Contacts Manager Application

Author: [Soft Software Services]

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# Introduction

## Objective

The main objective of the application is lets you add contacts to Addressbook based on the registered user. These contacts are then used by their corresponding users, Admin can view and perform edit/delete operations on those contacts. Contacts can be grouped based on country name, state name and status. A default group called "Manage Addressbook" contains all contacts and allows user to add, edit, deleted, Admin can not add contacts.

## Purpose of the Application

The software project is a Windows Forms based Addressbook that stores a large amount of users, corresponding contact info and related data in an Sql database for instant search and retrieval. This is designed in an a Windows Forms application that allows users to check for an Addressbook. This Addressbook may store large amounts of data and related records. The Addressbook stores and manages the respective addresses in an Sql database and user can view them as needed. The user may view search specific details based on country name, state name, status. This search allows user to get specific details form the Addressbook in a short amount of time. This win forms application allows fast and efficient retrieval of data from an address book to a large number of users.

## Scope

The Application interacts with the Sql database which will be in the Sql server. ContactsManager database has four tables Country, State, User, Address. Country, State tables for getting the country name and state name of the address. User, Address tables to store multiple users and addresses information and track all of them through the application, Following are the Primary Features of the Application.

1. Unlimited Addresses:Each address book can contain an unlimited number of addresses.

2. Authorised and restricted user accessibility.

3. Filter your addresses based on country name and state name.

4. Privacy: Address books can be visible to corresponding users and password protected to keep your information secure.

5. More flexible and easy to maintain users and addresses, user can add and make changes to existing addresses, admin can make changes to both existing addresses and users, he can also able to add new users.

# Functionality

## Application Functionality:

This application provides unlimited storage to addresses and users. Features of this application which are enabling both admin and user to edit or delete existing addresses easily. Only admin can able to add countries and states and he manages existing countries, states, users and addresses. This application also provide options to both admin and user to filter addresses based on country name, state name and status so that they can group addresses easily and manage those details.

# Modules Description

## Login:

Admin or user can access the application by Logging in by providing User Name and Password. If you are a new user, you can register and check functionality.

## MdiParent:

This module has the parent form and includes a menustrip control with the following parent items:

I. Manage

II. Addressbook

This parent form visible to only admin but not to user. User can view on Addressbook form.

Manage item has four child items, they are:

a) Country

b) State

c) User

d) Exit

Whenever admin click on those items their corresponding window will open. When he click on the exit item, the application will close.

## Country:

This module has countries with their name and zip code start and zip code end values. Admin can manage countries.

## State:

This module has states for existing countries with foreign key relationship among them. Admin can manage states.

## User:

This module has User details like UserName, FirstName, LastName, EmailId, Phone No, Address etc. Admin can manage user and a new user can register himself/herself.

## Addressbook:

This module contains Address details like FirstName, LastName, EmailId, Phone No, Address etc. Both Admin and User can manage Addressbook.

# Software Requirements

* Visual Studio 2012 or above.
* Sql Server Management Studio 2008 or above.

# Hardware Requirements

* 250GB Hard disk Space
* 1 GHz Processor
* Minimum 2GB Ram

**6** **Structure and other specifications**

a. Directory structure:

1) ContactsManager: It is a parent folder in which the project can be wrapped.

2) BO: This folder contains all business objects logic files.

3)DB: This folder contains logic for database operations to be performed.

3) Data: This folder contains all tables as classes and their column names as properties.

4) Documentation: This is a .obt file has general documentation.

5) AddressbookDialog: This is a child form to Addresbook main form used to perform add/edit operations on Addressbook.

6) AddressbookForm: This form has datagrid view shows all the addresses.

7) App.Config: This is an XML file with many predefined configuration sections available and support for custom configuration sections. A "configuration section" is a snippet of XML with a schema meant to store some type of information.

8) ContactsManagerModel.edmx: EDMXis Visual Studio's "container" for all things about your Entity Data Model. It contains all the information that is in the CSDL, SSDL, MSL, plus information about the visual layout of the tables in your Visual Studio designer surface.

9) CountryDialog: This is a child form to Country main form used to perform add/edit operations on Country.

10) CountryForm: This form has datagrid view shows all the countries.

11) Helper.cs: It contains logic for storing user data when logged in.

12) LoginForm: Used to show the first form for security purpose and to restrict the users.

13) MdiParentForm: This is the container for other parent forms.

14) Program.cs: This contains logic for roles based restriction to access the forms i.e., Admin can access MdiParent form and not the user.

15) SqlHelper.cs: SqlHelper class can be downloaded by downloading the Microsoft Data Access Application Block and it is a great utility that helps us to reduce ADO.Net code used in day to day programming.

16) StateDialog: This is a child form to State main form used to perform add/edit operations on a perricular State.

17) StateForm: This form has datagrid view shows all the states.

18) UserDialog: This is a child form to User main form used to perform add/edit operations on a perricular user.

19) UserForm: This form has datagrid view shows all the Users details.