Social Aids Cross-Checker

Submitted by

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ABSTRACT

Social Aids Cross-Checker is a web application used to prevent the redundancy of the data from the organizations that support the poor families in Gaza Strip; so the aids can be distributed fairly without redundancy. In addition, having one system that manipulates the processes of the distribution activities is better to store the data in central database without redundancy. The technology which is used to provide the organizations with the work is cross-checker which integrated with the application itself. The system reduces traditional work and provides important services that the organizations need with high quality and efficiently. Furthermore, the system will be able to help different level of organizations by online system and we can connect to the system in at any time and place. The spiral model is used to handle the system processes from requirements till implementation and testing. The system was tested and it showed good results. There was no redundancy and all checked done before distribution. Finally, the system can be evolved to handle more activities such as: This system deals with some of associations categories, we need to develop it to include all categories of associations working in Palestine. Upgrade the system to be more intelligent by adding Frequently Asked Questions (FAQ) to help technicians solve all expected problems with model solutions by referring to a reference database. Add report about the process in the system.
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<td>Civil Society Organizations</td>
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<td>CSS</td>
<td>Cascading Style Sheets</td>
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<td>HCI</td>
<td>Human Computer Interaction</td>
</tr>
<tr>
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<td>Hyper Text Markup Language</td>
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<td>MYSQL</td>
<td>Structured Query Language</td>
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<td>NGO</td>
<td>Non-Governmental Organizations</td>
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<td>Hypertext Preprocessor</td>
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<td>System Development Life Cycle</td>
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<td>Seq</td>
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CHAPTER 1

INTRODUCTION

1.1 Background

In the last ten years the technology revolution has increased rapidly and significantly in our daily life, affecting in a lot of areas and help us to accomplish the tasks accurately and easily and efficiently helped us in the management of many of the processes that would regulate and determine the priorities and prerogatives, especially in emergency situations in the institutions that provide aid to poor families that it is possible that it did not offer assistance. Because of the lack of cross-checking of beneficiary lists to verify who has received aids more than one time in a month.

This project uses technology to develop a web-based application that aims to facilitate cross-checking of information/data of beneficiaries.

Additionally, this project aims to make communications easier by enabling Short Message Service (SMS) right to beneficiaries’ mobiles informing them about when and how to collect their aids.

1.2 Motivation for the Work

Many organizations distribute aids without cross-checking if one of the beneficiaries has received aids more than once in a selected period of time, which leads ignoring the needs of other people who might have been forgotten, leading to unequal distribution of aids in for society.
Moreover, organizations that do not have information management systems consume and waste so much time and efforts trying to validate information of beneficiaries and due to manual processes used, final data are not error-free.

Therefore, we adopted this project in order to overcome shortages listed above.

1.3 Problem Statement

There are main problems facing aids delivery to extremely poor families in the Gaza Strip.
- First: the lack of coordination among different organizations distributing aids.
- Second: Using traditional manual ways for managing work can result in unequal distribution of aids.
- Third: organizations waste a lot of time and resources trying to communicate with beneficiaries to let them know when and how to collect what they are entitled to receive.

1.4 Study Objectives

- To develop an online data cross-checking system to improve the quality of aids distribution.
- To evaluate the effectiveness and reliability of the online data cross-checking system.
- To communication with the different level user this system by mail and SMS.
1.5 Significance of the Project

The importance of this project lies on its ability to serve multiple parties including, aids delivery organizations, donors, and beneficiaries.

Aid delivery organizations can easily validate information of beneficiaries and avoid duplication of aid which positively increases the organization’s ability to target more needy families fairly.

At the donor’s level, this system can help other donor agencies to choose areas, organizations, or target groups who have not get benefits from any aids, which mean increase accessibility to more needy people.

In general, the project definitely contributes in improving the overall quality of aids delivery and can provide more chances for more people to get benefits and reduce time required to cross-check information.
CHAPTER 2

LITERATURE REVIEW

2.1 Non-Governmental Organizations

Non-Governmental Organizations (NGOs) have become quite prominent in the field of international development in recent decades. But the term NGO encompasses a vast category of groups and organizations. [1]

The World Bank, for example, defines NGOs as “private organizations that pursue activities to relieve suffering, promote the interests of the poor, protect the environment, provide basic social services, or undertake community development.” A World Bank Key Document, Working with NGOs, adds, “In wider usage, the term NGO can be applied to any non-profit organization which is independent from government. NGOs are typically value-based organizations which depend, in whole or in part, on charitable donations and voluntary service. Although the NGO sector has become increasingly professionalized over the last two decades, principles of altruism and voluntarism remain key defining characteristics.” [2]

Different sources refer to these groups with different names, using NGOs, Civil Society Organizations (CSOs), Private Voluntary Organizations (PVOs), charities, non-profits charities/charitable organizations, third sector organizations and so on.

These terms encompass a wide variety of groups, ranging from corporate-funded think tanks, to community groups, activist groups, development and research organizations, and advocacy groups, operational, emergency/humanitarian relief focused, and so on. While there may be distinctions in specific situations, this
section deals with a high level look at these issues, and so these terms may be used interchangeably, and sometimes using NGOs as the umbrella term.[3]

2.2 Synchronous and Asynchronous Systems

In a synchronous system, operations are coordinated under the centralized control of a fixed-rate clock signal or several clocks. An asynchronous digital system, in contrast, has no global clock: instead, it operates under distributed control, with concurrent hardware components communicating and synchronizing on channels. Asynchronous systems much like object oriented software are typically constructed out of modular 'hardware objects', each with well-defined communication interfaces. These modules may operate at variable speeds, whether due to data-dependent processing, dynamic voltage scaling, or process variation. The modules can then be combined together to form a correct working system, without reference to a global clock signal. Typically, low power is obtained since components are activated only on demand. Furthermore, several asynchronous styles have been shown to accommodate clocked interfaces, and thereby support mixed-timing design. Hence, asynchronous systems match well the need for correct-by-construction methodologies in assembling large-scale heterogeneous and scalable systems.

2.3 Related Work

After reviewing a series of information from Oxfam organizations around the world, by looking at each of their systems and the character of its founder in a different type of projects, and assistance offered by them. The idea is to make it central and accessed by all non-governmental institutions by create system support the collection all database the beneficiaries whose take the benefits in a period of time and selected whose give the benefits or not. While maintaining the privacy of
each institution separately, which can make it really easier to organize and be more efficient. It can as well be good idea to manage and monitor the system to all beneficiaries and is considered very important tool in evaluation for any project in NGO’s standard. [4]

A new project in World Food Programme (WFP) as the demand for information on the nutritional impact of food aid has increased; the World Food Programme through FAIS has integrated in its database quantity data on food aid deliveries with additional information on their nutritious content. FAIS presents data on food aid deliveries in metric tons and a number of indicators that reflect the nutritional value of food aid deliveries. This User’s Guide is designed to help users to get the most from FAIS data.

Each commodity has a specific content in energy and macro- and micronutrients, many of which are essential to human health and well-being. Three new indicators are proposed to provide a synthesis of the nutritional power of food aid. They link the nutritional content of food aid deliveries with individual nutritional requirements by measuring the number of potential individual requirements. [5]

### 2.4 Significance of Social Aids

Over five years of intensified blockade imposed on the Gaza Strip by the Israeli occupation, the needs for humanitarian assistance have massively increased. This has led many humanitarian agencies to start humanitarian social aid programmers to alleviate poverty in the community. The increasing number of humanitarian service providers made it necessary for them to find a coordination mechanism to share information on who does what, where and how often. This ensures that people who receive social aid are recognized in a database so that if they ask for
social aid again the system automatically answers if they qualify for aid or not yet in order reach out for a larger number of beneficiaries. [6]

2.5 Impact of Using Technology to Synchronize work

This web-based application comes to solve the coordination dilemma as it helps organization double check their lists of beneficiaries to see if they have ever received social assistance before. In this way, people who have never received aid before can be automatically prioritized and people who already received aid within a specific period of time can be identified to avoid duplication of aid delivery which ensures reaching out for larger number of communities. If the beneficiaries register in the project and he was accepted or not the system will send SMS for him about this process.

Another important advantage of this application is that it has the capacity to notify beneficiaries of dates, times, and locations of distribution centers. This facilitates communication with beneficiaries and guarantees that beneficiaries do not miss their appointments because of short notices.

All organizations that provide social aid to poor communities have access to this online system where they can synchronize their own personal databases with this main online system. After that, all organizations can add primary information of their beneficiaries and the system automatically responds whether the beneficiary (ies) has received any assistance by any of the organizations linked-up with the system.

This system has a direct impact on improving efficiency and effectiveness of aid delivery in the Gaza Strip.
CHAPTER 3

PROJECT PLANNING

3.1 Introduction

This chapter will introduce the plan of developing the project, and explains the System Development Life Cycle (SDLC) and the description of the methodology used to development this project.

3.2 Software Engineering Principles

In developing a large computer science project, it is paramount that various principles of software engineering principles to be used. These include following a particular development models, such as the waterfall, spiral models, etc (see below). Each of these models outline a similar structure, with some placing more emphasis on certain phases of the model than others. Some development models are explained below, along with other principles to be adopted (and their benefits to the project).[7]

3.3 Project Methodology

There are a lot of implementation methodology we used some are waterfall joined and spiral, the implementation methodology is based on spiral throw dividing the whole system into subsystems, every subsystem is divided into multiple units, each unit consists of number of PHP template pages, after finish, the unit implementation, units are linked together to generate a complete subsystem. After finishing the subsystem implementation integrated together with other subsystems to generate a complete system.
### 3.3.1 Spiral Model

The spiral model "A software life-cycle model which supposes incremental development, using the waterfall model for each step, with the aim of managing risk. In the spiral model, developers define and implement features in order of decreasing priority". Barry Boehm (1986) [8], and is similar to Royce’s final design.

This model explains the importance of iteration on the development process, and has many advantages for large projects. For instance, changes in requirements can be introduced in the next iteration in a controlled manner. The spiral model is reproduced in figure 3.1

![Fig 3.1 spiral model](image)

Each full rotation around the spiral contains one copy of the initial waterfall model. The benefit of this is that cost estimates become more accurate as work progresses. However, there are certain problems with the spiral model. The main problem is that it is only suitable for large-scale developments, as it is driven by
risk assessment, and as such a considerable amount of expertise is needed in analyzing software risk. In addition, it has not been used commercially as widely as the waterfall model, meaning clients may have concerns regarding its effectiveness. [8]

3.3.2 Advantages of Spiral Methodology:

The study used the spiral methodology, model advantages can be generalized as follows by Amigo (2010). [9]

- Repeated or continuous development helps in risk management. The developers or programmers describe the characteristics with high priority first and then develop a prototype based on these. This prototype is tested and desired changes are made in the new system. This continual and steady approach minimizes the risks or failure associated with the change in the system. [9]

- Adaptability in the design of spiral model in software engineering accommodates any number of changes that may happen, during any phase of the project. [9]

- Since the prototype building is done in small fragments or bits, cost estimation becomes easy and the customer can gain control on administration of the new system. [9]

- As the model continues towards final phase, the customer's expertise on new system grows, enabling smooth development of the product meeting client's needs. [9]
3.4 Phases in Spiral Model

3.4.1 Analyses

In this phase should be to give them enough information about work by interview, search about similar idea, questioner, etc. to determined and understand system requirement then we should molding the requirement finally review analyses.

- **Methods of information collection**

  - **Observation** it is the main method in gathering information; because the student who thinks in the project is one of the users of the organization system.
  
  - **Focus groups**: discuss the subject deeply through group discussion with organization and people interact with the system.

  - **Brainstorming**: is a group creativity technique by which a group tries to find a solution for a specific problem by gathering a list of ideas spontaneously contributed by its members. The term was popularized by Alex Hackney Osborn in 1953 through the book Applied Imagination[^10]. In the book, Osborn not only proposed the brainstorming method but also established effective rules for hosting brainstorming sessions.

3.4.2 Design

In this section phase the team work with the result from the analysis section to design the first prototype depending on the system requirement and user feedback see more details in chapter 4.
3.4.3 Implementation

With enough analysis and design, implementation phase should begin to build the first prototype, the followed list show the implementation step:

1- Build the database in Structured Query Language (MYSQL) use app server.
2- Create forum in Hyper Text Markup Language (HTML) and style(color, size) for the text and table in Cascading Style Sheets (CSS) use the PHP designer program.
3- Write code in hypertext preprocessor (PHP) and JavaScript language use the PHP designer program.
4- After build database and web pages we link web pages with the database.

3.4.4 Testing

Usually, you never test something on the production environment and especially production database for three reasons:

a. **Performance**: testing may be CPU-intensive and waste other precious resources of your servers. Since you don't want to reduce the performance of the production environment during tests, you should not use production environment for that.

b. **Data protection**: you don't want to alter the data in your production database during tests. This means that not only your tests may have a limited range, but you may accidentally alter data by running an untested code on your production database, when the beneficiaries use the error data.\[11\]
3.4.5 Deployment

In this phase the user tests the prototype and gives the feedback then the spiral goes in the next loop.

3.5 Project Scheduling

After studying the system requirements, a suitable period of time is allocated to complete these requirements; it is about four months from the day that the study started.

3.5.1 Work Breakdown Structure (WBS)

1. Analysis:

   It’s the first phase of the system development process, which identifies the requirement of the project and establishes a general plan study.

   a. Information Gathering
   b. Determine and understand system requirement
   c. Search for similar system
   d. Modeling requirement
   e. Review analysis

2. Design:

   It’s the second phase of the system development process that determines the structure of the system and data flow.

   a. Database structure design.
   b. System constraint design.
   c. Interface design.
3. **Implementation**:

   b. Build database
   c. Write code program (PHP, JavaScript, CSS, HTML, jQuery)
   d. Link webpage and database
   e. Review Implementation

4. **Testing**

   The test is very important phase in the project to validate the goals of project and we will explain this in chapter 6.

   a. Unit test cases.
   b. Unit usability testing.
   c. Unit security testing.
   d. Unit performance testing.
   e. Unit user Acceptance testing (UAT).
   f. Unit system test.
   g. Unit link webpage and database

5. **Deployment**

   This system can receive much information from user and organization; it can schedule the copying of files at the time of day when there are few visitors, and updating all information every day in middle night. For security reasons, the system completely offline once per week during maintenance or other scheduled tasks.\[12\]
3.6 Scheduling and Time Line:

<table>
<thead>
<tr>
<th>Id</th>
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<th>Recourses</th>
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<td>1</td>
<td>Requirements</td>
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<td></td>
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<td></td>
<td>Specification</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>2</td>
<td>System Analyses</td>
<td>42 days</td>
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<td>3</td>
<td>System Design</td>
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<tr>
<td>4</td>
<td>System Implementation</td>
<td>3 days</td>
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</tr>
<tr>
<td>5</td>
<td>System Testing</td>
<td>60 days</td>
<td>4</td>
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<tr>
<td>6</td>
<td>Writing Documentation</td>
<td>211 days</td>
<td>1,2,3,4</td>
<td>Project department</td>
</tr>
</tbody>
</table>

Table 3.1 Gantt chart
And from analysis previous system have the same purpose for this project

After this steps the requirement have become understood and clear, the first thing the user do to use the system is registration in the system then user can do

1. User can add data and ask to be benefiters.
2. Can view his own data and see more offers.
3. User can show notification for his status.
3.7 Development Requirement

3.7.1 Hardware Requirements:

- These are the minimum hardware requirements:

1. Server.
2. High speed Internet connection 8 MB.
3. Fiber optic modem.
4. Fiber cable.
5. 4 GB RAM.
6. 2 i7 Processors.
7. Motherboard P5Q.
8. LCD screen.

3.7.2 Software Requirements:

- These are the minimum software requirements:

1. Adobe Dreamweaver CS5.
2. Local host MySQL appServ.
3. PHP programming language.
4. Smart Draw.
5. MySQL database.
CHAPTER 4

SOFTWARE REQUIREMENT SPECIFICATION AND ANALYSIS

4.1 Introduction

The difficulties faced by work of institutions and their staff in the development of a mechanism to determinant of distribution of aid is big. Reflected difficulties of the current reality experienced by these institutions through the absence of the determination of the distribution process and scientific methods to help in delivery of aid to beneficiaries accurately.

Therefore, the idea of this system is to put statues on this basis for distribution to the beneficiaries of aid. This project adapted the use collecting qualitative data through personal interviews, some technicians to help stakeholders to monitor and follow up the work in an effective system that prevent duplications of beneficiaries receiving the aid for organizations like the World Food Program.

The collected qualitative data helped building a solid infrastructure for the development of a comprehensive system of institutions addresses most of the difficulties faced by the employee and the beneficiary at the same time with the distribution of aid.

In this Section, the functional and non-functional requirements are introduced using the Unified Modeling Language (UML) which is an open method used to specify, Visualize, construct and document the artifacts of an object-oriented software-intensive system under development. UML offers a standard way to write a system's blueprints, including conceptual components. [13]
Concisely worded statement that describes how the software will behave and when it is completed. In other words, every time a requirement is implemented, the system shall behave in accordance to the conditions that the requirements establish.

Functional requirement addresses the operations that the system performs (behavior).

Nonfunctional requirement applies to the standards or qualities of performance that constrain the design or operations of the system.

4.2 **Functional Requirements Specification**

This section outlines the use cases for each active reader separately. The reader, the author and the reviewer have only one use case apiece while the editor is main actor in this system.

4.2.1 **Donor:**

![Fig: 4.1 Use Case for Donor](image-url)
• Brief Description

The donor who can control all processes of this project and he can make some of events and processes:

1. **Login:** User of this system (Beneficiaries, Administrators) can login to the system using a username and password, and If login information invalid, the system will display an error message and ask to re-enter the correct login information again.

2. **Monitoring Beneficiaries:** Administrator clicks on add, update and delete beneficiaries button to follow up account, administrator is required to fill out account information of the beneficiaries and determine their access levels, If no data entered and click on ADD button, adding data cannot be added, If the added data is true, the massage of successful adding appears, The administrator can view, update and delete the existing beneficiaries.

3. **Management Categories:** Administrator can create and delete categories and whether they are grand or remove permission and can assign new tasks among administrators, administrator can update, modify or delete a particular task from any administrators account.

4. **Monitoring Organization:** Administrator clicks on add, update and delete organization button to follow up account, administrator is required to fill out account information of the organization, If no data entered and click on ADD button, adding data cannot be added, If the added data is true, the massage of successful adding appears, The administrator can view, update and delete the existing organizations.

5. **Send Reports:** The administrator can send report to organization to still contact with him.
4.2.2 Organization

Brief Description

In this case organization in this system to help beneficiaries to access and choose any offer. In this part we discuss whose organization work in system.

1. **Login**: organization of the system can login to the system using a username and password, if login information invalid, the system will display an error message and ask to re-enter the correct login information again.

2. **Monitoring Beneficiaries**: Administrator clicks on add, update and delete beneficiaries button to follow up account, administrator is required to fill out account information of the beneficiaries and determine their access levels, If no data entered and click on ADD button, adding data cannot be added, If the added data is true, the massage of successful adding appears, The administrator can view, update and delete the existing beneficiaries.
3. **Manage Beneficiaries:** Organization can accept and reject the beneficiary’s application, if organization accepts the application the organization will send SMS for the application is accepted.

4. **Send Reports:** The organizations can send report to donor and beneficiaries to still contact with him.

5. **Send SMS:** the organization connect with the beneficiaries to accept him or not, directly by send SMS to him about this process when the organization change status to beneficiaries and the organization can send SMS to specific and all beneficiaries.

6. **Manage Offer:** the organizations can create, update and delete offer and share it of the beneficiaries’ news on the web site. Organization is required to fill out offer information, if no data entered and click on add offer, adding data cannot be added, if the added data is true, the massage of successful will add offer is display, the organization can view, update and delete the offer.

### 4.2.3 Beneficiaries:

![Use Case for Beneficiaries](image-url)

Fig: 4.3 Use Case for Beneficiaries
**Brief Description**

The beneficiaries to know how take aid from organization and coming to the system to search about offer to aid and can make this issue:

1. **Login:** beneficiaries of the system can login to the system using a SSN and password, if login information invalid, the system will display an error message and ask to re-enter the correct login information again.

2. **Create Applications:** beneficiaries clicks on add, update, view and delete applications button to follow up offer, beneficiaries is required to fill out application information of the offer, If no data entered and click on add offer button, adding data cannot be added, If the added data is true, the massage of successful adding display, The beneficiaries can view and update the application and offer.

3. **Send Mail:** The beneficiaries can send mail to organization to can contact with organization.

**4.3 Use Case Specification**

This document outline illustrates how to write a complete use case specification in order to capture the specific details of a use case (beyond just the models and diagrams you may have drafted), in order to capture the functional requirements of a system. Comprehensive use case specifications can help drive decisions about system architecture, user interface, manuals and tests, and more.[14]
4.3.1 Login Use Case

<table>
<thead>
<tr>
<th>Brief description</th>
<th>The use case is initiated by any user of the system whether beneficiaries, organizations or administrator (Donor) when they want to access the system. They will be required to enter a valid user name and password to continue.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre- condition</td>
<td>Actor account is active</td>
</tr>
<tr>
<td>Characteristics of activation</td>
<td>User of the system should be a user of the system</td>
</tr>
</tbody>
</table>
| Flow of events    | **Basic flow**  
At the login page actor keys in the username and password, and then click on submit button.  
System verifies login info.  
System displays the main menu  
End of use case  

**Exceptional flow**  
Invalid login message: the system shall display “Please enter a valid username and password”  
In case of user account is not active the system will display message “your account is not active ... contact you're the administrator or organization” |
| Post-Conditions   | Login authenticated  
Actor is given access to the main menu                                                                                                                                                              |

Table 4.1 Use Case Login
### 4.3.2 Add Organizations Use Case

<table>
<thead>
<tr>
<th>Brief description</th>
<th>The administrator (donor) clicks at to add organization button to create new organizations account in any categories.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-condition</td>
<td>Successful login</td>
</tr>
<tr>
<td>Characteristic of activation</td>
<td>On administrator (donor) demand</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flow of events</th>
<th>Basic Flow:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>administrator click on add organizations button on the organizations list</td>
</tr>
<tr>
<td></td>
<td>The administrator selects the organizations categories.</td>
</tr>
<tr>
<td></td>
<td>The administrator adds all the information for the new organization for the information’s needed.</td>
</tr>
<tr>
<td></td>
<td>Administrator clicks on the title of add organization.</td>
</tr>
<tr>
<td></td>
<td>Organization details are displayed on screen</td>
</tr>
<tr>
<td></td>
<td><strong>Exceptional Flow:</strong></td>
</tr>
<tr>
<td></td>
<td>Some required field are not filled and notify the organization to fill them</td>
</tr>
</tbody>
</table>

| Post-Condition | System displays organizations on screen                                                          |

| Table 4.2 Add Organizations |

25
4.3.3 Create New Offer Use Case

<table>
<thead>
<tr>
<th>Brief description</th>
<th>The organization case is initiated by any beneficiaries when they needed to submit an offer for the organization.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-condition</td>
<td>Successful login</td>
</tr>
<tr>
<td>Characteristic of activation</td>
<td>On organizations demand</td>
</tr>
</tbody>
</table>
| Flow of events    | Basic Flow:  
organizations clicks on create a new offer link from the main menu  
A display form will appear to fill out details of offer request  
System checks if all the required fields are filled out.  
System creates a request and displays the request details  
Alternative Flow:  
Actor can click on reset button to clear entry fields of data to fill them again  
Exceptional Flow:  
Some required field are not filled and notify the organization to fill them |
| Post-Conditions   | Request is created and offer details are displayed on screen.                                               |

Table 4.3 Create New Offer
4.3.4 Add New Beneficiaries Use Case

<table>
<thead>
<tr>
<th>Brief description</th>
<th>The administrator’s and the new beneficiaries can create new account in any offers in the system.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-condition</td>
<td>Successful login</td>
</tr>
<tr>
<td>Characteristic of activation</td>
<td>On administrator’s demand</td>
</tr>
</tbody>
</table>
| Flow of events    | **Basic Flow**  
|                   | Actor click on add new beneficiaries link on the beneficiaries list  
|                   | The actor adds all the information for the new beneficiaries on the application needed.  
|                   | Actor clicks on the title of add new beneficiaries.  
|                   | Beneficiaries details are displayed on screen                                                  |
|                   | **Alternative Flow**  
|                   | Actor can click on add new beneficiaries button when the SSN is found the system display message “The beneficiaries is found on the system “.  
|                   | **Exceptional Flow**  
|                   | Some required field are not filled and notify the organization to fill them.                  |
| Post-Conditions   | System displays beneficiaries on screen                                                          |

Table 4.4 Add New Beneficiaries
4.4 Non-Functional Requirements Specification

A non-functional requirement is a requirement that specifies criteria that can be used to judge the operation of a system, rather than specific behaviors. This should be contrasted with functional requirements that define specific behavior or functions. The plan for implementing functional requirements is detailed in the system design. The plan for implementing non-functional requirements is detailed in the system architecture.[15]

4.4.1 Reliability issues

The system should be able to receive more than a thousand processes by the users in the same time, this mandatory priority. Many users have the ability to register on the system at the same time; database should perform a high quality service. And have pack up every day to save the information.

4.4.2 Usability issues

Users of the system should be able to view information in seconds, this mandatory is priority. That system is easy to use and need to be based on needs such as HCI "Human Computer Interaction" The sense that system interacts with the user in terms of guidance in dealing with system and warning and informing him . For example in the numbers field he has to write only in numbers, same as in the letters field it will not accept numbers. The user talk about this system is easy to use, and easy to view and move between pages .the screen is designed in a suitable way to the eyes for example personal data filled in the different boxes are easy to locate in the screen and all the contact information filled in other box are clear and organized in an easy systematic way.
4.4.3 Security issues

The core architecture of the system provides control over the access to the system. Detection of unauthorized access and the activities performed by the hackers avoiding it; the system blocks any user’s IP enters wrong password 3-times for a temporary period.

4.4.4 Portability issues

The system tends to adapt software system to other environments consisting of different hardware, various operating systems, and so forth. These requirements make it possible to continue using the same basic software in diverse situations or to use it simultaneously in diverse hardware and operating systems situations, this mandatory priority. It is based on system that works across the internet and it is easily to access from anywhere by any device is equipped with principles of internet connection (computer, Internet line, internet browser, etc.).

4.4.5 Maintainability issues

NGOS System allows the rest of the organization to adjust and use it without much change on the structure, in an easy and inexpensive way, this mandatory priority. The system can be developed easily without having it down; some components can be maintained and developed separately from the online system and merged later to the online system. Also development process on system Web site easier and uncomplicated.

4.4.6 Availability issues

Availability of information in the system, by host the system on cloud computing hosting to insure the availability of the system any time and the secured cloud
servers around the world. With short time in system recovery on failure and maintain. The system can convert traditional organizations by insert the data to excel sheets and connect it to the database.

4.5 Activity Diagram

Are graphical representations of workflows of stepwise activities and actions with support for choice, iteration and concurrency. \(^{[16]}\)

4.5.1 AD for Login actor to system

Donor and Organization insert username and password to login the system in the username and password error return to login page.
4.5.2 AD for Add Organizations from Donor

Donor can add organization by click to add organization button and insert the information of organization then the system required filled if yes add organization or not the system return to add organization.
4.5.3 AD for Add Offers from organizations

Fig: 4.6 AD for Add Offer from organizations

Organization can add offer by click to add offer button and insert the details of offer then the system required filled if yes add offer or not the system return to add offer.
4.5.4 AD for Add Beneficiaries from organizations

Fig: 4.7 AD for Add Beneficiaries from organizations

Organization can add beneficiaries by click to add beneficiaries button and insert the information of beneficiaries then the system required filled if yes add beneficiaries or not the system return to add beneficiaries
4.5.5 AD for Send SMS from organizations

Organization can send SMS by click to send SMS by click send SMS and select the beneficiaries name then click to add number and click send.

Fig: 4.8 AD for Send SMS from organizations
4.5.6 AD for Send Mail from actor

Actor can send mail by click on send mail then select choose name and insert the information on mail then click send.

Fig: 4.9 AD for Send Mail from actor
CHAPTER 5

SOFTWARE DESIGN DESCRIPTIONS

5.1 System Architecture

5.1.1 Administrator (Donor) Home Page

**Name:** Admin Home page

**Type:** Control web page

**Description:** This is the admin home page presented to the organization, gave the permeation to organization and view all offer, and can view all beneficiaries on different offer.

---

Fig 5.1 System Architecture
Attributes: None

Resources: None

Operations:

Name: Select ()

Arguments: None

Returns: No return value

Pre-condition: Connected to site

Post-condition: On another page

Exceptions: None

Flow of Events:

1. Admin give the organization permeation and select categories to active on the web site.
2. Admin can add the beneficiaries in the offers and can contact them by SMS.
3. Can follow up the beneficiaries and organizations (view, update).

Admin add news on the Home page.
5.1.2 Organization

Name: admin (organization) Page

Type: Control web page.

Description: this page designed to protect the synchronization of data when the SSN is found and the admin of organization can add the offer and rejected beneficiaries in specific offer. When the organization accepted the application of beneficiaries the organization will send SMS to tell him about the acceptable in the project and will still contact with him. The organization can send email to the specific beneficiaries. Also the organization adds news about his projects and offers on the beneficiaries’ home page.

Attributes: Text

Resources: None

Operations:

Name: Submit ()

Arguments: None

Returns: Text file

Pre-condition: Connected to site

Post-condition: name is saved

Exceptions: None
**Flow of Events:**

1. Organizations can add offers and news.

2. Organizations can contact with the beneficiaries and they can send SMS.

3. Organizations can add beneficiaries on his offer.

4. Can follow up the beneficiaries (view, update, delete).

**5.1.3 Beneficiaries**

**Name:** beneficiaries web site.

**Arguments:** None

**Returns:** No return value

**Pre-condition:** Connected to site

**Post-condition:** Form is cleared

**Exceptions:** None

**Flow of Events:**

1. Beneficiaries can register on the system web site

2. Beneficiaries can register on offer.

3. Beneficiaries can view offers and news.
5.2 Database Design

The data is stored in a relational database using My Standard Query Language MYSQL. The relations are described by the administrators in organization. The fields for transmitting to and from the database are given in the following table.

5.2.1 ER Diagram

The ER modeling concepts are sufficient for representing many database schemas for "traditional" database applications, which mainly include data-processing applications in business and industry. [17]

Fig 5.2 ER Diagram
5.2.2 Data field types and sizes.

In this section we will view and describe tables in the system include attribute Name, Type and Size

5.2.2.1 Organization:

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Name</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Descr</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Address</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Tel</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>User Name</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Password</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Status</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Type</td>
<td>Varchar</td>
<td>3</td>
</tr>
<tr>
<td>Gateway</td>
<td>Int</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 5.1 Organization

5.2.2.2 Offer:

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Name</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Info</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Body</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Org_id</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Date1</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Date2</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Status</td>
<td>Int</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 5.2 Offer
5.2.2.3 Photo:

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Name</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Pic</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Org_id</td>
<td>Varchar</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 5.3 Photo

5.2.2.4 My Offer:

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>offer_Id</td>
<td>Varchar</td>
<td>10</td>
</tr>
<tr>
<td>Org_id</td>
<td>Varchar</td>
<td>10</td>
</tr>
<tr>
<td>Client_id</td>
<td>Varchar</td>
<td>10</td>
</tr>
<tr>
<td>Status_id</td>
<td>Varchar</td>
<td>10</td>
</tr>
<tr>
<td>Type</td>
<td>Varchar</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 5.4 my offer

5.2.2.5 Admin

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Username</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Password</td>
<td>Varchar</td>
<td>255</td>
</tr>
</tbody>
</table>

Table 5.5 Admin
### 5.2.2.6 Beneficiaries:

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Name</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Address</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Tel</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Mobile</td>
<td>Bigint</td>
<td>20</td>
</tr>
<tr>
<td>Study</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Job</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Mid_salary</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Email</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Family</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Type</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Org_ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>SSN</td>
<td>Bigint</td>
<td>20</td>
</tr>
<tr>
<td>Poor</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>User_Name</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Password</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Org_id2</td>
<td>Int</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 5.6 Beneficiaries
5.2.2.7 News:

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Title</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Body</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Info</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Date1</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Pic</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Org_id</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Status</td>
<td>Int</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 5.7 News

5.2.2.8 Mail

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Sender_id</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Client_id</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Subject</td>
<td>Varchar</td>
<td>10</td>
</tr>
<tr>
<td>Message</td>
<td>Text</td>
<td>Not null</td>
</tr>
<tr>
<td>Is_read</td>
<td>Tinyint</td>
<td>Not null</td>
</tr>
<tr>
<td>Is_delete</td>
<td>Tinyint</td>
<td>Not null</td>
</tr>
<tr>
<td>Date1</td>
<td>Varchar</td>
<td>255</td>
</tr>
</tbody>
</table>

Table 5.8 Mail
5.2.2.9 Contact Us

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Name</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Subject</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Message</td>
<td>Varchar</td>
<td>255</td>
</tr>
<tr>
<td>Email</td>
<td>Varchar</td>
<td>255</td>
</tr>
</tbody>
</table>

Table 5.9 Contact Us

5.2.2.10 Gateway

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Name</td>
<td>Varchar</td>
<td>255</td>
</tr>
</tbody>
</table>

Table 5.10 Gateway

5.2.2.11 Mail Receptionist

<table>
<thead>
<tr>
<th>Attribute Name</th>
<th>Attribute Type</th>
<th>Attribute Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Mail ID</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Is Delete</td>
<td>Int</td>
<td>1</td>
</tr>
<tr>
<td>Is read</td>
<td>Int</td>
<td>11</td>
</tr>
<tr>
<td>Sender ID</td>
<td>Varchar</td>
<td>50</td>
</tr>
<tr>
<td>Reciver ID</td>
<td>Varchar</td>
<td>50</td>
</tr>
</tbody>
</table>

Table 5.11 Mail Receptionist
5.3 Sequences Use Case Diagram

Sequence diagram shows interaction between users, systems and sub-systems, and emphasize the ordering of time of messages. You can draw sequence diagram solely by mouse or with keyboard shortcuts.\textsuperscript{[18]}

5.3.1 Use Case: Add Organization from Donor

![Sequence diagram](image)

**Fig 5.3 Seq. Add Organization from Donor**

The Donor can add organization to this system by this process:
- Donor should be login to the system to add organization by insert username and password.
- The system validates username and password to login system.
- Donor click to organization button to view all organization and click to add organization button.
- Donor inserts all new information about the organization and save click to add organization button.
5.3.2 Use Case: Add Beneficiaries from Organizations

The Organization can add beneficiaries to this system by this process:

- Organization should log in to the system to add beneficiaries by inserting a username and password.
- The system validates the username and password login.
- Organization clicks on beneficiary’s button to view all beneficiaries and click to add beneficiaries’ button.
- Organization inserts all new information about the beneficiaries and saves the click to add beneficiaries’ button.

Fig 5.4 Seq. Add Beneficiaries from Organizations
5.3.3 Use Case: Add Offer from Organizations

The Organization can add offers to this system by this process:
- Organization should be login to the system to add offer by insert username and password.
- The system validates username and password to login system.
- Organization clicks to offer button to view all offer and click to add offers button.
- Organization inserts all new information about the offers and save click to add offer button.

Fig 5.5 Seq. Add Offer from Organizations
5.3.4 Use Case: Register Beneficiaries in Offer from Donor

The Donor can register beneficiaries in offers to this system by this process:

- Donor should be login to the system to register beneficiaries in offers by insert username and password.
- The system validates username and password to login system.
- Donor clicks to add beneficiaries in offer button.
- Donor inserts all new information about beneficiaries.

Fig 5.6 Seq. Register Beneficiaries in Offer from Donor
5.3.5 Use Case: Delete Offer from Organizations

The organization can delete offer to this system by this process:
- Organization should be login to the system to delete offer by insert username and password.
- The system validates username and password to login system.
- Organization clicks to delete offer button.
- Organization deletes all information about offer.

Fig 5.7 Seq. Delete Offer from Organizations
5.3.6 Use Case: Delete Beneficiaries from Organizations

The organization can delete beneficiaries to this system by this process:
- Organization should be login to the system to delete beneficiaries by insert username and password.
- The system validates username and password to login system.
- Organization clicks to delete beneficiaries’ button.
- Organization deletes all information about offer.

Fig 5.8 Seq. Delete Beneficiaries from Organizations
5.3.7 Use Case: Send SMS from Organizations

The organization can send SMS to this system by this process:

- Organization should be login to the system to send SMS to his beneficiaries by insert username and password.
- The system validates username and password to login system.
- Organization clicks to send SMS button.
- Organization inserts some or all beneficiaries to send him SMS.

Fig 5.9 Seq. Send SMS from Organizations
5.4 Interface design

The interface will use the same color and design scheme to organization in the same category Web pages to create a continuous effect.

5.4.1 Donor

![AdminCP](image)

**Fig 5.10 Login in Donor**

The super admin must be login to the system by insert the username and password.
The index page for the donor to control all the tools on the system that page include:

- Organization
- View the beneficiaries
- Offer
- mail to the organization
- Album
- News
Fig 5.12 Display all Organization in Donor

The donor on this page can view all the organization on the system and control to edit and delete or deactivate permission on the system.
Fig 5.13 Display Food Organization in Donor

The donor can view the food organization on the system and control also the donor can add new food organization on the system.
The donor can view the money organization on the system and control also the donor can add new money organization on the system.
Fig 5.15 Add Organization in Donor

The donor can add new organization on the system in this page by insert the information about the organization.
Fig 5.16 Display Beneficiaries in Donor

The donor can view all beneficiaries on the all organization and view the information of him also can add new and update the beneficiaries account, export or import file on excel, category of the beneficiaries.
Fig 5.17 Add beneficiaries in Donor

The super admin also can add the beneficiaries on the organization by insert all information include select the organization to the new beneficiary.
Fig 5.18 Add Offers in Donor

The donor can add and view all offer on the system for the organization in this page.

Fig 5.19 E-Mail Page in Donor

The donor can send mail to the organization by select the organization name to send mail such report and can view import and export mail.
Fig 5.20 Add News in Donor

The super admin can also add news on the website for the beneficiaries.
5.4.2 Organizations

![Login in Organization](image)

**Fig 5.21 Login in Organization**

The organization must login in system by insert the username and password.
Fig 5.22 Home page in Organization

The index page of organization can see the all tools for the organization use in the system:

- Special mail to donor.
- View his beneficiaries.
- Offer
- Beneficiary’s mail.
- News.
Fig 5.23 E-Mail Page in Organization

On this page the organization can send report to the donor and view the mail from the donor.
Fig 5.24 View Beneficiaries in Organization

The organizations add, view, updates, delete or change the beneficiaries’ state on all his beneficiaries.
Fig 5.25 Add New Offers in Organization

On this page the organization can add new offers by insert all information on the application.
**Fig 5.26 Import File in Organization**

Import file from excel and must file type is xls.

**Fig 5.27 Export File in Organization**

The organization can export his beneficiaries information on excel file.
Fig 5.28 Send SMS in Organization

The organization on this page can send SMS to the beneficiaries by select the name of beneficiaries then click on the view all to add the beneficiary’s numbers.
5.4.3 Beneficiaries

The home page of the beneficiaries they must insert his SSN and the password to login to the system and can view the new news to the organizations.

Fig 5.29 Home Page in Beneficiaries
Fig 5.30 View Offers in Beneficiaries

The user can view all offer on the system and select the one of the food and money offer.
Fig 5.31 Register Done in Beneficiaries

On this page the users must surely the request about offer to send the request to the organization and the system check if the user was active in other offer and the organization or not to accept this request.
Fig 5.32 View E-Mail in Beneficiaries

The user can view all mail from the organization on this page.
Fig 5.33 Beneficiaries E-Mail in Beneficiaries

The user can send mail to where is his information found in the organization to keep contact with us.
The user if he has account or not can add new account on the system and the request will send to the donor to view and select the best organization to the new users.
CAHPTER 6

TESTING

6.1 What Is Testing?

Testing is any activity through which the examination of all process in this website. It also works to detect errors in each stage.

When the test found any errors in any stage, this means that will be not safe for any information to the end user. So the test is very important to use to ensure the absence of any problem that faces the end user.\(^{[19]}\)

6.2 The purpose of testing

The purpose of testing to discovered the errors in the all webpage, and they need to solving this errors to protect the information and provide security for the system by using differ ways to protect the system and information. The goal of testing is to locate the maximum number of errors in the available .an “error” is any aspect of a system that does not meet the requirements of the system goals. Also in the test phase can appeared the programming errors.

6.3 System Tests

We built up on already available systems but we developed and enhanced it. The developed system is ready for implementation and is tested with a group of end users in this system, and these tests are performed so that there is a check of all the processes and data in the system are correct or not. So it must be they are end user make testing in this system.
Myers defines system testing as follows: “The purpose of System testing is showing that the product is inconsistent with its original objectives.”[20]

### 6.4 Test Case

The system worked it is expect, to work as required by the main system to ensure that all process in the best way. Can be implemented with the same characteristics as mentioned in the defect severity we can see that the system is a very reliable.

Where the testing process of the system testing functional and non-functional.

In the next table will display some of the processes that have been tested:

<table>
<thead>
<tr>
<th>Test Case (TC)</th>
<th>TC Type</th>
<th>TC Description</th>
<th>Testing Steps Probability</th>
<th>Result</th>
<th>TC Status P/F</th>
<th>Test Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected DB</td>
<td>Validate Connect to database</td>
<td>To pass the validation, connection information must be correct</td>
<td>Enter correct information.</td>
<td>Successful Connection</td>
<td>Pass</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Enter Error information</td>
<td>Enter message “please a valid username and password”</td>
<td>Pass</td>
<td>High</td>
</tr>
<tr>
<td>Login</td>
<td>Validate login</td>
<td>To pass the validation, login information.</td>
<td>Enter correct login information.</td>
<td>Login successful</td>
<td>Pass</td>
<td>High</td>
</tr>
<tr>
<td>Add Beneficiaries</td>
<td>Validate the add be beneficiaries</td>
<td>To ensure adding a new beneficiaries is successfully after entering the correct required information</td>
<td>All required fields are filled our successfully and validation is successful.</td>
<td>Following message will be display “beneficiaries has been added successfully”</td>
<td>Pass</td>
<td>High</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------------------------</td>
<td>--------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Add Organization</td>
<td>Validate the add be organization</td>
<td>To ensure adding a new organization is successfully after entering the correct required information</td>
<td>All required fields are filled our successfully and validation is successful.</td>
<td>Following message will be display “organization has been added successfully”</td>
<td>Pass</td>
<td>High</td>
</tr>
<tr>
<td>Add Offer</td>
<td>Validate the add be offer</td>
<td>To ensure adding a new offer is successfully after entering the correct required information</td>
<td>All required fields are filled our successfully and validation is successful.</td>
<td>Following message will be display “offer has been added successfully”</td>
<td>Pass</td>
<td>High</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Delete offer</td>
<td>Validate the delete offer</td>
<td>To ensure delete offers is successfully</td>
<td>Required to be deleted are successfully</td>
<td>Following message will be display “the offer has been deleted successfully”</td>
<td>Pass</td>
<td>High</td>
</tr>
<tr>
<td>Delete Beneficiaries</td>
<td>Validate the delete beneficiaries</td>
<td>To ensure delete offers is successfully</td>
<td>Required to be deleted are successfully</td>
<td>Following message will be display “the beneficiaries has been deleted successfully”</td>
<td>Pass</td>
<td>High</td>
</tr>
</tbody>
</table>

**Table 6.1 Test Case**

### 6.5 Usability Testing

The usability test can explain human problems in building the system, through some of wrong words were used or words are not clear meaning. It is also describes the problems in the Interfaces the system and is it suitable or not for the end user and everyone people.
6.6 Security Testing

Security testing attempts to find “holes” in the system’s security procedures. For example, the tests will attempt to “hack” through password protection or to introduce a virus to the system. And to ensure security about all user information in this system.

6.7 Performance Testing

Performance testing locates areas where the system does not meet its efficiency objectives.

Performance tests include the measuring and evaluation of:

**Response time:** The time when it takes the system to respond to a user request.

**CPU time:** The amount of processing time required to respond the request.

**Throughput:** The number of processed can make at per second.

The system should be able to receive more processes by the users simultaneously.
6.8 User Acceptance Testing (UAT)

The benefits of this phase to show the ability to connect with the many of beneficiaries at the same time. The speed of interaction between the organization and different beneficiaries at the same time such as “offers, news….Etc.”, and easy register in any organization.

In this system can send SMS to help beneficiaries, the main problem can face the beneficiaries is unable use the modern technology and system. It is also the lack of contact with internet so this problem can face beneficiary’s to connect with system.
CHAPTER 7

CONCLUSION

As the growing use of computers would mean the growing demand on rapid and quick technical support, this NGOs System is carefully designed to fit with the needs of IT Department at many associations to provide rapid speed support to associations staff, beneficiaries, insert offers, and monitor the performance of associations. It not only helps reducing the time of recording beneficiaries and how to distribute aid, but also improves quality and accuracy of data produced by the system which can lead to more facilitation to distribute aid in time.

Distribute aid has always been a great concern to beneficiaries. Now with such a reliable system like the beneficiaries ins and outs of the information are made easy. All transactions, processes, movement of items in and out of the system are accurately in the easiest way possible to enable the donor and associations staff to know in time how distribute aid items, or what are offers that in current time, to insert new beneficiaries through the use advertisements about these offers of and relevant information produced by the system.

The adoption of a system such as the NGOs system requires minimum computer literacy skills due to the interactive user-friendly interface which does not need much knowledge of IT to use the system.

NGOs system is designed to accommodate future upgrading and development without the need for building a new system to fit with the growing needs and demands of the associations. It has the capacity to add new association categories, offers or new and increase aid, in addition to its ability to add information to beneficiaries and the associations staff who can use the system as clients. Having this
system hosted online means the ability of both technicians and administrator to track and respond to demands of beneficiaries at any time beyond the boundaries and walls of associations which add one more advantage to replacing the paper-based style.

7.1 Limitations

- Time has been a limitation to this project. One semester is way too short for the implementation of a complete and integrated system like the NGOs system. Therefore, in the future prospects, a number of key issues have been explored to upgrade and develop the system in the soon future.
- Lack of technicians and IT department in all associations. Made it difficult to free enough space with staff to analyze the existing systems given their overwhelming workload.
- Lack of availability of electricity and limited logistics slowed down the progress of the implementation of the project.
- Lack of expertise of team members using the adopted programming language made it take much longer to handle unexpected problems.
7.2 Future Prospects

- This project is subject to a trial period to test the system and ensure system is efficient and error-free.
- This system deals with some of associations categories, we need to develop it to include all categories of associations working in Palestine.
- Develop a desktop-based application of the same system to enhance accessibility of all associations and beneficiaries.
- Develop the system in a way that allows the system to automatically send email notification messages to beneficiaries informing them about the new offers and news.
- Developing aid component of the system in detail to use the unique serial number of each particular item to improve tracking of distributed.
- Upgrade the system to be more intelligent by adding Frequently Asked Questions (FAQ) to help technicians solve all expected problems with model solutions by referring to a reference database.
- Add report about the process in the system.
REFERENCES

[1] Interview with Eng. Rafeeq Abed, Emergency Department, at the UNRWA on 6.11.2011


[18] www.visual-paradigm.com/product/vpuml/provides/behavioralmodeling.jsp#sequence diagram on 22-9-2012 at 17:44

