

Rural and Agricultural Development Communication Network  
Project (RADCON)

Design Document  
of  
The Service of the Community Module  
Technical Report

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Submitted by

*Osama Ismael*

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Egypt

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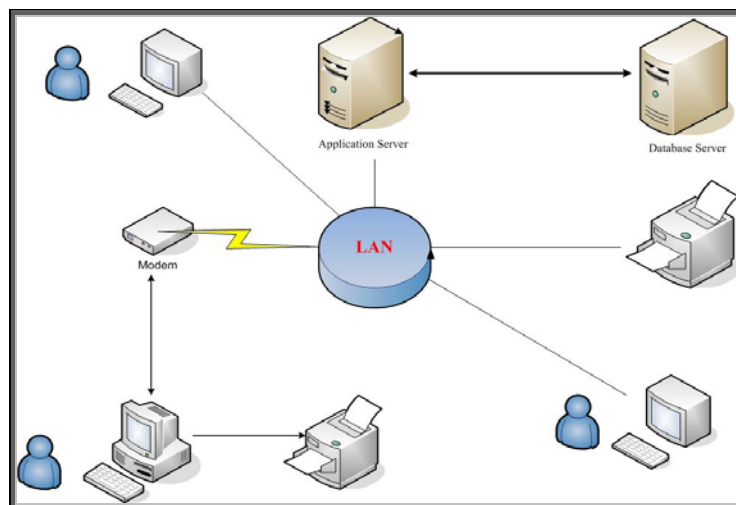
# 1. System Overview

The overall purpose of the *NGO Supporting System* can be defined as to facilitate the work of Community Service Associations (CSA), helping them to engage with the community and support its services. It will do this by supporting the provision of information and communication between Community Service Associations, and between community service associations and the public (poor people of a very low income in the poor villages, e.g. farmers).

This module focus on creating a web-based system that covers the following components: rural development NGO & smallholder NGO directory, donor directory and success stories. The objectives of the rural development NGO & smallholder NGO subsystem are provide information about NGO associations available in target areas, its objectives activities, and other relevant services to small farmers. The objectives of the donor subsystem are to provide information about Donors and Assistance Providers to Egyptian NGOs and other interested parties. Lastly, the objectives of success stories are to provide a success stories posted by the users.

## 1.1 System Architecture

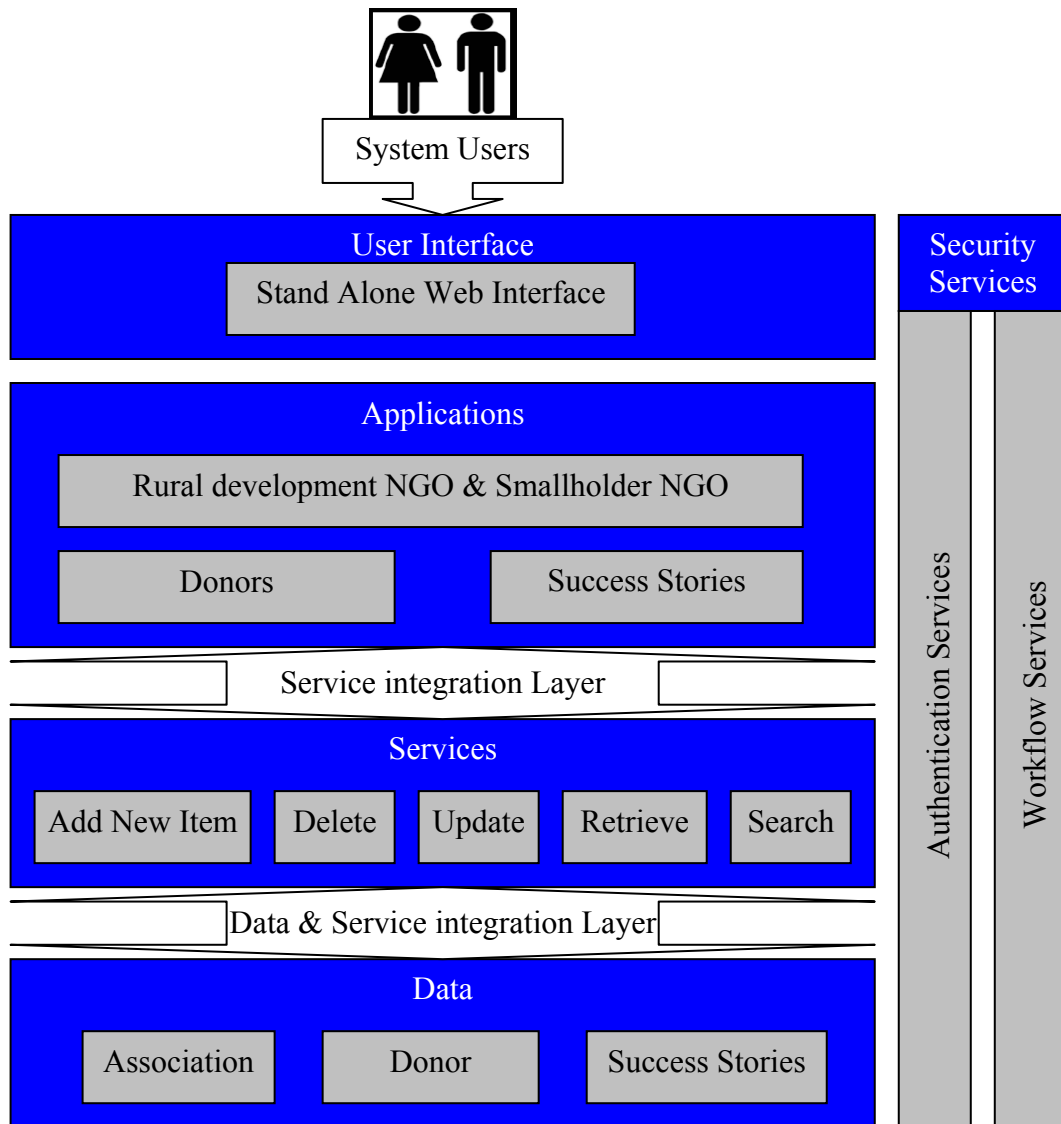
### 1.1.1 Physical Architecture



*Figure 1: Module Physical Architecture*

The system is web based and it can be accessed from any place in the world. The application will be put on the server and the database will be in another server.

## 1.1.2 High Level Logical Architecture



*Figure 2: Module Logical Architecture*

Users will interact with the system through user interface component. We will have two types of users: backend users and front-end users. The backend users have the responsibility for managing the content of the module site. The front-end users include all site visitors.

User interface process component will have the responsibility to check user privileges and to communicate with the database.

### 1.1.3 Domain Class Diagram

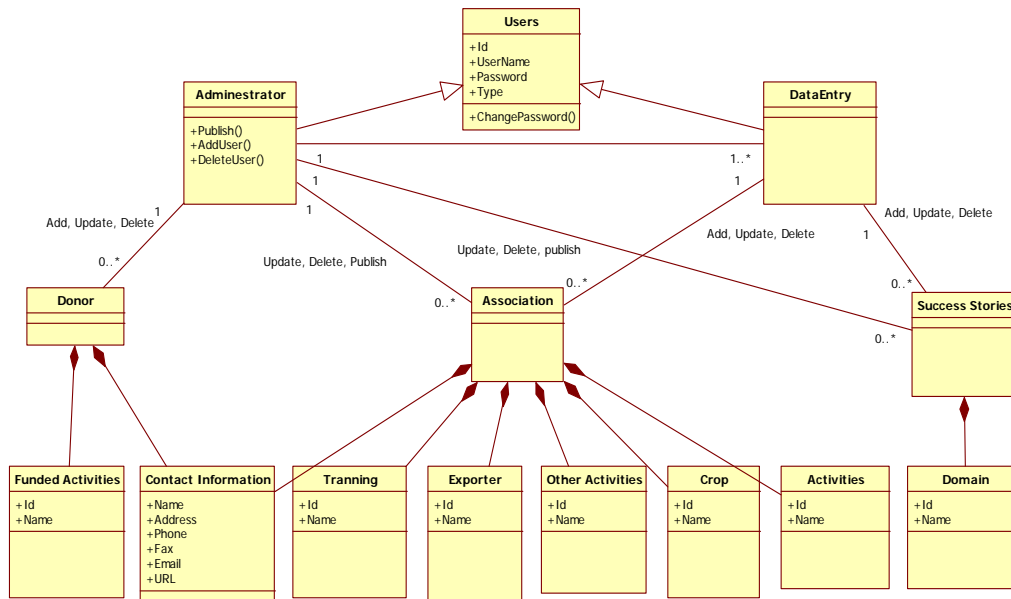


Figure 3: Class Diagram for NGO Module

## 1.2 System State & Configuration

### 1.2.1 System Configuration

```

<Configuration>
  <appSettings>
    <add key="UploadFolder" value="../StoryFiles" />
  </appSettings>

  <connectionStrings>
    <add name="ConnStr" connectionString="Data
      Source=192.100.0.54;Initial Catalog=RADCON_NGO;User
      ID=ngo;Password=ngo"
      providerName="System.Data.SqlClient" />
  </connectionStrings>
</ Configuration >

```

Figure 4: Global Variable Configurations

```

Session["UserId"] = "";
Session["Username"] = "";
Session["Password"] = "";
Session["UserType"] = "";
Session["ParentAdminId"] = "";

```

Figure 5: Session Configurations

### 1.3 System Workflow Diagram

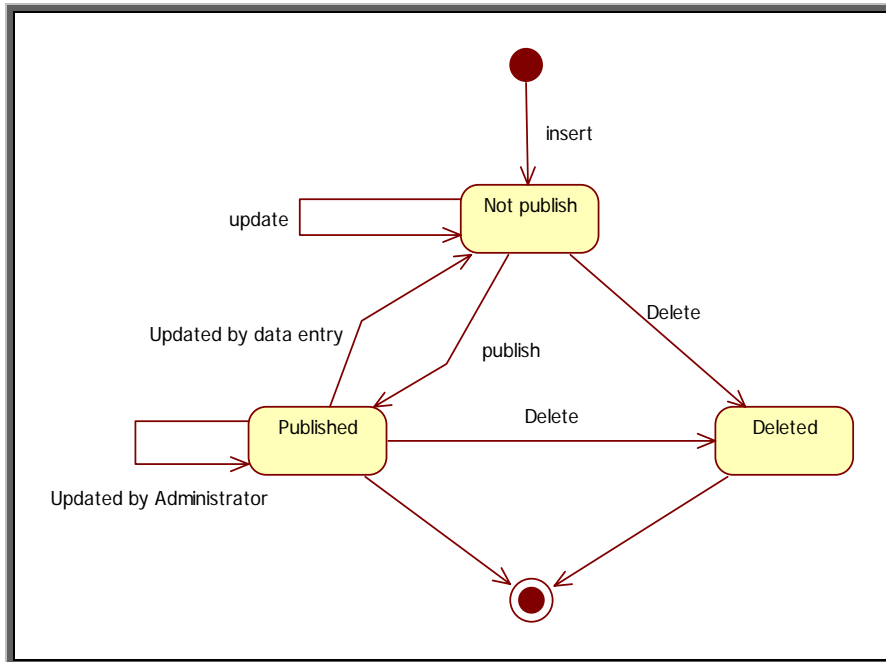


Figure 6: system workflow diagram

## 2. Main Module: The Community Services Information System Module

Module Name	The Community Services Information System Module
Module Description	This module focus on creating a web-based system that covers the following components: <ul style="list-style-type: none"> <li>• Rural development NGO &amp; smallholder NGO Directory.</li> <li>• Donor Directory.</li> <li>• Success Stories.</li> </ul>
Reuse	Written from scratch
Notes	

### 2.1 Sub Module: Rural development NGO & smallholder NGO Directory.

Module Name	Rural development NGO & smallholder NGO Directory
Module Description	Provides information about NGO associations available in target areas, its objectives activities, and other relevant services to small farmers.
Reuse	Written from scratch
Notes	

## 2.1.1 Portlet

### 2.1.1.1 Portlet - Association Details

Portlet Name	Association Details
Portlet Function	Retrieve the details of the required association.
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	
Has a backend Portlet?	Yes, Association Details Insertion
Source File(s)	
Notes	Front-end

### 2.1.1.2 Portlet - Association Details Insertion

Portlet Name	Association Details Insertion
Portlet Function	Insertion the details of the association.
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	Yes, NGO_Community, NGO_CommunityActivity, NGO_CommunityCropType, NGO_CommunityExportTools, NGO_CommunityFund, NGO_CommunityOtherActivity, NGO_CommunitySoil, NGO_CommunityTelFax, NGO_CommunityTrining, NGO_CommunityType.
Has a backend Portlet?	No,
Source File(s)	
Notes	Back-end

### 2.1.1.3 Portlet - Association Search

Portlet Name	Association Search
Portlet Function	Search for associations based on different criteria such as association name, governorate, and crop, etc.
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	Yes, NGO_Community, NGO_CommunityActivity, NGO_CommunityCropType, NGO_CommunityExportTools, NGO_CommunityOtherActivity, NGO_CommunitySoil, NGO_CommunityType, NGO_Governorate, NGO_Directorate.
Source File(s)	
Notes	Front End, and only the associations that has been published will be displayed by this portlet

### 2.1.1.4 Portlet – Display the most recent Associations

Portlet Name	Display the most recent Associations
Portlet Function	It will display the most recent Associations (first three)
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	Yes NGO_Community
Source File(s)	
Notes	The most recent associations will be displayed in a box at the left menu of the front page of the community module

### 2.1.2 Structured Chart

See Section 1.1.3, figure 3.

### 2.1.3 Interaction Diagram

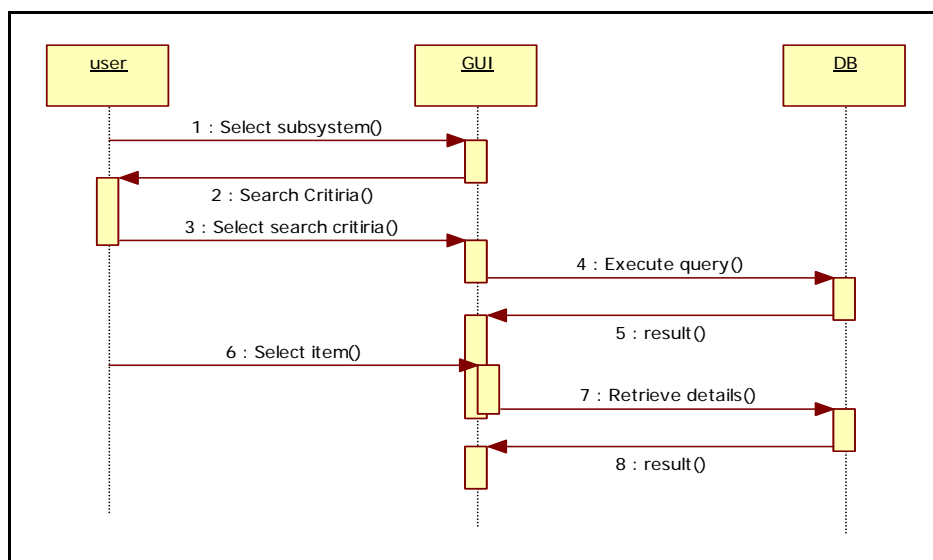


Figure 7: Sequence diagram for the association search

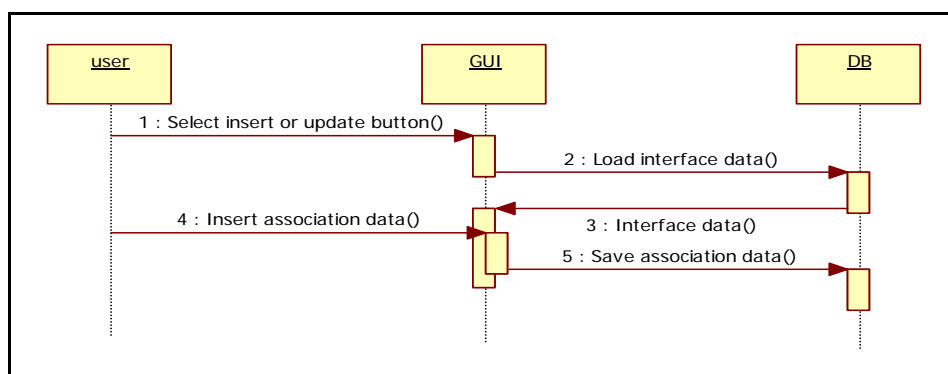


Figure 8: Sequence diagram for the association insert and update



## 2.1.4 Data Description & Database Design

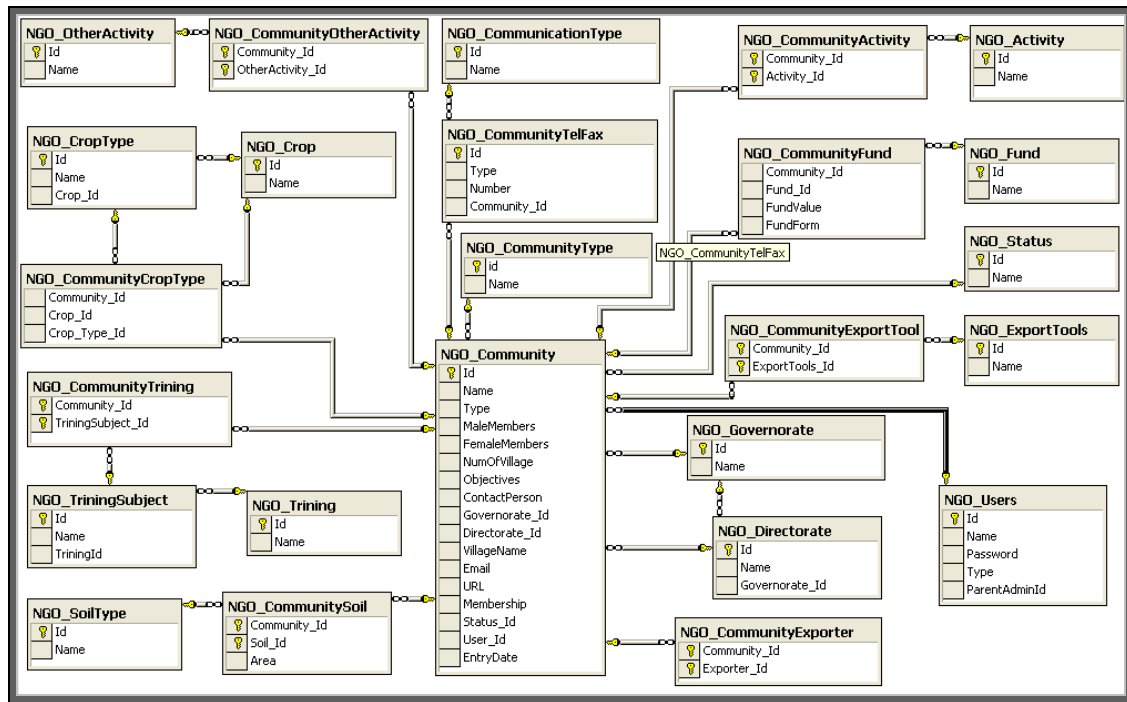


Figure 9: Database Design for Association subsystem

## 2.1.5 Functional Description

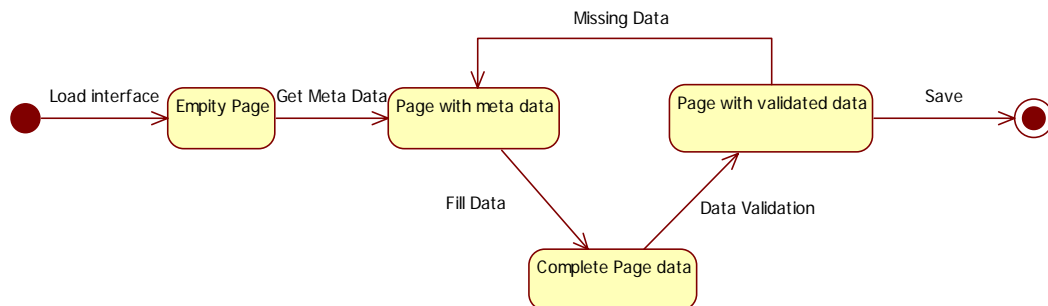


Figure 10: Save Transition Diagram

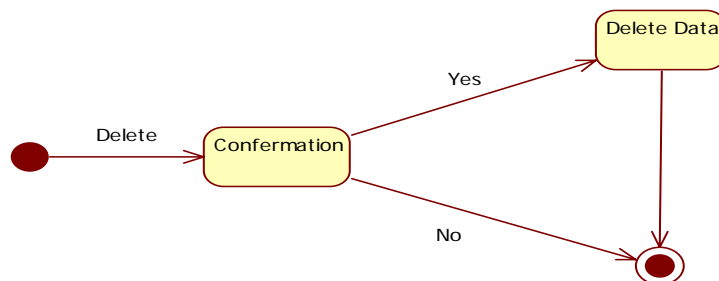


Figure 11: Delete Transition Diagram

## 2.1.6 Graphical User Interface

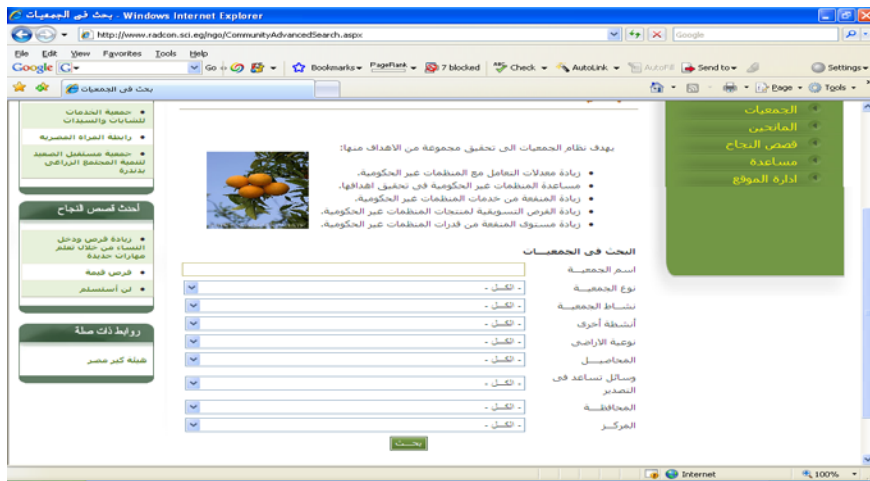


Figure 12: Front-end Association Search

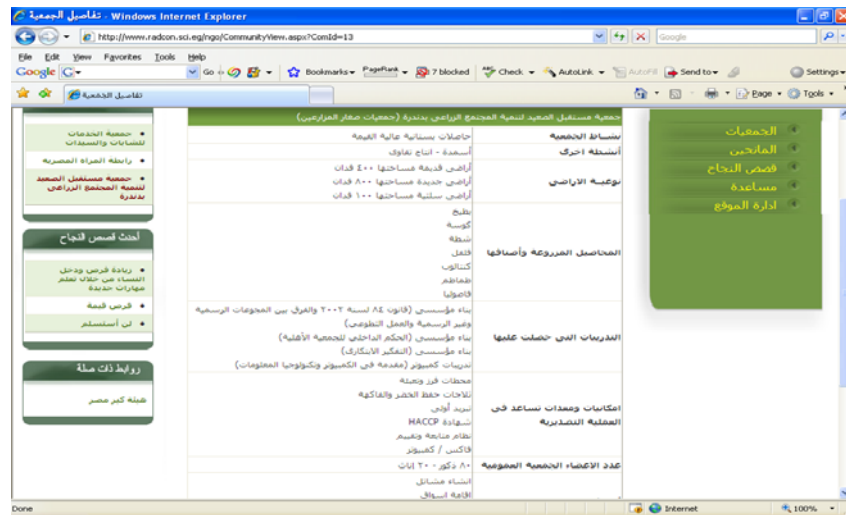


Figure 13: Front-end Association Detailed Data

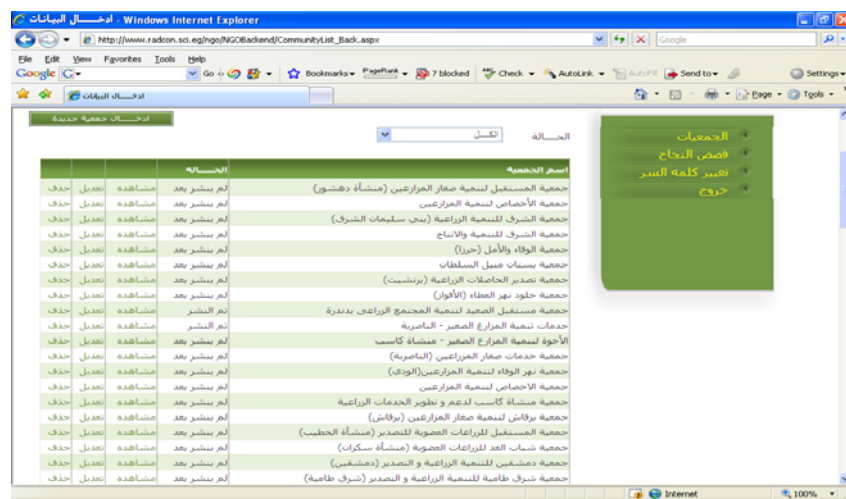


Figure 14: Back-end Association List

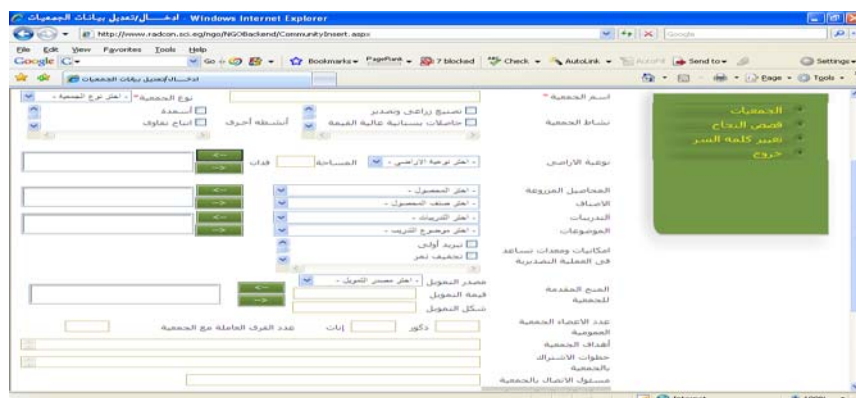


Figure 15: Back-end Association Insert Interface

### 2.1.7 Unit tests

Action	Test Case 1
Add new association	<ol style="list-style-type: none"> <li>1. Log on the web application called "الجمعيات الاهلية".</li> <li>2. Select "ادارة الموقع" link</li> <li>3. Insert your user name and password</li> <li>4. Select "الجمعيات" link</li> <li>5. Click on "ادخال جمعية جديدة" link</li> <li>6. Insert association data</li> <li>7. Click on "حفظ" button</li> </ol> <p><b>Expected output:</b> the association will be appear at the end of the association list with status "لم ينشر بعد"</p>
Action	Test Case 2
Search in the association directory	<ol style="list-style-type: none"> <li>1. Log on the web application called "الجمعيات الاهلية".</li> <li>2. Select "الجمعيات" link</li> <li>3. select your search criteria</li> <li>4. Click on "بحث" button</li> </ol> <p><b>Expected output:</b> display all associations that match the search criteria, with the ability to display the content of each.</p>

### 2.2 Sub Module: Donor Directory

Module Name	Donor Directory
Module Description	Provides information about Donors and Assistance Providers to Egyptian NGOs and other interested parties.
Reuse	Written from scratch
Notes	

## 2.2.1 Portlet

### ***2.2.1.1 Portlet - Donor Details***

Portlet Name	Donor Details
Portlet Function	Retrieve the details of the required Donor.
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	Yes, NGO_Donor, NGO_DonorActivities, NGO_DonorActivity, NGO_DonorTelFax.
Has a backend Portlet?	Yes, Donor Details Insertion
Source File(s)	
Notes	Front-end

### ***2.2.1.2 Portlet - Donor Details Insertion***

Portlet Name	Donor Details Insertion
Portlet Function	Insertion the details of the Donor.
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	Yes, NGO_Donor, NGO_DonorActivities, NGO_DonorActivity, NGO_DonorTelFax.
Has a backend Portlet?	No,
Source File(s)	
Notes	Back-end

### ***2.2.1.3 Portlet - Donor Search***

Portlet Name	Donor Search
Portlet Function	Search for Donors based on different criteria such as Donor name and funded activities.
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	Yes, NGO_Donor and NGO_DonorActivities.
Source File(s)	
Notes	Front End

## 2.2.2 Structured Chart

See Section 1.1.3, figure 3.

### 2.2.3 Interaction Diagram

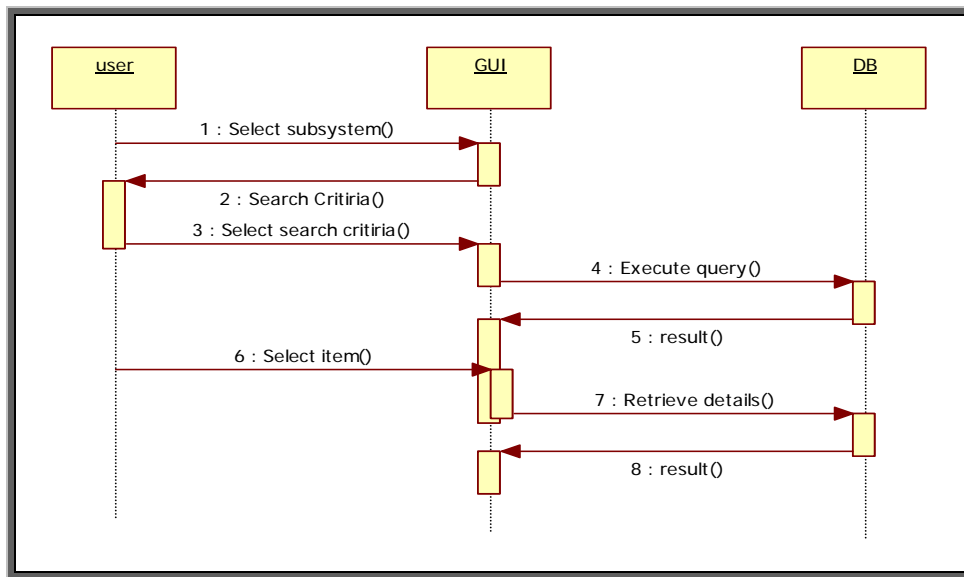


Figure 16: Sequence diagram for the donor search

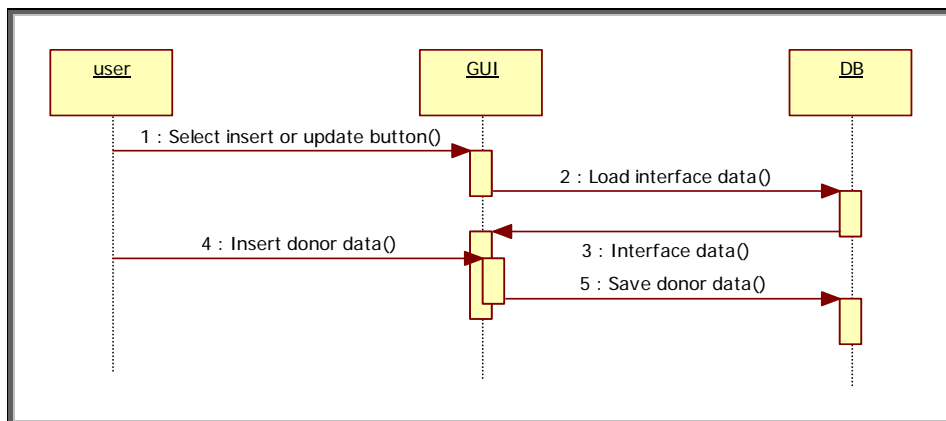


Figure 17: Sequence diagram for the donor insert and update

### 2.2.4 Data Description & Database Design

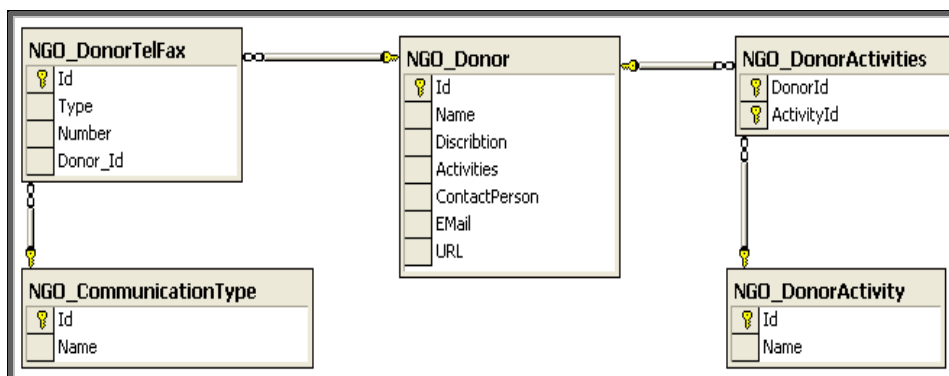


Figure 18: Database Design for Donor Subsystem

## 2.2.5 Functional Description

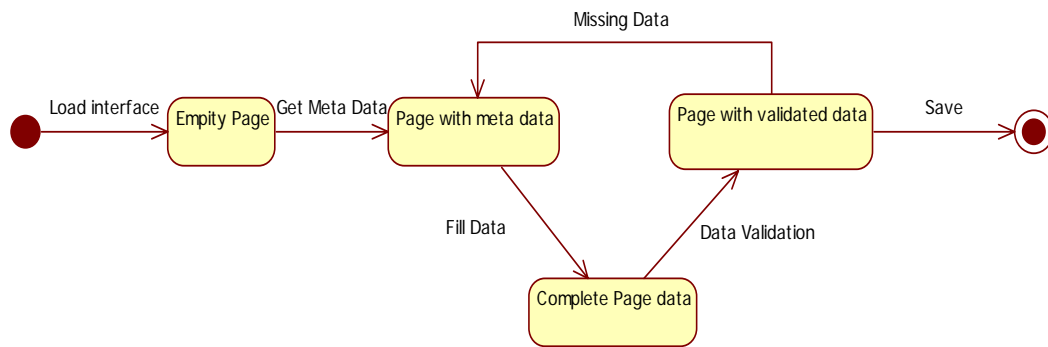


Figure 19: Save Transition Diagram

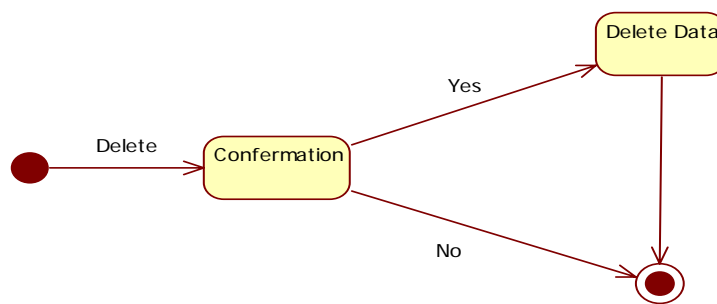


Figure 20: Delete Transition Diagram

## 2.2.6 Graphical User Interface



Figure 21: Front-end Donor Search



Figure 22: Front-end Donor Detailed Data



Figure 23: Back-end Donor List



Figure 24: Back-end Donor Insert Interface

## 2.2.7 Unit tests

Action	Test Case 1
Add new Donor	<ol style="list-style-type: none"> <li>1. Log on the web application called "الجمعيات الاهلية".</li> <li>2. Select "ادارة الموقع" link</li> <li>3. Insert your user name and password</li> <li>4. Select "المانحين" link</li> <li>5. Click on "ادخال مانح جديدة" link</li> <li>6. Insert donor data</li> <li>7. Click on "حفظ" button</li> </ol> <p><b>Expected output:</b> the donor will be appearing at the end of the donor list.</p>

Action	Test Case 2
Search in the donor directory	<ol style="list-style-type: none"> <li>1. Log on the web application called "الجمعيات الاهلية".</li> <li>2. Select "المانحين" link</li> <li>3. select your search criteria</li> <li>4. Click on "بحث" button</li> </ol> <p><b>Expected output:</b> display all donors that match the search criteria, with the ability to display the content of each.</p>

## 2.3 Sub Module: Success Story Directory

Module Name	Success Story Directory
Module Description	Provides a success stories posted by the users
Reuse	Written from scratch
Notes	

### 2.3.1 Portlet

#### 2.3.1.1 Portlet - Success Story Details

Portlet Name	Success Story Details
Portlet Function	Retrieve the details of the required Success Story.
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	Yes, NGO_Stories, NGO_StoriesField.
Has a backend Portlet?	Yes, Success Story Details Insertion
Source File(s)	
Notes	Front-end



### ***2.3.1.2 Portlet - Success Story Details Insertion***

Portlet Name	Success Story Details Insertion
Portlet Function	Insertion the details of the Success Story.
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	Yes, NGO_Stories, NGO_StoriesField.
Has a backend Portlet?	No,
Source File(s)	
Notes	Back-end

### ***2.3.1.3 Portlet - Success Story Search***

Portlet Name	Success Story Search
Portlet Function	Search for Success Story based on different criteria such as story domain and the problem.
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	Yes, NGO_Stories and NGO_StoriesField.
Source File(s)	
Notes	Front End, and only the Success Story that has been published will be displayed by this portlet

### ***2.3.1.4 Portlet – Display the most recent Success Stories***

Portlet Name	Display the most recent Success Stories
Portlet Function	It will display the most recent Success Stories (first three)
Reuse	Written from scratch
Depends on other Portlets?	No
Depends on Database Tables	Yes NGO_Stories
Source File(s)	
Notes	The most recent Success Stories will be displayed in a box at the left menu of the front page of the community module

## **2.3.2 Structured Chart**

See Section 1.1.3, figure 3.

### 2.3.3 Interaction Diagram

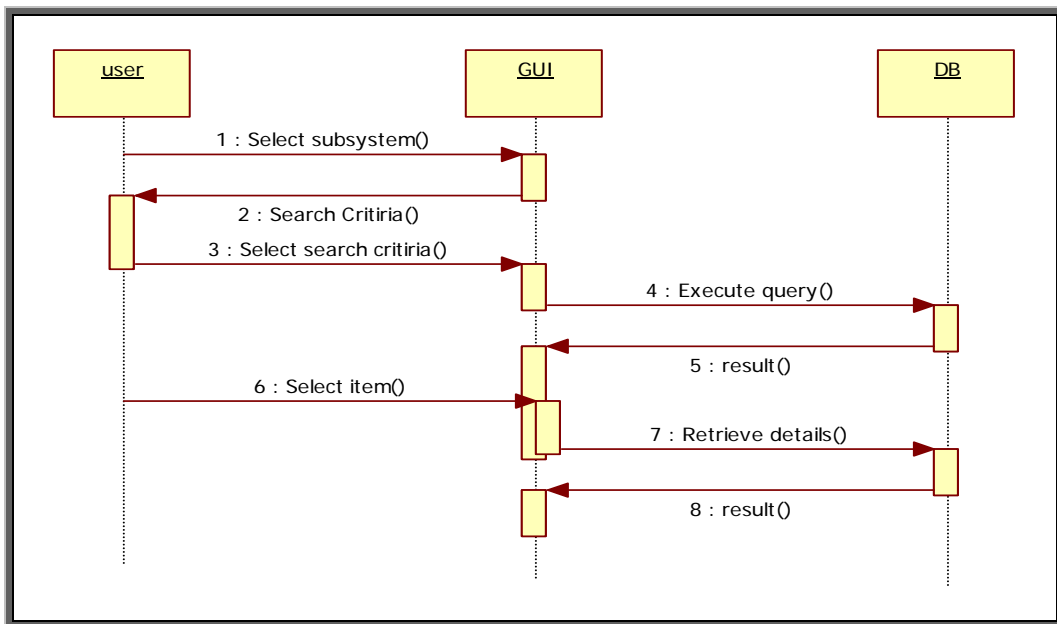


Figure 25: Sequence diagram for the Success Story Search

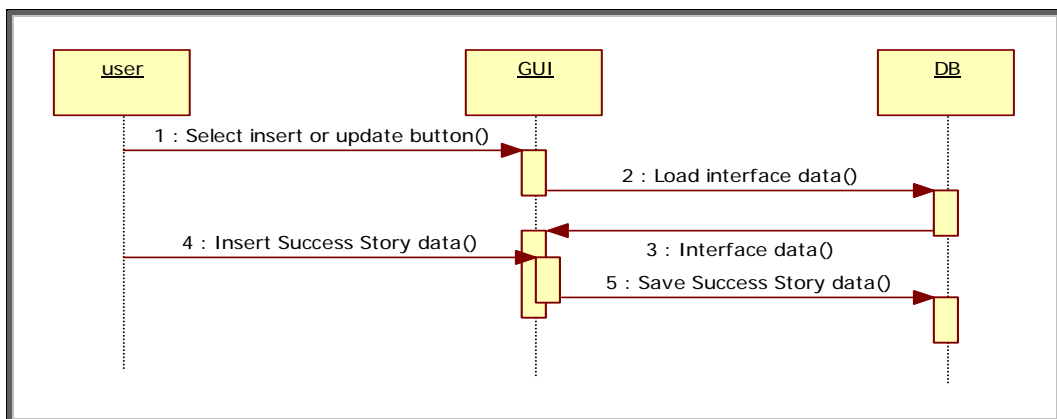


Figure 26: Sequence diagram for the Success Story insert and update

### 2.3.4 Data Description & Database Design

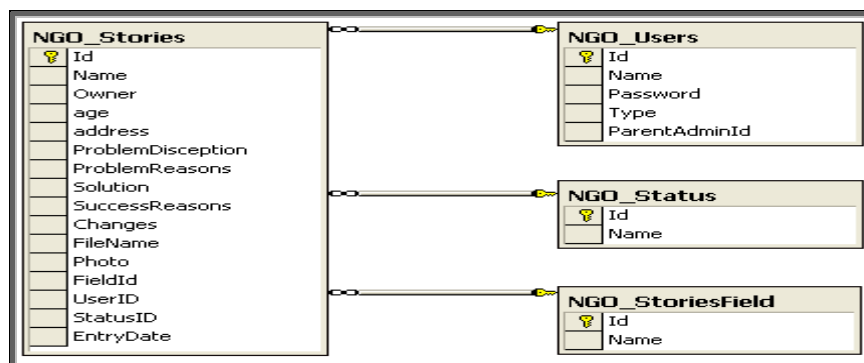


Figure 27: Database Design for Success Story Subsystem

### 2.3.5 Functional Description

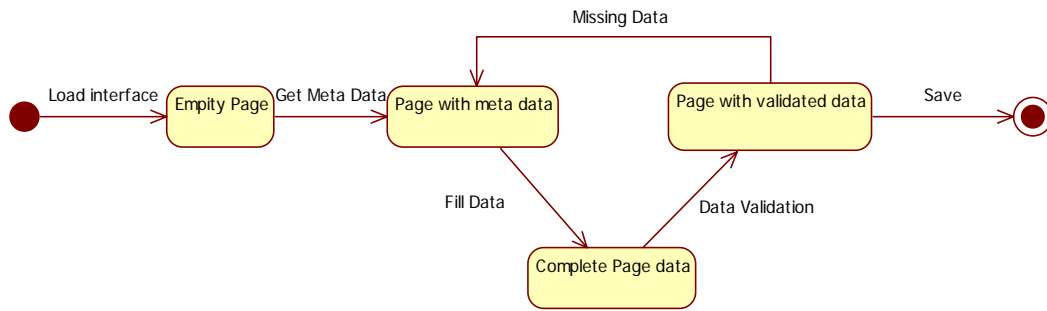


Figure 28: Save Transition Diagram

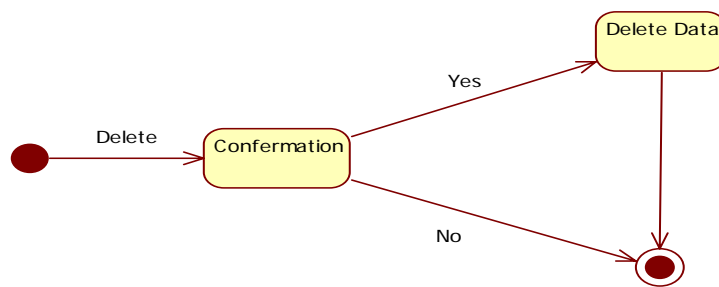


Figure 29: Delete Transition Diagram

### 2.3.6 Graphical User Interface

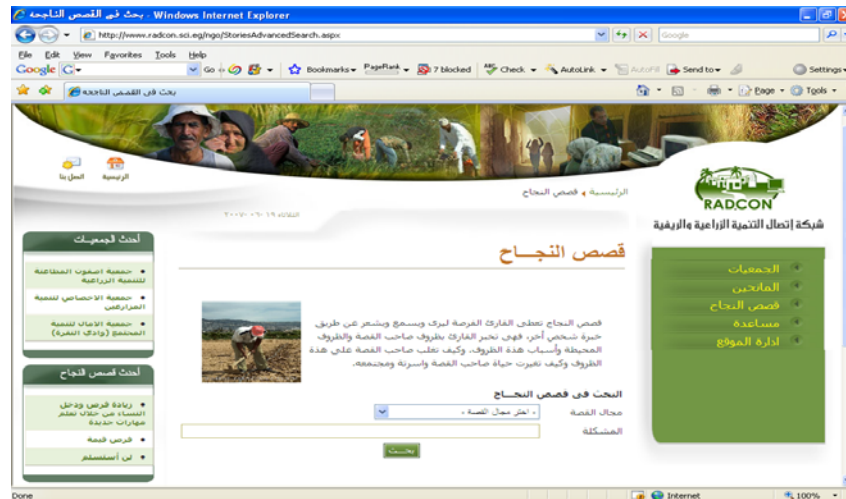


Figure 30: Front-end Success Story Search

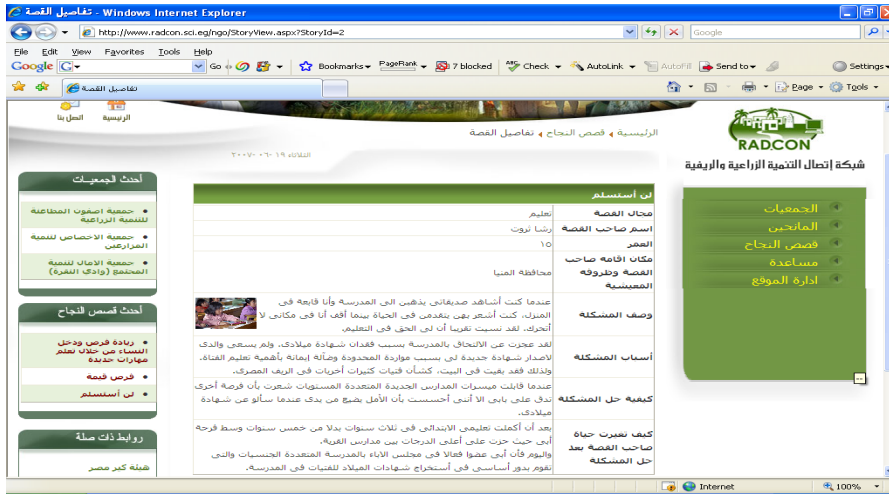


Figure 31: Front-end Success Story Detailed Data

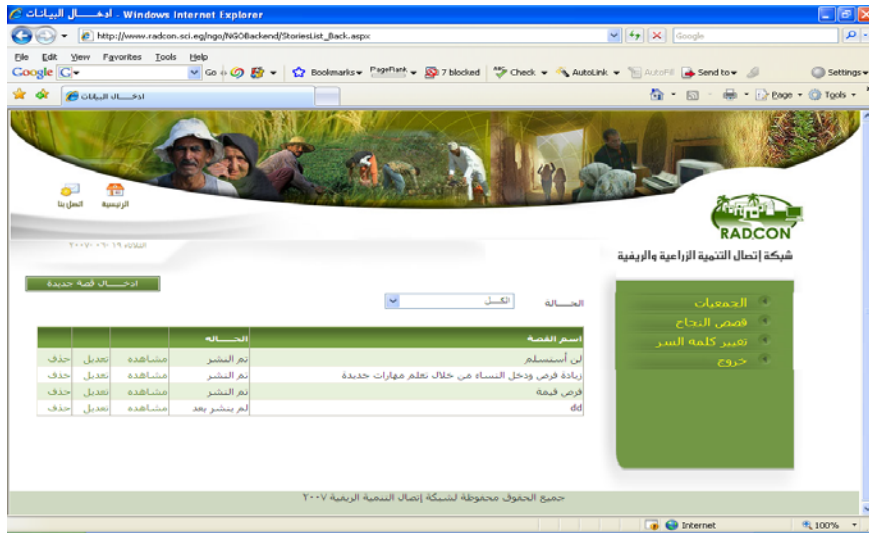


Figure 32: Back-end Success Story List



Figure 33: Back-end Success Story Insert Interface

### 2.3.7 Unit tests

Action	Test Case 1
Add new Story	<ol style="list-style-type: none"><li>8. Log on the web application called "الجمعيات الاهلية".</li><li>9. Select "ادارة الموقع" link</li><li>10. Insert your user name and password</li><li>11. Select "قصص النجاح" link</li><li>12. Click on " ادخال قصة جديدة" link</li><li>13. Insert success story data</li><li>14. Click on "حفظ" button</li></ol> <p><b>Expected output:</b> the success story will be appearing at the end of the success story list with status "لم ينشر بعد".</p>

Action	Test Case 2
Search in the success stories directory	<ol style="list-style-type: none"><li>5. Log on the web application called "الجمعيات الاهلية".</li><li>6. Select "قصص النجاح" link</li><li>7. Select your search criteria</li><li>8. Click on "بحث" button</li></ol> <p><b>Expected output:</b> display all success stories that match the search criteria, with the ability to display the content of each.</p>