

ADT: Recruit Manager Version 1.0

Functional Specification

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Version	1.0
Printed	2001-10-22 2:46 PM

Document Revisions

Revisions on this document should be recorded in the table below:

	Date	Description	Author
1	10 September 2001	First Draft	Jason
2	10 September 2001	First Edit	Josh
3	16 October 2001	Screenshots, Views, Params, Editing	Josh
4			

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1 Introduction

1.1 Purpose of this document

The purpose of this document is to specify the functional and system specification of the Recruit Manager application. This document provides a road-map through which the implementation of the application will be developed and, where applicable, will also contain information detailing technical design constraints and assumptions.

1.2 Scope of this document

The scope of this specification covers the functional specifications of the Recruit Manager application. This specification does not extend to third party or infrastructure components (such as a web server installation and/or configuration).

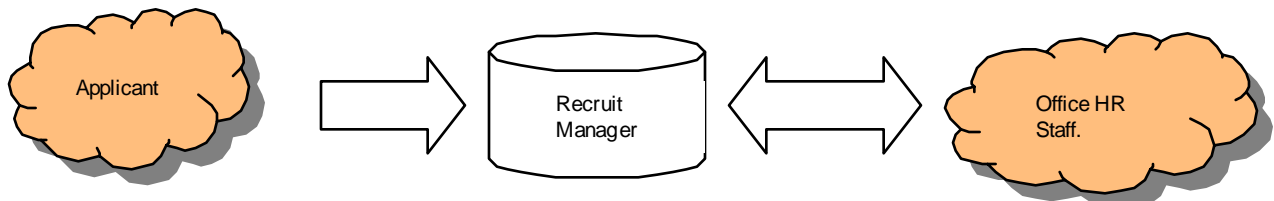
1.3 Overview

The basic requirements summary build-in for the Recruit Manager application:

- To provide a form for filling in resume.
- To give a summary of the applicants.
- To allow an administrator to track applicants.

1.4 Business Context

Recruit Manager is a groupware application designed for multiple users over a wide area. Applicants may apply for positions from locations worldwide. Managers may examine the results from the office or on the go. The generic version is open source for distribution. Anyone may take advantage of the powerful eXtropa Perl ADT. Improvements will be made incrementally. The generic Web Recruit Manager will ultimately benefit both the company and our users. The Web Recruit Manager primary usage is to facilitate the Human Resource Manager in organizing the incoming resume and it also helps to make the applicant whereby they can just simply go to the URL and apply for a job.



2 General Description

2.1 Product Functions

The general functionality of the Recruit Manager application is to allow the HR manager to view all the applicant information in a single location online. The application generates a dynamic page depending on the entered information and the setup preferences. Recruit Manager permits additions and removals to the database.

2.2 General Constraints

The application is written for public posting. A definite login is required for viewing all records and to modify or delete a record.

The application will be written in Perl and the data files are stored in a common flatfile system (ASCII File). This will slow down in terms of searching for information if there is a presence of huge database.

The application is also able to interface with relational databases should the administrator desire it.

Bold Params indicate Section Headings. *Italic Params* are objects.

Indented Params are configurable variables.

Grayed out or missing items are not required or not available in the default configuration.

Param	Default configuration	Notes
Language	Perl	
Session Setup		
Type	File	Note that flatfile data sources are slow. We recommend upgrading to a database based data source
Max Modify Time	1 hour	
Fatal Timeout	Off	
Fatal if session not found	Off	
<i>Session Manager Setup</i>		
Type	FormVar	
Cgi Object	\$CGI	
Session Params	Session Config Params	
Authentication Setup		For the datasource
Type	File	
Field Delimeter	(pipe)	
Create a file if none exists	On	
Field Names	From Auth User Datasource	
File	Scriptname.users.dat	Path is set at start of script
Default Authentication	Username, password,	

Fields	groups, firstname, lastname, email	
Authentication Manager Setup		How requests are processed
Color for even rows	E5E5E5	
Color for Odd Rows	FFFFFF	
CSS View URL	\$CSS_VIEW_URL	
Application Logo	logo.gif	
Application Logo Height	40	
Application Logo Width	353	
Application Logo ALT	WebDB Demo	
HTTP Header Params	[-EXPIRES => '-1d']	
Document Root URL	'/' or web root directory	
Image Root URL	/Images/Extropa	
Script Display Name	'Recruiter'	
Script Name	\$CGI->script_name()	
Page Top View	PageTopView	
Page Bottom View	PageBottomView	
Link Target	'_self' or current window	
<i>User_Fields</i>	Auth_username, auth_password, auth_groups, auth_firstname, auth_lastname, auth_email	
<i>Mail Params</i>		
Type	Sendmail	Default on most systems
<i>User Mail Send Params</i>		
From	you@yourdomain.com	
Subject	Password Generated	
<i>Admin Mail Send Params</i>		
From	you@yourdomain.com	
To	you@yourdomain.com	
Subject	Registration Notification	
<i>Auth Manager Config Params</i>		
Type	CGI	
Allow Registration	On	
Allow User Search	On	Allow anyone to check for an old account.
Generate Password	Off	
Default Groups	Normal	
Email Registration to Admin	Off	
Display Registration After Failure	On	
Upload Manager Setup		
Type	Simple	
CGI Object	\$CGI	
Upload Field	resume	
Field to Set Upload Filename	resume_filename	
Key Generator Params	-TYPE => 'Random', -SECRET_ELEMENT => 'RECRUIT', -LENGTH => 0	
Upload Directory	\$APP_DATAFILES_DIRECTORY/Uploads	
Data Handler Setup		How data is handled
<i>Add Form DHM Config</i>		

Type	CGI	
CGI Object	\$CGI	
Data Handlers	Email, Exists, HTML, String, Upload	
Field Mappings		
Datasource Setup		Configure the database and fields displayed
Field Names	record_id, lname, fname, age, dob, sex, marital_status, nationality, ic_number, phone, alternate_phone, email, url, emergency_contact, emergency_phone, position, language_spoken, language_written, date_available, expected_salary, career_objectives, remarks, interview_date, interviewers, resume, resume_filename, date_time_posted,	Corresponds to default extropa database
<i>Sample Default Widget Definitions</i>		Configure field types for TTML
Display Name	Country	Name that appears in the browser
Type	Textfield, textarea, filefield	
Name	Fname	Internal field name
Size	30	Display size in characters
Maxlength	80	Maximum number of characters permitted
Rows	6	Initial height of textarea
Cols	30	Initial width of textarea
Wrap	VIRTUAL	Wrapping of text in textarea
<i>Basic Datasource Config Params</i>		Configure datasource
Type	File	
File	\$APP_DATAFILES_DIRECTORY/\$APP_NAME.dat	
Field Delimiter	(pipe)	
Comment Prefix	#	Ignore lines starting with #
Create File if None Exists	On	
Field Names	\@DATASOURCE_FIELD_NAMES	
Key Fields	['record_id']	Not required if key is not used
Field Types	Record_id => 'Autoincrement'	Specify a specific kind of field
Mailer Setup		Required for regular email. Not the same as Auth Mailer
<i>Mail Config Params</i>		
Type	Sendmail	
<i>Add Event Mail Send</i>		Warns Someone of Deletions to the database
From	you@yourdomain.com	
To	you@yourdomain.com	
Reply To	you@yourdomain.com	
Subject	Job Application Submission	
<i>Delete Event Mail Send</i>		Tells user of additions

From	you@yourdomain.com	
To	you@yourdomain.com	
Reply To	you@yourdomain.com	
Subject	Address Book Addition	
<i>Modify Event Mail Send</i>		Tells user of modifications to records
From	you@yourdomain.com	
To	you@yourdomain.com	
Reply To	you@yourdomain.com	
Subject	Address Book Modification	
Logging Setup		
Type	File	
Log File	\$APP_DATAFILES_DIRECTORY/\$APP_NAME.og	
Log Entry Suffix	' ' . _generateEnvVarsString() . ' ',	
Log Entry Prefix	'Recruit '	
View Setup		Views to use, display, and defaults
<i>Valid Views</i>	CSSView, AddAcknowledgementView, AddRecordConfirmationView, DeleteRecordConfirmationView, DeleteAcknowledgementView, ModifyAcknowledgementView, ModifyRecordConfirmationView, SessionTimeoutErrorView, PowerSearchFormView, BasicDataView, DetailsRecordView, ModifyRecordView, AddRecordView, LogoffView, OptionsView,	The program cannot display views that are not available here.
<i>View Display Params</i>		Defaults for Views
Application Logo	logo.gif	
Application Logo Height	40	
Application Logo Width	353	
Application Logo ALT	WebDB Demo	
Color for Even Rows	E5E5E5	
Color for Odd Rows	FFFFFF	
Display Fields	record_id, lname, fname, age, dob, sex, marital_status, nationality, ic_number, phone, alternate_phone, email, url, emergency_contact, emergency_phone, position, language_spoken, language_written, date_available, expected_salary, career_objectives, remarks, interview_date, interviewers, resume, resume_filename, date_time_posted,	interview_date and interviewers should not be displayed.
Table BG Color 1	6699CC	
Table BG Color 2	E5E5E5	
Table BG Font Color1	BLACK	
Table BG Font Color2	BLACK	
Filter Setup		
<i>HTMLIZE Filter</i>		
Type	HTMLize	
Convert Double Linebreak to P	On	
Convert Linebreak to	On	

BR		
<i>Charset Filter</i>		
Type	CharSet	
Embed Filter		
Type	Embed	
Enable	Off	
Action/Workflow Setup		
<i>Action Handler List</i>	Defaults	User should not need to modify
<i>Action Handler Action Params</i>		
Action Handler List	\@ACTION_HANDLER_LIST	
Add Acknowledgment View Name	AddAcknowledgementView	
Add Email Body View	AddEventEmailView	
Add Form View Name	AddRecordView	
Allow Additions Flag	On	
Allow Deletions Flag	On	
Allow Duplicate Entries	Off	
Allow Username Fields to be Searched	On	
Allow Modifications Flag	On	
Application Sub Menu View Name	ApplicationSubMenuView	
Options Form View Name	OptionsView	
Auth Manager Config Params	\@AUTH_MANAGER_CONFIG_PARAMS	
Add Record Confirmation View Name	AddRecordConfirmationView	
Basic Data View Name	BasicDataView	
CGI Object	\$CGI	
CSS View URL	\$CSS_VIEW_URL	For speed, change CSS URL to a location outside the CGI directory.
CSS View Name	CSSView	
Datasource Config Params	\@DATASOURCE_CONFIG_PARAMS	
Delete Acknowledgment View	DeleteAcknowledgementView	
Delete Record Confirm View	DeleteRecordConfirmationView	
Records Per Page Options	[5, 10, 25, 50, 100]	Remove or change numbers as desired. This appears under Options.
Max Records Per Page	\$CGI->param('records_per_page') 5	
Sort Field 1	\$CGI->param('sort_field1') 'category'	Sort by which field?
Sort Field 2	\$CGI->param('sort_field2') 'fname'	Sort by which field?
Sort Direction	\$CGI->param('sort_direction') 'ASC'	ASC=Ascending, DSC=Descending
Delete Form View Name	BasicDataView	

Delete Email Body View	DeleteEventEmailView	
Details View Name	DetailsRecordView	
Data Handler Manager Config Param	\@DATA_HANDLER_MANAGER_CONFIG_PARAMS	
Display Acknowledgement On Add	Off	
Display Acknowledgement On Delete	Off	
Display Acknowledgement On Modify	Off	
Display Confirmation On Add	Off	
Display Confirmation On Delete	Off	
Display Confirmation On Modify	Off	
Enable Sorting	Off	
Hidden Admin Fields View	HiddenAdminFieldsView	
Input Widget Definitions	\@INPUT_WIDGET_DEFINITIONS	
Key Field	record_id	
Logoff View	LogoffView	
URL Encoded Admin Fields View	URLEncodedAdminFieldsView	
Log Config Params	ModifyAcknowledgementView	
Modify Acknowledgment View	ModifyRecordConfirmationView	
Mail Config Params	\@MAIL_CONFIG_PARAMS	
Modify Form View	ModifyRecordView	
Modify Email Body View	ModifyEventEmailView	
Power Search View	PowerSearchFormView	
Require Auth to Search	Off	Is authorization required for the action?
Require Auth for Add	On	Is authorization required for the action?
Require Auth for Modify	On	Is authorization required for the action?
Require Auth for Delete	Off	Is authorization required for the action?
Require Auth for Details	Off	Is authorization required for the action?
Require Matching Username for Modify	Off	Is a matching group or username required for the action on that record?
Require Matching Group for Modify	Off	Is a matching group or username required for the action on that record?
Require Matching	Off	Is a matching group or

Username for Delete		username required for the action on that record?
Require Matching Group for Delete	Off	Is a matching group or username required for the action on that record?
Require Matching Username for Search	Off	Is a matching group or username required for the action on that record?
Require Matching Group for Search	Off	Is a matching group or username required for the action on that record?
Send Email on Delete	Off	
Send Email on Modify	Off	
Send Email on Add	Off	
Session Object	\$SESSION	
Session Timeout View	SessionTimeoutErrorView	
Templates Cache Directory	\$TEMPLATES_CACHE_DIRECTORY	
Valid Views	\@VALID_VIEWS	
View Display Params	\@VIEW_DISPLAY_PARAMS	
View Filters Config Params	\@VIEW_FILTERS_CONFIG_PARAMS	
View Loader	\$VIEW_LOADER	
Simple Search String	\$CGI->param('simple_search_string') ""	
First Record on Page	\$CGI->param('first_record_to_display') 0	
Last Record on Page	\$CGI->param('first_record_to_display') "0"	
Page Top View	PageTopView	
Page Bottom View	PageBottomView	
Action Handler Plugins	\%ACTION_HANDLER_PLUGINS,	
Basic Input Widget Display COLSPAN	4	

3 Functional Requirements

3.1 Recruit Manager Application

3.1.1 Description

The following definitions only cover the Default settings and views.

Authentication Definition Views

The application will allow any user read-only rights to view the records registered in the application. Only registered users however, may add, modify, and delete records. There is no capacity for multiple group definitions, thus the default group is "Normal" and cannot be changed.

Default Settings Permit:

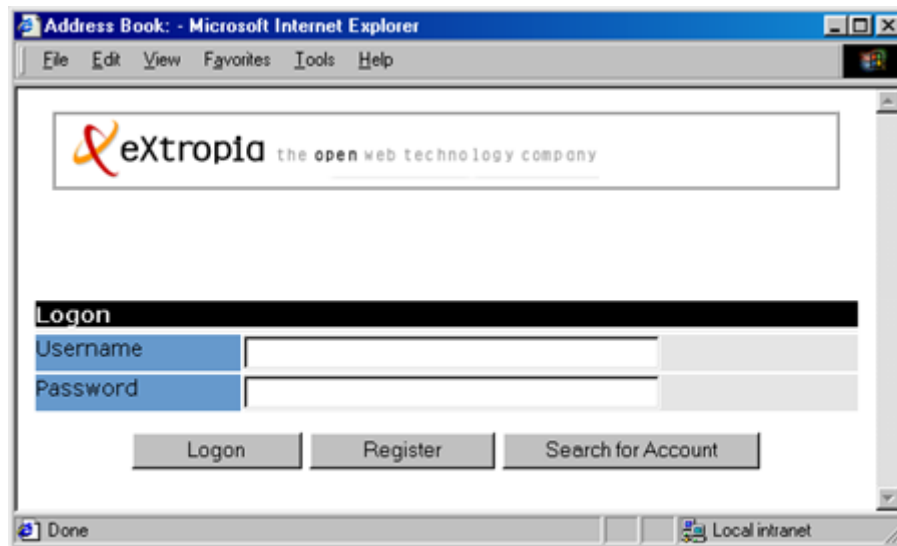
- Any user may view the database
- Any user may search the database
- Registered users may add, modify, and delete records
- Registration is available to anyone

Registration of normal users is simply done by pressing “Logon” and following the Registration Views. User data is written to the datasource. In the default installation, it is written to Datafiles/Recruit/recruit.users.dat. It is recommended that administrators do not alter the contents, especially the encrypted passwords. The information is listed as:

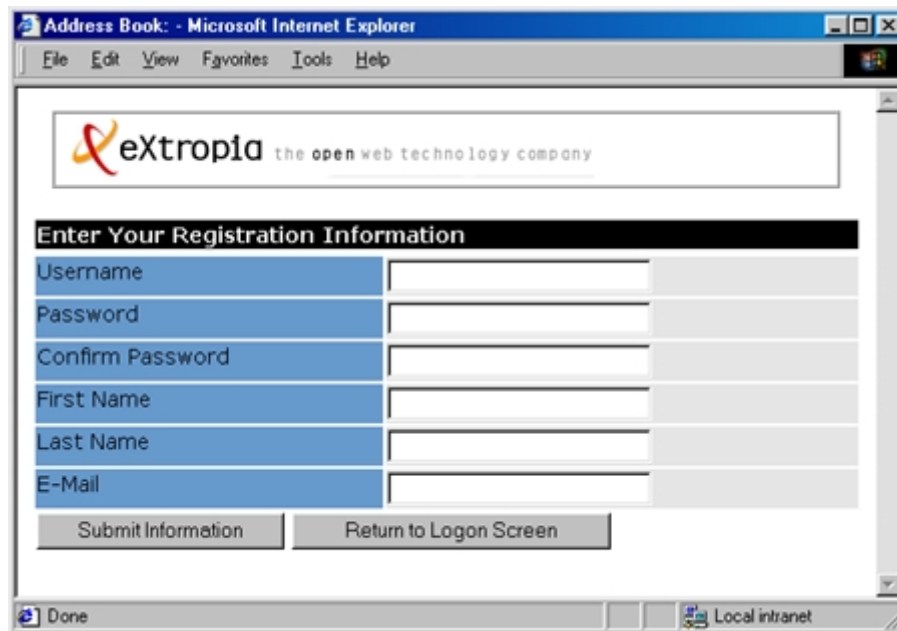
```
username | password | group_name | fname | lname | email
```

Registration of Administrative users may be done at a later date. System administrators will be able to alter hard data in databases or flatfiles as needed.

- **Logon View** requests the Username and Password of registered users. Users may attempt to logon, Register, or Search for Account. Also the view for failed logins.



- **Register View** permits any user to enter Username, Password, Confirm, Password, First Name, Last Name, and E-Mail. The user may then Register or Return to Logon Screen.



Address Book: - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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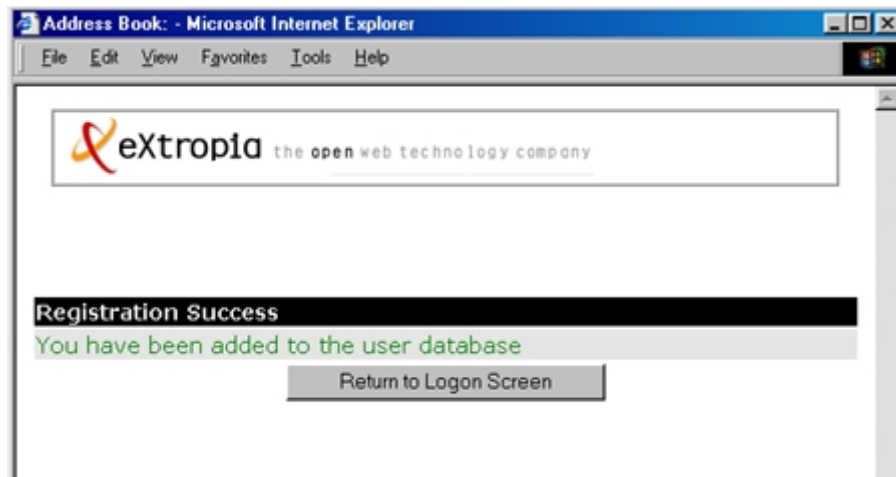
Enter Your Registration Information

Username	<input type="text"/>
Password	<input type="password"/>
Confirm Password	<input type="password"/>
First Name	<input type="text"/>
Last Name	<input type="text"/>
E-Mail	<input type="text"/>

Submit Information Return to Logon Screen

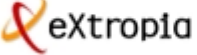
Done Local intranet

- **Register Confirmation View** confirms registration and returns the user to the Logon View.



Address Book: - Microsoft Internet Explorer

File Edit View Favorites Tools Help

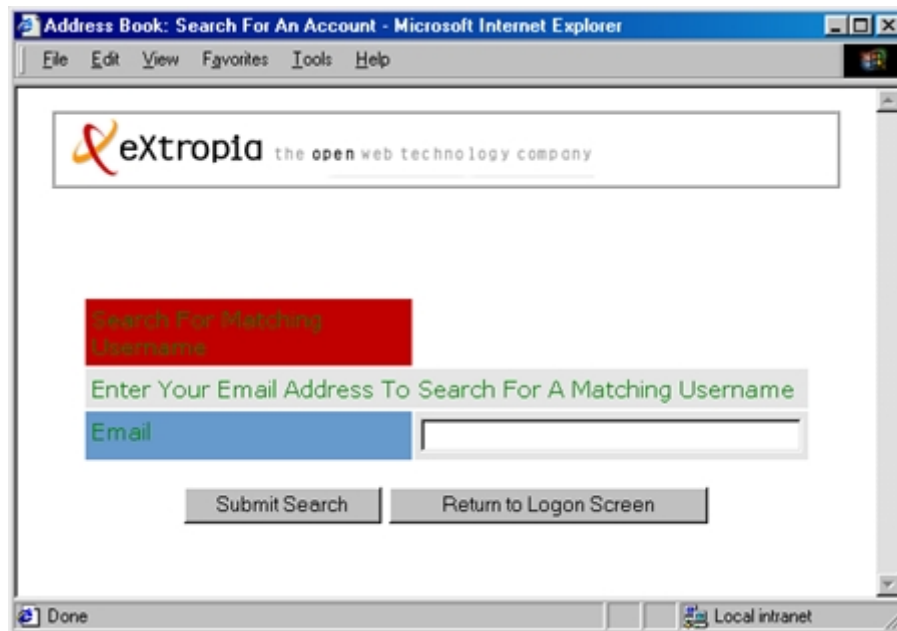
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Registration Success

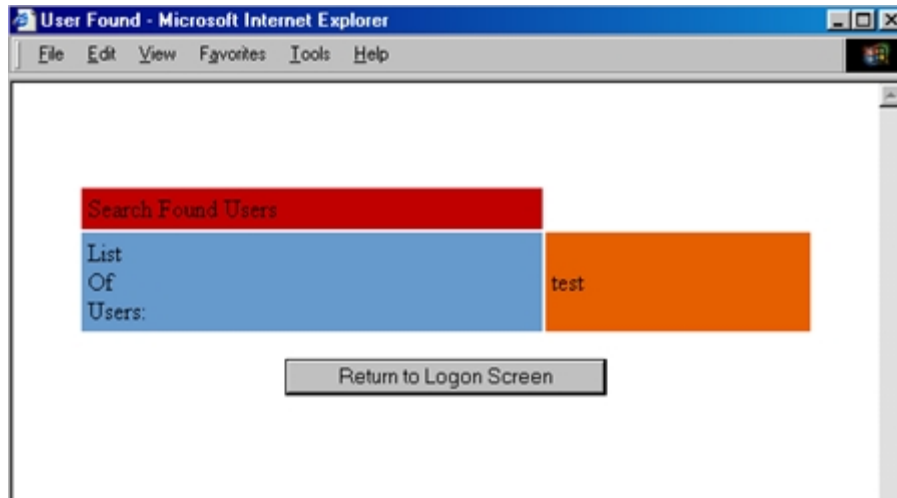
You have been added to the user database

Return to Logon Screen

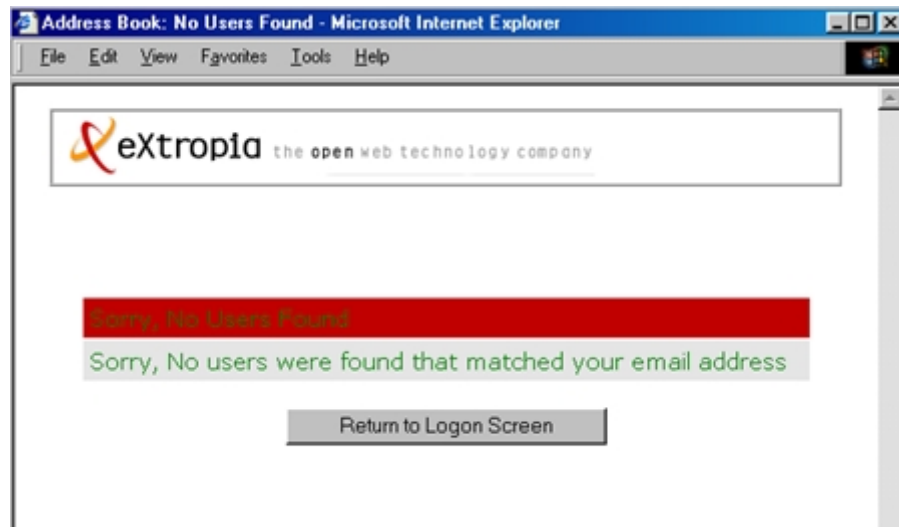
- **Search for Account** requests an email address to match users and then sends the password to the user.



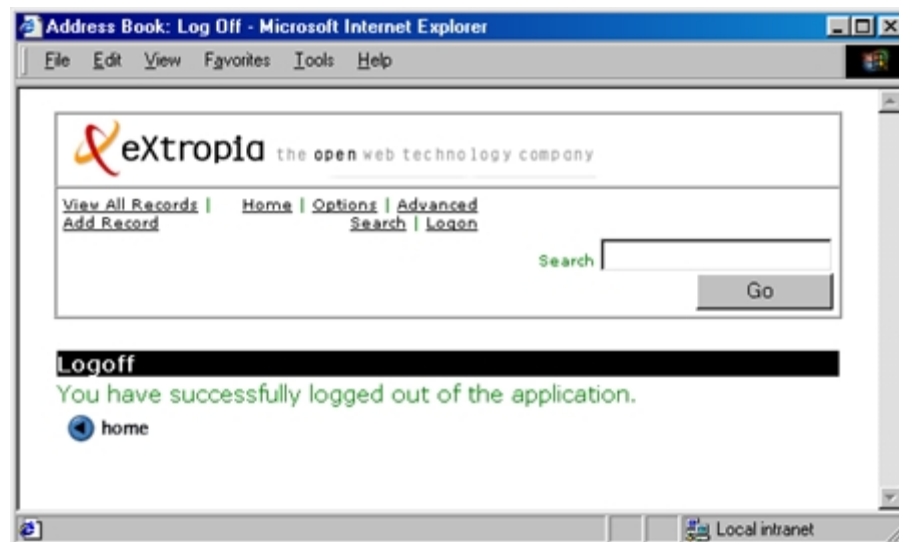
- **Search for Account Users Found** displays the username that matches the email address given.



- **Search for Users No Results** appears when no email address is associated with a username.

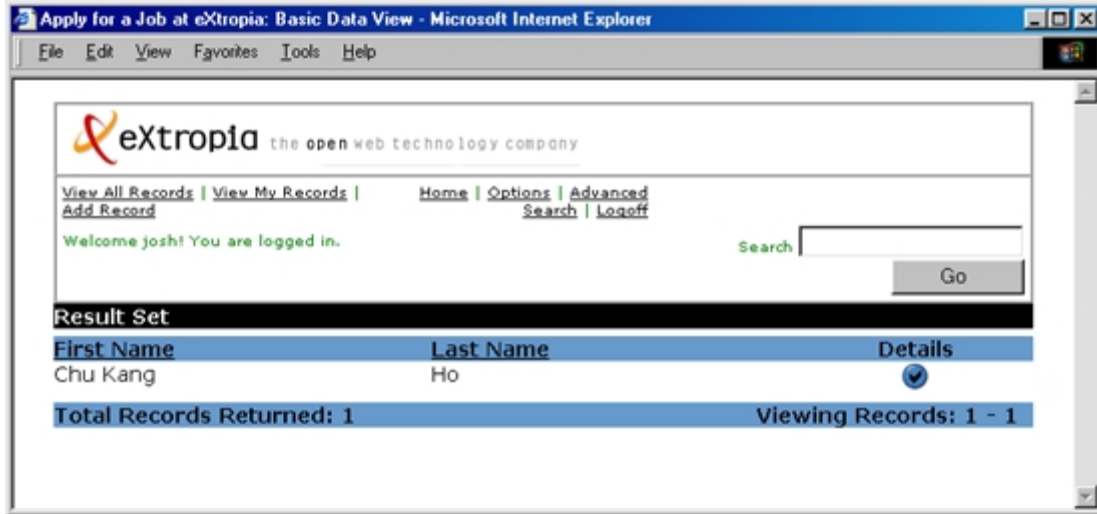


- **Logoff View** logs the user out and confirms the logoff. The session is terminated.

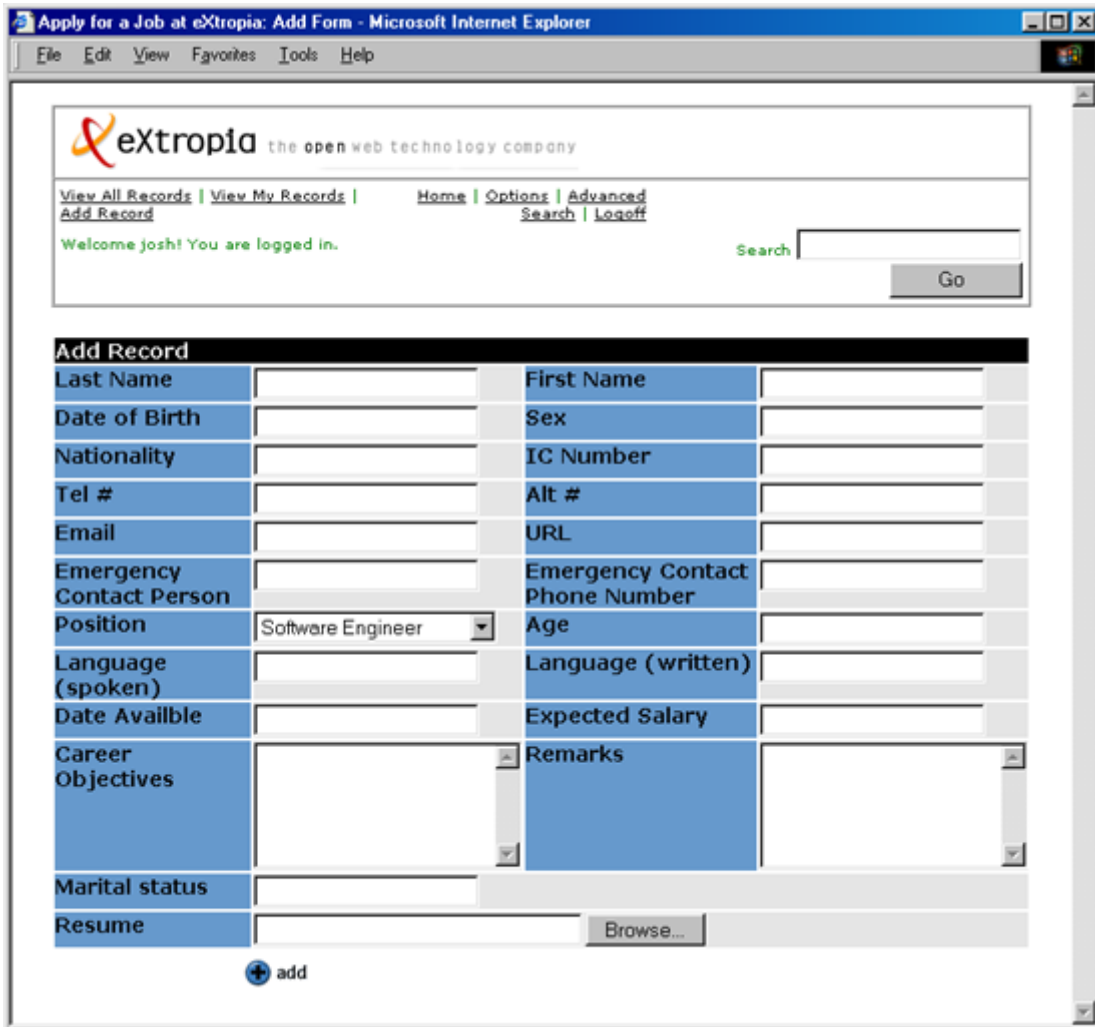


Application Specific View Definitions

- **Home View** displays the first 25 records upon first access. Options include the standard masthead: View All Records, View My Records, Add Records, Home, Options, Advanced Search, Logon/Logoff. A Simple Search Box is also available. Records appear listed by First Name, Last Name.

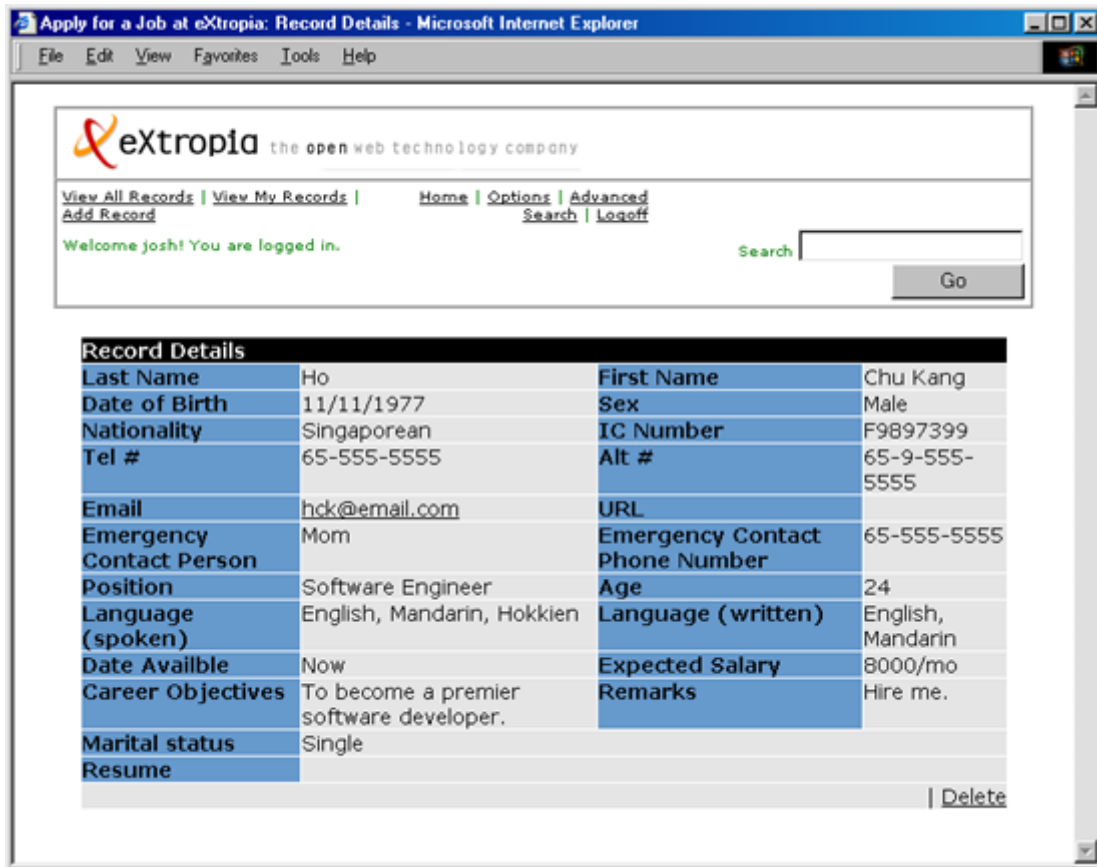


- **Add Record** requires login authentication to Add Records. Fields include:



- **Delete Record** requires authentication. It will ask the user to confirm.
- **Modify Record** requires authentication. It contains the same fields as Add Record.

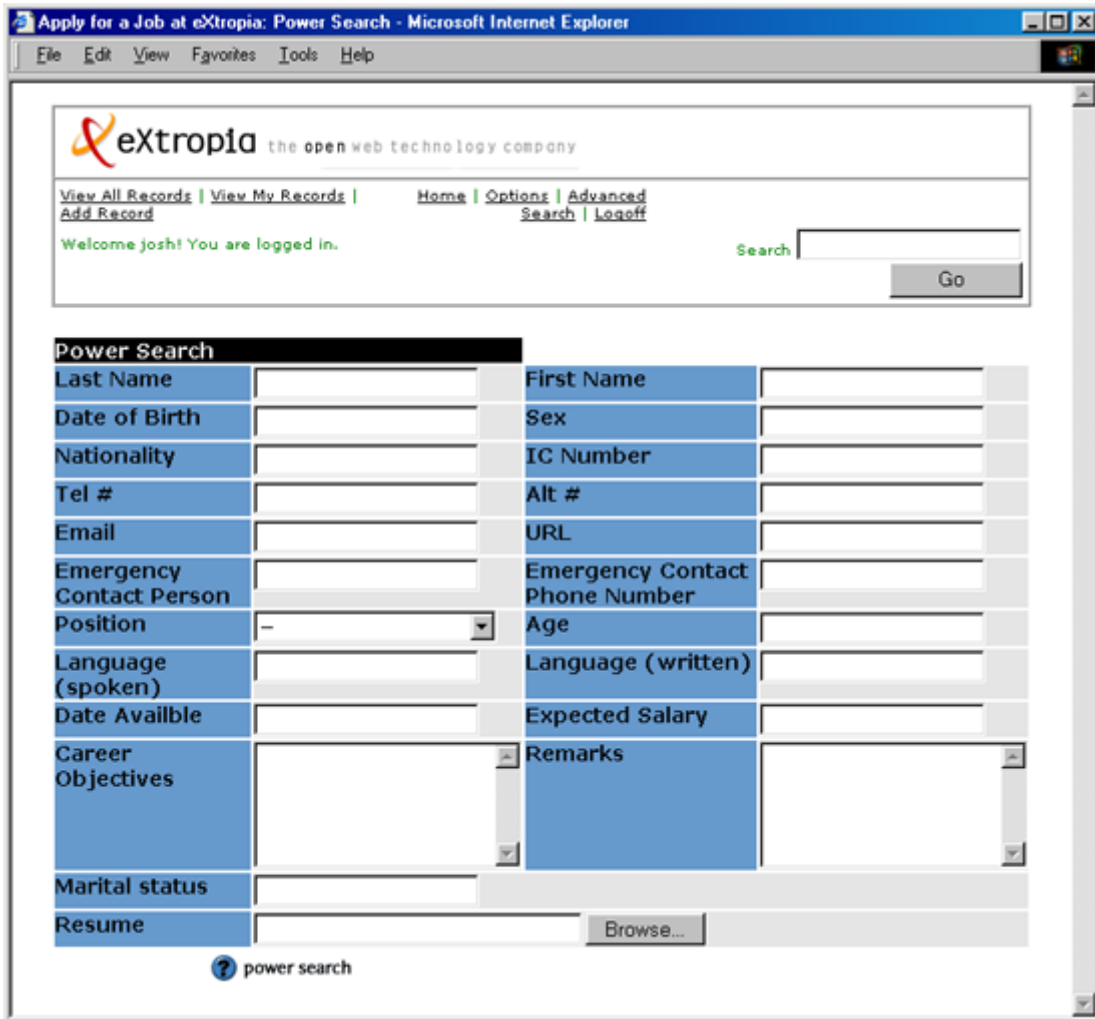
- **Details View** displays the entire contents of a record. This view permits Modify and Delete with authentication.



Common Features Definitions

- **Basic Search** permits any user to search the database based upon keywords. Available in the header.

- **Advanced Search** permits any user to search the database for any or all of the available fields



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[View All Records](#) | [View My Records](#) | [Home](#) | [Options](#) | [Advanced Search](#) | [Logoff](#)


[Add Record](#)

Welcome josh! You are logged in.

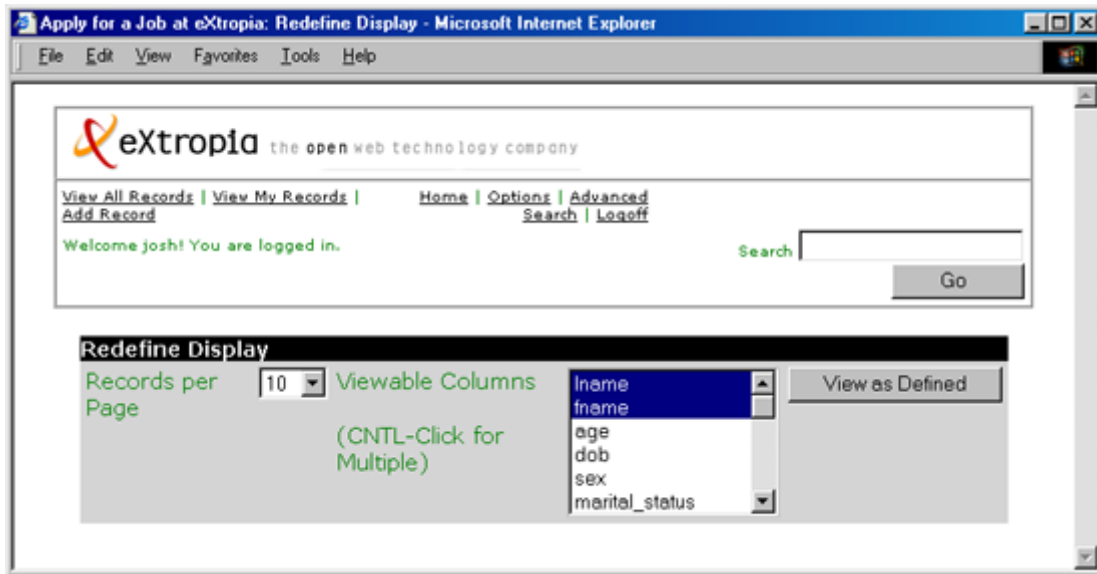
Search

Power Search

Last Name	<input type="text"/>	First Name	<input type="text"/>
Date of Birth	<input type="text"/>	Sex	<input type="text"/>
Nationality	<input type="text"/>	IC Number	<input type="text"/>
Tel #	<input type="text"/>	Alt #	<input type="text"/>
Email	<input type="text"/>	URL	<input type="text"/>
Emergency Contact Person	<input type="text"/>	Emergency Contact Phone Number	<input type="text"/>
Position	<input type="text" value="-"/>	Age	<input type="text"/>
Language (spoken)	<input type="text"/>	Language (written)	<input type="text"/>
Date Available	<input type="text"/>	Expected Salary	<input type="text"/>
Career Objectives	<input type="text"/>	Remarks	<input type="text"/>
Marital status	<input type="text"/>		
Resume	<input type="text"/>	<input data-bbox="873 1161 982 1192" type="button" value="Browse..."/>	

 power search

- **Options View** permits the authenticated user to alter Records Displayed per Page, Two Sort Fields, and which Columns to View. Upon pressing View as Defined, the user will see the records as desired. The Viewable Columns will vary according to Application.



3.1.2 Risks and Dependencies

4 Database Design

4.1 Description

The data of the application will be stored in a flat file. Each data fields of a record will be separated by '|'.

Field Name	Description	Field Type
record_id	Record value (auto incremental)	Auto
lname	last name of the applicant.	char
filename	first name of the applicant.	char
age	age of the applicant.	char
dob	date of birth of applicant.	char
sex	sex of the applicant.	char
marital_status	marital status of the applicant	char
nationality	Nationality of the applicant.	char
ic_number	IC number of the applicant.	char
phone	contact phone number of the applicant.	char
alternate_phone	alternative contact number of the applicant.	char
email	email address of the applicant	char
url	URL or website of the applicant.	char
emergency_contact	emergency contact number of the applicant.	char
emergency_phone	emergency mobile phone number of the applicant.	char
position	position in which the applicant had applied for.	char
language_spoken	Language(s) the applicant speaks in.	char
language_written	Language(s) the applicant writes in.	Char

date_available	Date first available	Char
expected_salary	Expected salary	Char
career_objective	Career Objective	Char
remarks	Additional Remarks	char
interview_date	Interview Date set by the company	Char
interviewers	Interviewers Names set by the company	Char
resume	For the resume	Char
resume_file	Resume file name	Char
date_time_posted	Date and time posted	date

4.2 Communications Interfaces

5 Other non-functional attributes

5.1 Reliability

Highly reliable in a properly secured environment.

5.2 Maintainability

Requires little maintenance. Owners will want to clear out a large flat-file now and then as well as ensure their installation is secure from hackers. Users of relational databases will probably not need to clear out their database.

A modular architecture provides easy maintenance and upgrades.

5.3 Portability

5.4 Extensibility

Information entered via Web Recruit Manager is portable to any relational database. The program can easily be switched to a new database with just a few lines of code. The program relies on the eXtropa ADT that divorces form and function.

5.5 Reusability

Web Recruit Manager is highly reusable. The application can be modified for just about anything!

5.6 Serviceability