# Software Requirement Specification Document
# RED CRESCENT

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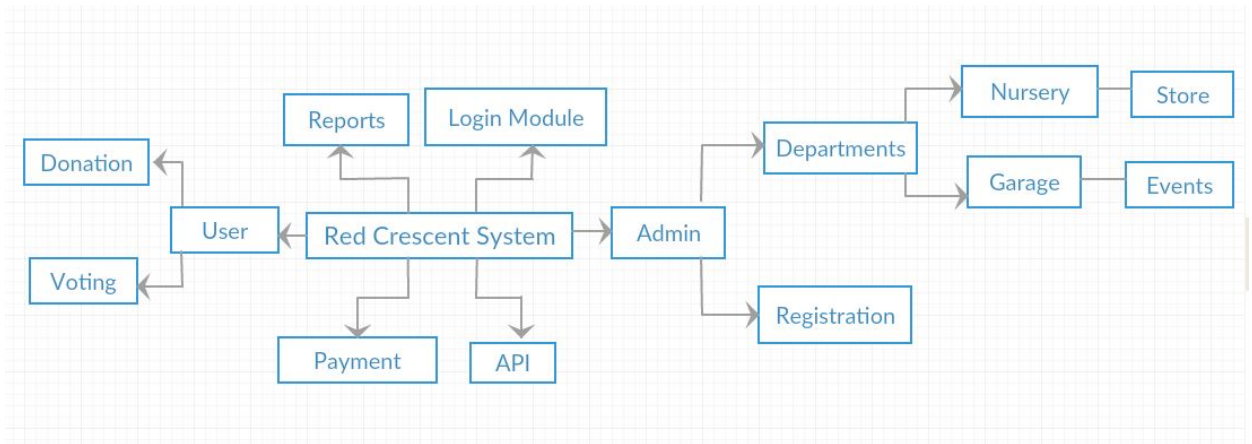# 1 introduction

## 1.1 Purpose of this document

The purpose of this document is to present detailed description of project system. The document will explain the features of the system and will describe what the system will do. This document will help the project team and the customer to have a full overview bout the interface and the functions of the project. The customer can review this document to be aware of the requirements that is finished.

## 1.2 Scope of this document

This software system will be a web application for the Egyptian Red Crescent. This system will be designed to help Red Crescent in emergency assistance for accidents and in the work of charitable things. More especially, the system is designed to help the donors to Provision in the time of charity transactions. The system will facilitate the communication between donors and Red Crescent charity. The system should fulfills the President of the Red Crescent charity requirements. The system must be ready in 5 months and it must be in water fall and incremental development (agile) model.

## 1.3 Overview

This system aim to develop an application that help red crescent to manage all their departments and to help them to solve the problem of time consuming. Our system will manage the red crescent events, nurseries, reports, garage, and inventories that red crescent have.



Block Diagram in this Figure represents:

- Login Module: This Login module is responsible for the login of admin and User.

- Admin Module: This module is responsible for:
  1. All the departments included in the diagram in case of adding/deleteing/editing/searching operation.
  2. Resposible for registration which manages the information of the users and admins in case of log in or sign up aslo the user can change the user type of each user.

- User Module: This module is responsible for the donation and votes by users.

- Reports Module: This module handle all the reports needed and make statistics.

- Payment module: This module is responsible for:
  1. Money inside the treasury.
  2. Money out of the treasury.

- ApI Module: This module is resposible for change currency and google maps.

## 1.4 Business Context

This system benefits the user in reducing the time of finishing the procedures and making reports. also it increases accuracy of preventing errors of data entry and increasing the number of donors due to the ease of donation. Additionally, the users can vote from the system to choose who will be the Chairman of Board of Directors. Red Crescent vision is that it works to achieve the goal of alleviation humans suffering and to ensure respect for human being.

# 2 General Description

## 2.1 Product Functions

This part outlines all the modules separately in details.

### 2.1.1 The Admin Module

The Admin cas manage all the departments in Red Crescent as:

- First: Garage
  The admin access the garage page to:
  1. Know what type of cars in garage.
  2. Show, Add, Edit, Delete car
  3. Show, Add, Edit, Delete Garage.
  4. Add driver to car.
  5. Add service to car that need maintenance.
  6. Alert notification is send to admin when car need to be repaired.
  7. Know how many kilometers each car has taken.
  8. Know the name of driver of each car.
  9. Check if License is expired or not.

- Second: Nursery
  The admin access the Nursery page to:
  1. Know how many child are in the nursery and in which nursery.

2. Show, Add, Edit, Delete child.
3. Show, Add, Edit, Delete Nursery.
4. Add child to nursery.

- Third: Events
  The admin access the Events page to:
  1. Know how many of the participants committed that they accept or refuse going to the event.
  2. Show, Add, Edit, Delete and search Event.
  3. Put the location of the event by API google maps.
  4. Accept Events.
  5. Alert befor the event time.

- Fourth: Store
  The admin access the Store page to:
  1. Know how many piece are there in each product.
  2. Show, Add, Edit, Delete product.
  3. Show, Add, Edit, Delete Store.
  4. Add product to store.
  5. Alert when the product is expired.
  6. Know the date entry, date out and expire date of each product.
  7. Know what type of product.

  The administrator also controls the registry from accepting or denying access to the system.

### 2.1.2  The Login Module

The admin and user cas access this system with username and password to access certain page.

### 2.1.3  The User Module

This module is used to know all the information about any donation process and the users voting.

### 2.1.4   Treasury Module

This module is to show and make Receipts for:
1. Renew participant
2. Add new participant

Also this module show all:
1. Money inside the treasury.
2. Money out of the treasury.

### 2.1.5   Reports

The admin can have reports for:
1. All children data in nurseries.
2. All Car information in garage.
3. All the product information in store.
4. Any money paid or spend from treasury.
5. All details about any donation process.
6. Report about the money entered the nursery for each month.

## 2.2   Similar System Information

### 2.2.1   Clinic System

- Advantage of clinic system: Easier and quicker access to patients records and data.
  Similarity with our system: Easier and quicker for donors to donate and users to communicate with red crescent.

- Disdvantage of clinic system: Inaccurate Info in patients data.

- Common: improve effeciency and save space instead of alot of paper work.

### 2.2.2 Education System

- Advantage of clinic system:It make education process more easier for children.
  Similarity with our system: It make donation process or voting more easier for users.

- Disdvantage of clinic system: Depending on technology in everthing.

- Common: improve effeciency and reduce work load.

## 2.3 User Characteristics

- Admin
  Must be able to work with databases and to manage the database efficiency.

- User
  Should have the basic knowledge of using computer .

## 2.4    User Problem Statement

User faces some problems but software solved this problems:
1. Making reports
2. How many kilometers each car has taken
User faces some problems but software solved this problems by making reports as:
1. How many kilometer of each car.
2. The total money that enter the safe.
3. All product that in store and report of Nursery.


## 2.5    User Objectives

1. Reducing paper work.
2. better and faster communication with participants and donors.
3. Make reports.
4. Make statistics.
5. Data to be accurate.


## 2.6    General Constraints

1. User must be connected to the internet.
2. Our system must be safe and secure.
3. Our system is applicable for all types of devices.

# 3 Functional Requirements

## 3.1

| ID | 1 |
|---|---|
| Name | CRUD Donation |
| Description | Add, show, update, Delete donation in the donation list by the User. |
| Input | Donation Info |
| Action | It takes the Data of the Donation from the user and Add, edit, delete it from the Database with the Donation id. |
| Output | Data added, edited, deleted in the Donation List successfully. |
| Pre-condition | This Data is not added, edited, deleted in the database. |
| Post-condition | The Data is added, edited, deleted Successfully. |

## 3.2

| ID | 2 |
|---|---|
| Name | CRUD Car |
| Description | Add, show, update, Delete car in the car list by the admin. |
| Input | Car Info |
| Action | It takes the Data of the car from the admin and added, edited, deleted it from Database with the Donation id. |
| Output | Data added, edited, deleted in the car List successfully. |
| Pre-condition | This Data is not added, edited, deleted in the database. |
| Post-condition | The Data is added, edited, deleted Successfully. |

## 3.3

| ID | 3 |
|---|---|
| Name | CRUD Driver |
| Description | Add, show, update, Delete Driver in the Driver list. |
| Input | Driver Info |
| Action | It takes the Information of the Driver and added, edited, deleted it from Database with the Driver id. |
| Output | Data added, edited, deleted in the driver List successfully. |
| Pre-condition | This Data is not added, edited, deleted in the database. |
| Post-condition | The Data is added, edited, deleted Successfully. |

## 3.4

| ID | 4 |
|---|---|
| Name | Add Driver to car |
| Description | The function add driver to specific car . |
| Input | Driver ID, Car ID |
| Action | It takes the data of Driver and Car and add the driver to car in Database with the Driver ID, Car ID |
| Output | Data added successfully. |
| Pre-condition | This Data is not added in the database. |
| Post-condition | The Data is added Successfully. |

## 3.5

| ID | 5 |
|---|---|
| Name | Login. |
| Description | The user and admin should login to their accounts. |
| Input | Username and Password. |
| Action | It takes the username and password from the user and admin then check if there is valid account or not. |
| Output | Login successful Or Login Failed. |
| Pre-condition | No data can access. |
| Post-condition | Login Successful |

## 3.6

| ID | 6 |
|---|---|
| Name | CRUD Events |
| Description | Add, show, update, Delete Event in the Events list. |
| Input | Event Info |
| Action | It takes the Data of the Event from the admin and Add, edit, delete it from the Database with the event id. |
| Output | Data added, edited, deleted in the event List successfully |
| Pre-condition | This Data is not added, edited, deleted in the database. |
| Post-condition | The Data is added, edited, deleted Successfully. |

## 3.7

| ID | 7 |
|---|---|
| Name | CRUD products |
| Description | Add, show, update, Delete product in the product list. |
| Input | product Info |
| Action | It takes the Data of the product from the admin and Add, edit, delete it from the Database with the product id. |
| Output | Data added, edited, deleted in the product List successfully |
| Pre-condition | This Data is not added, edited, deleted in the database. |
| Post-condition | The Data is added, edited, deleted Successfully. |

## 3.8

| ID | 8 |
|---|---|
| Name | Confirm User |
| Description | The admin want to accept user's request when user signup. |
| Input | User ID |
| Action | All Admins must accept user request by taking the User ID and add this user to the database in users list. |
| Output | User is confirmed . |
| Pre-Condition | Data is not accepted and it is in waiting list. |
| Post-Condition | New User is accepted and added to the database. |

## 3.9

| ID | 9 |
|---|---|
| Name | Add product to store |
| Description | The function is to add new product to the store. |
| Input | Store ID, Product ID |
| Action | It takes the data of store and product then add product to store in database with store ID, Action ID. |
| Output | Product is added successfully. |
| Pre-Condition | Data is not added to the database. |
| Post-Condition | Data is added successfully. |

## 3.10

| ID | 10 |
|---|---|
| Name | CRUD Store |
| Description | Add, show, update, delete store from stores list. |
| Input | Store Info |
| Action | It takes the data of store and added, edited, deleted it from database with store ID. |
| Output | Store added, edited, deleted is the store list successfully. |
| Pre-Condition | Data is not added, edited, deleted in the database. |
| Post-Condition | Data is added, edited, deleted successfully. |

## 3.11

| ID | 11 |
|---|---|
| Name | CRUD Nursery |
| Description | Add, show, update, delete Nursery from Nursery list. |
| Input | Nursery Info |
| Action | It takes the data of Nursery and added, edited, deleted it from database with Nursery ID. |
| Output | Nursery added, edited, deleted is the Nursery list successfully. |
| Pre-Condition | Data is not added, edited, deleted in the database. |
| Post-Condition | Data is added, edited, deleted successfully. |

## 3.12

| ID | 12 |
|---|---|
| Name | CRUD Garage |
| Description | Add, show, update, delete Garage from Garage list. |
| Input | Garage Info |
| Action | It takes the data of Garage and added, edited, deleted it from database with Garage ID. |
| Output | Garage added, edited, deleted is the Garage list successfully. |
| Pre-Condition | Data is not added, edited, deleted in the database. |
| Post-Condition | Data is added, edited, deleted successfully. |

## 3.13

| ID | 13 |
|---|---|
| Name | Change Currency |
| Description | Change money currency to Egypt currency. |
| Input | Type and amount of money. |
| Action | It takes the type and amount of money from user and change it to Egyptian currency. |
| Output | Money currency in Egypt. |
| Pre-Condition | Data is not added, edited, deleted in the database. |
| Post-Condition | Data is added, edited, deleted successfully. |

## 3.14

| ID | 14 |
|---|---|
| Name | Permission |
| Description | The function used to limit access to specific pages and control what user or admin do. |
| Input | User Type |
| Action | It takes the user type of admin or user and put specific access for each user type. |
| Output | Data of each user type in html. |
| Pre-Condition | There is no limited access for user type. |
| Post-Condition | Each user type has limited access to the pages in html. |

## 3.15

| ID | 15 |
|---|---|
| Name | CRUD Address |
| Description | Add, update, delete Address from address list. |
| Input | Address ID |
| Action | It takes the Address ID from user and add, update, delete Address from address list. |
| Output | The address of |
| Pre-Condition | There is no limited access for user type. |
| Post-Condition | Each user type has limited access to the pages in html. Its |

## 3.16

| ID | 16 |
|---|---|
| Name | Permission |
| Description | The function used to limit access to specific pages and control what user or admin do. |
| Input | User Type |
| Action | It takes the user type of admin or user and put specific access for each user type. |
| Output | Data of each user type in html. |
| Pre-Condition | There is no limited access for user type. |
| Post-Condition | Each user type has limited access to the pages in html. |

## 3.17

| ID | 17 |
|---|---|
| Name | Request to disbursement of money |
| Description | The function is to accept or refuse the request of disbursement of money from red crescent treasury. |
| Input | Amount of money and the reason for this request. |
| Action | It shows the request and review the priority of this request to decide to accept or refuse it. |
| Output | Accept or refuse request. |
| Pre-Condition | The request is in the waiting list. |
| Post-Condition | The request is accepted or refused. |

## 3.18

| ID | 18 |
|---|---|
| Name | Money Receipt for participants |
| Description | This function for making receipt for the user when renew the participant or add a new participant. |
| Input | Participant Info |
| Action | It review participant info and then make receipt with the amount of money paid to renew or adding a participant. |
| Output | The approved receipt. |
| Pre-Condition | The money is not paid or the receipt is not approved yet. |
| Post-Condition | The money receipt is approved and given to participant. |

## 3.19

| ID | 19 |
|---|---|
| Name | Money Receipt for Donors |
| Description | This function for making receipt for donors who donate for red crescent. |
| Input | Type of donation, donor info |
| Action | It takes the type of donation and donor info and make receipt with this data. |
| Output | The approved receipt. |
| Pre-Condition | The receipt is not approved yet. |
| Post-Condition | The money receipt is approved and given to Donors. |

## 3.20

| ID | 20 |
|---|---|
| Name | Add Service |
| Description | This function for adding service for cars that need to be repaired . |
| Input | Car ID |
| Action | It takes the car ID and show if the car need to be repaired or not and check the last time it was repaired. |
| Output | Adding cars that needed service to add service list successfully. |
| Pre-Condition | Data is not added to database. |
| Post-Condition | Car is added successfully to add service in database. |

## 3.21

| ID | 21 |
|---|---|
| Name | Reference key |
| Description | This function to show the complete address of the user. |
| Input | Address ID |
| Action | It takes the Address ID and get the full address from address list by reference key. |
| Output | The full address of the user. |
| Pre-Condition | Address is not known. |
| Post-Condition | Get user Address From Database successfully. |

## 3.22

| ID | 22 |
|---|---|
| Name | Editing static pages. |
| Description | This function to make user edit any data from html. |
| Input | The data which user want to update. |
| Action | It reads the data he want to update from database and change it with the new data then insert the new update into the database. |
| Output | The data he want to change is updated in Html page. |
| Pre-Condition | Data is not updated. |
| Post-Condition | Data is updates successfully. |

## 3.23

| ID | 23 |
|---|---|
| Name | Calculate how many kilometers the car covered. |
| Description | It describe how many kilometers are covered by the car for each trip. |
| Input | Destination From place to place. |
| Action | It takes the destination of the trip and calculate how many kilometers are covered by this trip. |
| Output | How many kilometers are covered. |
| Pre-Condition | The covered kilometers are not calculated |
| Post-Condition | The covered kilometers are calculated. |

## 3.24

| ID | 24 |
|---|---|
| Name | Alert for time of event. |
| Description | It alert notification when the time of event become close. |
| Input | Date of event. |
| Action | It reads the date of event from the data base and send notification to the user of the event date and time. |
| Output | Notification or mail. |
| Pre-Condition | Nothing is send to the user. |
| Post-Condition | Notification or mail is send to the user successfully. |

## 3.25

| ID | 25 |
|---|---|
| Name | Alert for time of event. |
| Description | It alert notification when the time of event become close. |
| Input | Date of event. |
| Action | It reads the date of event from the data base and send notification to the user of the event date and time. |
| Output | Notification or mail. |
| Pre-Condition | Nothing is send to the user. |
| Post-Condition | Notification or mail is send to the user successfully. |

## 3.26

| ID | 26 |
|---|---|
| Name | Alert for Garage. |
| Description | It alert notification when the car need to be repaired or the license is near to be expired. |
| Input | License data and last date the car was repaired. |
| Action | It reads the date of license and last date for repair and send notification or mail. |
| Output | Notification or mail. |
| Pre-Condition | Nothing is send to the admin. |
| Post-Condition | Notification or mail is send successfully. |

## 3.27

| ID | 27 |
|---|---|
| Name | Alert for Store. |
| Description | It alert notification when the product expire and when the product become close to finish. |
| Input | Product data and the amount of products in the store. |
| Action | It reads the dates of product entry date and expire date and how many product in store and send notification before this dates. |
| Output | Notification or mail. |
| Pre-Condition | Nothing is send to admin. |
| Post-Condition | Notification or mail is send successfully. |

## 3.28

| ID | 28 |
| --- | --- |
| Name | Encryption and decryption |
| Description | Function is to transform data to unreadable symbols with decryption key |
| Input | password. |
| Action | Takes the password from user and encrypt the password with decryption key. |
| Output | Encrypted password. |
| Pre-Condition | Shown password. |
| Post-Condition | Password with unreadable symbols . |

# 4 Interface Requirements

## 4.1 User Interfaces

System will have a friendly user interface and will comply with the guidelines provided by Red Crescent charity.

### 4.1.1 GUI

≡

| | |
|---|---|
| ⊞ Nursary | › |
| ⊞ Events | › |
| ⊞ Events | › |
| ⊞ Garage | › |
| ⊞ Events | › |
| ⊞ Nursary | › |
| 📄 Show All Contact | |
| ⊞ Garage | › |
| ⊞ Address | › |
| 📄 Accounting | |
| 📄 Payment | |
| 📄 Store | |
| 📄 Donation | |

country:        City

Egypt

cairo

NumberOfChildren

Add

### 4.1.2 CLI

Not Applicable in our project.

### 4.1.3 API

1. Google maps.
2. currency converter.

### 4.1.4 Diagnostics or ROM

Not Applicable.

## 4.2 Hardware Interfaces

Not applicable.

## 4.3 Communications Interfaces

Since the system is a public website so it will supports all types of web browsers except for the device being used to open the website should be connected with the Internet.

## 4.4 Software Interfaces

The following are the software used:
1. Ckeditor
2. PhpMyAdmin

# 5 Performance Requirements

The system must performs certain functions under specific conditions:
1.The application should be portable and possible to users.
2.The database should be scalable; it must have the capacity to hold large number of users in future.

3.T he response time should be not be greater than 3-4 seconds for a respectable internet connection speed.

4.The number of connections to the system should not slow down the application to a large degree.

5.Error handling should be implemented and the application should be able to handle all run time errors.

6. Good processor and Ram.

# 6 Design Constraints

Not Applicable

# 7 Other non-functional attributes

## 7.1 Security

The password should be encrypted to protect the user's and admin privacy from public access by any other user. so the system is equipped with encryption and decryption of the user's password.

## 7.2 Maintainability

The system could be improved by different developers so ease of system maintainability is important, it should be easy to extend thought the implementation of MVC.

## 7.3 Extensibility

Ease of system extensibility is important. The system should be easy to extend. The system ensures extensibility by applying EAV data model.
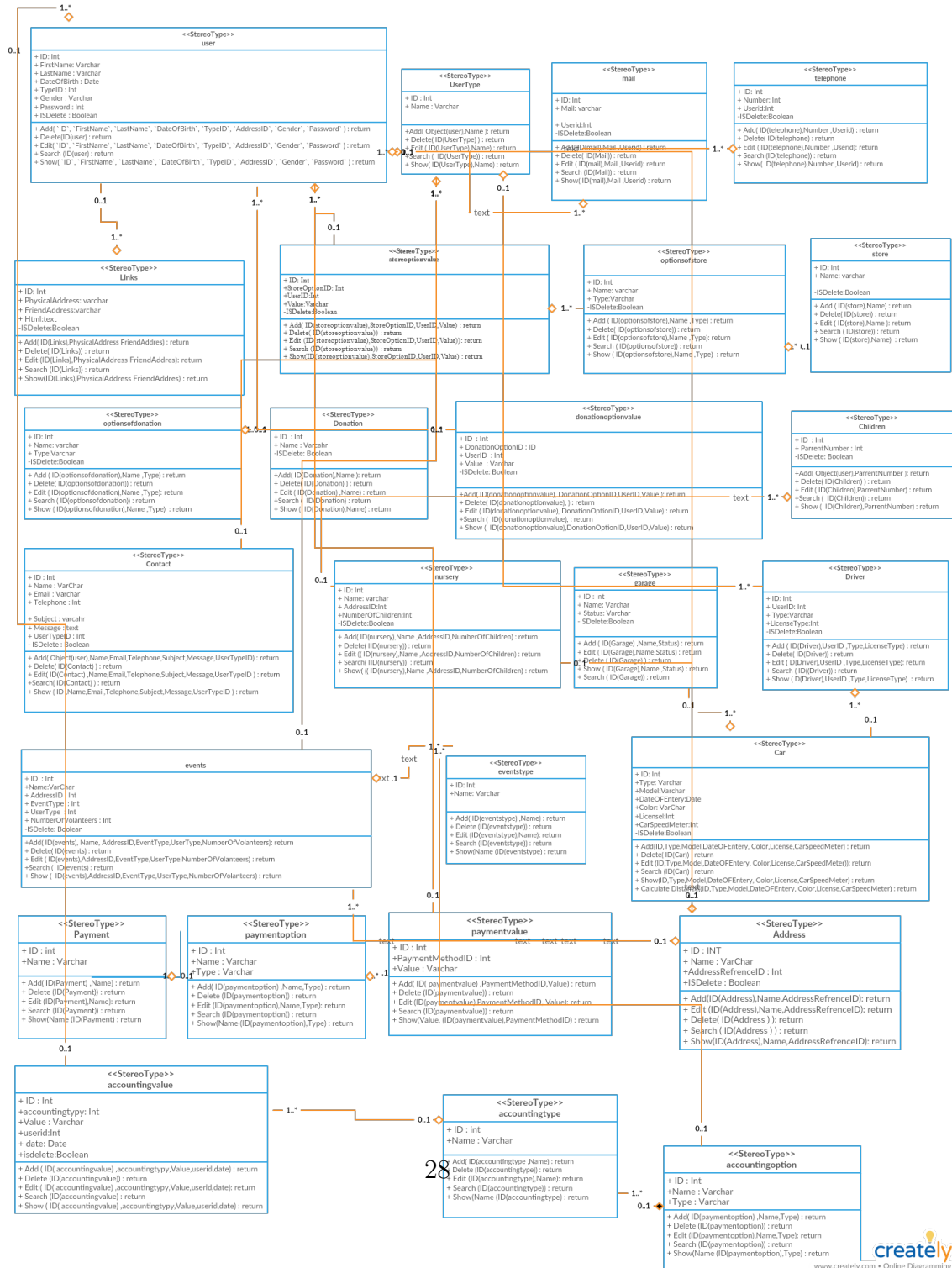
## 7.4 portability

The system may be deployed on different platforms so the system should be portable to run in any operating system.

## 7.5   Scalability

The system could be highly scalable as we can add more features to the system and it will not affect the running of the system.

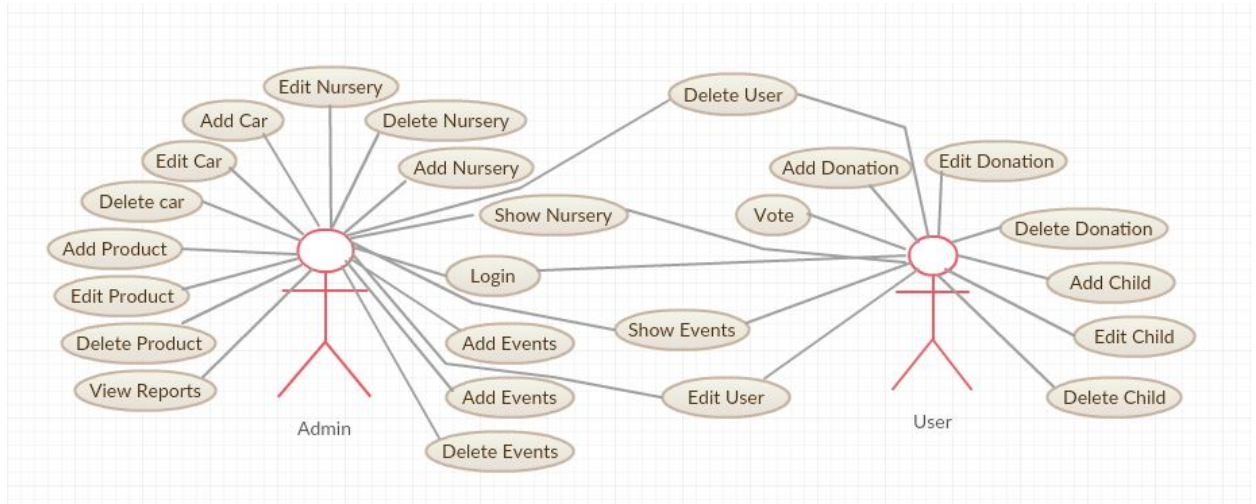# 8 Preliminary Object-Oriented Domain Analysis

## 8.1 Class Description

| Class Name | User |
|---|---|
| Super Class | None |
| Sub Class | Links children telephone address |
| Purpose | This class responsible for adding, fetching user data |
| Collaborations | Aggregate with telephone, links, mail, account, value,storevalue,donation value ,address and associated by children, nursery |
| Attributes | Array of user |
| Operations | Control User(add(),edit(),search(),delete(),list()) |
| Constrains | None |

| Class Name | Links |
|---|---|
| Super Class | user |
| Sub Class | none |
| Purpose | This class responsible for adding html page and save it in data base |
| Collaborations | Aggregate with user |
| Attributes | Array of Links |
| Operations | Control Links(add(),edit(),search(),delete()) |
| Constrains | None |

# 9 Operational Scenarios



Here will be illustrated some of the scenarios that are shown in the system's use case diagram.

## 9.1 User Scenario

The user included in this scenario is the customer. The user have small controls over the system such as:

- Add: The user can add child to nursery and can also add donations.

- Edit: Can edit child information and edit donation data.

- Delete: Delete his child from nursery and delete donation.

- The user can login or signup for a new account.

## 9.2 Admin Scenario

The admin has control over the system and can handle more functionality such as:

- Add: Admin can add nursery, product, car, Event, to the system.

- Edit: Can edit nursery data, product data, car information, Event information.

- Delete: Delete nursery, product from store, Car from garage, Events.

- The admin can login or accept or refuse access of any user.

- The admin can view reports of all departement.

# 10    Preliminary Schedule Adjusted

| Tasks | Start Date | End Date |
|---|---|---|
| Implementing Front End prototype | 7/2/2019 | 12/2/2019 |
| CRUD for all tables | 10/2/2019 | 15/2/2019 |
| EAV | 15/2/2019 | 20/2/2019 |
| SRS | 20/2/2019 | 25/2/2019 |
| Designing Database | 22/2/2019 | 27/2/2019 |
| Class Diagram | 1/2/2019 | 5/2/2019 |
| API | 5/3/2019 | 8/3/2019 |

# 11    Preliminary Budget Adjusted

This system requires a Laptop budget within 5000 to10000.

# 12    Appendices

## 12.1    Definitions, Acronyms, Abbreviations

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## 12.2 Collected material

جمعية الهلال الأحمر المصرى

فـرع القاهرة

### طلب انضمام مبدئي للجمعية

الســـيد / المـــدير التنفيذي لجمـعية الهلال الأحر المصري - فرع القاهرة

بــعــد التــحــيــة ....

بما أني أرغب في الانضمام للجمعية كعضـــو عامل فإنــي أوافق على أن أعمل لمدة عام مـــع

لجنة مهيدا للبت في طلب عضويتي بالجمعية .

و فيما يلي البيانات الخاصة بي : -

الاســــم : –        الســـن :–        تاريخ الميلاد :–

المـــهنة :–

العنوان :–

تليفون المنزل :–        العمل :–        المحمول :–

إمـــضــاء الـــطــالـــب

و تفـــضلوا ســـيادتكم بقـــبول فائـــق الاحـــترام ....

تاريخ تقديم الطلب    /    / ٢٠٠

رأي السيدة رئيسة اللجـنة :–

الــتــوقــيــع

عرض على اللجنة التنفيذية – برجاء التفضل بإبداء الرأي .

المـــدير التنفيذي

قرار اللجنة التنفيذية بجلستها برقم (  ) بتاريخ    /    / ٢٠٠

رئيـــس اللجـنة

مقدم الطلب حضر دورة الإسعافات الأولية رقم

المدة من    /    / ٢٠٠    إلى    /    / ٢٠٠

تقييم السيدة رئيسة اللجنة لمقدم الطلب بعد عام من العمل مع اللجنة

السيد / الأخصائي الاجتماعي

للتسجيل بسجل الانضمام المبدئي و الإخطار و إعادة العرض بعد علم من تاريخ موافقة اللجنة

المدير التنفيذي

سجل برقم     بتاريخ / / ٢٠٠     الأخصائي الاجتماعي

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إعادة عرض على اللجنة التنفيذية
للقرار النهائي في الطلب

بجلسة / / ٢٠٠

## ( القـــرار )

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اللجنـــــــــة

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السيد / الأخصائي الاجتماعي

للتسجيل بسجل العضوية و الاشتراكات و الإخطار

المدير التنفيذي

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سجل برقم     بتاريخ / / ٢٠٠     الأخصائي الاجتماعي

# 13   References

https://krazytech.com/projects/sample-software-requirements-specificationsrs-report-airline-database