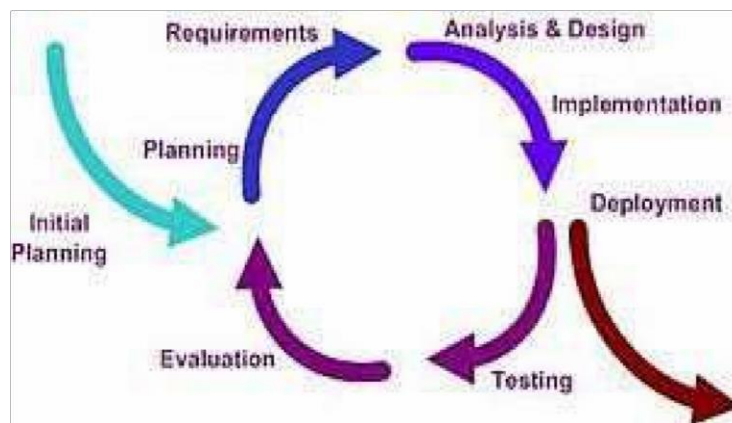
## 2 METHODS

### 2.1 Project Model

#### Incremental Model Design

The Incremental build model is a method of software development where the model is designed, implemented and tested incrementally (a little more is added each time) until the product is finished successfully. It involves both development and maintenance. The product is defined as finished when it satisfies all of its requirements. This model combines the element of the waterfall model with iterative philosophy of prototyping.

Following is the pictorial representation of Iterative and Incremental Model.



I have used Incremental Process Model Approach to complete this project. The incremental model combines elements of the linear sequential model (Analysis, Design, Code, Test) with the iterative philosophy of prototyping. At the basic or first Increment I will make core/basic functionalities of the project. During first Increment process I will follow linear sequential approach which is Analysis, Design, Code, Test. Each linear sequence produces a deliverable output of the project. Then at another increment I will add more user friendly interface and functionalities. So, basically in Incremental model the first increment is a core product and delivering to customer for using, then after to customer review or to evolution. Plan is developed for the next increment. The plan addresses the modification of the core product to meet the needs of the customer and the delivery of additional features and functionality in a more efficient manner. This process is repeated in every delivery of incremented project, until the complete product is produced.

In this project I have deliver final product in Three Minimum Viable Products.

1)MVP-1: First of all I have gathered all the requirements for the project and deliver all the back-end functionalities of the project and database connectivity of project in First MVP.

2)Mvp-2: In second incremental process I have designed better User Interface using CSS and Bootstrap.

3)MVP-3: In third increment I have tested all the functionalities and user interface pages and delivered final product.

## 2.2 Tools and Technologies

- **Tools**

- Laptop
- Wi-Fi
- PyCharm
- DB SQLite
- Sublime Text Editor
- GIT & GITHub

- **Technology**

- **Front-End**

- HTML
- CSS
- BootStrap

- **Back-End**

- Python
- Django Web-Framework
- SQLite

## 2.3 Data Dictionary

In this project there are two database tables that store the data. One stores registration details of the NGO and another stores the data of campaigns.

Table1: NGO Registration

Field Name	Data type	Constraints	Description
NGO_id	INT	Not Null	Primary key
User Name	Varchar	Unique	Login credential
Password	Varchar	Not Null	Login credential
Ngo_Name	Varchar	Not Null	Name of the NGO
Slug	Varchar	Not Null	URL generator
Address	Varchar	Not Null	Address Of NGO
City	Varchar	Not Null	City of NGO
State	Varchar	Not Null	State Of NGO
Country	Varchar	Not Null	Country of Origin
Contact_number	INT	Not Null	Contact Number
Email	Email	Unique	Email Validation
Website	URL	Not Null	Website verify
Category	Varchar	Not Null	Category of NGO
Mission	Varchar	Not Null	Objectives of NGO
Paypal_Account	INT	Not Null	For Online donation
Bank_name	Varchar	Not Null	For online donation
Bank_Account_No	INT	Not Null	For online donation
Bank_IFSC_Code	INT	Not Null	For online donation
Ngo_logo	Image Path	Not Null	Uploading Image file
Last_Login	Date &Time	Not Null	Last Time of Ngo Login
Date_Joined	Date & Time	Not Null	Registration date

. Table2: Campaigns

Field Name	Data type	Constraints	Description
Campaign_id	INT	Not Null	Primary key
NGO	Obj	Foreign Key	NGO obj who posted
Title	Varchar	Not Null	Name of the Campaign
Slug	Varchar	Not Null	URL generator
Detail	Varchar	Not Null	Description of Campagin
Date	Date	Not Null	Campaign Date
Time	Time	Not Null	Campaign Time
Location	Varchar	Not Null	Location of Campaign
Map_URL	URL	Not Null	Google Map location
Note_Donner	Varchar	Not Null	Notes for Donner

Field Name	Data type	Constraints	Description
Note_Needy	Varchar	Not Null	Notes for Needy People
Document_List	Varchar	Not Null	Required Documents
Posted_Date	Date	Not Null	Campaign posted date
Posted_Time	Time	Not Null	Campaign Posted time
Is_complete	Boolean	Not Null	Campaign Status

## 2.4 Unit Testing

Unit testing is a software development process wherein the smallest testable parts of an application, Units, are individually and independently scrutinized for proper operation. I have tested all the units by entering data, creating user, validating user.

- **Test Cases**

➤ **Admin Side:**

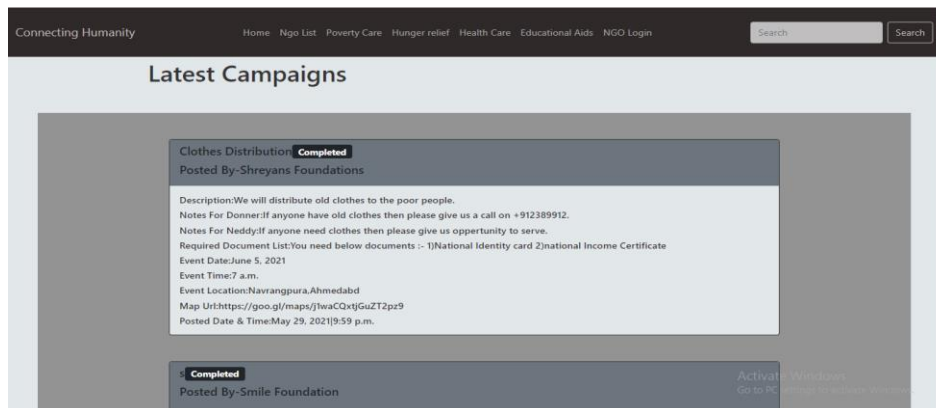
Purpose	Required Input	Expected Result
Login into the System	Valid username and password	Identify the user and give the rights according to the user
Adding new record in table	All the required fields in columns must be entered	New record is inserted in table
Editing tables Content	Just select the record which is supposed to be updated	Updates the record in table
Blocking NGO	Click on block button	Block the NGO and cannot login further

➤ **NGO Side:**

Purpose	Required Input	Expected Result
Registration into system	Enter all required fields	Add data to the database
Login into the system	Valid username and password	Identify the NGO and return homepage according to NGO
Adding new campaigns	All the required fields in columns must be entered	New campaign is inserted in database
Editing campaign content	Just select the record which is supposed to be updated	Updates the record in database
Deleting campaign content	Just select the record which is supposed to be updated	Deletes the record in database

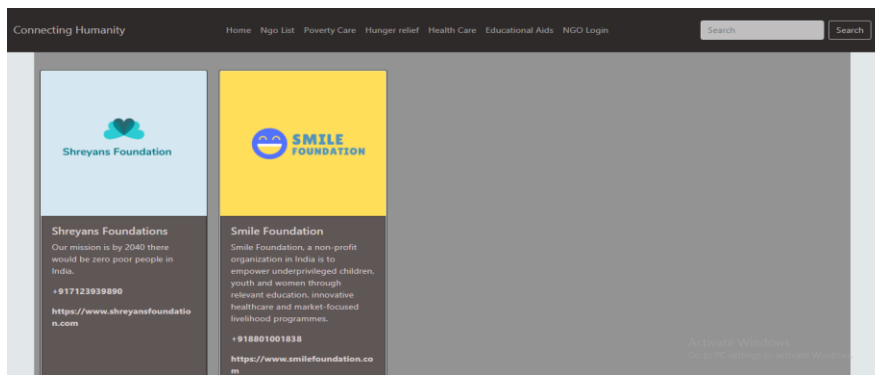
### 3 RESULTS AND DISCUSSION

#### 1) User Home Page:

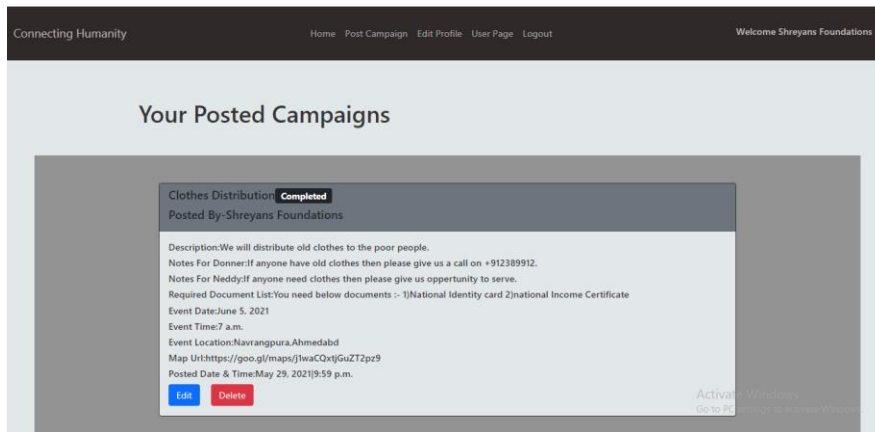




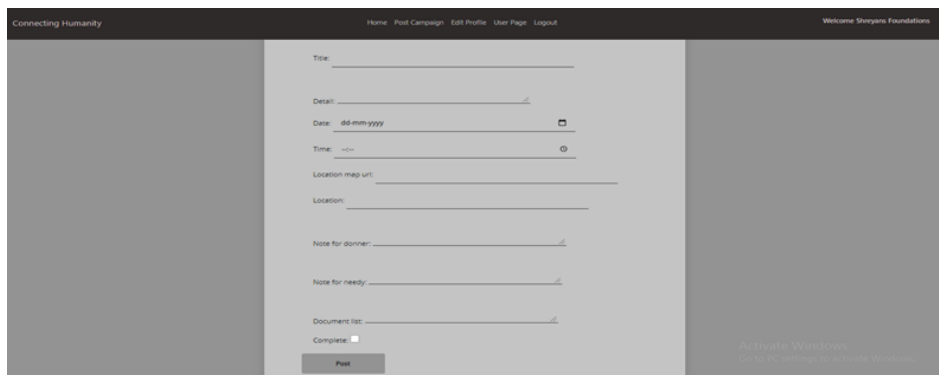
## 2) Categorized NGO List:



## 3) NGO Home Page:



## 4) Post Activity



- **Discussion**

- This web-application is fully dynamic so back-end development is more crucial than front-end development. I have created this in Django web framework which has Model, View(Controller),Template approach.
- The biggest challenge is to authenticate user , login user into the system and User specific dashboard. For example, If Shreyans Foundation named user login into the system then system should show only that specific user's post and data.
- Additionally, creating user interface better and efficient was another big challenge as I have to create it display-responsive and use 'for loop' into components so that it shows dynamic content comes from database.

## **4 CONCLUTION AND FUTURE WORK**

### **4.1 Conclusion**

In this chaotic world there are still many people who are willing to help the needy people. They have started their own NGO to help people but due to lack of the funds they are unable to help people. Additionally, there are enormous youngsters who wants to provide volunteering work in their weekends but they are unaware of NGO Activity.

I have provide a web-application which will bridge the gap between NGO-Donners-Underprivileged ,where everyone can fulfill their needs and willingness to volunteer. This web-application is dynamic and all the content is dynamic. NGO will register into the system and post the upcoming campaign's details like we post photos on social media platform. This latest information of NGO campaign will be useful for the needy people to find suitable activities and reach out to be helped. In addition people who want to contribute they can donate what NGO needs for specific activity. People who wish to volunteer can easily find the nearby activity and join the campaign. This platform will be very helpful to the NGO as they can post /interact with users and can get support through globally.

## 4.2 Future Enhancement

- Regional Language Support
- Notification & Subscription specific NGO
- Online Payment Gateway
- Review and Comments on campaigns

## 4.3 Acknowledgment

Throughout the project our Professor helped me a lot through comments and lectures.

Prof. Timothy Macig (Ph.D.)

Lecturer, Software Systems Engineering

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## 5 REFERENCES

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#### Tutorials

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- [7] Creately(Diagrams): <https://unsplash.com/>
- [8] Canava(Logo): <https://www.canva.com/>
- [9] Just In Mind(Prototype): <https://www.justinmind.com/>