

2012

Database Systems

FINAL PROJECT

National Talent Hunt Program/ Foundation Program Database Management System

12/24/2012



USER'S MANUAL

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ABOUT

IBA Karachi is a premier national institution of the country offering undergraduate and graduate degrees in Business Administration, Computer Sciences and Economic & Mathematics. Admission to IBA is based strictly on merit through an entrance test and interview. Under its ongoing National Talent Hunt Program meritorious students from poor families belonging from the less privileged areas of Balochistan, Punjab, Sindh, Khyber Pakhtunkhawa, FATA, and Gilgit Baltistan are awarded financial support to enable them to complete their degrees. As the degree obtained from IBA opens the doors to managerial positions in the leading business houses and multinational companies, education at IBA can become a powerful income equalizing force and upward mobility force

National Talent Hunt Program/ Database Management System (NTHP DBMS) is our final project for the course Database Systems taught by Sir Imran Khan. We have tried to use all the techniques that we studied during this semester and also previous knowledge from the course Web Application Development was utilized in constructing the Entity Relationship (ER) model. Our group members Sojhero, Saba and Nadeem are part of the National Talent Hunt Program (NTHP). They knew exact details of the program which helped in making the database more realistic.

1.0 GENERAL INFORMATION

1.1 System Overview

National Talent Hunt Program/ Database Management System (NTHP DBMS) will manage all applications that will be submitted to Institute of Business Administration (IBA). It will aid insertion, updating, and retrieval of data. Retrieval is in two forms, by writing the query or by choosing an option from the dropdown list

Architecture of the system is two-tier, it is based on the database layer and presentation layer also known as interface

1.2 System Menu

- Insert data
 - Personal Information
 - Academic Information
 - Financial Information
- Update data
- Simple information retrieval
- Complex information retrieval
- Writing queries

2.0 GETTING STARTED

2.1 Insert Data

Applicants' information is captured using these three tabs

- Personal Information
- Academic Information
- Financial Information

You have to fill all text fields, in order to submit the form. As all fields are filled the form can be processed by clicking on button.

If you have entered incorrect data or you need to erase data for any other reason click on "Clear this page" button. It pops a message to ensure if you want to clear all fields on respective page.

Previous page and Next page helps you to traverse between pages on the Insert Data tab

This is what the Insert Data tab looks like

The screenshot displays a web application window titled "National Talent Hunt Program / Foundation Program Database Management System". The interface includes a sidebar on the left with buttons for "Insert Record", "Update Record", "Simple Search", "Advanced Search", and "Write Query". The main content area features three tabs: "Personal Information", "Academic Information", and "Financial Information". The "Personal Information" tab is active, showing several sections of form fields: "Basic Information" (Application No., Name, Father's Name, Test ID, Date of Birth, Test Center), "Contact Information" (Residential Phone No., Email Address, Mobile 1, Mobile 2), "Permanent Address" (Address, District, Tehsil, Province), "Postal Address" (Address, District, Tehsil, Province), and "Identity Information" (Domicile, CNIC). A "Same Postal Address" button is located between the Permanent and Postal Address sections. At the bottom of the form, there are buttons for "Connect", "Clear this page", "Next Page", "Clear All", and "Submit".

Update Data

If you want to update an existing candidate or institute record, you can use “Update Data” tab.

This page contains a drop down list, using which you can sort data according to selected option i.e.

1. “App_No” → application number
2. “Name” → candidate name

And click “Go”.

The sorted data is returned in the list underneath “Go” button. When the option is selected from the sorted list the data is retrieved in the respective text fields.

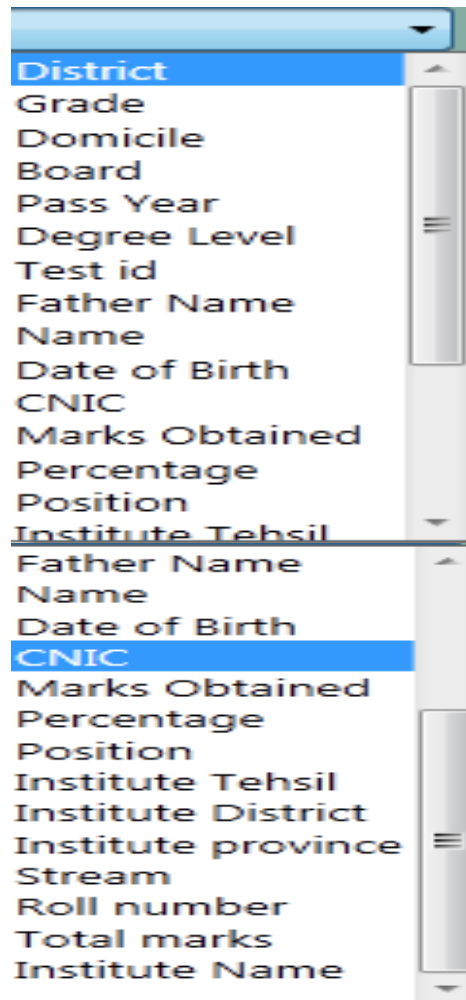
Then press the “Update Record” to save the changes This way Database will be updated and changes will be saved.

This is what the Update Data tab looks like

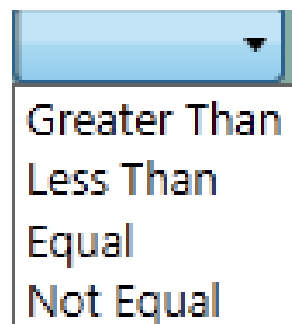
The screenshot shows a web application window titled "National Talent Hunt Program / Foundation Program Database Management System". The interface includes a menu bar with "About" and "Help". On the left, there is a vertical sidebar with buttons for "Insert Record", "Update Record", "Simple Search", "Advanced Search", and "Write Query". The main content area is divided into two sections. The top section, labeled "Show records by", contains a dropdown menu with "Name" selected, a "Go" button, and a list box displaying "Sojharo". The bottom section, labeled "Personal Information", contains a form with the following fields: Name, Father's Name, Domicile, Date of Birth, CNIC, Test ID, Email Address, Residential Phone No, Mobile, Mobile 2, and Test Center. Below this is a "Permanent Address" section with fields for Address and Tehsil. An "Update Record" button is located at the bottom right of the form.

Simple Information Retrieval

Information can be retrieved using this tab. Internally it works as a simple SQL select query. The combo box contains field names. The required field can be selected from the first combo box option.



The second combo box shows comparison operators.



When you type the specified text in the empty text field and click on the “Submit” button the system will display result in the data grid below.

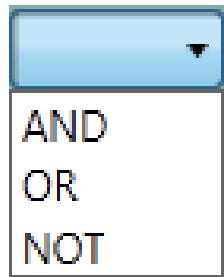
You have to fill all the fields to obtain the correct result.

Complex Information Retrieval

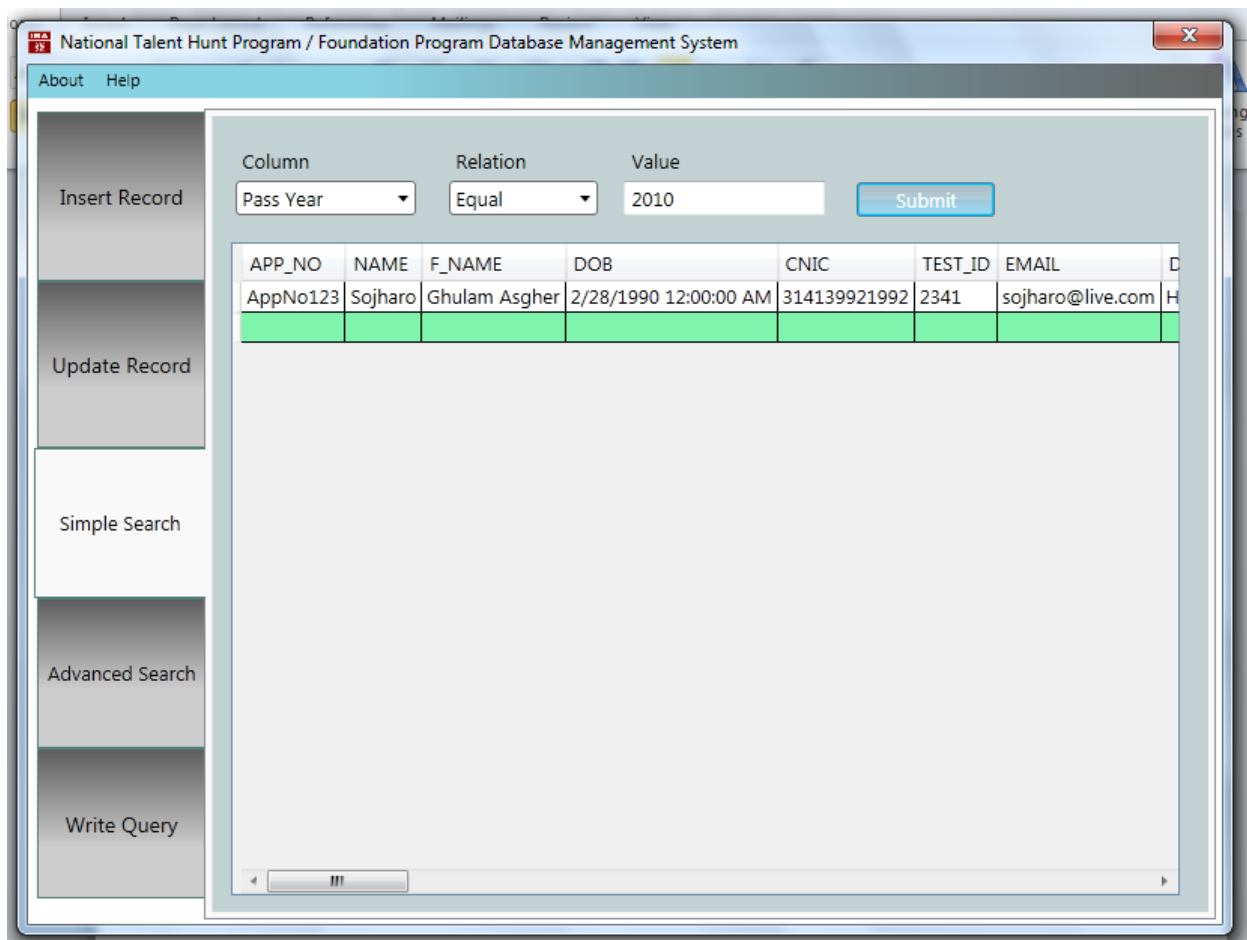
This is the same as simple information retrieval with the addition of three logical operators, using which you can test multiple conditions.

In this tab it is not necessary to fill all the text fields.

When you will click on the “Submit” button, a window will pop up displaying the result.



This is what these tabs looks like

A screenshot of a web application window titled "National Talent Hunt Program / Foundation Program Database Management System". The window has a menu bar with "About" and "Help". On the left is a sidebar with five buttons: "Insert Record", "Update Record", "Simple Search", "Advanced Search", and "Write Query". The main area contains a search form with three fields: "Column" (a dropdown menu showing "Pass Year"), "Relation" (a dropdown menu showing "Equal"), and "Value" (a text input field containing "2010"). To the right of these fields is a blue "Submit" button. Below the search form is a table with 8 columns: "APP_NO", "NAME", "F_NAME", "DOB", "CNIC", "TEST_ID", "EMAIL", and "D". The first row of the table contains the following data: "AppNo123", "Sojharo", "Ghulam Asgher", "2/28/1990 12:00:00 AM", "314139921992", "2341", "sojharo@live.com", and "H". The second row of the table is highlighted in green. The table has a scrollbar at the bottom.

National Talent Hunt Program / Foundation Program Database Management System

About Help

Insert Record

Update Record

Simple Search

Advanced Search

Write Query

groupBox18

Pass Year	Equal	2010
	AND	
Name	Like	Sojharo
	AND	
Stream	Equal	Gen Science
	AND	
Percentage	Greater Than	85
	AND	
Institute Tehsil	Like	Hyderabad City

Submit

Writing Query

Using this tab you can write a query using SQL and test it. You need to have proper understanding on the language in order to obtain accurate result.

The system has to be connected to oracle. When you will click on the “Submit” button after typing the query, the result will be displayed in the data grid below.

For reference purpose, you are provided with the Entity Relationship (ER) Diagram on the model to that you can use it to examine the relationships between entities

