A Database Mini Project Report

On

"E-Annapurna"

Submitted to the
Savitribai Phule Pune University
In partial fulfillment for the award of the Degree of
Bachelor of Engineering
In
Information Technology
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2019-2020

ACKNOWLEDGEMENT

We would like to express our special thanks of gratitude to our DBMS teacher sir “Prof. R.B. Murumakar” for their guidance and support in completing our project. We would also extend our gratitude to the principal Sir “Dr. P.T.Kulkarni” and HOD of IT sir “Dr.A.M.Bagade” for providing us with all the facility that was required.

We would also extend our gratitude to the academic staff in our department, technical staff, reviewers and friends. We would also like to extend our gratitude towards NGOs such as FeedingIndia.org, Robinhood Army for providing us the insight on how they actually work and manage themselves.

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ABSTRACT

In India, many people still sleep without food even though Extra food is thrown away in nearby function or hotels, because they do not have any medium to share their remaining food to needy people. According to reports, around 195.9 million people are undernourished in India.

We provide a platform where people can share their remaining food to people who need it. Our system is divided into two parts. First part we created a website from where the various types of users such as donors, volunteers, sponsors and food requesters. Second part is the control panel where admin/Employees of NGO can easily analysis the Data, Manage Volunteers.

INTRODUCTION

The **E Annapurna** is a volunteer based organization that works to get surplus food from restaurants to the less fortunate sections of society in cities across India.

The organization functions on and propagates the basic ideology of self-sustained communities across the city i.e. each locality/community within the city will contribute towards providing food to the needy through its local volunteers and restaurants.

The traditional the food distributed to the needy is sourced from restaurants, which regularly provide surplus or freshly cooked food on a goodwill basis.

Our System provides both Website and Admin Panel for the
E Annapurna. The Websites showcase the work of the organization to attract volunteers, Sponsors and donors. Also we get the information of those who are in need of food through the website.

The second part of the system is Admin Panel. It is used to Manage and analyze the NGO. It provides in-depth report with graphs donations, volunteers, sponsors and requests of food. It enables the NGO Admin to allocate volunteers to the specific consumer and analyze their report.

OVERVIEW

This report discusses the result of the work done in the development of "E-Annapurna" on "JSP" Front-end Platform and "MySQL" as back-end Platform.

At the development of an application JSP provides a good connecting facility between all pages, also the back-end MySQL is most important to save all the data related to the application.

BACKGROUND AND MOTIVATION

The definition of our problem lies in manual system and a fully automated system.

Manual system: In the manual system, there are three disadvantages:

1. Manual system consumes more amount of time in terms of task allocation to volunteers
2. Volunteer management is week
3. NGO Data not fully managed

Technical system: With the advent of latest technology if we do not update our system then with huge amount of increasing requests from consumers, existing system fails to fulfill their request i.e. manual system will take more amount of time. The technical system will fulfill each and every request in a short amount of time so that consumers will get their food on the proper time. This system with technology is very fast, Accurate, user-friendly and reliable.

OBJECTIVES

1. To provide a system that can be remotely accessed through the internet.
2. To implement real-time communication between volunteers.
3. To overcome the issue of miscommunication that occurs in physical interactions between volunteers and NGO.
4. To provide an easy, and time-saving platform to consumers.

METHODOLOGY

To implement the above goals, the following methodology needs to be followed:

1. Proper commendations.
2. Proper validations.
3. Go through the created schedule.
4. Proper development of a project by following SDLC.
5. Proper division of tasks between project group members.
6. Proper integration of divided tasks.
7. Proper testing for all modules individually and combined testing after integration.
8. Specifying the Application and various components of the Architecture.
9. Specifying the bindings between the tasks and the resources either manually or by the design
10. Tools.
11. Specifying the port interconnections between the resources.

SCOPE

In India, many people don't get daily food for living. Whereas more amount of food is wasted through functions, weddings, schools and all. We have developed a system to help such needy people to provide them food from these functions.

People who wish to donate their leftover food contact us via our website. We store their details with us. When someone requests for food, we check available food and same areas as sponsors and allocates that much amount of food to them.

Common people get involved in our system by becoming volunteers. They register themselves as per their available days. Our system checks availability of them and allocates tasks to collect and deliver food according to their suitable time.

Another part of our project allows an NGO to have the following features:-

- NGO can allocate specific volunteers to specific requests based on areas.
- NGO can check the monthly performance of volunteers, donors, sponsors and consumers.
- NGO can download overall current report of NGO.

REQUIREMENTS

- Software requirements:

  - Glassfish server 4.1
  - Java 8
  - MySQL Server
  - Bootstrap/css/JQuery
  - Any Operating System
  - Any web browser on user side for accessing the internet.

- Hardware requirements (For Server):

  - Storage:
    - 2GB(Minimum)
    - 5GB(Recommended)
  - Ram:
    - 1GB(Minimum)
    - 2GB(Recommended)

E-R DIAGRAM

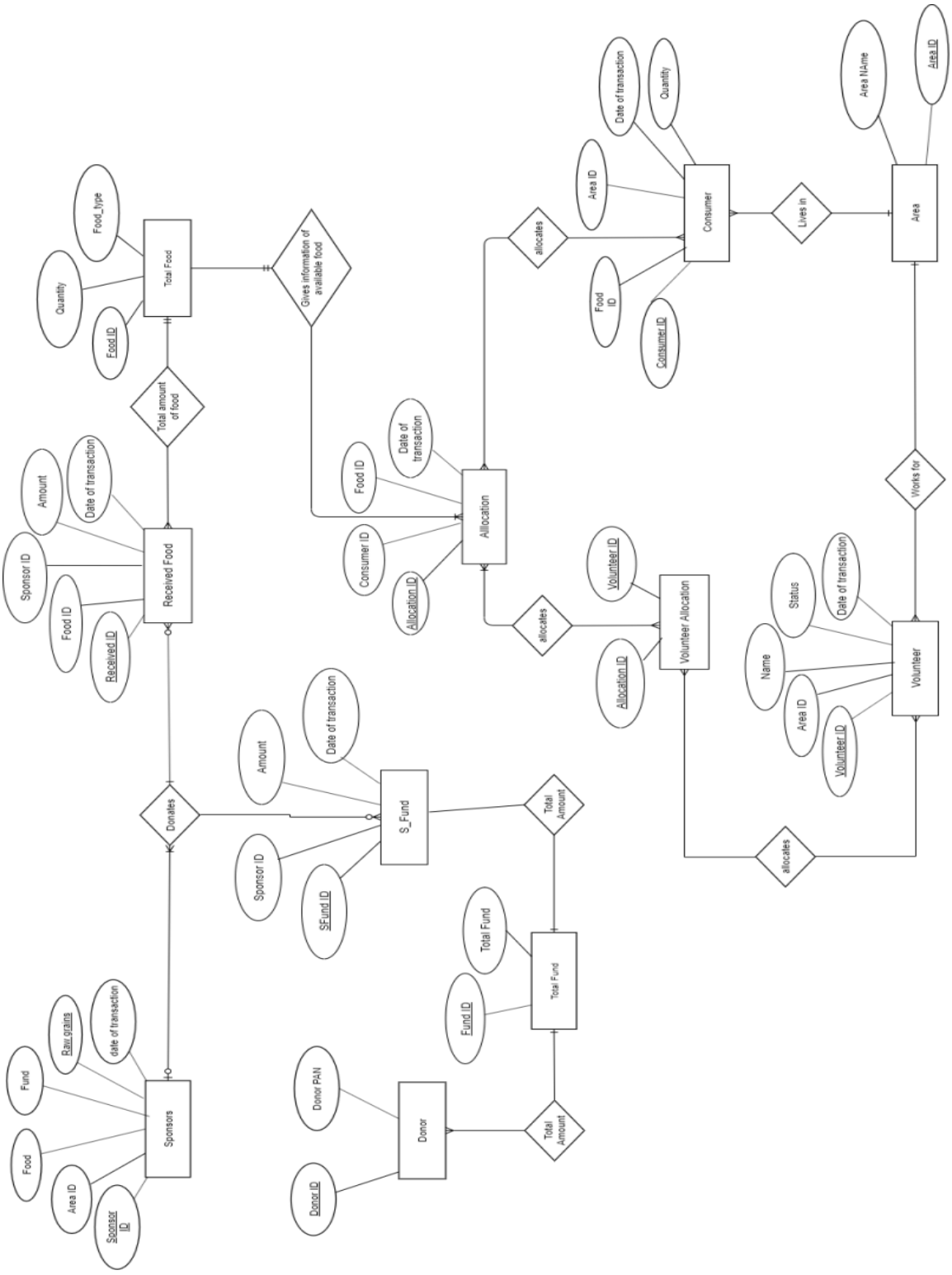


Fig. 1.1: E-R Diagram of E Annapurna

SCHEMA DIAGRAM

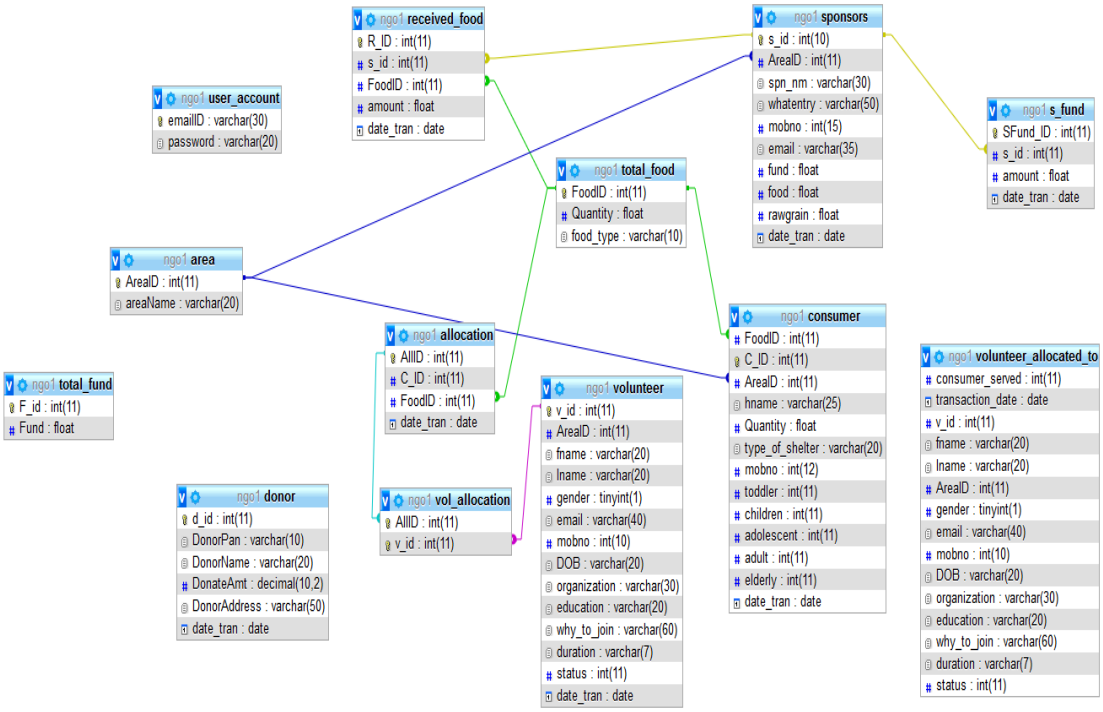


Fig. 1.2: Schema Diagram of E Annapurna

RELATIONAL DATABASE DESIGN

Tables:

1] Login:

(Email ID, password)

Email ID	Password

2] Donor:

(Donor ID, DonorPAN,Donor name, Donate Amount, Donor Address, Date of transaction**)**

ID	DonorPAN	Donor name	Donate Amt	Donor Address	Date of transaction

3] Consumer:

(ConsumerID, FoodID, AreaID, Name, Quantity, Type_of_shelter, Date of transaction**)**

CID	Food ID	Area ID	Name	Qty	Type of shelter	Date of transaction

4] Area:

(AreaID, Area_name**)**

Area ID	Area name

5] Allocation:

(AllocationID, ConsumerID, FoodID, Date_of_transaction**)**

Allocation ID	Consumer ID	Food ID	Date of transaction

6] Received food:

(Received_food_ID, SponsorID, FoodID, Amount, Date_of_transaction**)**

Received food ID	Sponsor ID	Food ID	Amount	Date of transaction

7] Sponsor:

(SID, Area, Sponsor, name, Fund, Food, raw grain, Date of transaction **)**

SID	Area	Sponsor name	Fund	Food	raw grain	Date of transaction

8] Total Food:

(Food ID, Food Type, Quantity**)**

Food ID	Food Type	Quantity

9] Total Fund:

(Food ID, Total Fund**)**

Fund ID	Total Fund

10] Volunteer:

(VolunteerID, Area , Name, EmailID, Status, Date of transaction**)**

VolunteerID	Area	Name	EmailID	Status	Date_of_transaction

11] Volunteer Allocation :

(Allocantion ID, Volunteer ID**)**

Allocantion ID	Volunteer ID

DATABASE NORMALIZATION

1. First Normal Form:

The relation is in 1NF if it has no repeating groups. All tables have no repeating groups so they are in 1NF.

1] Login:
(Email ID, password)

Email ID	Password

2] Donor:
(DonorID, DonorPAN, Donor name, Donate Amount, Donor Address, Date of transaction**)**

ID	DonorPAN	Donor name	Donate Amt	Donor Address	Date of transaction

3] Consumer:
(ConsumerID, FoodID, AreaID, Name, Quantity, Type_of_shelter, Date of transaction**)**

CID	Food ID	Area	Name	Quantity	Type of shelter	Date of transaction

4] Allocation:
(AllocationID, ConsumerID, FoodID, Date_of_transaction**)**

Allocation ID	Consumer ID	Food ID	Volunteer ID	Date of transaction

5] Received food:
(Received_food_ID, SponsorID, FoodID, Amount, Date_of_transaction**)**

Received food ID	Sponsor ID	Food ID	Amount	Date of transaction

6] Sponsor:
(SID, Area, Sponsor, name, Fund, Food, raw grain, Date of transaction**)**

SID	Area	Sponsor name	Fund	Food	raw grain	Date of transaction

7] Sponsor fund:

(SFund ID, Sponsor ID, amount, Date of transaction**)**

SFund ID	Sponsor ID	amount	Date of transaction

8] Total Food:

(Food ID, Food Type, Quantity**)**

Food ID	Food Type	Quantity

9] Total Fund:

(Food ID, Total Fund**)**

Fund ID	Total Fund

10] Volunteer:

(VolunteerID, Area , Name, EmailID, Status, Date of transaction**)**

VolunteerID	Area	Name	EmailID	Status	Date_of_transaction

2. Second Normal Form

A relation is said to be in second normal form if it is already in first normal form and it has no partial dependency

The absence of partial dependency in all relations in database take them into 2NF without any modification

1] Login:

(Email ID, password)

Email ID	Password

2] Donor:

(DonorID, DonorPAN, Donor name, Donate Amount, Donor Address, Date of transaction**)**

ID	DonorPAN	Donor name	Donate Amt	Donor Address	Date of transaction

3] Consumer:

(ConsumerID, FoodID, AreaID, Name, Quantity, Type_of_shelter, Date of transaction**)**

CID	Food ID	Area ID	Name	Qty	Type of shelter	Date of transaction

4] Area:

(AreaID, Area_name**)**

Area ID	Area name

5] Allocation:

(AllocationID, ConsumerID, FoodID, Volunteer ID ,Date_of_transaction**)**

Allocation ID	Consumer ID	Food ID	Volunteer ID	Date of transaction

6] Received food:

(Received_food_ID, SponsorID, FoodID, Amount, Date_of_transaction**)**

Received food ID	Sponsor ID	Food ID	Amount	Date of transaction

7] Sponsor:

(SID, Area, Sponsor, name, Fund, Food, raw grain, Date of transaction**)**

SID	Area	Sponsor name	Fund	Food	raw grain	Date of transaction

8] Sponsor fund:

(SFund ID, Sponsor ID, amount, Date of transaction**)**

SFund ID	Sponsor ID	amount	Date of transaction

9] Total Food:

(Food ID, Food Type, Quantity**)**

Food ID	Food Type	Quantity

10] Total Fund:

(Food ID, Total Fund**)**

Fund ID	Total Fund

11] Volunteer:

(VolunteerID, Area , Name, EmailID, Status, Date of transaction**)**

VolunteerID	Area	Name	EmailID	Status	Date_of_transaction

3. Third Normal Form:

A relation is said to be in third normal form if it is already in 1st and 2nd NF and has no transitive dependency.

Tables:

1] Login:

(Email ID, password)

Email ID	Password

2] Donor: In Donor table, all the non-primary key attributes are dependent on primary key attribute and there is no transitive dependency.

(DonorID, DonorPAN, Donor name, Donate Amount, Donor Address, Date of transaction**)**

ID	DonorPAN	Donor name	Donate Amt	Donor Address	Date of transaction

3] Consumer:

(ConsumerID, FoodID, AreaID, Name, Quantity, Type_of_shelter, Date of transaction**)**

CID	Food ID	Area ID	Name	Qty	Type of shelter	Date of transaction

4] Area:

(AreaID, Area_name**)**

Area ID	Area name

5] Allocation:

(AllocationID, ConsumerID, FoodID, Date_of_transaction**)**

Allocation ID	Consumer ID	Food ID	Date of transaction

6] Received food:

(Received_food_ID, SponsorID, FoodID, Amount, Date_of_transaction**)**

Received food ID	Sponsor ID	Food ID	Amount	Date_of_transaction

7] Sponsor :

Sponsor ID	Area ID	Sponsor name	Company name	Fund	Food	Rawgrain	Date of transaction

GRAPHICAL USER INTERFACE

The application is very user friendly and uses a GUI interface implemented in PHP and HTML to Communicate with the user. Various features are self – explanatory. Forms are easy to fill in and components can be added, removed and updated very easily through a Single dialog box. The application includes tool-tip hints to give a brief description of the particular input Field.

List boxes are used to display all the components at once so that user can see all the components of a Particular type at once. One can just select the component and modify and remove the component (based on the access control of the person).

Snapshots of the Web Site:

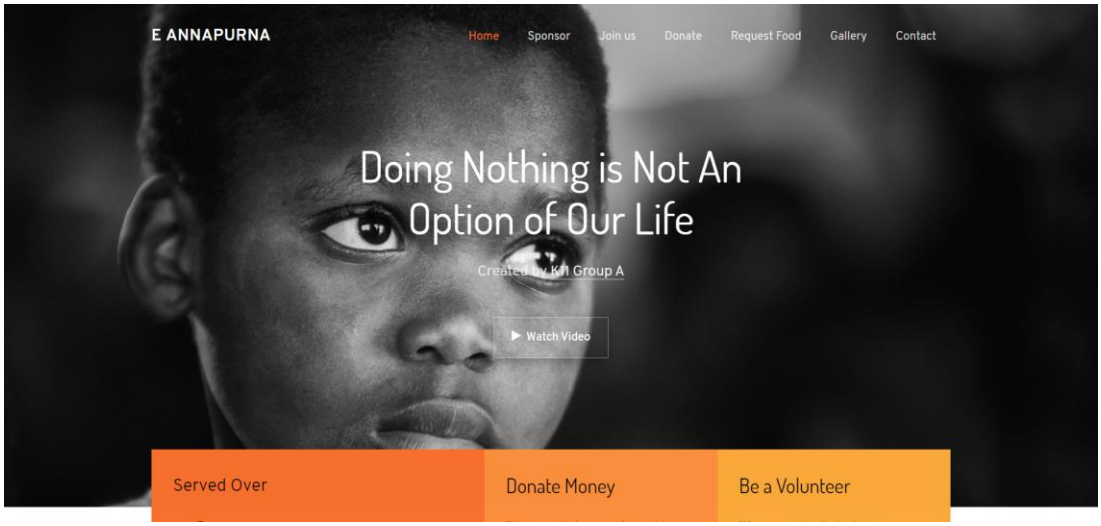


Fig. 2.1: Home

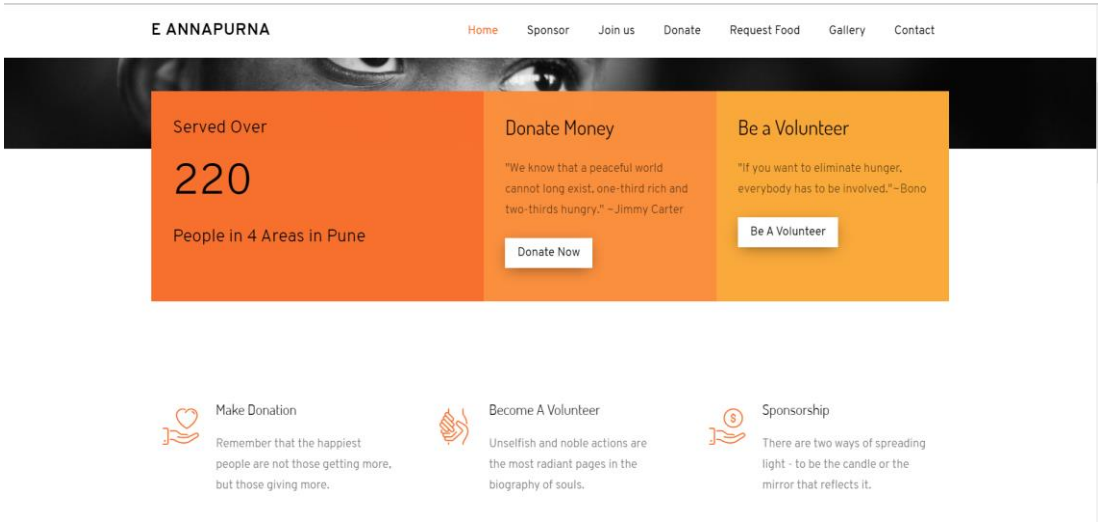


Fig. 2.2: Home

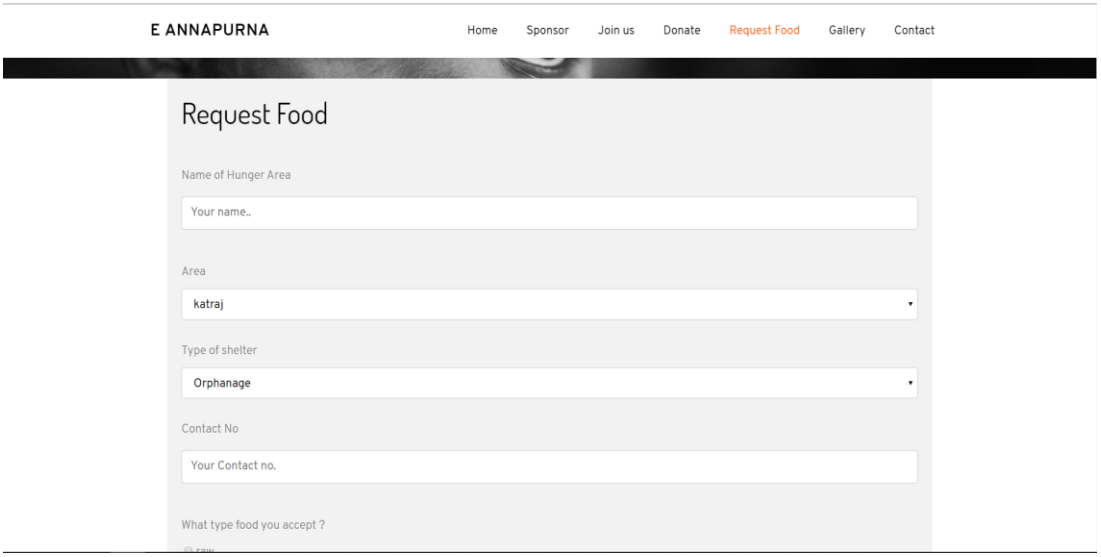


Fig. 2.3: Request food-1

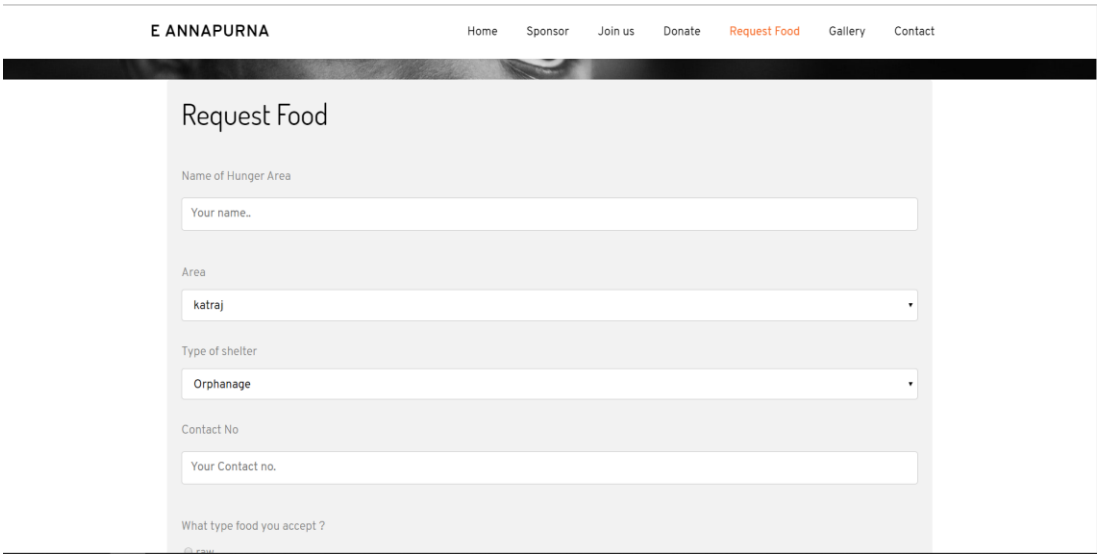


Fig. 2.4: Request food-2

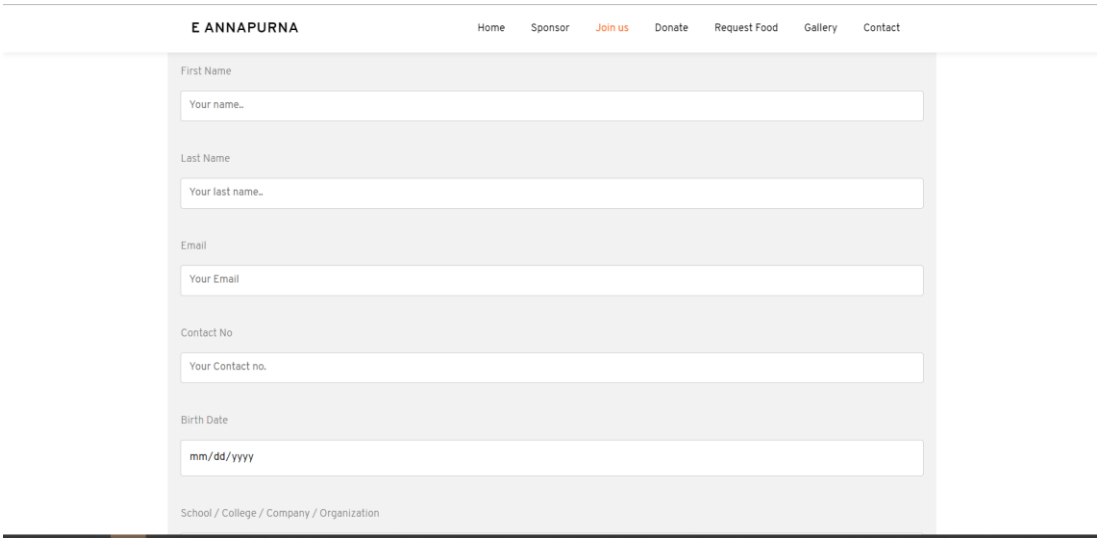


Fig. 2.5: Volunteer-1

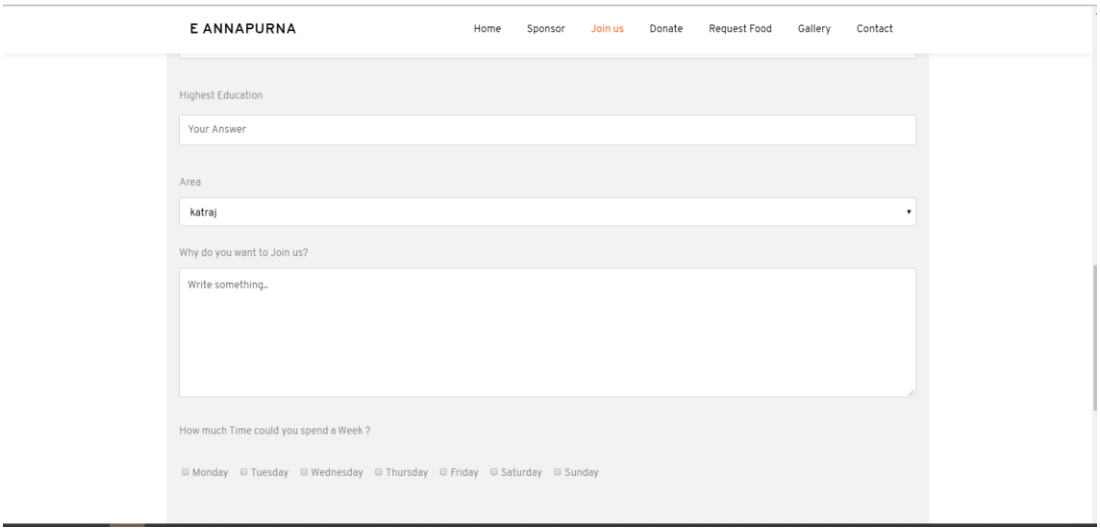


Fig. 2.6: Volunteer-2

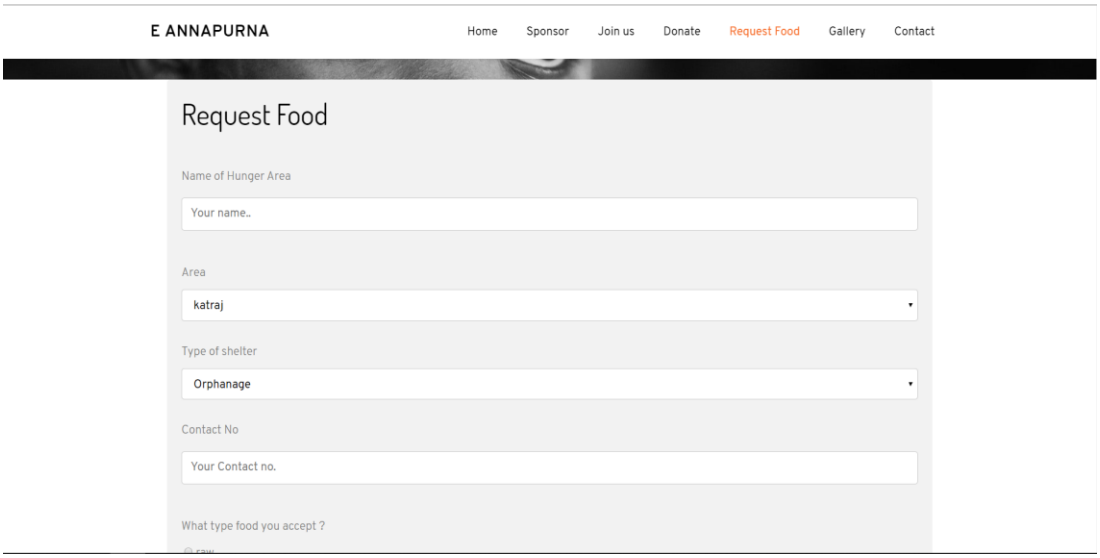


Fig. 2.7: Request-1

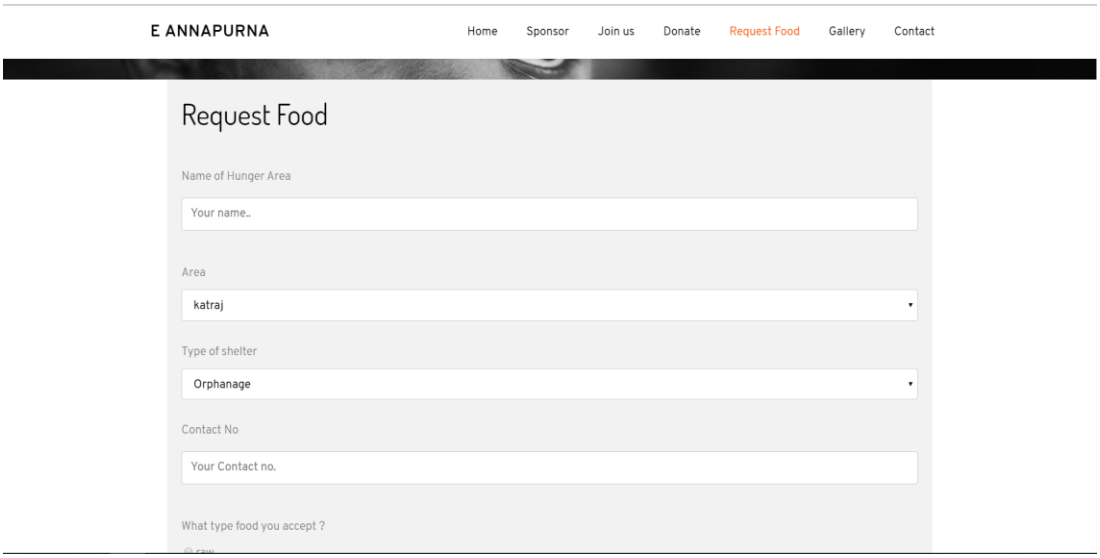


Fig. 2.8: Request-2

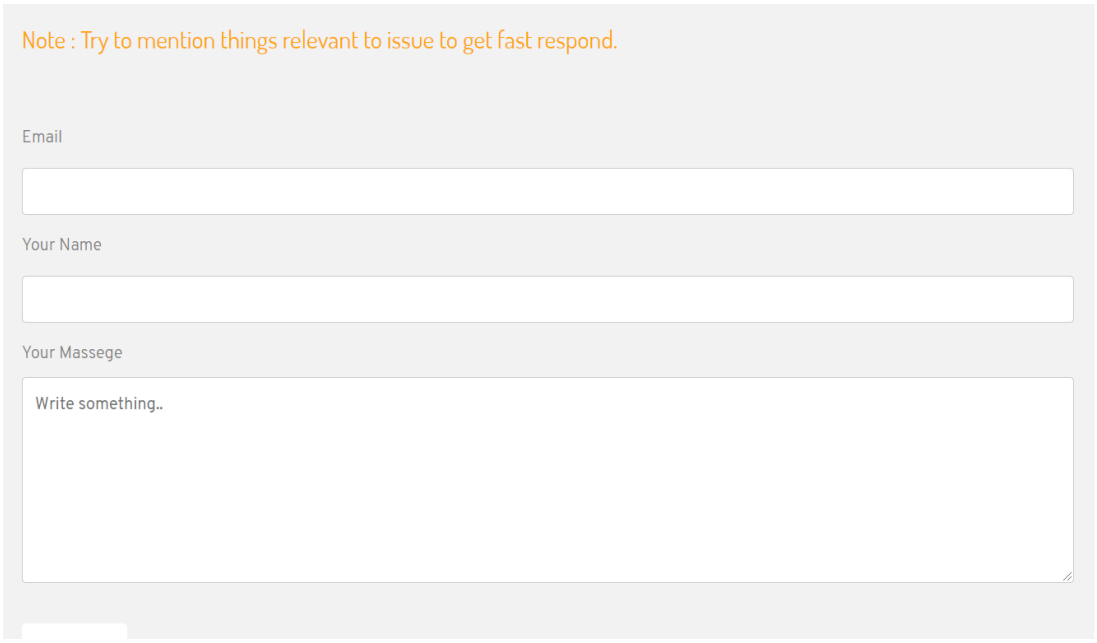


Fig. 2.9: Contact

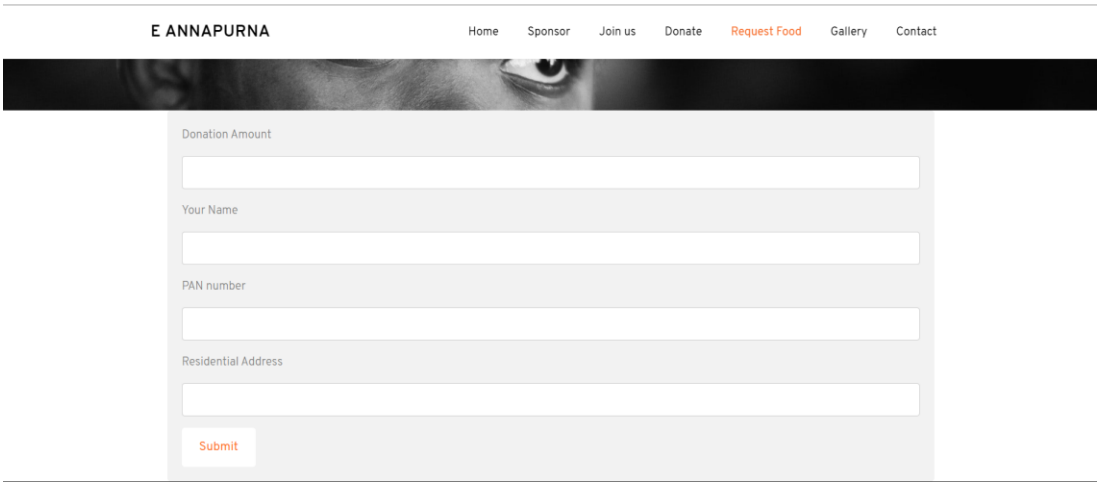


fig.2.10: Donation

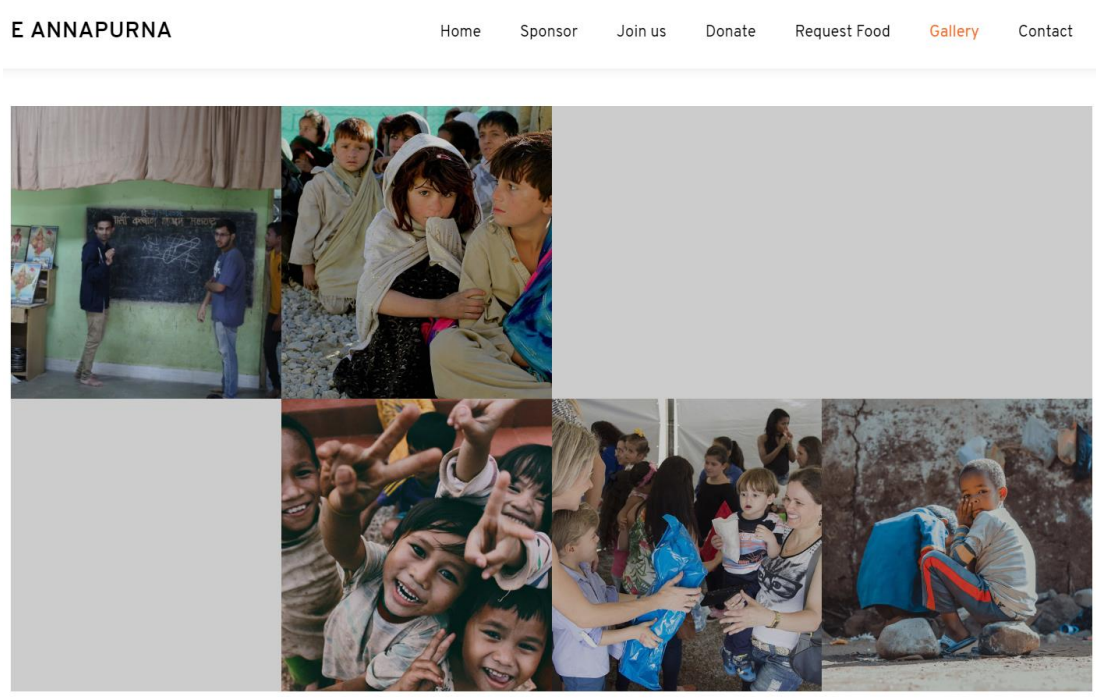


Fig. 2.11: Gallery

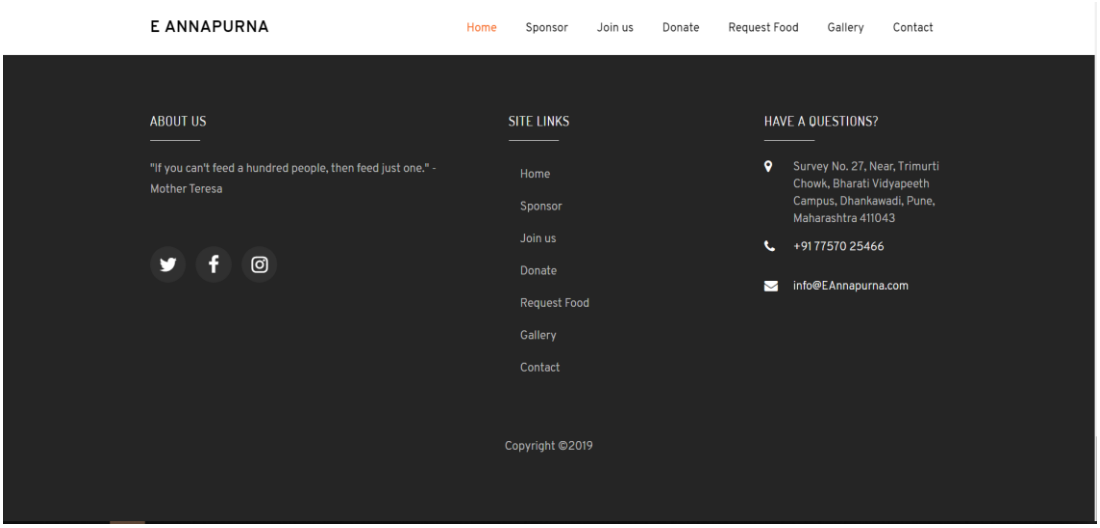


Fig. 2.12: Footer

Snapshots of the Admin Site:

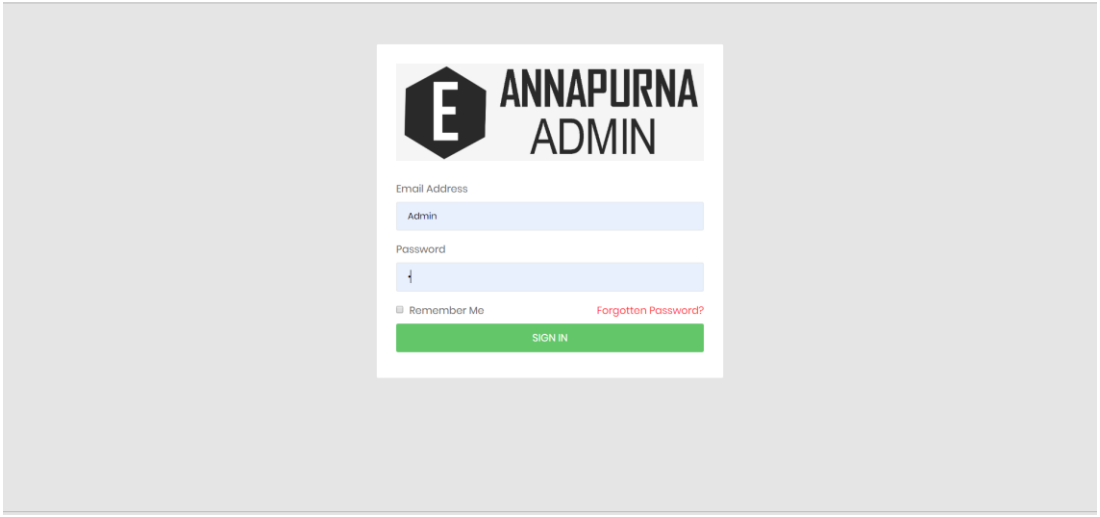


Fig. 2.13: Login

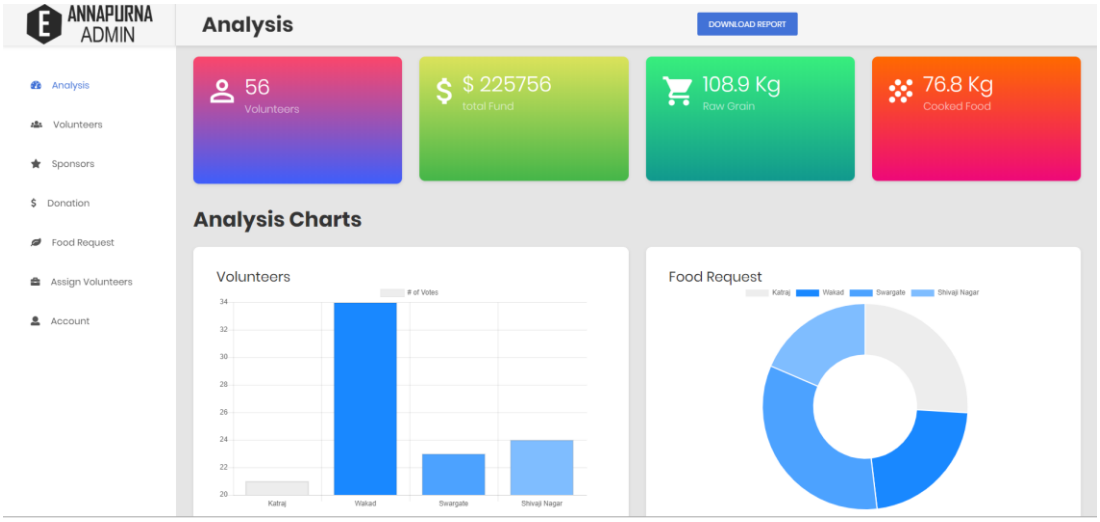


Fig. 2.14: Overall Report

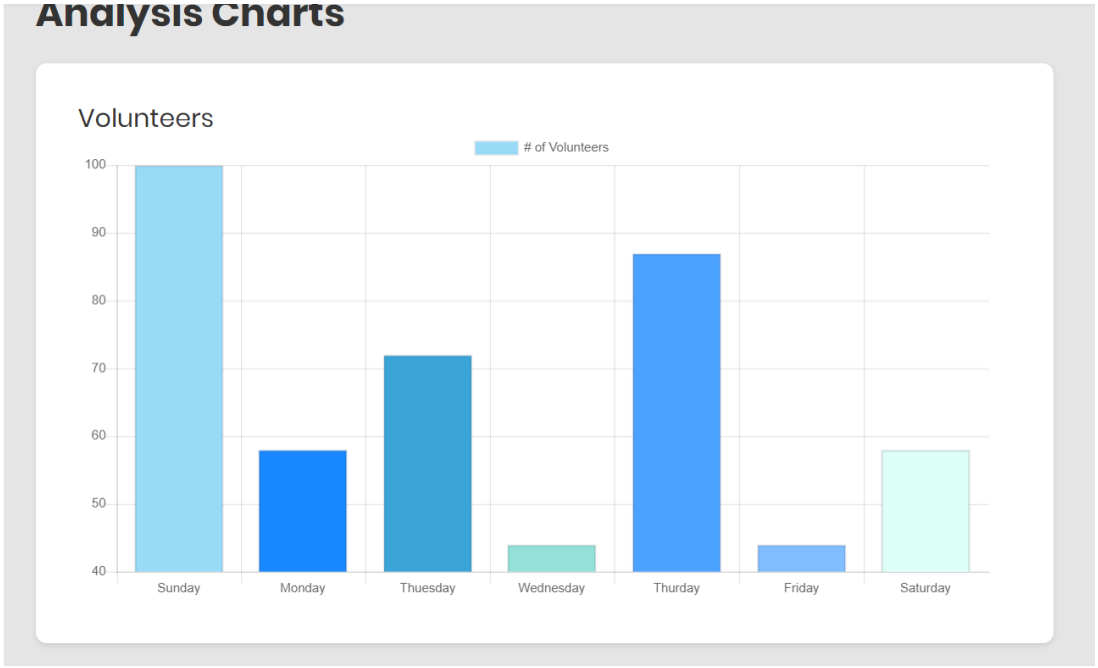


Fig. 2.15: Analysis 1

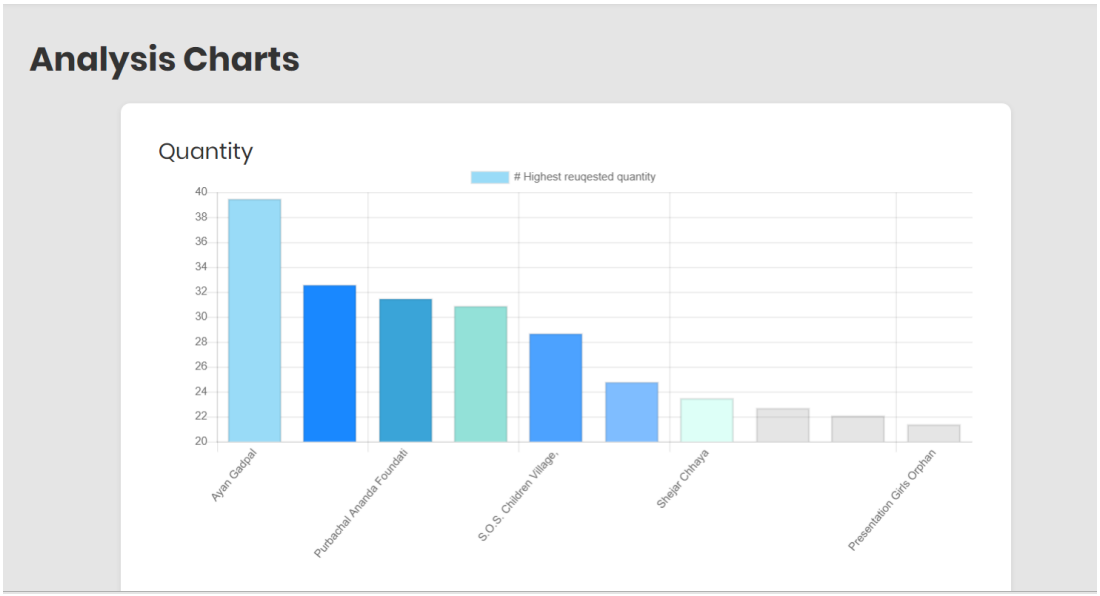
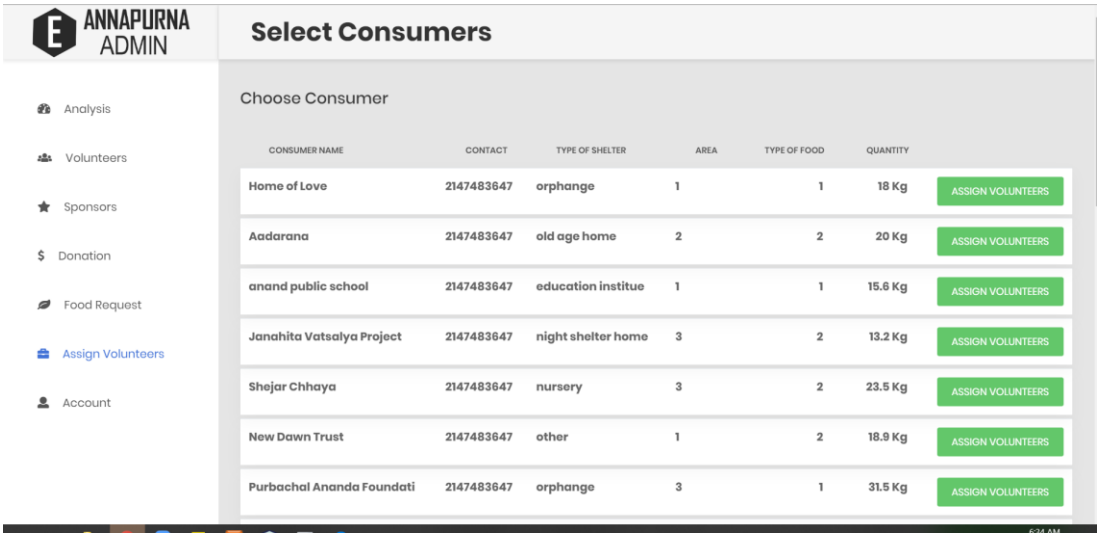
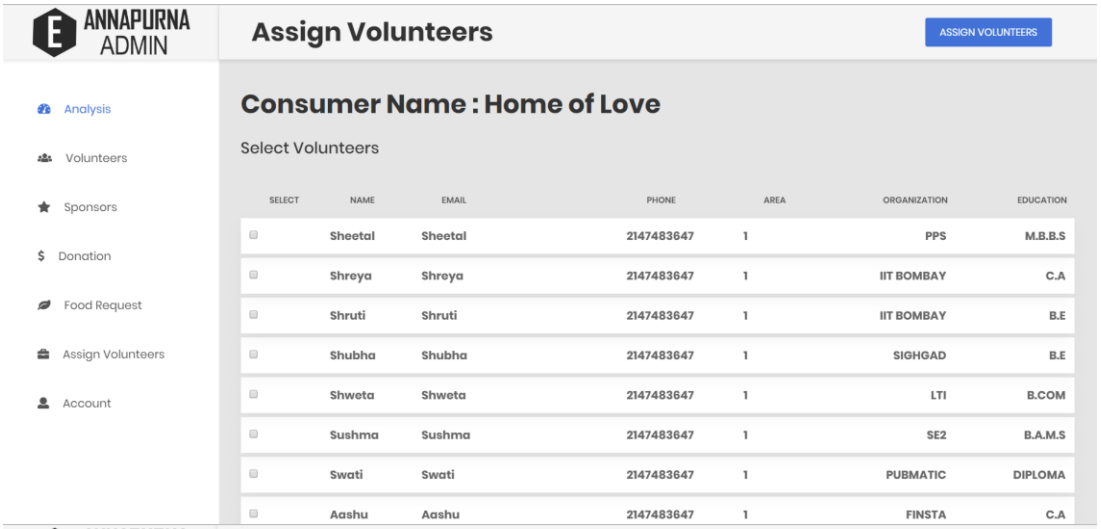


Fig. 2.16: Analysis 2





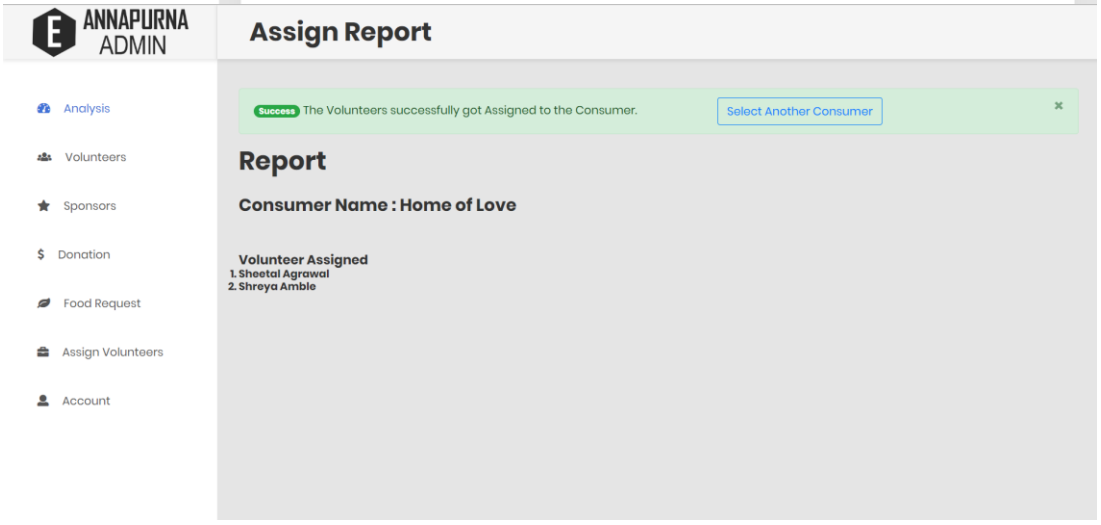


Fig. 2.17: Allocation

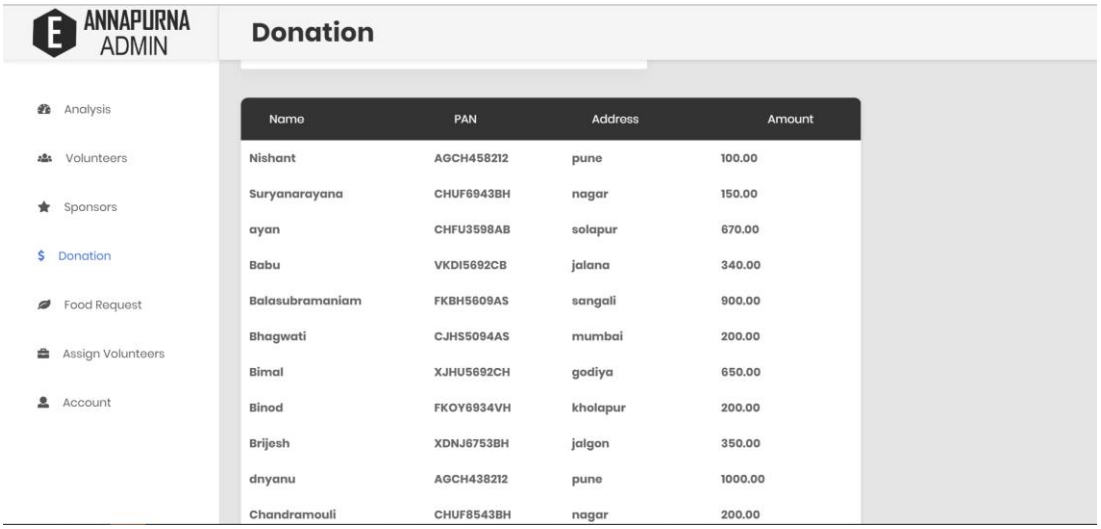


Fig. 2.18: Donation-1

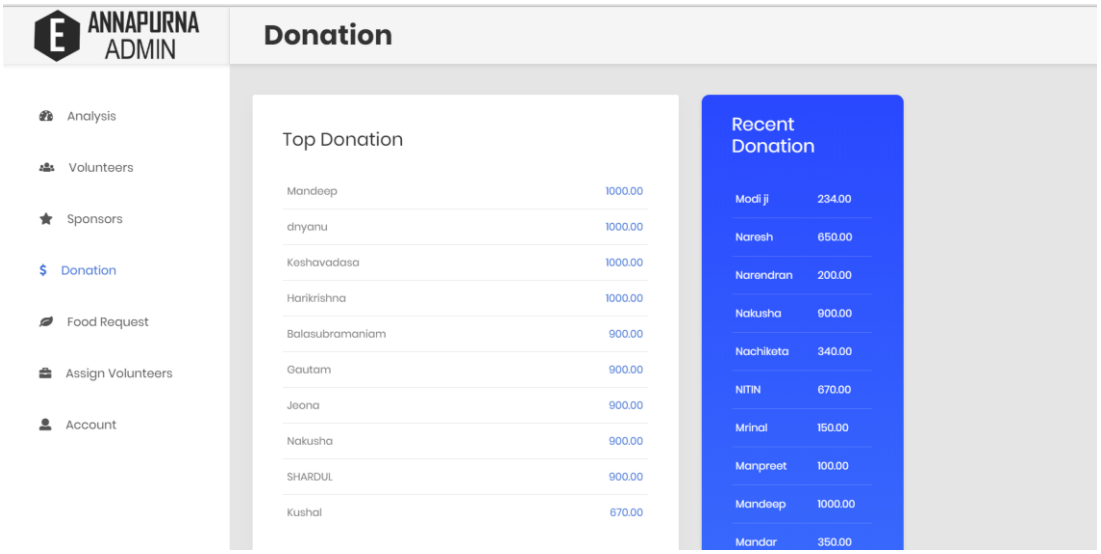


Fig. 2.19: Donation-2

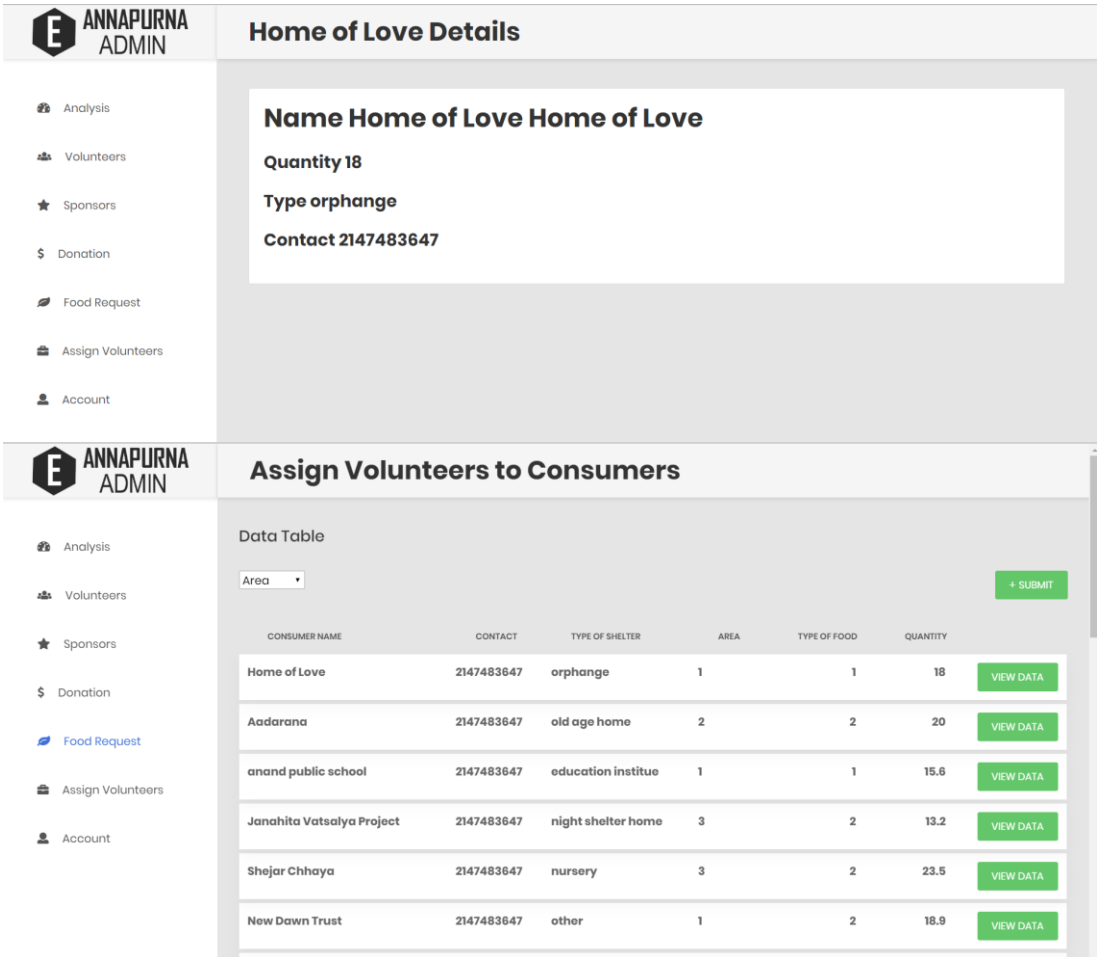


Fig. 2.20: Food Request

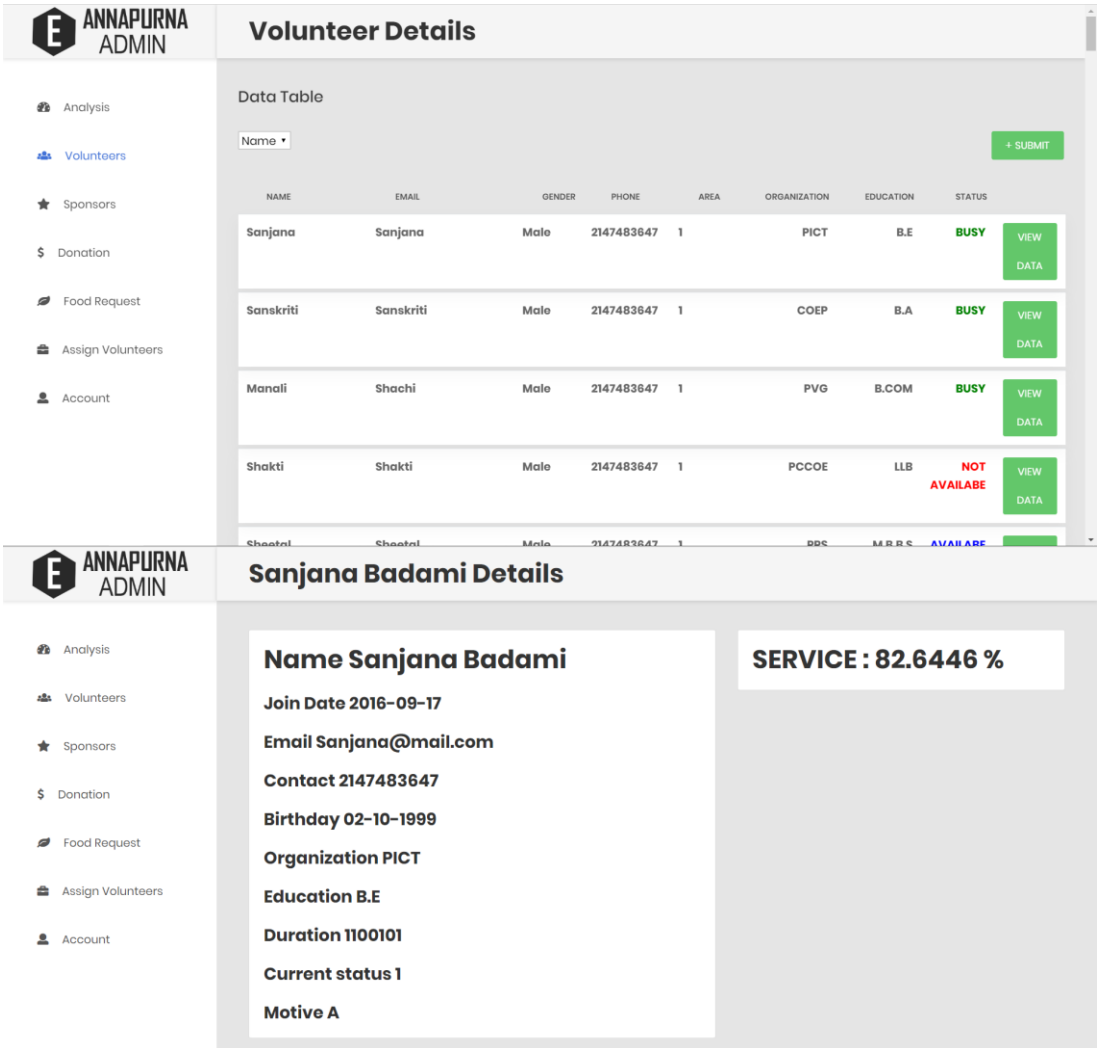


Fig. 2.21: Volunteers

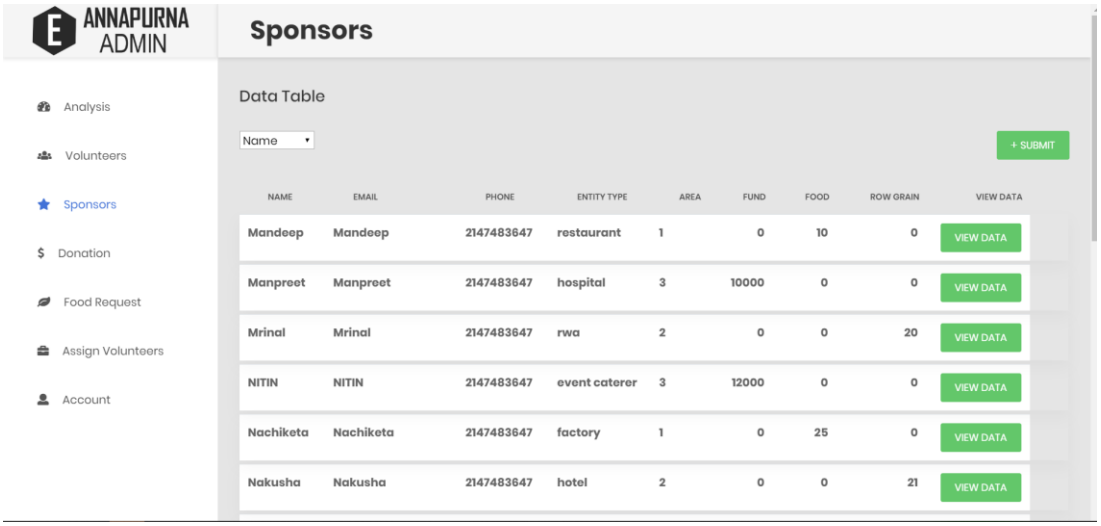


Fig. 2.22: Sponsors

FUTURE SCOPE

- In future, we are developing an android app which will help NGO to track every volunteer who is serving / delivering the food to consumers. It will also display, about how much time volunteer is serving to organization and according to the data, volunteer will get rewarded.

- For future we can advance our system that will provide shortest delivery paths to volunteers using GPS so that they can fulfill each and every request of consumer in short amount of time.

- We will provide NGO, more detailed analysis report for better improvement in system.

CONCLUSION

Thus, this platform helps us to resolve the various problems of respective fields with the help of group members. Anyone may create a group, but the admin retains full control over the group content, along with administrative abilities such as endorsing good answers and viewing more detailed statistics on group activity.

In this system, user also can add the event within the field, so that group members are notified about that event. This platform can also be useful for advertising purpose.

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- https://www.chartjs.org/docs/latest/
- https://www.feedingindia.org
- https://robinhoodarmy.com