Acknowledgment

Apart from the efforts of ourselves, the success of our project depends largely on the encouragement and guidelines of many others. I take this opportunity to express my gratitude to the people who have been instrumental in the successful completion of this project. we would like to show our greatest appreciation to Prof.Dr. Ahmed Sharaf Eldin. we would like to show our greatest appreciation to Dr. Ahmed Sallam. we can't say thank you enough for his tremendous support and help. we feel motivated and encouraged every time we attend his meeting. Without his encouragement and guidance our project would not have materialized. The guidance and support received from all the members who contributed and who are contributing to this project, was vital for the success of the project. we are grateful for their constant support and help.

We would like to thank to Eng. Abdallah Elsaid for his warm-hearted help. He motivated our interestrd in doing graduation project.

- -

I would like to convey my gratefullness to Dr. Ahmed sallam for his excellent efforts, advices, and knowledge that hugely improve our project. I also need to thank Eng. Abdallah Elsaid that make us more active to achieve our mission in a perfect mannar. I would especially like to thank my parents for fully support to me to be the best. I need to thank my freinds who taught to me the value of hard work and an education, without them i may never have gotten to where i'm today.

Ahmed salem

- -

I would like to thank my family, especially my dad and my mom, my dad always encouraged me with his words "Kill them with success and bury them with a smile". I love my mom no matter what we go through, and no matter how much we argue, i know in the end, she'll always be there for me. I thank them for the continuous support they have given me throughout my time in my education path, i could not have done it without them. And then i thank everyone who contributed to my life and my education like my brothers, sisters, and my friends, and especially thank to Ahmed Salem who is my brother not a friend.

Mohamed Gabr

Abstract

Today we are facing a big problem of missing children whose fate becomes unknown, which may prevent them to live with their parents a normal life. A number of organizations seek to connect, share best practices, and publish information and images of missing children to improve the search ways of missing children, including the International Centre for Missing and Exploited Children (ICMEC), as well as national centers, including the National Center for Missing and Exploited Children in the United States (NCMEC), in some countries, they publish pictures of missing children on billboards, walls and on the social networks. we seek to resolve this problem in a way different and more specifically by gathering more precise information about missing children and enable charities to interact together to exchange information to reach the effective results via special social networking site, that serve three kinds of users (user that have loosed child, user that have a founded child, user that concern with this issues), create a powerful search engine based on this data has the ability to drive the most accurate results simpler and easier.

The documentation is organized as following:

- In chapter one you will find a background of the project, problem defination, challenges, related works and contributions.
- In chapter two you will find a brief introduction (wire frame) about the project.
- In chapter three you will find a software engineering, use case and class diagram.
- In chapter four you will discuses a database management.
- In chapter five you will find a detailed description for web application.
- In chapter six you will find a detailed description for working screenshots (user guide).
- In chapter six you will find a conclusions & future work.

Contents

List of Figures

List of Tables

Chapter 1

Introduction

1.1 Backgrounds

A missing children is a child who has disappeared and whose status as alive or dead cannot be confirmed as his or her location and whose fate becomes unknown, which may prevent them to live with their parents and normal life.According to the Department of Justice, each year, there are approximately 94,000 missing children, 90,000 runaways, 300 stranger abductions, and 981 family abductions. A number of organizations seek to connect, share best practices, and publish information and images of missing children to improve search ways of missing children, including the International Centre for Missing and Exploited Children (ICMEC), as well as national centers, including the National Center for Missing and Exploited Children in the United States.

1.2 Motivation and Problem Definition

In the present current conditions experienced by many countries around the world there are a lot of cases of loss for children for many reasons leading to poor living and lack of proper care provided to the child, and then appear many of the bad social problems suffered by most communities. Despite a major development of technology in our time, there is no amount sufficient interest to resolve this problem.

1.3 Challenges

Of the biggest challenges that we faced is the problem of aggregation accurate information about these missing children and thus facilitate the search for them and find them. Another challenge is to find the best ways to search including content retrival for pictures of missing children, but this technique has shortcomings in finding acceptable results, so we relied totally dependent on technique information retrival and human interaction who have more accurate to find the best results.

1.4 Related Works

Most of normal social networking services make it possible to connect people who have the same backgrounds and activities across political, economics, sports and geographic borders, but our goal is to have a special social network that concerns with humanity issues. If we take some examples

1.4.1 The National Center for Missing & Exploited Children (NCMEC)

The National Center for Missing & Exploited Children (NCMEC) is a private, non-profit organization established in 1984 by the United States Congress. In September 2013, the United States House of Representatives, United States Senate, and the President of the United States reauthorized the allocation of $40 million in funding for the National Center for Missing & Exploited Children as part of Missing Children's Assistance Reauthorization Act of 2013 (H.R. 3092; 113th Congress). The current chair of the organization is child safety advocate Patty Wetterling, mother of Jacob Wetterling.

1.4.2 Polly Klaas Foundation

The Polly Klaas Foundation is a public charity organization devoted to preventing crimes against children, assisting in the recovery of missing children, and lobbying for legislative assistance. The foundation was formed October 23, 1993 to search for Polly Klaas. Its executive director is Robert De Leo. It has expanded its mission and now searches for many missing children. The Polly Klaas Foundation also provides kits for parents to teach abduction prevention in a way that they state is not scary for kids. It distributes over 100,000 of these kits per year.

1.4.3 NATIONAL MISSING PERSONS COORDINATION CENTRE (NMPCC)‘

The National Missing Persons Coordination Centre (NMPCC) exists to support the work of State and Territory police in the investigation of missing persons. The Centre is funded by the Australian Federal Police through the Australian Government. The Centre was established based on the need for strong leadership, national coordination and to complement the operational and investigative roles of the State and Territory Police. Our mission is to reduce the incidence and impact of missing persons and to educate the Australian community about this significant issue.

1.4.4 List of Disadvantages

There are a lot of drawbacks in these foundations and Web pages relevant to this issue (missing children) :

- Each foundations is limited to the state in which they Originated, but limited to the number of countries in this state.
- There is no site that offers a technique to search for these missing childrens, but provides simple information about them and ways to communicate to them only.

1.5 Contributions

We've created a web site in order to benefit everyone is interested in this case in all countries of the world, where we have given all adequate information about these missing children and a powerful search engine in order to facilitate the search process of any user, we also provide a special social networking site to enable all users to communicate together and exchange information on this issue. We are building a complete genric platform to cover the whole world

1.6 Goal and objectives

- Establish a society to help the missed children around the world.
- This Society help the Donation Foundation to find their human targets easily and organize their work.
- This society also help normal persons to participate to help the missed children around the world the closest then the closest.
- improve the normal searching tools to find the target easily.
- Helps person to communicate with each other and with the global foundations.
- Help trusted persons or foundation to promote their interactions.

1.7 Summary

- Together is a social network that concern with humanity issues.
- Together establishes a social network to improve aids introduced to missed children through a social network.

- Together provide an advanced search system called (announcement) that manage you to provide any information that you have to find someone from missed children to help him.
- Together facilitates ways to help missed children through the foundations that present the help them.
- Social networks today don't give Humanity issue a big interest so we determine to establish this social network to solve this problem.

Chapter 2

Scheduling and Research Plan

2.1 Scheduling Table

Table 2.1: Scheduling

phase no	Description of Work	Start and End Dates
Phase One	search engine section 2.2	NOV/2016 : DEC/2016
Phase Two	messaging section 2.3	DEC/2016 : JAN/2017
Phase Three	posting section 2.4	JAN/2017 : FEB/2017
Phase Four	Different users of our website section 2.5	FEB/2017 : MAR/2017

2.2 Search Engine

A web search engine is a software system that is designed to search for information on the World Wide Web. The search results are generally presented in a line of results often referred to as search engine results pages (SERPs). The information may be a mix of web pages, images, and other types of files. Some search engines also mine data available in databases or open directories. Unlike web directories, which are maintained only by human editors, search engines also maintain real-time information by running an algorithm on a web crawler.

2.3 Messaging

Messaging Concepts.... The senders and consumers of messages are completely independent and know nothing of each other. This allows you to create flexible, loosely coupled systems. Often, large enterprises use a messaging system to implement a message bus which loosely couples heterogeneous systems together.

In our website we have developed a smart system for communication between users, which is all the user have to do is searching for the other user who wants to communicate with him, and then

send a welcome message to be shown to the user in the other hand through the notifications of the messaging system where the other user can respond to the message from open the conversation from the list of opened conversations where this list shows the user who was spoken to in advance and shows his status if he is online or offline. as we menitioned, we support the concept of one to one communication and also we support real time messaging since the sender is writing the message, the reciver show an animated sign that indicate the latter is writing a message.

2.4 Posting

Social media are computer-mediated technologies that facilitate the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks. The variety of stand-alone and built-in social media services currently available introduces challenges of definition; however, there are some common features:

- User-generated content, such as text posts or comments, digital photos or videos, and data generated through all online interactions, are the lifeblood of social media.
- Users create service-specific profiles for the website or app that are designed and maintained by the social media organization.
- Social media facilitate the development of online social networks by connecting a user's profile with those of other individuals and/or groups.

Social media use web-based technologies, desktop computers and mobile technologies (e.g., smartphones and tablet computers) to create highly interactive platforms through which individuals, communities and organizations can share, co-create, discuss, and modify user-generated content or pre-made content posted online. They introduce substantial and pervasive changes to communication between businesses, organizations, communities and individuals. Social media changes the way individuals and large organizations communicate.

Our site contains another kind of posting that differ from the normal social posts, which throw light on the issue of missing children which name is request post. Through this special type of Post, the user can upload pictures of the missing child or the child who has found it and special information such as name, country, last seen, his/her color, color eyes, skin color, contacts ways and his relation with child.

2.5 Different users of our website

There are different classes of users of our website based on the roles that they play. These roles are as follows:

- Person
- Foundation

As each of them has its own characteristics such as:

2.5.1 Register new user

Every user can register in our website as a normal person or as an foundation by entering their own informations such as his name, E-mail, country, telephones and his picture. Where the information of the foundation's exceeds the person's information fax number and site link.

2.5.2 Login and create a session

Each user-log in to our site must provid that he has an account and once the log-in process is done, a session and cookie is created to store information about the user such as name, account type, E-mail and encrepted password.

2.6 Research Plan and Technologies

We will use different development tools like:

- XAMPP server that simulate the apache server and run SQL statement.
- A reserved domain (server).
- sublime and Brackets Text Editor.
- Also we will use programming language and libraries such as HTML, CSS, Javascript, Jquery, Ajax, PHP and JSON.
- All of these tools, libraries and programming language will manage us to make Our API.
- We will develop an Android Application to make it easy to use our social network and we will use Java programming language and other Android libraries.
- we will use the Android Studio Development environment to develop this Application.

2.7 Project time table

Table 2.2: Project time

ACTIVITY	IMPLEMENTATION TIME			
	FEB	MAR	APR	MAY
1-design the site pages using HTML, HTML5.	***			
1.1-improve the site pages using Css, Css3		***		
1.2-make it dynamic by Bootstrap, javascript, Jquery		***	***	
2-Back-end develpment using Ajax,php (server side)			***	***
2.1-API using php and Json.				***

Chapter 3

Software Engineering

3.1 Definition

Software engineering is a field of engineering, for designing and writing programs for computers or other electronic devices. A software engineer, or programmer, writes software (or changes existing software) and compiles software using methods that make it better quality. Better quality software is easier to use, and the code is easier to understand, to maintain, and to add new features. Becoming a software engineer requires university level classes and practice writing code. Software engineering may be very difficult work. It may be repeated during the software release life cycle.

3.2 Steps in creating software

Software engineering can broadly be split into the following steps:

- Requirements say what the software should do.
- Software design is usually done on paper. It says what the different parts of the software are, and how they talk to each other.
- After the design phase is done, each component (part) of the software is coded. Code is what tells the computer exactly what to do at each step.
- Testing is done to see if the components meet the requirements and that the system as a whole meet the requirements.

- Part or all of this process can be repeated if bugs are found or new requirements are needed.

3.3 Tools used in creating software

- Flowcharts.
- UML diagram .
- Debugging tools.
- Compiler.
- Text editor, usually part of an IDE - Integrated Development Environment.

3.4 Software Systems

- Pervasie; used in variety of applications (e.g. Business, Engineering, Scientific Applications, Games, ..., etc.) .
- Simple to Complex .
- Internal to Public .
- Single-function to Enterprise-wide .
- One location to Distributed.
- Batch to Real-time .
- Informational to Mission-critical.

3.5 Challenges in Large Systems

Large projects are quite different from one-time programs where author and user are similar:

- Effort intensive .
- High cost.
- Long development time .
- Change of requirements .
- High risk of failure, user acceptance, performance, maintainability, ..., etc.

3.6 Success in Large Systems

Large projects are quite different from one-time programs where author and user are the same:

- Development Completed .
- Useful .
- Usable .
- used .
- Quality thresholds are implied .

3.7 Failure in Large Systems

- Schedule slippage (Missing Deadlines).
- Cost over-runs .
- Unslove customer's problems.
- Poor quality (e.g. maintainability).
- Ad-hoc approach (i.e. immature process).

3.7.1 Ad-hoc Approach

Ad-hoc software development approach leads to failure:

- No planning.
- Deliverables are not identified.
- Software development process is not managed.
- User requirements are not well-defined.
- No control or review.
- Poor understanding of cost and effort.

3.8 Large projects in engineering

Large projects in engineering are common and successfully done (e.g. Building bridges, Aircrafts, Missiles, ..., etc.) :

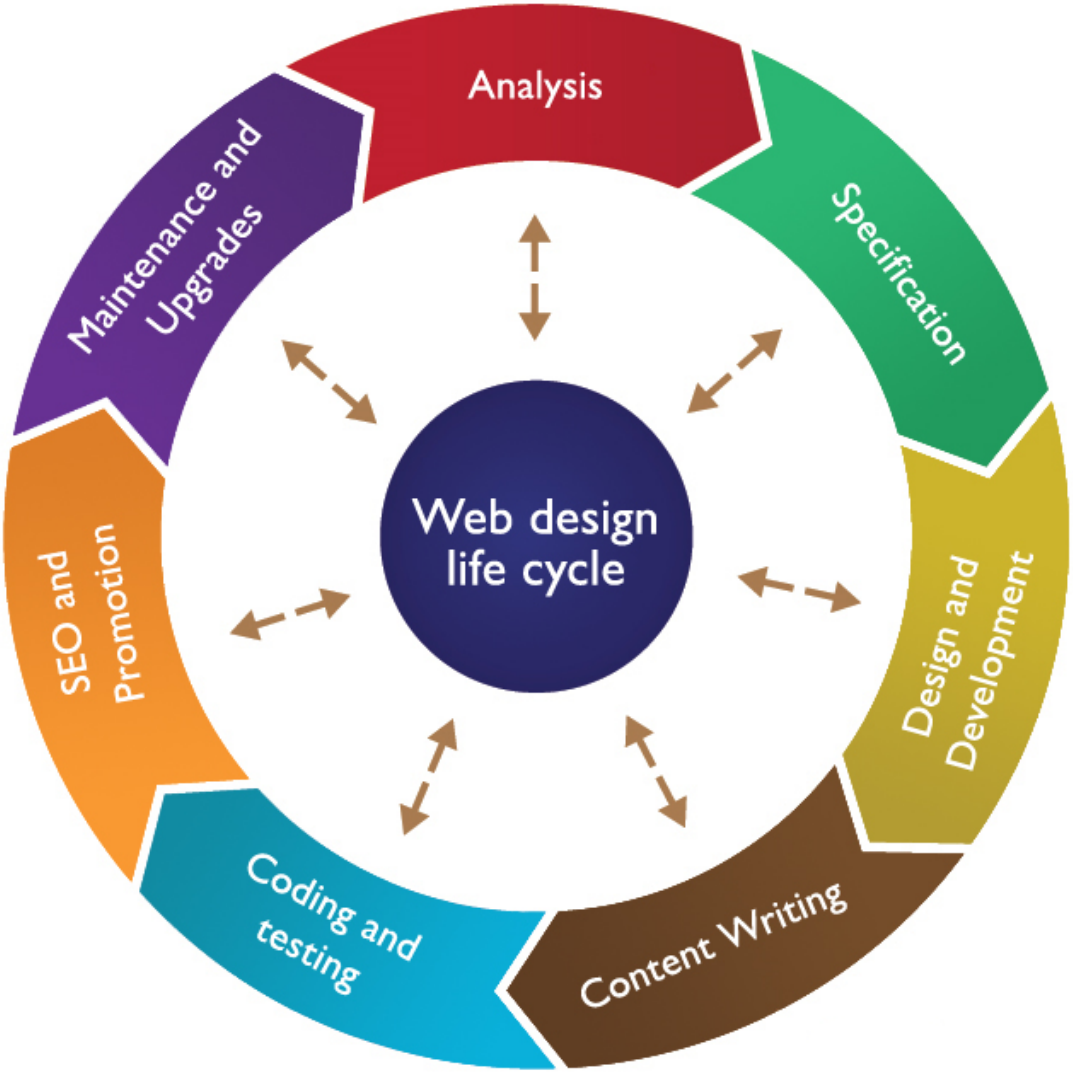
- Require well-defined approach (repeatable & predictable).

- Require managing the project itself (people, cost, equipment, schedule).
- Involve different types of people (architect, civil engineer, electrical engineer, workers, ..., etc.).
- Require continuous supervision for quality assurance.
- Many deliverables (architecture plan, model, structure diagrams, ..., etc.).
- Require defined milestones and reviews (progress is visible).

3.9 Software Process

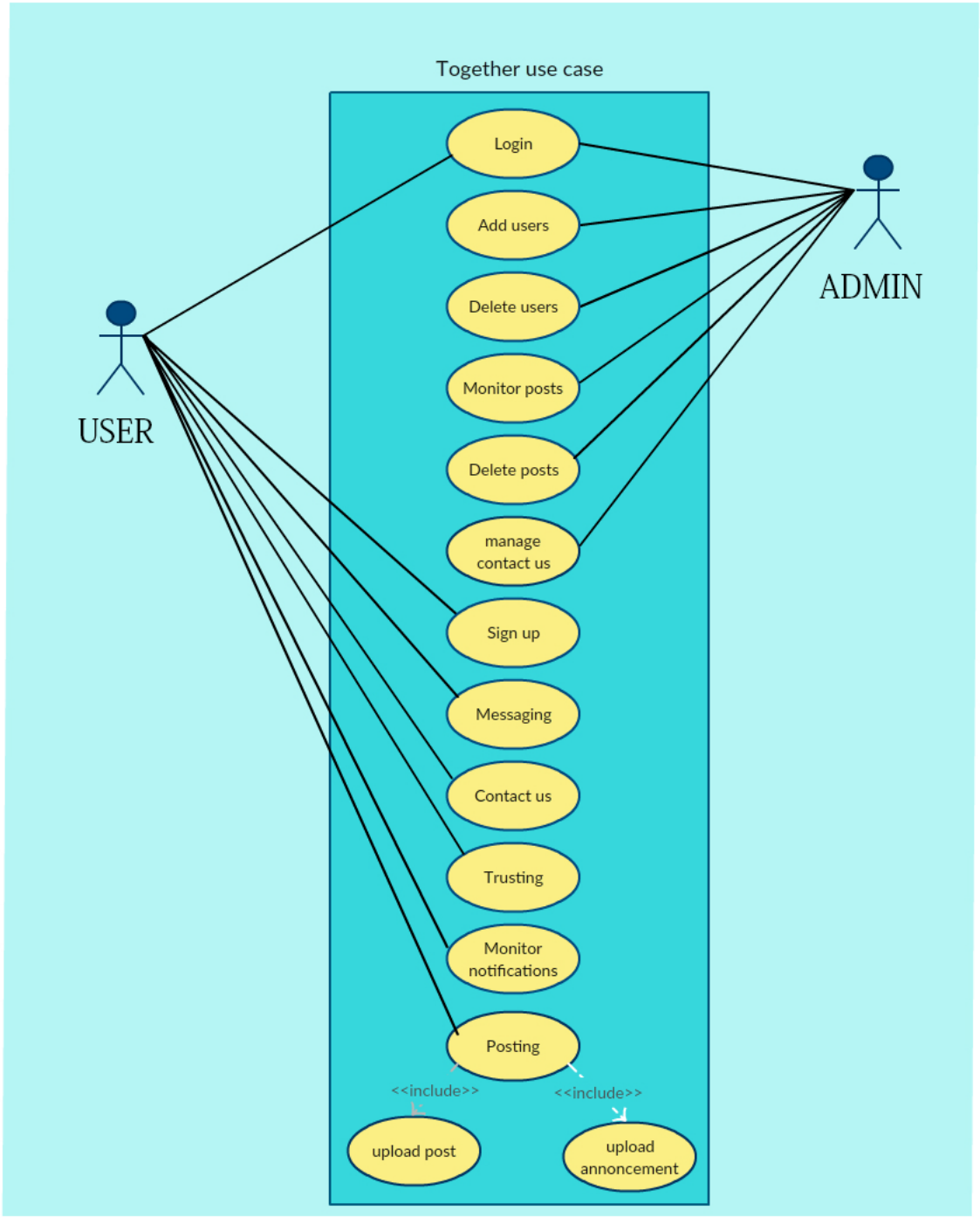
- Consists of activities/steps carried out in a specific order .
- Deals with both technical and management issues.
- Consists of different types of processes.

Figure 3.1: Software Process



3.10 Use case diagram

Figure 3.2: Use Case



Chapter 4

Database Management

4.1 Database

A database is an organized collection of data. It is the collection of schemas, tables, queries, reports, views, and other objects. The data are typically organized to model aspects of reality in a way that supports processes requiring information. Formally, a ”database” refers to a set of related data and the way it is organized. Access to this data is usually provided by a ”database management system” (DBMS) consisting of an integrated set of computer software that allows users to interact with one or more databases and provides access to all of the data contained in the database (although restrictions may exist that limit access to particular data). The DBMS provides various functions that allow entry, storage and retrieval of large quantities of information and provides ways to manage how that information is organized. Because of the close relationship between them, the term ”database” is often used casually to refer to both a database and the DBMS used to manipulate it.

4.2 A Database Management System (DBMS)

A database management system (DBMS) is a computer software application that interacts with the user, other applications, and the database itself to capture and analyze data. A general-purpose DBMS is designed to allow the definition, creation, querying, update, and administration of databases. Well-known DBMSs include MySQL, PostgreSQL, MongoDB, MariaDB, Microsoft SQL Server, Oracle, Sybase, SAP HANA, MemSQL and IBM DB2. A database is not generally portable across

different DBMSs, but different DBMS can interoperate by using standards such as SQL and ODBC or JDBC to allow a single application to work with more than one DBMS. Database management systems are often classified according to the database model that they support; the most popular database systems since the 1980s have all supported the relational model as represented by the SQL language. Sometimes a DBMS is loosely referred to as a 'database'.

4.2.1 Functions Of DBMS

DBMSs provide various functions that allow management of a database and its data which can be classified into four main functional groups:

- Data definition – Creation, modification and removal of definitions that define the organization of the data.
- Update – Insertion, modification, and deletion of the actual data.
- Retrieval – Providing information in a form directly usable or for further processing by other applications. The retrieved data may be made available in a form basically the same as it is stored in the database or in a new form obtained by altering or combining existing data from the database.
- Administration – Registering and monitoring users, enforcing data security, monitoring performance, maintaining data integrity, dealing with concurrency control, and recovering information that has been corrupted by some event such as an unexpected system failure.

4.3 General-purpose and special-purpose DBMSs

DBMS may become a complex software system and its development typically requires thousands of human years of development effort. Some general-purpose DBMSs such as Adabas, Oracle and DB2 have been upgraded since the 1970s. General-purpose DBMSs aim to meet the needs of as many applications as possible, which adds to the complexity. However, since their development cost can be spread over a large number of users, they are often the most cost-effective approach. On the other hand, a general-purpose DBMS may introduce unnecessary overhead. Therefore, many systems use a special-purpose DBMS. A common example is an email system that performs

many of the functions of a general-purpose DBMS such as the insertion and deletion of messages composed of various items of data or associating messages with a particular email address; but these functions are limited to what is required to handle email and don't provide the user with all of the functionality that would be available using a general-purpose DBMS. Application software can often access a database on behalf of end-users, without exposing the DBMS interface directly. Application programmers may use a wire protocol directly, or more likely through an application programming interface. Database designers and database administrators interact with the DBMS through dedicated interfaces to build and maintain the applications' databases, and thus need some more knowledge and understanding about how DBMSs operate and the DBMSs' external interfaces and tuning parameters.

4.4 DBMS Architecture

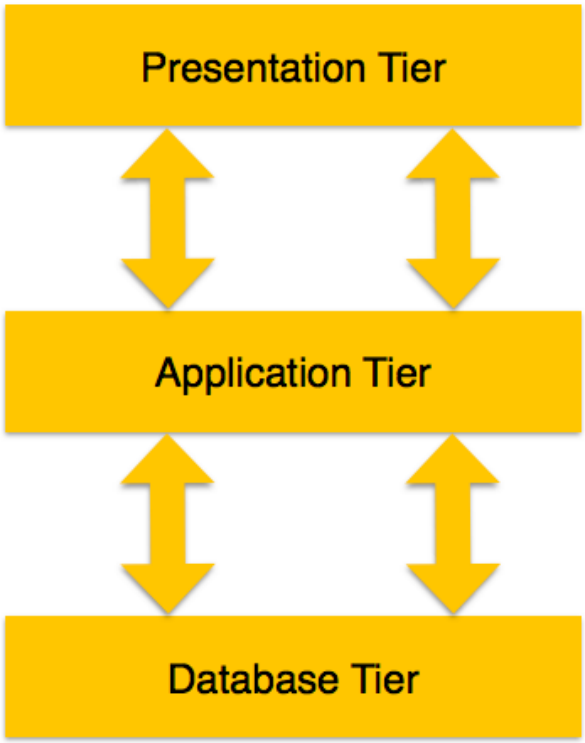
The design of a DBMS depends on its architecture. It can be centralized or decentralized or hierarchical. The architecture of a DBMS can be seen as either single tier or multi-tier. An n-tier architecture divides the whole system into related but independent n modules, which can be independently modified, altered, changed, or replaced.

In 1-tier architecture, the DBMS is the only entity where the user directly sits on the DBMS and uses it. Any changes done here will directly be done on the DBMS itself. It does not provide handy tools for end-users. Database designers and programmers normally prefer to use single-tier architecture.

If the architecture of DBMS is 2-tier, then it must have an application through which the DBMS can be accessed. Programmers use 2-tier architecture where they access the DBMS by means of an application. Here the application tier is entirely independent of the database in terms of operation, design, and programming.

A 3-tier architecture separates its tiers from each other based on the complexity of the users and how they use the data present in the database. It is the most widely used architecture to design a DBMS.

Figure 4.1: DBMS Architecture



4.4.1 Database (Data) Tier

At this tier, the database resides along with its query processing languages. We also have the relations that define the data and their constraints at this level.

4.4.2 Application (Middle) Tier

At this tier reside the application server and the programs that access the database. For a user, this application tier presents an abstracted view of the database. End-users are unaware of any existence of the database beyond the application. At the other end, the database tier is not aware of any other user beyond the application tier. Hence, the application layer sits in the middle and acts as a mediator between the end-user and the database.

4.4.3 User (Presentation) Tier

End-users operate on this tier and they know nothing about any existence of the database beyond this layer. At this layer, multiple views of the database can be provided by the application. All views are generated by applications that reside in the application tier.

4.5 DBMS - Data Models

Data models define how the logical structure of a database is modeled. Data Models are fundamental entities to introduce abstraction in a DBMS. Data models define how data is connected to each other and how they are processed and stored inside the system.

The very first data model could be flat data-models, where all the data used are to be kept in the same plane. Earlier data models were not so scientific, hence they were prone to introduce lots of duplication and update anomalies.

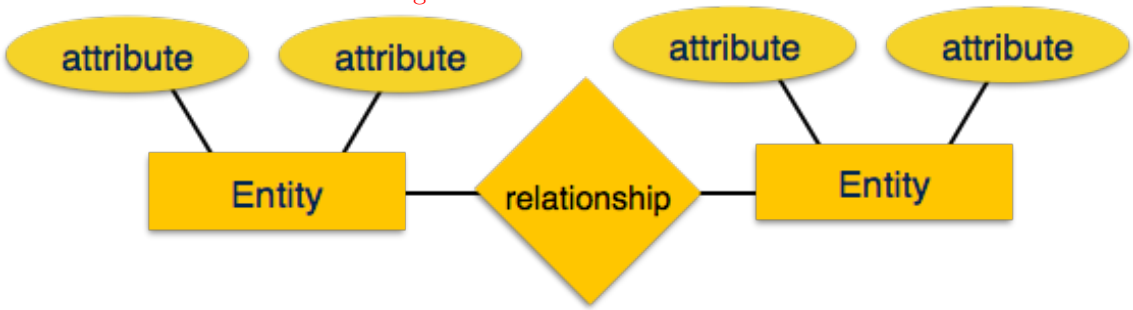
Entity-Relationship Model

Entity-Relationship (ER) Model is based on the notion of real-world entities and relationships among them. While formulating real-world scenario into the database model, the ER Model creates entity set, relationship set, general attributes and constraints. ER Model is best used for the conceptual design of a database.

ER Model is based on −

- Entities and their attributes.
- Relationships among entities.

Figure 4.2: DBMS Data Models



4.5.1 Entity

An entity in an ER Model is a real-world entity having properties called attributes. Every attribute is defined by its set of values called domain. For example, in a school database, a student is considered as an entity. Student has various attributes like name, age, class, etc.

4.5.2 Relationship

The logical association among entities is called relationship. Relationships are mapped with entities in various ways. Mapping cardinalities define the number of association between two entities.

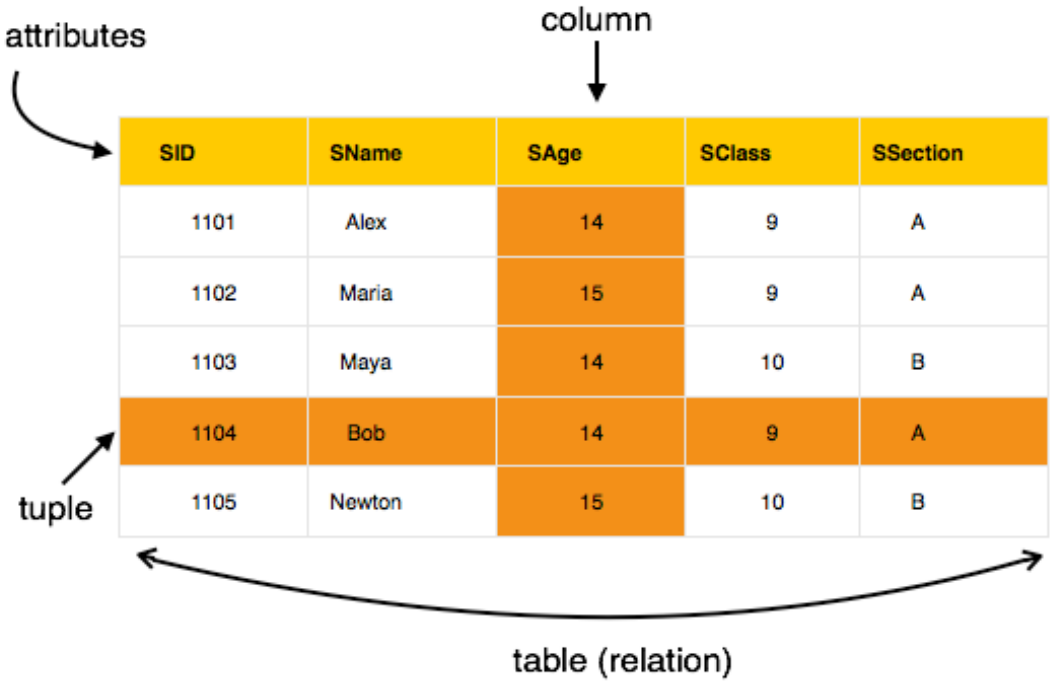
Mapping cardinalities :

- one to one
- one to many
- many to one
- many to many

4.6 Relational Model

The most popular data model in DBMS is the Relational Model. It is more scientific a model than others. This model is based on first-order predicate logic and defines a table as an n-ary relation.

Figure 4.3: Relational Model



The main highlights of this model are :

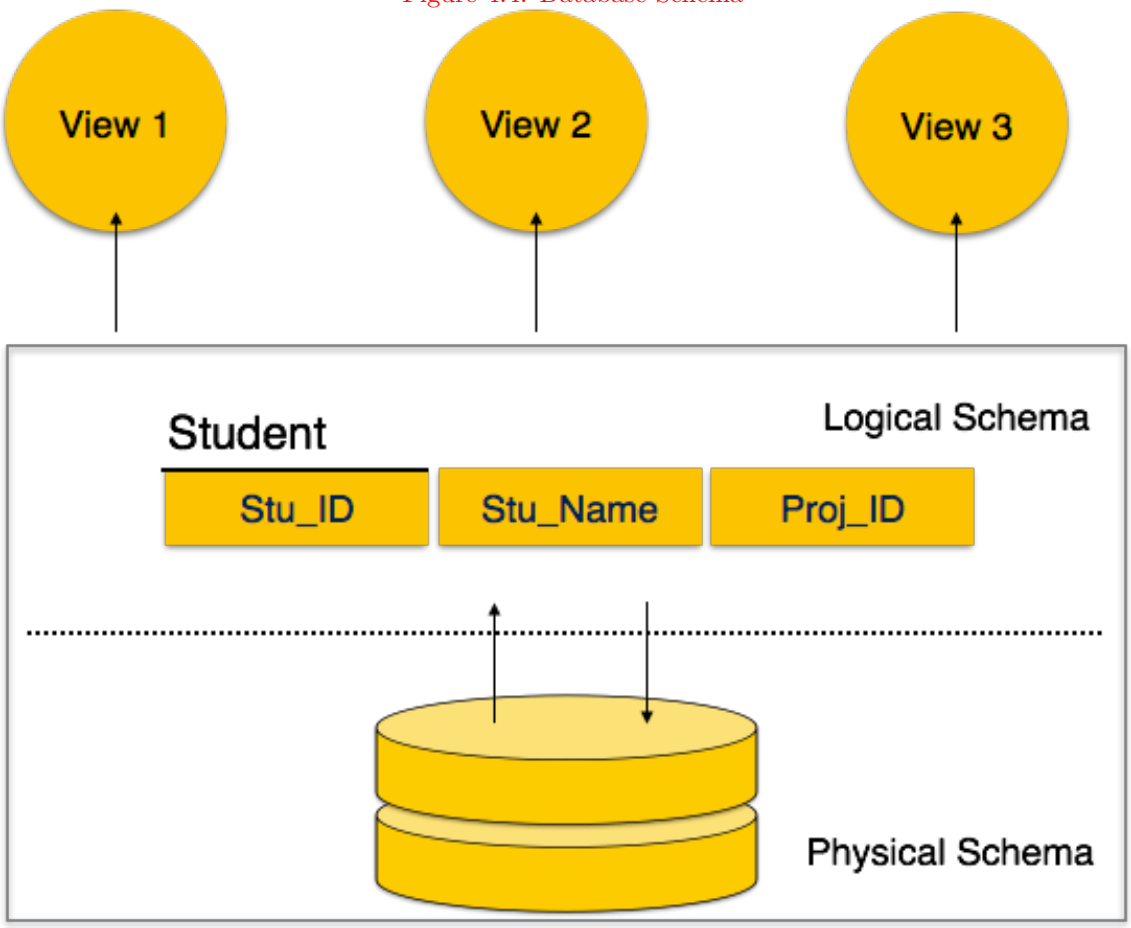
- Data is stored in tables called relations.
- Relations can be normalized.
- In normalized relations, values saved are atomic values.
- Each row in a relation contains a unique value.
- Each column in a relation contains values from a same domain.

4.7 Database Schema

A database schema is the skeleton structure that represents the logical view of the entire database. It defines how the data is organized and how the relations among them are associated. It formulates all the constraints that are to be applied on the data.

A database schema defines its entities and the relationship among them. It contains a descriptive detail of the database, which can be depicted by means of schema diagrams. It's the database designers who design the schema to help programmers understand the database and make it useful.

Figure 4.4: Database Schema



A database schema can be divided broadly into two categories:

- Physical Database Schema − This schema pertains to the actual storage of data and its form of storage like files, indices, etc. It defines how the data will be stored in a secondary storage.
- Logical Database Schema − This schema defines all the logical constraints that need to be applied on the data stored. It defines tables, views, and integrity constraints.

4.8 Database Instance

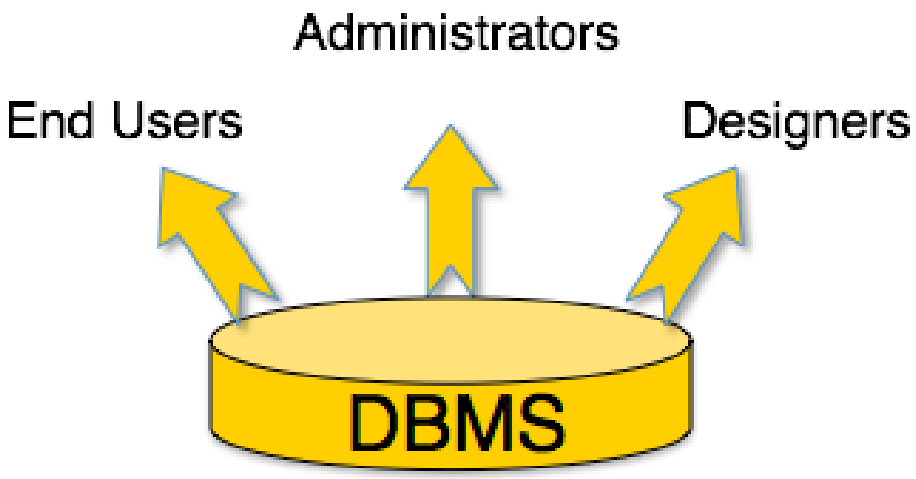
It is important that we distinguish these two terms individually. Database schema is the skeleton of database. It is designed when the database doesn't exist at all. Once the database is operational, it is very difficult to make any changes to it. A database schema does not contain any data or information.

A database instance is a state of operational database with data at any given time. It contains a snapshot of the database. Database instances tend to change with time. A DBMS ensures that its every instance (state) is in a valid state, by diligently following all the validations, constraints, and conditions that the database designers have imposed.

4.9 Database Users

A typical DBMS has users with different rights and permissions who use it for different purposes. Some users retrieve data and some back it up. The users of a DBMS can be broadly categorized as follows :

Figure 4.5: Database Users



4.9.1 Administrators

Administrators maintain the DBMS and are responsible for administrating the database. They are responsible to look after its usage and by whom it should be used. They create access profiles for users and apply limitations to maintain isolation and force security. Administrators also look after DBMS resources like system license, required tools, and other software and hardware related maintenance.

4.9.2 Designers

Designers are the group of people who actually work on the designing part of the database. They keep a close watch on what data should be kept and in what format. They identify and design the whole set of entities, relations, constraints, and views.

4.9.3 End Users

End users are those who actually reap the benefits of having a DBMS. End users can range from simple viewers who pay attention to the logs or market rates to sophisticated users such as business analysts.

4.10 SQL Overview

SQL is a programming language for Relational Databases. It is designed over relational algebra and tuple relational calculus. SQL comes as a package with all major distributions of RDBMS. A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or the vast amounts of information in a corporate network. To add, access, and process data stored in a computer database, you need a database management system such as MySQL Server. Since computers are very good at handling large amounts of data, database management systems play a central role in computing, as standalone utilities, or as parts of other applications.

SQL comprises both data definition and data manipulation languages. Using the data definition properties of SQL, one can design and modify database schema, whereas data manipulation properties allows SQL to store and retrieve data from database.

Data Definition Language: SQL uses the following set of commands to define database schema :

- CREATE Creates new databases, tables and views from RDBMS.
- DROP Drops commands, views, tables, and databases from RDBMS.
- ALTER Modifies database schema.

Data Manipulation Language SQL is equipped with data manipulation language (DML). DML modifies the database instance by inserting, updating and deleting its data. DML is responsible for all froms data modification in a database. SQL contains the following set of commands in its DML section:

- SELECT/FROM/WHERE
- INSERT INTO/VALUES
- UPDATE/SET/WHERE
- DELETE FROM/WHERE

4.11 What makes up a database

4.11.1 Tables

A table is a collection of related data held in a structured format within a database. It consists of columns, and rows. In relational databases, and flat file databases, a table is a set of data elements (values) using a model of vertical columns (identifiable by name) and horizontal rows, the cell being the unit where a row and column intersect. A table has a specified number of columns, but can have any number of rows. Each row is identified by one or more values appearing in a particular column subset. The columns subset which uniquely identifies a row is called the primary key. ”Table” is another term for ”relation”; although there is the difference in that a table is usually a multiset (bag) of rows where a relation is a set and does not allow duplicates. Besides the actual data rows, tables generally have associated with them some metadata, such as constraints on the table or on the values within particular columns.[dubious – discuss] The data in a table does not have to be physically stored in the database. Views also function as relational tables, but their data are

calculated at query time. External tables (in Informix or Oracle, for example) can also be thought of as views.

4.11.2 Unique key

Unique key constraints are used to ensure that data is not duplicated in two rows in the database. One row in the database is allowed to have null for the value of the unique key constraint. Although a table should have a PK, it need not have any additional unique keys. However, tables can have more than one unique key if that meets your needs. Like PKs, unique keys can span multiple columns.

4.11.3 Primary key

The primary key is used to identify a row of data in a table. It is used whenever you need to refer to a particular row, eg. in other tables or by application code etc. In order to identify a row, the values of a PK must be unique. Furthermore, they can't be null, because most dbms treat null as not equal to null (since null typically means "unknown"). A table can only have one PK. All tables in your databse should have a PK (although this is not enforced by most dbms), and PK can span multiple columns.

4.11.4 Foreign key

A foreign key is a field (or collection of fields) in one table that uniquely identifies a row of another table or the same table.[1][2][3] In simpler words, the foreign key is defined in a second table, but it refers to the primary key in the first table. For example, a table called Employee has a primary key called employee_id. Another table called Employee Details has a foreign key which references employee_id in order to uniquely identify the relationship between both the tables.

4.11.5 Views

A database view is a searchable object in a database that is defined by a query. Though a view doesn't store data, some refer to a views as "virtual tables," you can query a view like you can a table. A view can combine data from two or more table, using joins, and also just contain a subset of information.

4.11.6 Functions

The functional database model is used to support analytics applications such as financial planning and performance management. The functional database model, or the functional model for short, is different from but complementary to the relational model. The functional model is also distinct from other similarly named concepts, including the DAPLEX functional database model[1] and functional language databases. The functional model is part of the online analytical processing (OLAP) category since it comprises multidimensional hierarchical consolidation. But it goes beyond OLAP by requiring a spreadsheet-like cell orientation, where cells can be input or calculated as functions of other cells. Also as in spreadsheets, it supports interactive calculations where the values of all dependent cells are automatically up to date whenever the value of a cell is changed.

4.11.7 Triggers

A database trigger is procedural code that is automatically executed in response to certain events on a particular table or view in a database. The trigger is mostly used for maintaining the integrity of the information on the database. For example, when a new record (representing a new worker) is added to the employees table, new records should also be created in the tables of the taxes, vacations and salaries.

4.12 PhpMyAdmin Commands

phpMyAdmin is a free and open source tool written in PHP intended to handle the administration of MySQL or MariaDB with the use of a web browser. It can perform various tasks such as creating, modifying or deleting databases, tables, fields or rows; executing SQL statements; or managing users and permissions.

4.13 Screen screen database tables

Figure 4.6: Project Database Tables

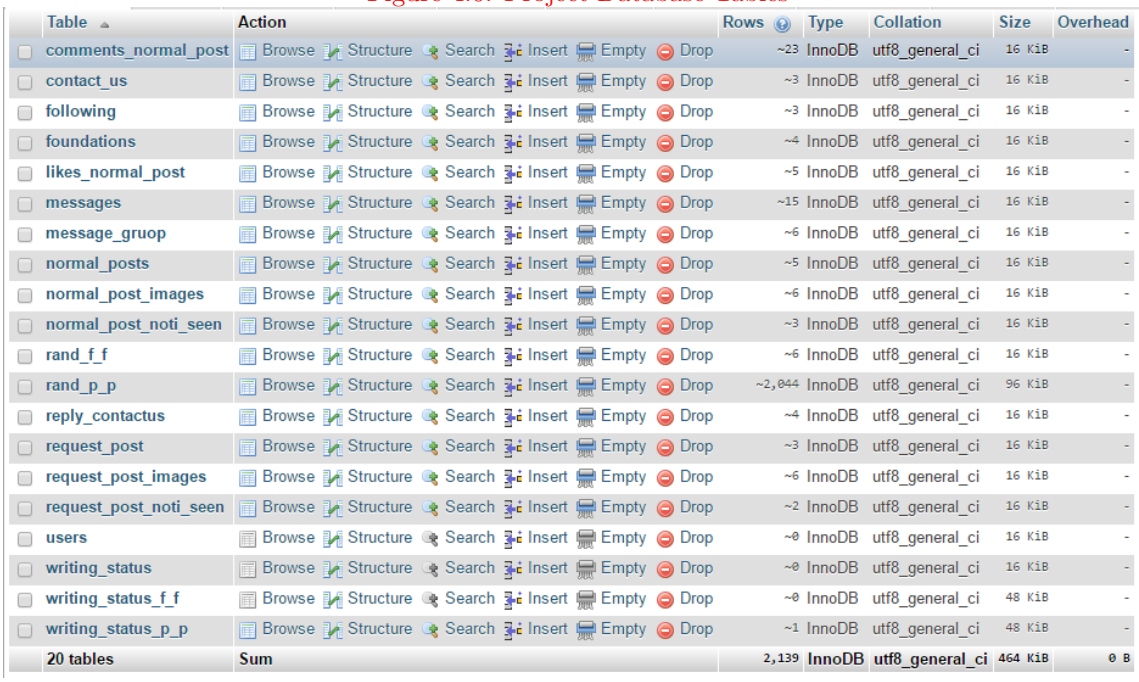


	Table	Action	Rows	Type	Collation	Size	Overhead
☐	comments_normal_post	Browse Structure Search Insert Empty Drop	~23	InnoDB	utf8_general_ci	16 KiB	-
☐	contact_us	Browse Structure Search Insert Empty Drop	~3	InnoDB	utf8_general_ci	16 KiB	-
☐	following	Browse Structure Search Insert Empty Drop	~3	InnoDB	utf8_general_ci	16 KiB	-
☐	foundations	Browse Structure Search Insert Empty Drop	~4	InnoDB	utf8_general_ci	16 KiB	-
☐	likes_normal_post	Browse Structure Search Insert Empty Drop	~5	InnoDB	utf8_general_ci	16 KiB	-
☐	messages	Browse Structure Search Insert Empty Drop	~15	InnoDB	utf8_general_ci	16 KiB	-
☐	message_gruop	Browse Structure Search Insert Empty Drop	~6	InnoDB	utf8_general_ci	16 KiB	-
☐	normal_posts	Browse Structure Search Insert Empty Drop	~5	InnoDB	utf8_general_ci	16 KiB	-
☐	normal_post_images	Browse Structure Search Insert Empty Drop	~6	InnoDB	utf8_general_ci	16 KiB	-
☐	normal_post_noti_seen	Browse Structure Search Insert Empty Drop	~3	InnoDB	utf8_general_ci	16 KiB	-
☐	rand_f_f	Browse Structure Search Insert Empty Drop	~6	InnoDB	utf8_general_ci	16 KiB	-
☐	rand_p_p	Browse Structure Search Insert Empty Drop	~2,044	InnoDB	utf8_general_ci	96 KiB	-
☐	reply_contactus	Browse Structure Search Insert Empty Drop	~4	InnoDB	utf8_general_ci	16 KiB	-
☐	request_post	Browse Structure Search Insert Empty Drop	~3	InnoDB	utf8_general_ci	16 KiB	-
☐	request_post_images	Browse Structure Search Insert Empty Drop	~6	InnoDB	utf8_general_ci	16 KiB	-
☐	request_post_noti_seen	Browse Structure Search Insert Empty Drop	~2	InnoDB	utf8_general_ci	16 KiB	-
☐	users	Browse Structure Search Insert Empty Drop	~0	InnoDB	utf8_general_ci	16 KiB	-
☐	writing_status	Browse Structure Search Insert Empty Drop	~0	InnoDB	utf8_general_ci	16 KiB	-
☐	writing_status_f_f	Browse Structure Search Insert Empty Drop	~0	InnoDB	utf8_general_ci	48 KiB	-
☐	writing_status_p_p	Browse Structure Search Insert Empty Drop	~1	InnoDB	utf8_general_ci	48 KiB	-
	20 tables	Sum	2,139	InnoDB	utf8_general_ci	464 KiB	0 B

Chapter 5

Web Application

5.1 Introduction to web application

In computing, a web application or web app is a client–server software application in which the client (or user interface) runs in a web browser. Common web applications include webmail, online retail sales, online auctions, wikis, instant messaging services and many other functions. The general distinction between a dynamic web page of any kind and a ”web application” is unclear. Web sites most likely to be referred to as ”web applications” are those which have similar functionality to a desktop software application, or to a mobile app. HTML5 introduced explicit language support for making applications that are loaded as web pages, but can store data locally and continue to function while offline. Single-page applications are more application-like because they reject the more typical web paradigm of moving between distinct pages with different URLs. Single-page frameworks like Sencha Touch and AngularJS might be used to speed development of such a web app for a mobile platform. In contrast, web applications use web documents written in a standard format such as HTML and JavaScript, which are supported by a variety of web browsers. Web applications can be considered as a specific variant of client–server software where the client software is downloaded to the client machine when visiting the relevant web page, using standard procedures such as HTTP. Client web software updates may happen each time the web page is visited. During the session, the web browser interprets and displays the pages, and acts as the universal client for any web application.

5.2 Web application interface

Through Java, JavaScript, DHTML, Flash, Silverlight and other technologies, application-specific methods such as drawing on the screen, playing audio, and access to the keyboard and mouse are all possible. Many services have worked to combine all of these into a more familiar interface that adopts the appearance of an operating system. General purpose techniques such as drag and drop are also supported by these technologies. Web developers often use client-side scripting to add functionality, especially to create an interactive experience that does not require page reloading. Recently, technologies have been developed to coordinate client-side scripting with server-side technologies such as ASP.NET, J2EE, Perl/Plack and PHP. Ajax, a web development technique using a combination of various technologies, is an example of technology which creates a more interactive experience.

Table 5.1: Web Interfaces

v · t · e	Web interfaces		[hide]
Server-side	Protocols	HTTP · CGI · SCGI · FCGI · AJP · WSRP · WebSocket	
	Server APIs	C NSAPI · C ASAPI · C ISAPI · COM ASP · Java servlet (container) · CLI OWIN · ASP.NET Handler · Python WSGI · Ruby Rack · JavaScript JSGI · Perl PSGI · Lua WSAPI · Portlet (container)	
	Apache modules	mod_jk · mod_lisp · mod_mono · mod_parrot · mod_perl · mod_php · mod_proxy · mod_python · mod_wsgi · mod_ruby · Phusion Passenger	
	Topics	Web resource vs. Web service · Open API · Webhook · Application server (comparison) · Scripting	
Client-side	Browser APIs	C NPAPI (LiveConnect · XPConnect) · C NPRuntime · C PPAPI (NaCl) · ActiveX · BHO · XBAP · WebAssembly	
	Web APIs	W3C	Audio · Canvas · CORS · DOM · DOM events · EME · File · Geolocation · IndexedDB · MSE · SSE · SVG · Video · WebRTC · WebSocket · Web messaging · Web storage · Web worker · XMLHttpRequest
		Khronos	WebCL · WebGL
		Others	Gears · Web SQL Database (formerly W3C)
	Topics	Ajax vs. DHTML · Mashup · Web IDL · Scripting	
Topics	Dynamic web page · Open Web Platform · Rich Internet application · **Web application**		

5.3 Web application structure

Applications are usually broken into logical chunks called ”tiers”, where every tier is assigned a role. Traditional applications consist only of 1 tier, which resides on the client machine, but web applications lend themselves to an n-tiered approach by nature. Though many variations are possible, the most common structure is the three-tiered application. In its most common form, the three tiers are called presentation, application and storage, in this order. A web browser is the first tier (presentation), an engine using some dynamic Web content technology (such as ASP, CGI, ColdFusion, Dart, JSP/Java, Node.js, PHP, Python or Ruby on Rails) is the middle tier (application logic), and a database is the third tier (storage). The web browser sends requests to the middle tier, which

services them by making queries and updates against the database and generates a user interface. For more complex applications, a 3-tier solution may fall short, and it may be beneficial to use an n-tiered approach, where the greatest benefit is breaking the business logic, which resides on the application tier, into a more fine-grained model. Another benefit may be adding an integration tier that separates the data tier from the rest of tiers by providing an easy-to-use interface to access the data. For example, the client data would be accessed by calling a ”list_clients()” function instead of making an SQL query directly against the client table on the database. This allows the underlying database to be replaced without making any change to the other tiers. There are some who view a web application as a two-tier architecture. This can be a ”smart” client that performs all the work and queries a ”dumb” server, or a ”dumb” client that relies on a ”smart” server. The client would handle the presentation tier, the server would have the database (storage tier), and the business logic (application tier) would be on one of them or on both. While this increases the scalability of the applications and separates the display and the database, it still doesn't allow for true specialization of layers, so most applications will outgrow this model.

5.4 Web application bussiness use

An emerging strategy for application software companies is to provide web access to software previously distributed as local applications. Depending on the type of application, it may require the development of an entirely different browser-based interface, or merely adapting an existing application to use different presentation technology. These programs allow the user to pay a monthly or yearly fee for use of a software application without having to install it on a local hard drive. A company which follows this strategy is known as an application service provider (ASP), and ASPs are currently receiving much attention in the software industry. Security breaches on these kinds of applications are a major concern because it can involve both enterprise information and private customer data. Protecting these assets is an important part of any web application and there are some key operational areas that must be included in the development process. This includes processes for authentication, authorization, asset handling, input, and logging and auditing. Building security into the applications from the beginning can be more effective and less disruptive in the long run. Cloud Computing model web applications are software as a service (SaaS). There are business applications provided as SaaS for enterprises for fixed or usage dependent fee. Other web

applications are offered free of charge, often generating income from advertisements shown in web application interface.

5.5 Web application development

Writing a web application is often simplified by open source software such as Django, Ruby on Rails or Symfony called web application frameworks. These frameworks facilitate rapid application development by allowing a development team to focus on the parts of their application which are unique to their goals without having to resolve common development issues such as user management. While many of these frameworks are open source, this is by no means a requirement. The use of web application frameworks can often reduce the number of errors in a program, both by making the code simpler, and by allowing one team to concentrate on the framework while another focuses on a specified use case. In applications which are exposed to constant hacking attempts on the Internet, security-related problems can be caused by errors in the program. Frameworks can also promote the use of best practices such as GET after POST. In addition, there is potential for the development of applications on Internet operating systems, although currently there are not many viable platforms that fit this model.

5.6 Applications

Examples of browser applications are simple office software (word processors, online spreadsheets, and presentation tools), but can also include more advanced applications such as project management, computer-aided design, video editing and point-of-sale.

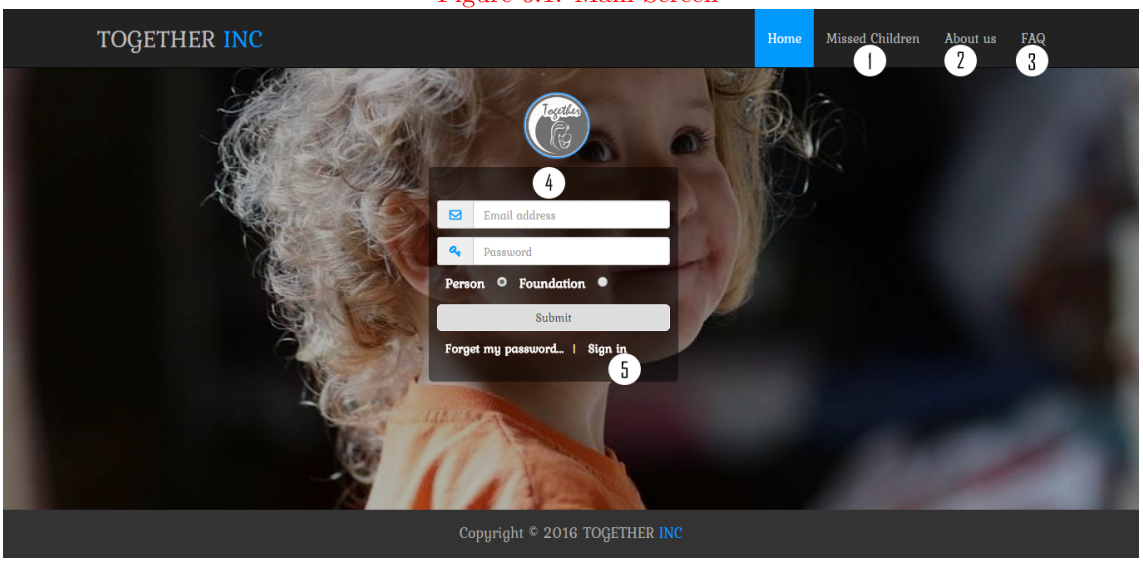
Chapter 6

User Guide

6.1 Working screen shoots for users

6.1.1 Main screen

Figure 6.1: Main Screen



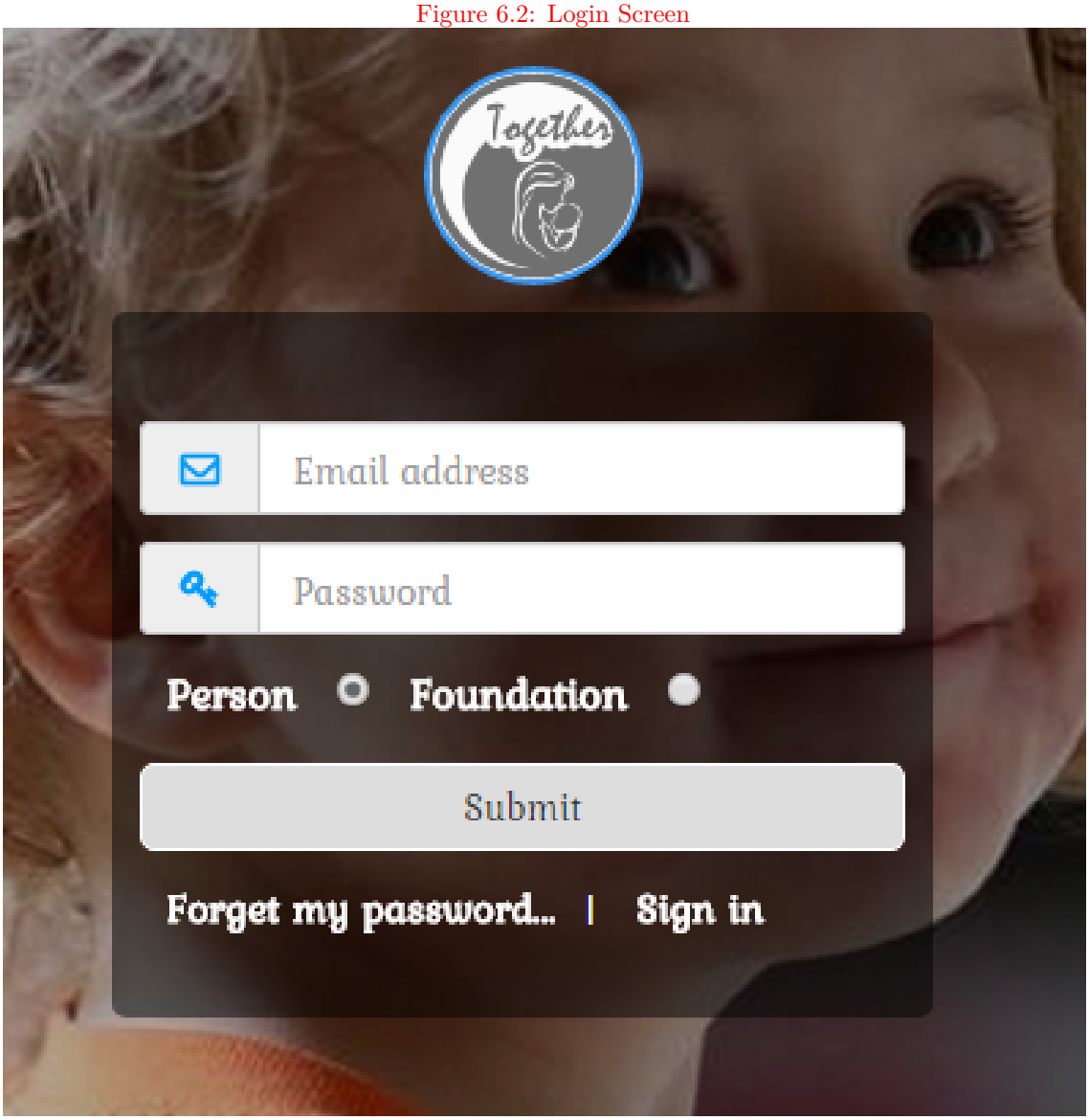
The first screen of the website where it shows many links for other pages(Missed Children - About us - FAQ) in the top:

1. It is a hyperlink to missed children page that allow user to search about missing children.
2. It is a hyperlink to about us page which contains information about the site and our skills.

3. It is a hyperlink to FAQ page which contains first asked question and its answer.
4. It asks the user to enter his email and password to allow him to login in the website
5. Allow new user to Sign up to the website easily.

6.1.2 Login Screen

Figure 6.2: Login Screen

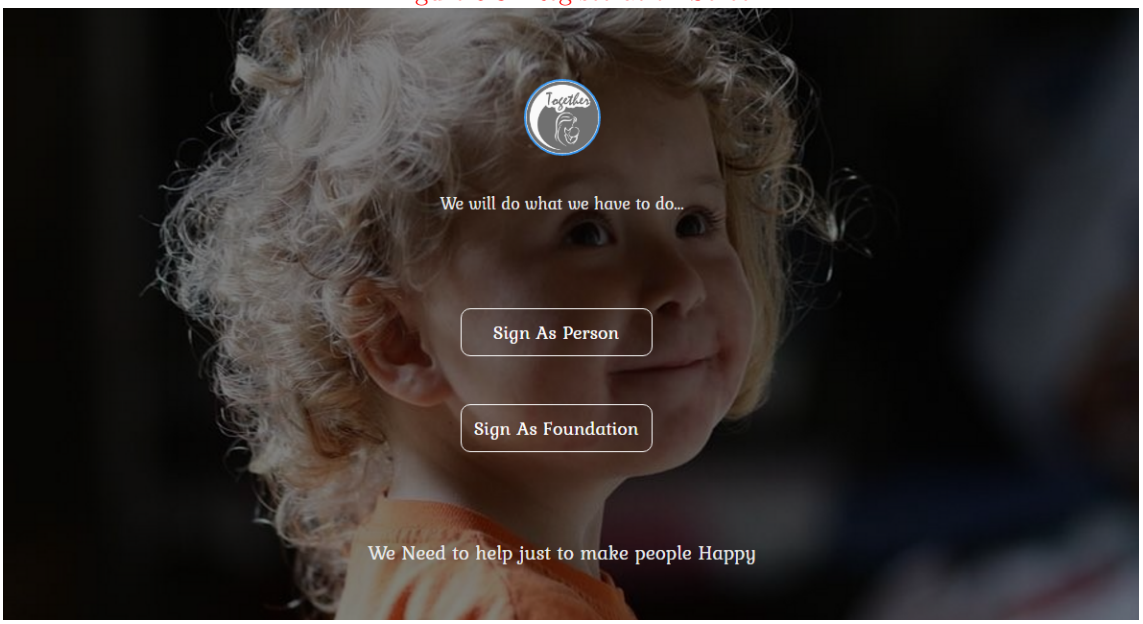


This screen which asks the user to enter his email and password to allow him to login in the website, if his information was valid.

- It let user to enter his registered email.
- It let user to enter his password.
- it let user to select its account type whether its person or foundation.
- The submit button is here to check if the user entered the correct information or not, it takes him to the home page.

6.1.3 Registeration Screen

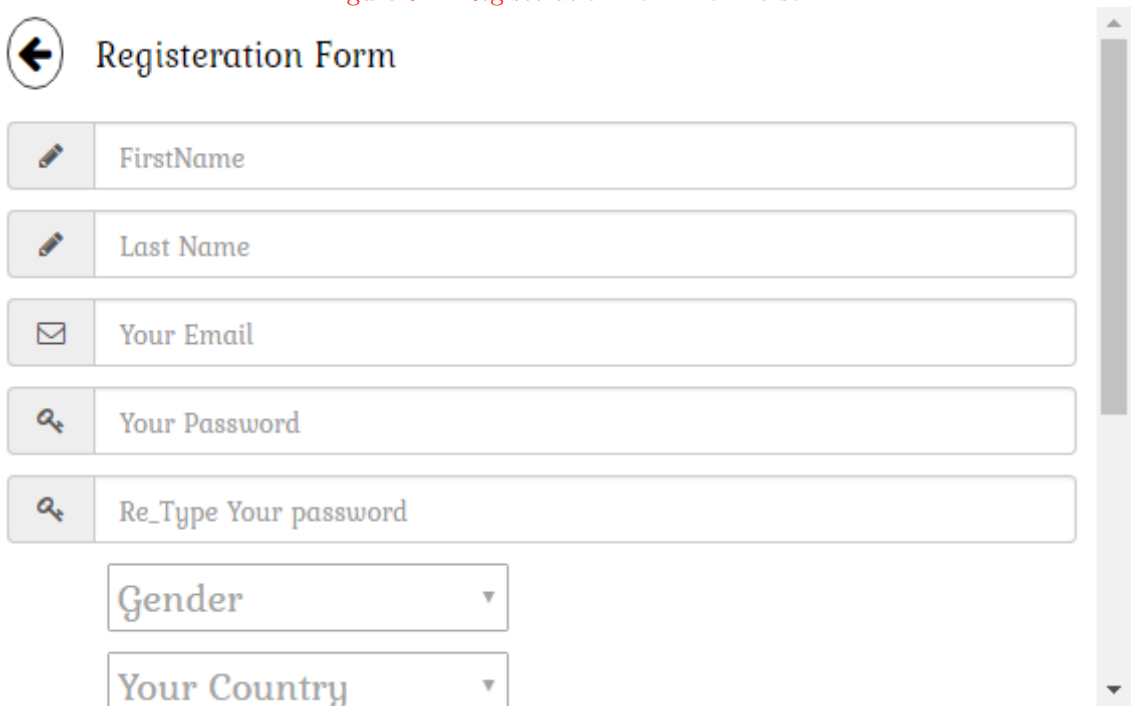
Figure 6.3: Registeration Screen



This screen helps the new users to have anew accounts in the website, which is person or foundation,

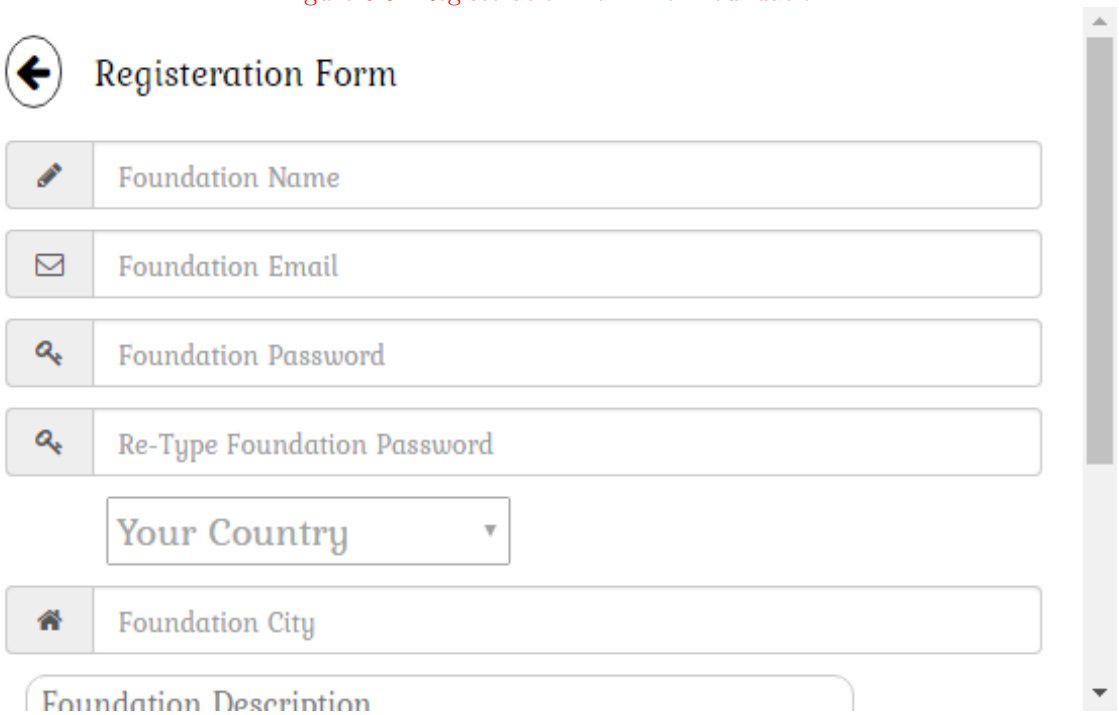
if he/she press on the sign as person it shows the registeration form of the person which contains a required information about him /her(name,email,password,gender,country,city..etc).

Figure 6.4: Registeration Form For Person



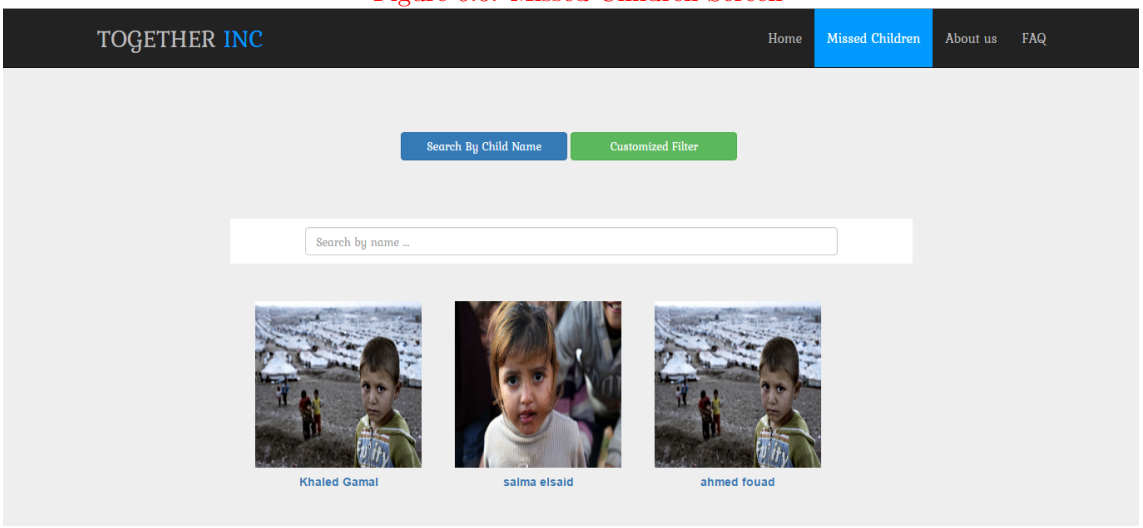
if he press on the sign as foundation it shows the registeration form of thefoundation which contains a similiar information of person and more information about this foundation such as (Fax,site link).

Figure 6.5: Registeration Form For Foundation



6.1.4 Missed Children screen

Figure 6.6: Missed Children Screen



This screen has all announcements about all missing children that has one photo of each child and his name, that helps users who doesn't have an account in the website, and help them to search in

this annoncements by name and filter results in the same page, if the user click (customized filter), it lead him to search by more informations (country, year, age, hair color, eye color, skin color), this information customized results and more accuracy.

6.1.5 Home page Screen

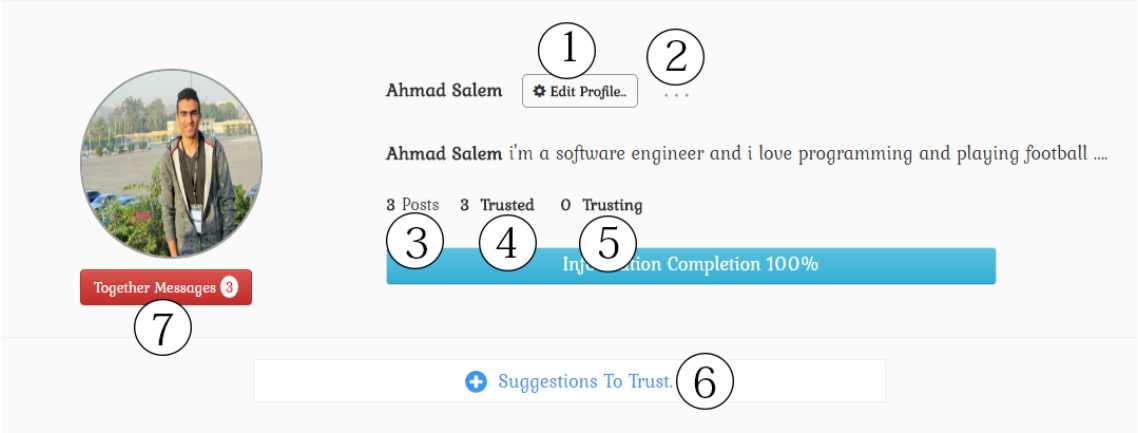
Figure 6.7: Home Screen

when you successfully login this home screen will appear to you:

1. This is a search box that used to search about another users that have an account in our site .
2. This hyper link to home page.
3. This hyper link to profile page.
4. This hyper link to get only notification associated with normal post.
5. This hyper link to get the messages is associated with you.
6. This hyper link to an announcement.
7. This Plus button that lead you to upload a new post or an announcement.

6.1.6 Profile Page Screen

Figure 6.8: Profile Screen

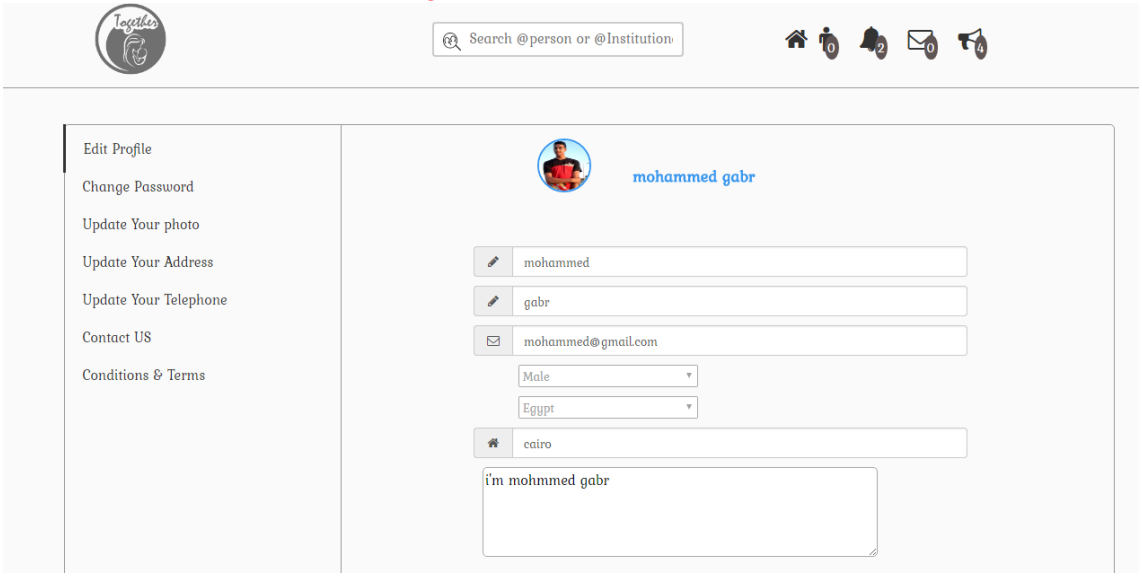


when you move to the profile page you will see this screen

1. Button to move to edit profile setting .
2. This button to logout from the the site.
3. This label shows you the number of posts the you has been uploaded.
4. This label shows you the number of people that trust you.
5. This label shows you the number of people that you trust
6. This Button shows suggested accounts that ypu can trust them.
7. This Button shows messages from admin to you.

6.1.7 Edit profile screen

Figure 6.9: Edit Profile Screen

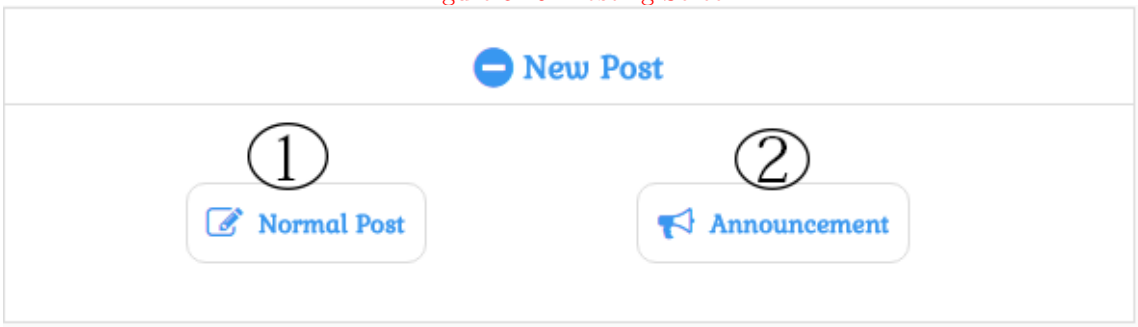


This screen enables user to edit all information in his profile, this appears when a user click on a button (Edit profile) in a previous screen:

- Change name, email, gender, country, city and his description.
- Change password.
- Update his photo.
- Update his address.
- Update his telephone numbers.
- Enables him to contact us with the admin.

6.1.8 Posting screens

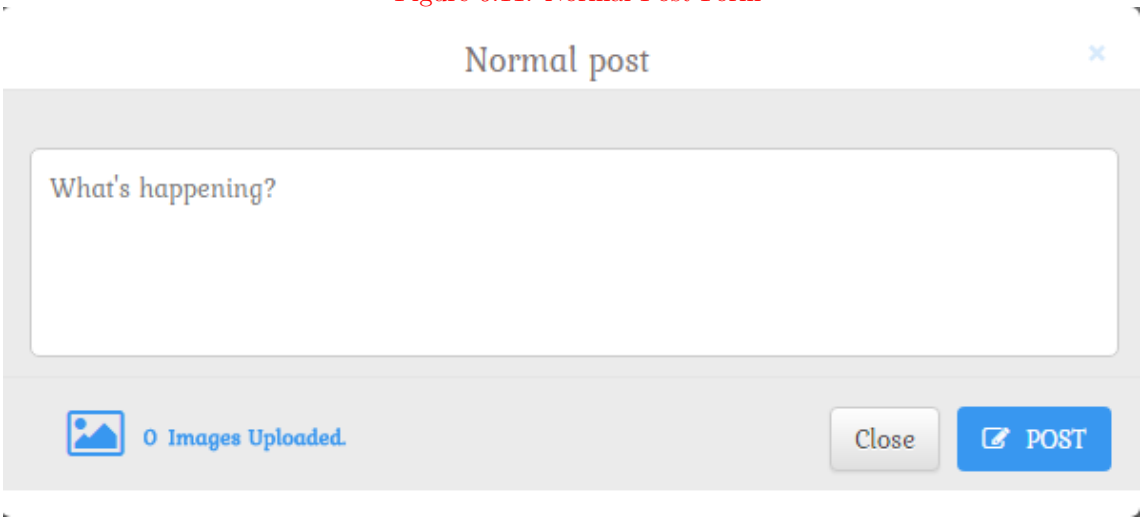
Figure 6.10: Posting Screen



This system has two type of posts:

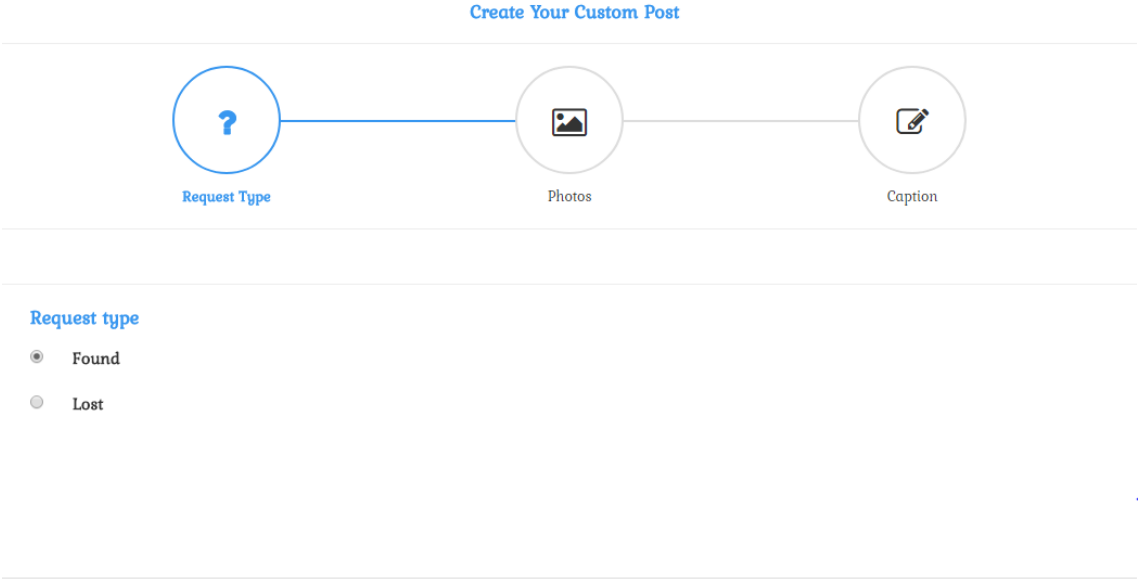
1. Normal post lead user to upload more than photo, write caption and upload photos with caption for its.

Figure 6.11: Normal Post Form



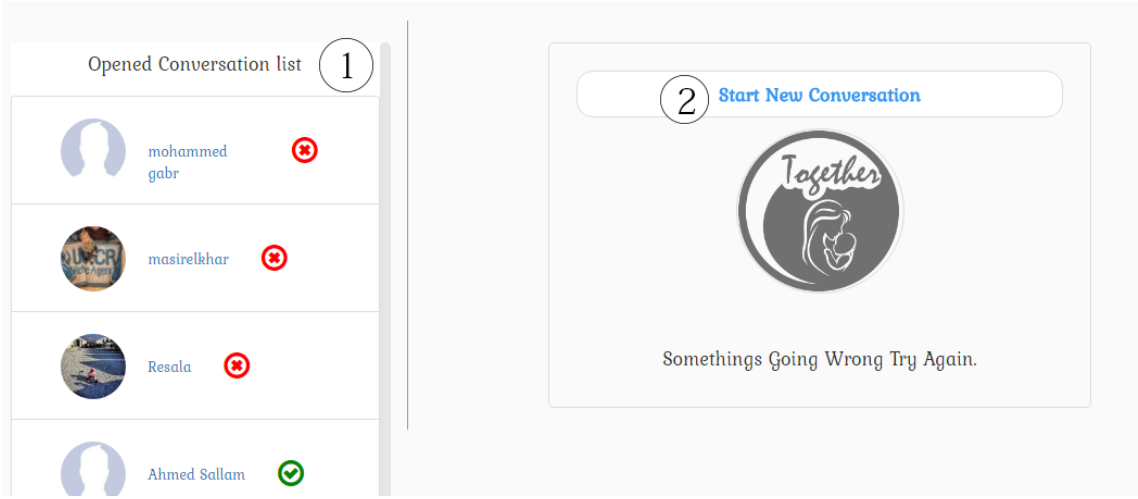
2. Announcement lead user to upload more than photo for a missed child and inserting information about that child.

Figure 6.12: Announcement Form



6.1.9 Messaging screen

Figure 6.13: Messaging Screen



This is message screen that help users to connect with each other about the main reason missing children:

1. This is opened conversation list which exists all users who have been connected before and shows his status if he is online or offline.

2. This button helps user to start conversation with new user (person, foundation) and lead him to search about any user easily.

Figure 6.14: Message Search

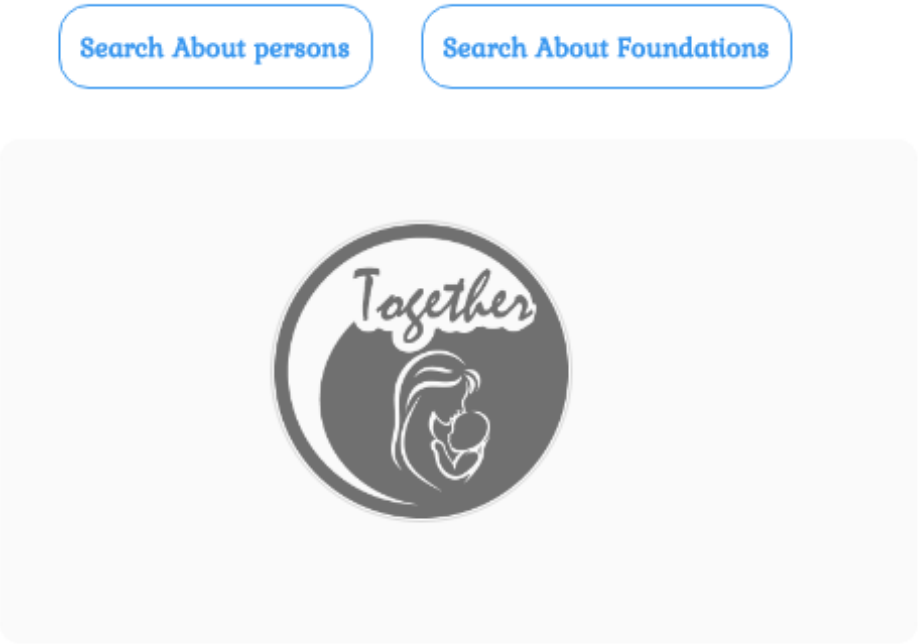
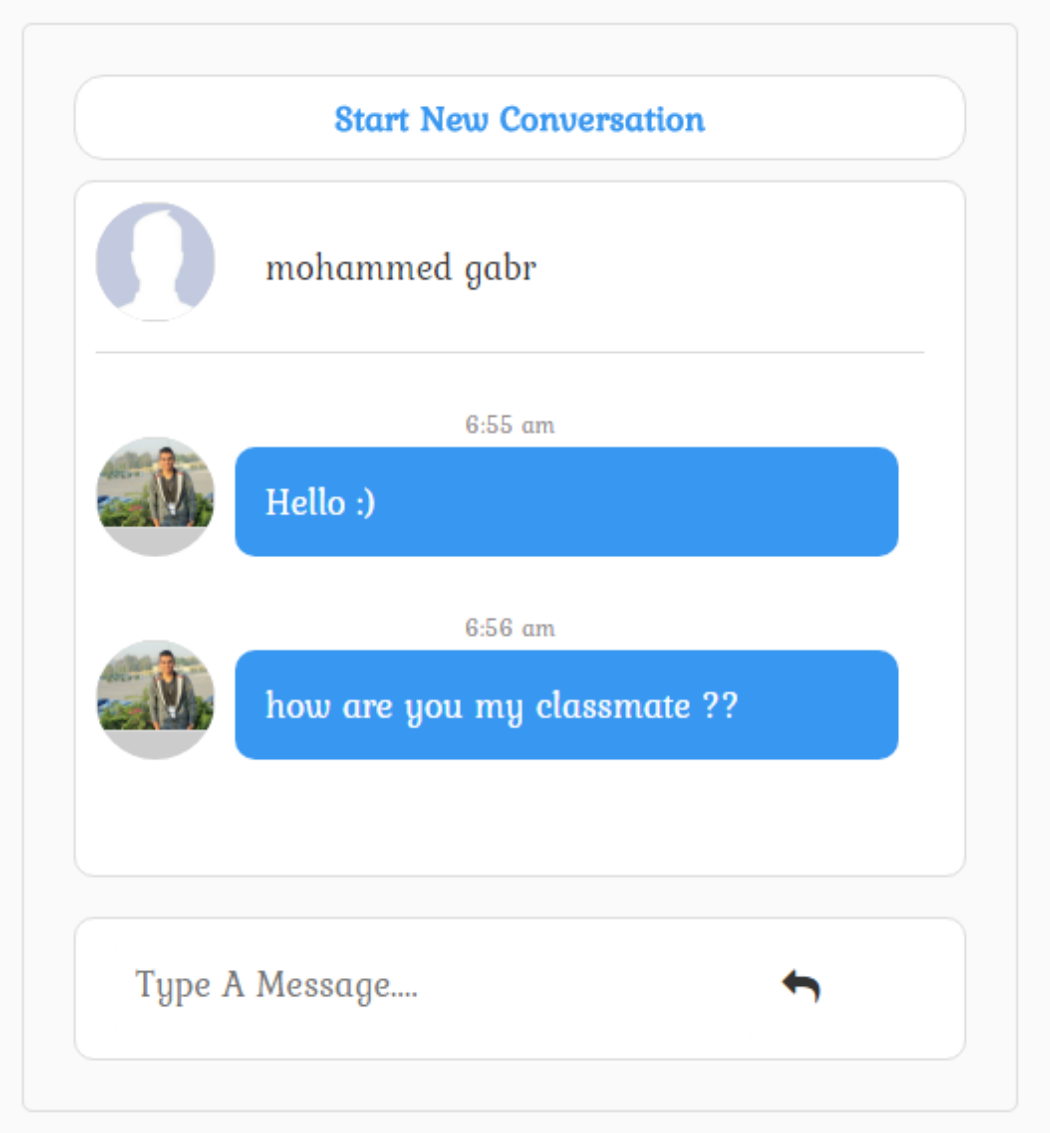


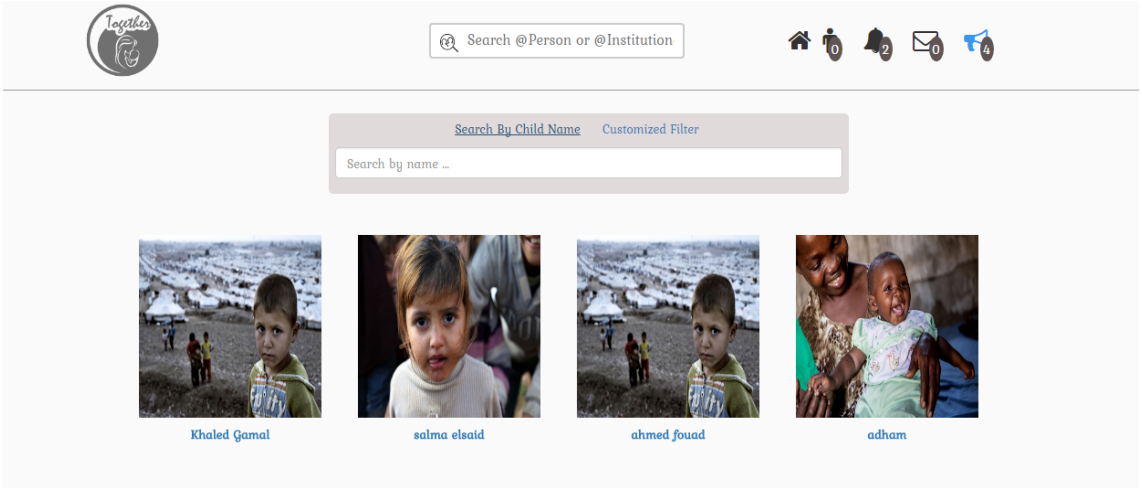
Figure 6.15: Messaging Between Two Users



This screen shows conversation between two users.

6.1.10 Annoncements screen

Figure 6.16: Annoncements Screen



This screen has all annoncements about all missing children that has one photo of each child and his name, and help users to search in this annoncements by name and filter results in the same page, if the user click (customized filter), it lead him to search by more informations (country, year, age, hair color, eye color, skin color), this information customized results and more accuracy.

Figure 6.17: Search In Annomcements

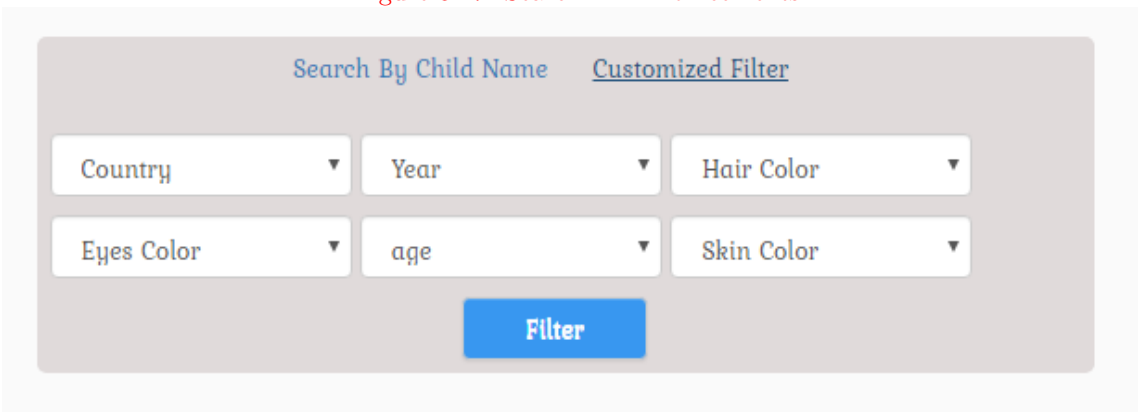
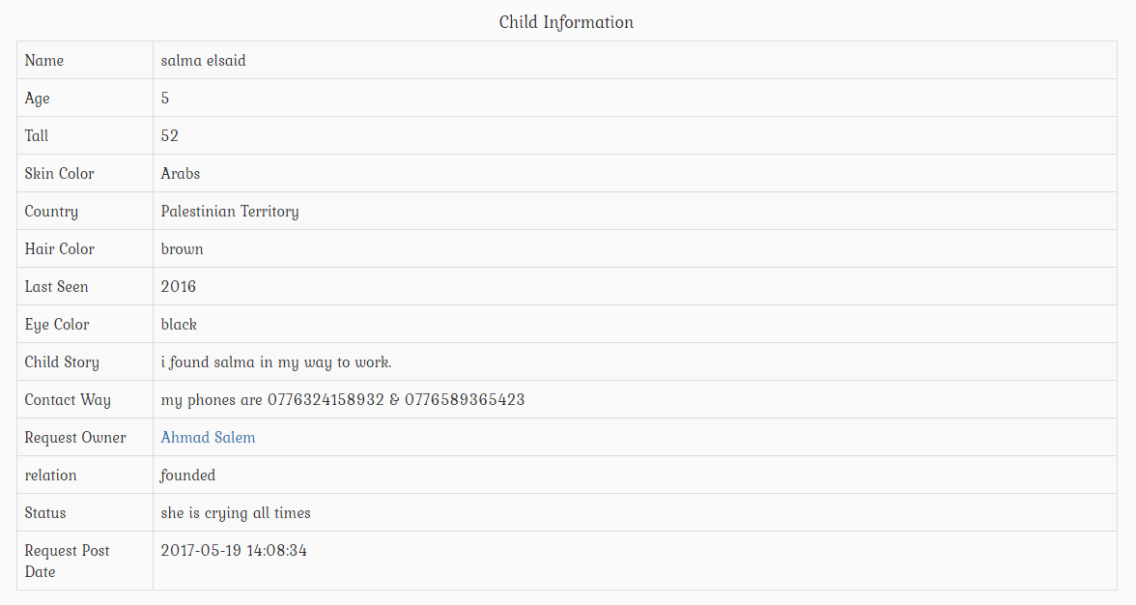


Figure 6.18: Annoncement Form



Child Information

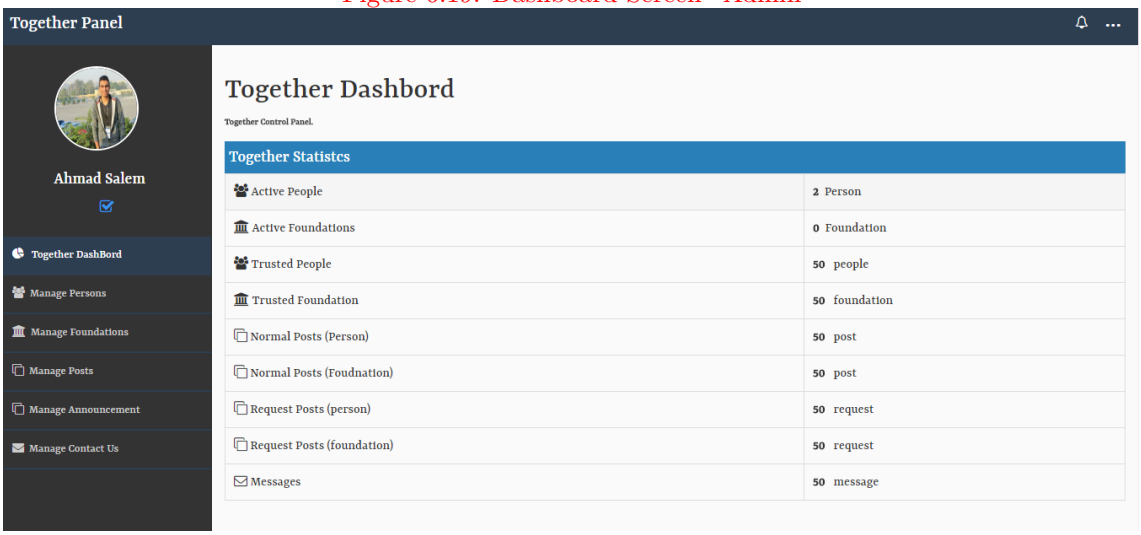
Name	salma elsaid
Age	5
Tall	52
Skin Color	Arabs
Country	Palestinian Territory
Hair Color	brown
Last Seen	2016
Eye Color	black
Child Story	i found salma in my way to work.
Contact Way	my phones are 0776324158932 & 0776589365423
Request Owner	Ahmad Salem
relation	founded
Status	she is crying all times
Request Post Date	2017-05-19 14:08:34

This screen has a child information that appear when a user click on any annoncement in a previous screen, and shows a request owner that he uploaded this annoncement and an annoncement date.

6.2 Working screen shots for admin

6.2.1 Dashbord Screen “Admin”

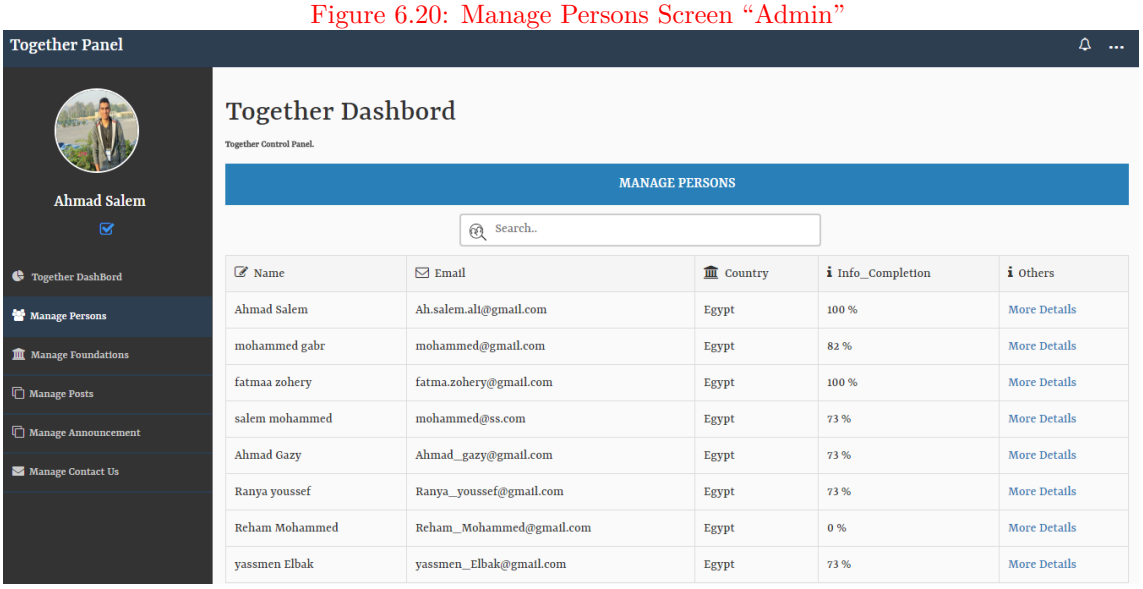
Figure 6.19: Dashboard Screen “Admin”



This is the admin dashboard where he manages the Together website, it shows for him all information about the website for (people, foundations, posts, messages) and he has the ability to manages each other.

6.2.2 Manage Persons "Admin"

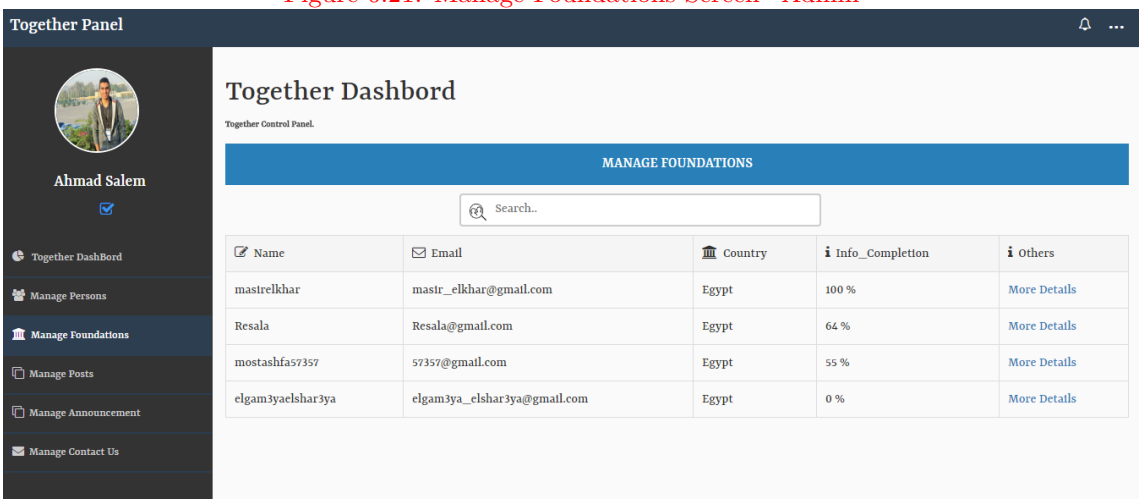
Figure 6.20: Manage Persons Screen "Admin"



In this page shows all users (persons) that have accounts in the web site, and the admin can manage users (persons) by add a new user, delete any user, he can see all information about any user by a button (More Details), and he can search for users (persons) by name by a search box which located at the top of the page.

6.2.3 Manage Foundations "Admin"

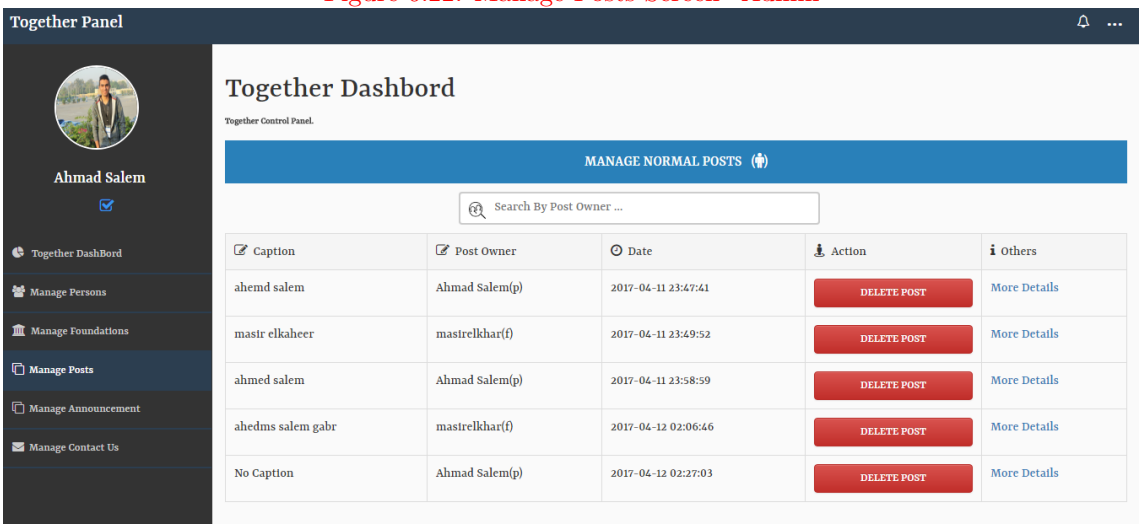
Figure 6.21: Manage Foundations Screen "Admin"



In this page shows all users (foundations) that have accounts in the web site, and the admin can manage users (foundations) by add a new user, delete any user, he can see all information about any user by a button (More Details), and he can search for users (foundations) by name by a search box which located at the top of the page.

6.2.4 Manage Posts "Admin"

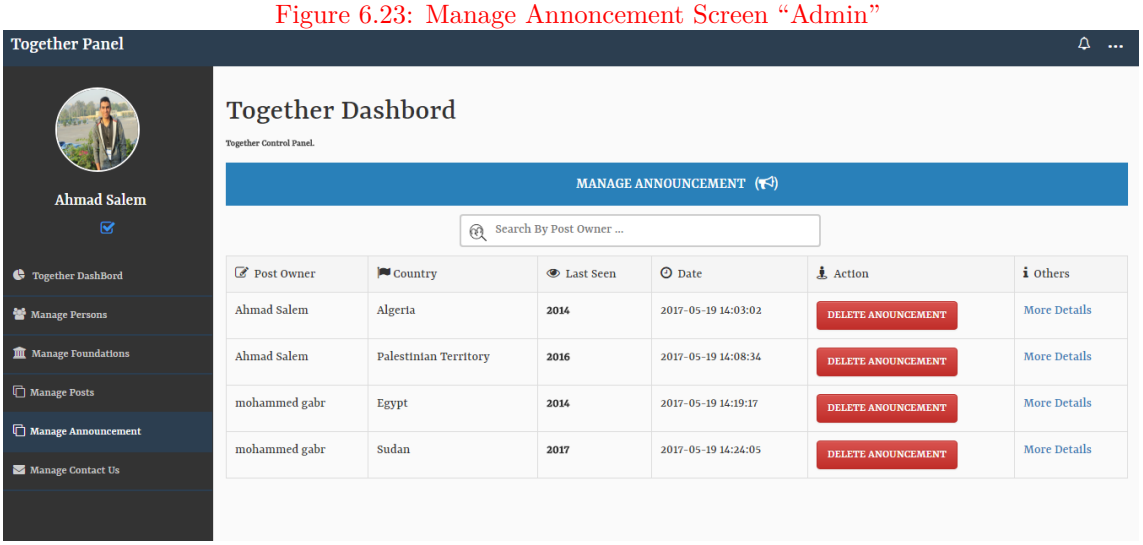
Figure 6.22: Manage Posts Screen "Admin"



In this page shows all posts, and the admin can manage them by delete any post, shows all information about any post by click on button (More Details) and it shows the date of upload post, and the admin can search for posts by post owner by a search box which located at the top of the page.

6.2.5 Manage Announcement "Admin"

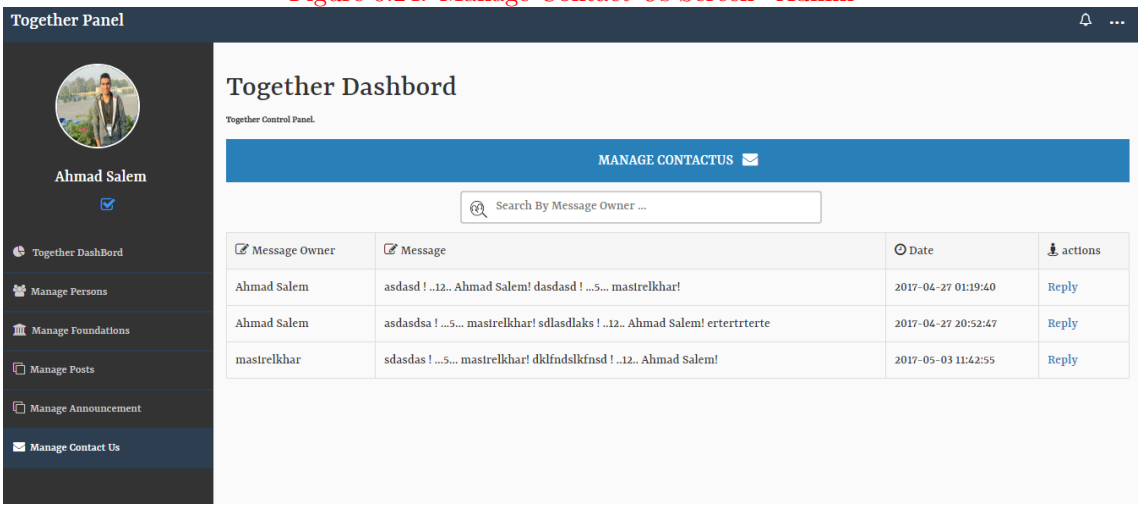
Figure 6.23: Manage Annoncement Screen "Admin"



In this page shows all announcement, and the admin can manage them by delete any post, shows all information about any post by click on button (More Details) and it shows the date of upload post, and the admin can search for announcement by post owner by a search box which located at the top of the page.

6.2.6 Manage Contact us "Admin"

Figure 6.24: Manage Contact Us Screen "Admin"



In this page shows all messages, which sent by users (persons, foundations), shows message owner who sent a message, date and the admin can search for messages by message owner by a search box which located at the top of the page and he can reply to any message.

Chapter 7

Conclusions & Future Work

7.1 Conclusions

Together is a web site in order to benefit everyone is interested in this case in all countries of the world, where we have given all adequate information about these missing children and a powerful search engine in order to facilitate the search process of any user, we also provide a special social networking site to enable all users to communicate together and exchange information on this issue. We are building a complete genric platform to cover the whole world, helps person to communicate with each other and with the global foundations, and it provides an advanced search system called (announcement) that manage you to provide any information that you have to find someone from missed children to help him.

7.2 Future Work

1. Adding more services for search engin.
2. Provide the interface with other languages.
3. support the website for mobile application and IOS application.