

DATA BASE CREATION USING APPROPRIATE RELATION DATA BASE SOFTWARE

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Introduction. The Multimedia Relational Data base is modeled on a Job Network Organisation located in the Northern suburbs of Melbourne. The report contains the technical aspects of the data base, the reasons for creating it, description of the organization, and influence of the data base on the stakeholders and a brief description of the organisation.

Purpose. The purpose of the data base was to provide assistance to Employment Consultants in the Job Network Industry.

The organisation. Abalinx is a Network of organisation that offers a wide range of training and pre-employment services to unemployed members of the local community. Local community in this context means the immediate suburbs and outlying neighbourhoods that are linked by a rail and bus service. Although ABALINX is a current business run by the author, the assignment is based on another Job Network provider and for legal reasons cannot be named.

Stakeholders. The primary stake holder users were the Employment Consultants. Management and clients were considered of a secondary importance in relation to the main users. Other stakeholders will depend on the decisions made by management whether to incorporate the data base at all other sites.

Aims of the organisation. The aim of the organisation is to effectively manage the diversity of the local community and surrounding suburbs and to provide access to a wide range of employment services to the unemployed. In addition to this role, ABALINX assists in providing the unemployed with access to up to date accredited educational training and resources.

Privacy. Although the information would mirror government agencies, all references or details that may identify the Job Seeker are deleted and the remaining information recorded for historical and statistical data purposes. (Federal Government Privacy Act 1999)

Software. The software used to create the data based was based on the following products:

- Operating System: Microsoft XP 2003;
- Relational Data Base: Microsoft Access 2003;
- Report: Microsoft Word 2003;
- Calendar requirements: Microsoft Excel;
- Images: Smart Draw;

- Internet Browser: Explorer 6.0;
- Image Resource Manager: Adobe Photoshop 5.5.

Reading resources. Although the majority of the help was derived from the online Access pages contained within the program, the following reading material assisted in the creation of the data base:

- Access 2002 Bible by Irwin, Prague and Reardon;
- Using Access 97 by Roger Jennings, this book had some useful tips;
- Access workshop by Rob Krumm; and
- Multimedia making it work by Vaughn.

In addition to the above I accessed the internet for ideas and techniques to obtain an overview. However I found that I was overcome with far too much information and lost focus due to the overload. I recommend sticking to the main authors that better support the requirements. For a complete list of the readings, see the reference guide at the end of this report.

Resources. The following resources were utilised:

Computer: Celeron based with 256 RAM;
 Printer: Epson Stylus C82;
 Camera: PC1026 – Power shot A200; and
 Stationary: As appropriate.

Workplace impact. The impact on the workplace was positive. The main reasons for this was that the staff was relying on using software that was unable to provide the additional support and assistance that a data base provided. Resources used at the time were manual, card systems, Microsoft Word, and Excel programs to obtain the information. The situation became worse at the end of each month when reports were required to be submitted to head Office.

Management were provided with an initial presentation followed by the staff on the operating aspects and the benefits to the organisation as a whole. In addition a one to one author and staff member presentation was conducted to provide an in depth

understanding and feel of the data base. The aim of one to one presentation was as follows:

- Provide in depth understanding of the database;
- Obtain feedback on the prototype database model; and
- Create reports and statistics as requested by individual staff.

The feedback received from the staff and management on the prototype model was used to create additional operatives that met organisations needs. Suffice to say the current data base on display is a basic model of the end product. The database is still being evaluated and enhanced as required.

Occupational Health and Safety. During the one to one staff and author presentation, care was taken to provide a brief on the OH&S requirements when dealing with any computer software products. Although this is not a legal requirement on behalf of the author, it is good company policy to ensure that clients are aware of the OH&S requirements. This is an additional service being provided aimed at procuring the targeted client. (Occupational Health and Safety Act 1985)

The JTrak Relational Database. The JTrak Database was created using Access 2003, and although it is a relational data base, the relationships were not used during the prototype data base. The main reason for this was that during the initial gathering of information from the client, there did not appear to be any gains from creating relationships between the various tables. This option was brought up as an issue and the client advised, however the information to be gathered did not warrant a special relationship to be made with the tables.

Definition. In dealing with the above paragraph, it is of interest to note that according to Longman's English and Culture Dictionary, a Relational Data Base is a program that allows a user to find and work with the same information in many different ways. (Longman, 1992). Given this information, it would then be assumed that the JTrak data base fulfills the definition of a Relational database.

Speed and Controls. The data base has been created on very simple lines with few controls and queries. The aim of this was to reduce reliance on far too many queries and macros. This scenario however may change as the clients needs become more apparent. The thought of creating two data bases with one being the 'face' with links to the operating data base was considered but discounted for the reasons provided above.

Font. The Fonts used throughout vary from Arial Narrow, Times New Roman, Arial, Comic Sans MS and MS Sans Serif. The use of these fonts was used for impact and visual purposes. The Font sizes ranged from 7 point to 20 point depending on the requirement.

Images. There were only two images used throughout the data base. They were created using Photo Shop 5.5 and manipulated for the data base. The format used was JPEG.

Calendar Date Active X Controls. There were two date formats utilised. The first based on the Long Date and the second was the medium. The aim of the Long date was to enable the Stakeholders to remember the week days when creating a Job search Smart Plan. The Calendar was the only Active X Control used to provide a graphic image of the calendar when creating Client Job Search Smart Plans.

Tables. There are four tables that are the drivers that store information. The tables are as follows:

- Calendar,
- JTrak,
- Post Codes, and
- Skills.

Calendar. The calendar comprises three fields which contain dates, notes and the ID of the record. The calendar stores information on the designated calendar days. The aim of the calendar is to encourage the users to create a Reflective Journal and thus keep a record of their daily work and achievements.

JTrak . JTrak contains approximately 197 fields which are made of the following types: Text; Date/Time; Memo; and Yes/No. There is an argument to create split the field into other tables, but not considered essential at this point in time.

Post Codes. This tables comprises of four fields that represent post codes, suburbs, employment service areas and the id. The table is used only as guide and does not play a major role in the overall scheme of the JTrak data.

Skills. The Skills table has three fields of which one is the id, while the remaining two are skills and code for the skills? This table will expand with future use as in place to introduce the table to the users and to build upon it for the future. The table plays a minor role and is very similar to the above Post code tables. Interestingly enough, both the Skills and Post code tables are used via a combo box in the form as guides only. Although there are four tables within the data base, a representation of the fields used in the JTrak data base fields is shown in the example image below:

The screenshot shows a Microsoft Access window titled 'JTRAK : Table'. The main window displays a table with the following columns: Field Name, Data Type, and Description. The table contains 197 rows of data. Annotations are present:

- A red arrow labeled 'Fields' points to the 'Field Name' column.
- A black arrow labeled 'Type' points to the 'Data Type' column.
- A blue arrow labeled 'Explanation' points to the 'Field Properties' window at the bottom.
- Two red arrows labeled 'Additional information relating to the fields' point to the 'Field Properties' window.

Field Name	Data Type	Description
MID	Yes/No	MISCELLANEOUS
MC	Yes/No	MODULES COMPLETED
MRC	Yes/No	REASONS MODULES NOT COMPLETED
E1	Yes/No	3ST EVALUATION
E2	Yes/No	3ST EVALUATION
E3	Yes/No	3ST EVALUATION
E4	Yes/No	3ST EVALUATION
E5	Yes/No	3ST EVALUATION
E6	Yes/No	3ST EVALUATION
E7	Yes/No	3ST EVALUATION
E8	Yes/No	3ST EVALUATION
E9	Yes/No	3ST EVALUATION
E10	Yes/No	3ST EVALUATION
E11	Yes/No	3ST EVALUATION
E12	Text	BEST MODULE COMMENTS
ECCOM	Text	CONSULTANTS COMMENTS
PTE	Yes/No	FULL TIME EMPLOYMENT
PTE	Yes/No	PART TIME EMPLOYMENT
STUDY	Yes/No	STUDIES
MEDCERT	Yes/No	MEDICAL CERTIFICATE
TRAV	Yes/No	TRAVELLING HOLIDAY INTERSTATE ETC
PERS	Yes/No	PERSONAL
SE	Yes/No	SELF EMPLOYED
UN	Yes/No	UNEMPLOYED
NO	Yes/No	NO REASON
OT	Yes/No	OTHER
FOURNAME	Text	FOUR & FANT NAME

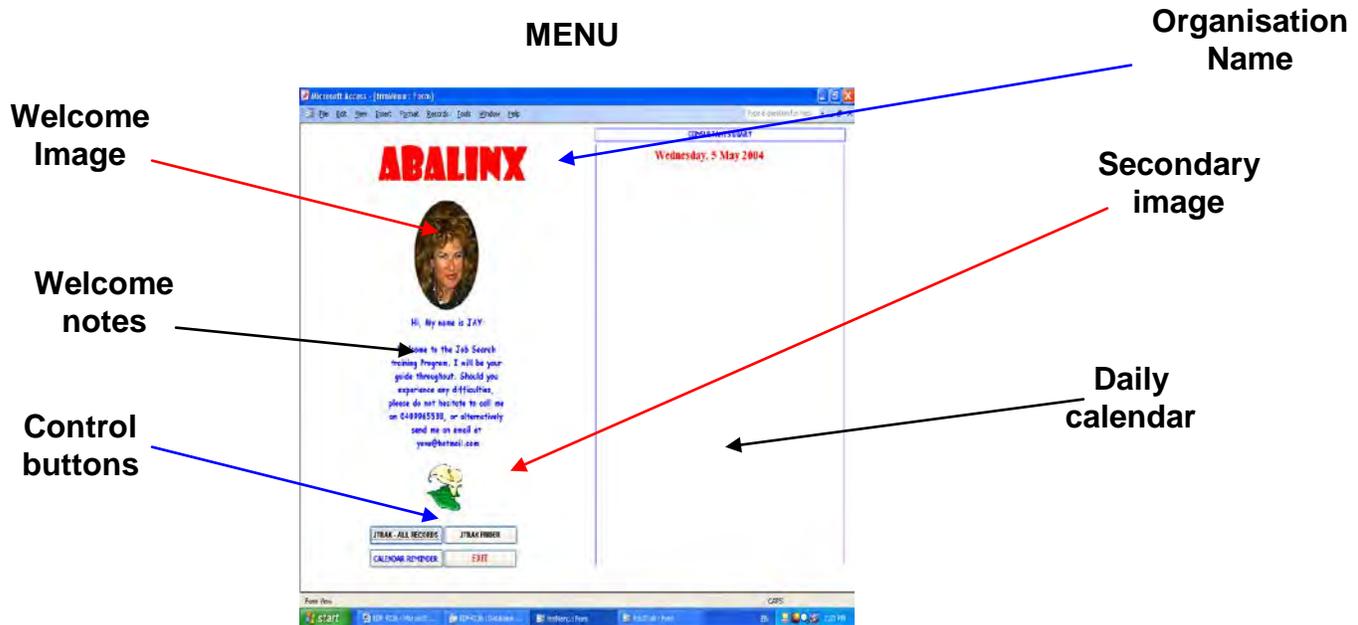
The 'Field Properties' window at the bottom shows the following settings:

- Field Size: Long Integer
- New Values: Increment
- Format: Yes (No Duplicates)
- Caption: Yes (No Duplicates)
- Indexed: Yes (No Duplicates)
- Smart Tags: Yes (No Duplicates)

Queries. There are seven queries relating to two tables. The other two tables are manipulated via the combo boxes and there is no requirement for a query. The queries are as follows:

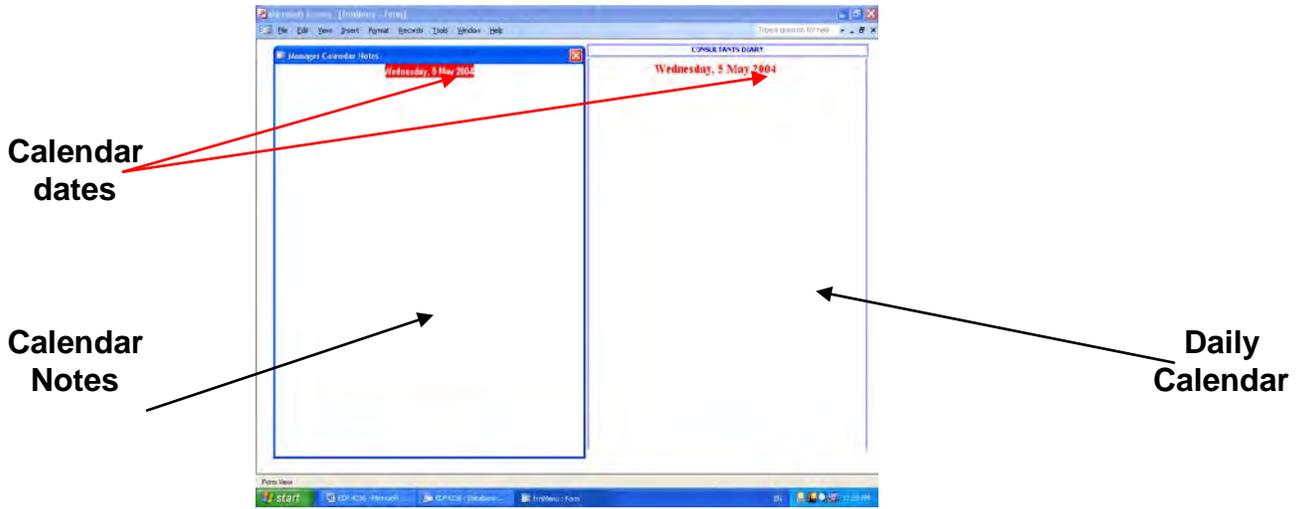
Form	Source	Purpose
FrmCalendar	Query: Calendar	Locating specific days for recording purposes
frmCalendar Daily	Query: Calendar Daily	Used on the Menu and contains the current data
frmJTrak	Query: JTrak	General form containing all the records
frmJTrakFinder	Query: JTrakFinder	Specific form relating to a specific record
frmMenu	Table: Calendar	Retains data for historical purposes

The following images are example of the various form utilised for the database



The Main menu is very simple. It contains an image of the guide with a welcome message. There is another image for aesthetic purposes only. Nothing fancy and certainly an image that is a positive one, (for the purpose of the assignment, my wife). The menu also contains the diary on the right hand side of the screen with relevant control buttons on the bottom left hand side. The buttons relate to JTrak all records, JTrakFinder for specific records, a Calendar button for a specific calendar day and an exit button.

CALENDAR

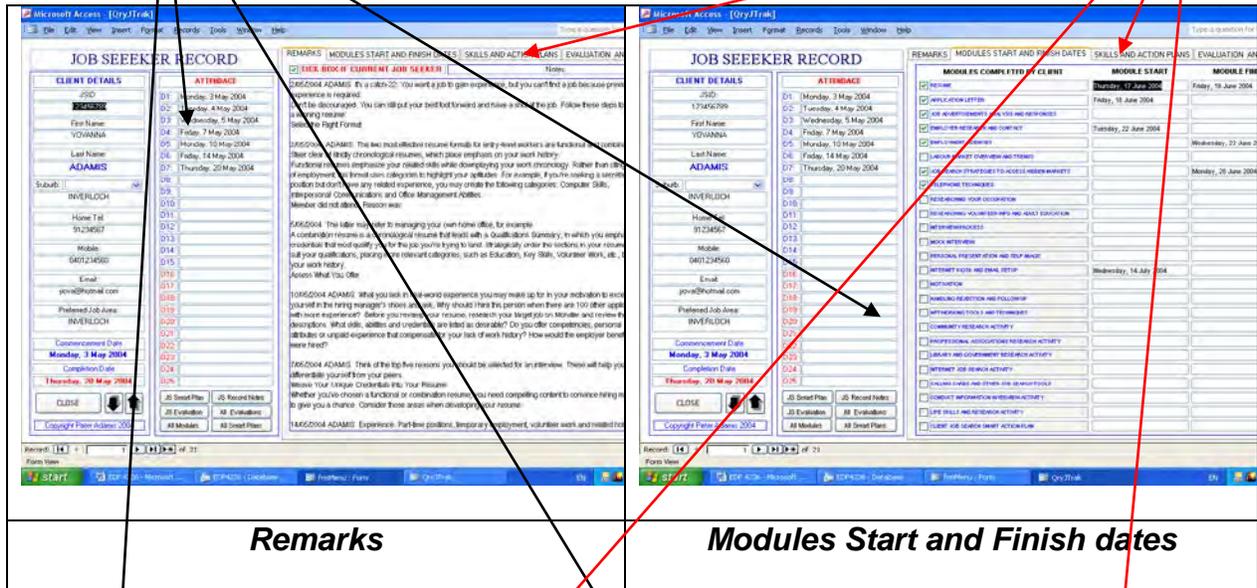


The above image depicts the daily diary on the right hand side with a notes page on the left on a specific calendar day. This pop up form is viewed when the Calendar button is pressed. The calendar notes are useful for creating a reflective journal in any workplace.

Generic data

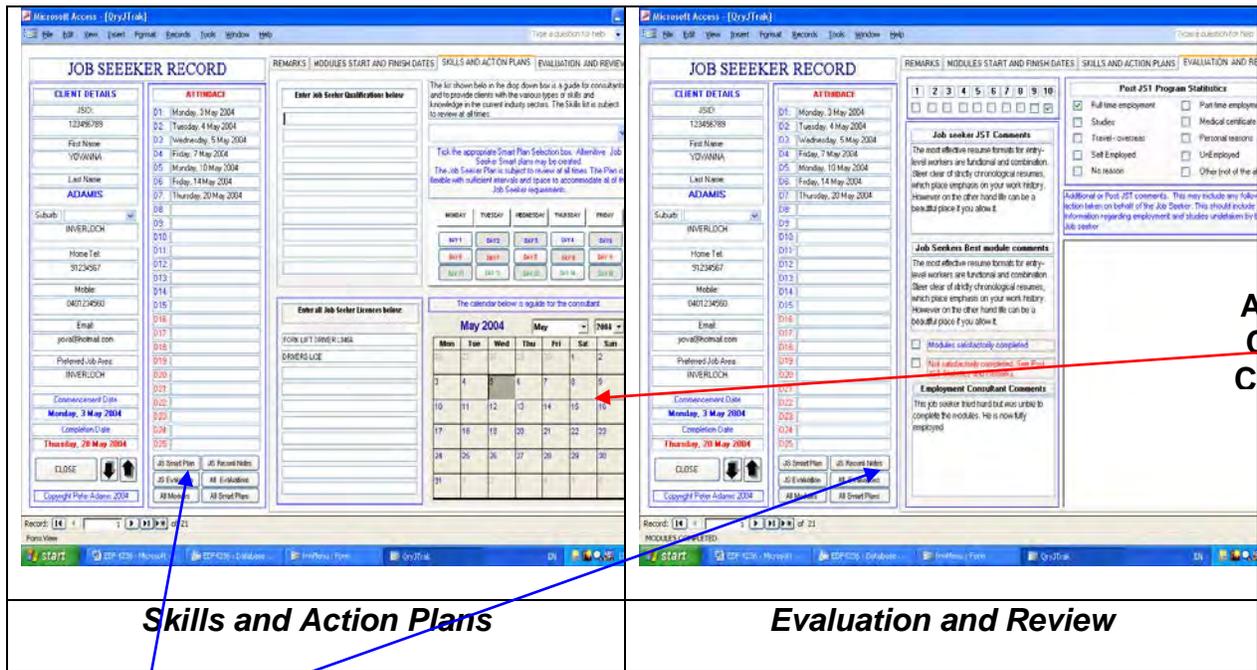
Control Tabs

JTRAK



Remarks

Modules Start and Finish dates



Preview Buttons

The above forms are all contained on the one page with a four tab controls which contain other data as shown above. The form was created in this manner to encapsulate the general information on the left hand side of the screen. This information contains general purpose information and it is vital that it is displayed at all times when scrolling or perusing the other data via the tab control. The items of interest are the Print preview buttons located at the bottom of the form. These buttons provide access to the reports generated by the user.

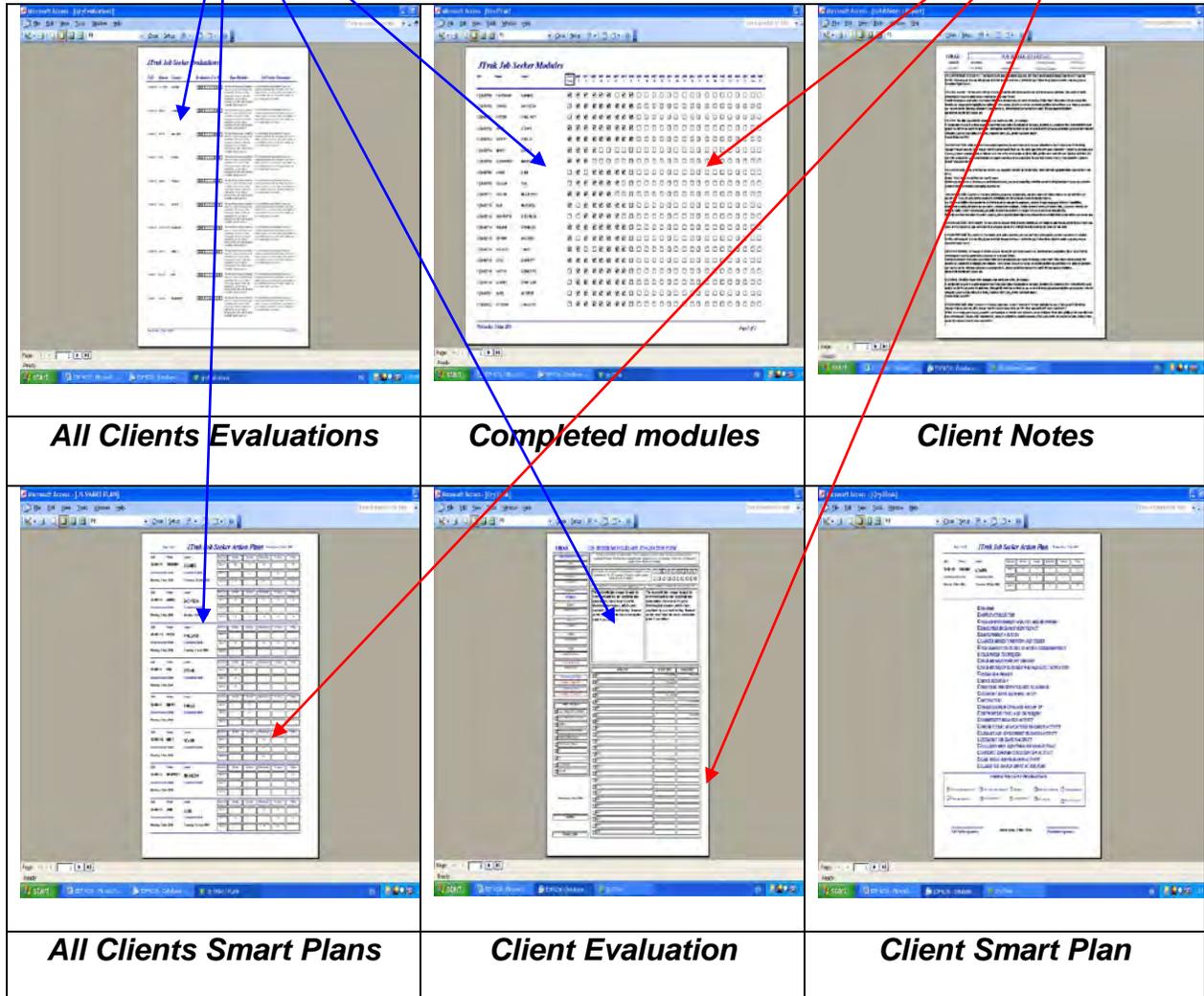
Reports

There are seven reports based on the queries of the JTrak Table. Each report has its own function dealing with specific data and information. The reports are generated by the user depending what data is relevant and required at the time of the reports being generated.

For example a report may be generated on specific client. The report may also be used for the client's purposes to enable him or her to retain a record. The reports also deal with data involving all client records. This is on a monthly basis when reports are required by head office or as required by management. The reports can be manipulated based on the data criteria. Examples of the reports generated by the JTrak are as shown below:

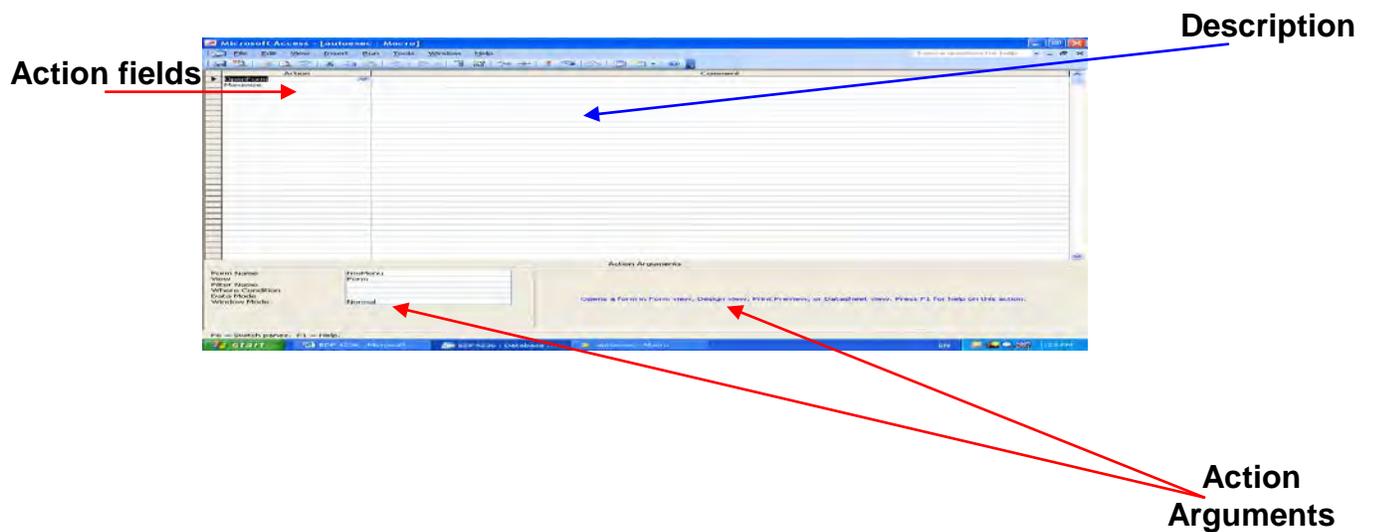
Generic Client details

Generated Report data



Macros

Macros were kept to a minimum so that the data base did not become clogged up with too many controls that had to rely on manually generated macros. Extensive use was made of Events Procedures and internal indexes to ensure an efficient data base free of errors. An example of the Macro created to display the menu at the beginning is shown below:



Summary. The data base its self was an accumulation of data collected over a period of time which included interviews with the Employment consultants, management and a selected Job Seekers currently employed full time that provided an insight into their requirements. This information was collated and placed in random order within a binder until a final data base outline was created using a flow chart. In addition I found using a flow chart very handy during the initial stages, but was limited in identifying all the potential hazards.

These problems or hazards were only identified during the one to one presentation with the staff. Suffice to say, there was sufficient data at the initial stages to create the data base. The wizard contained within the data base was not used as often as it should have been, but this is only a personal issue from the author's point of view. The lessons learnt was that there more time should be spent during the planning stage to create a useful and reliable data base. It is worth noting that although Microsoft have improved the Access program, the current 2003 version requires considerable study to have an better understanding of its power.

References

Vaughan, T (2001). Chapter 1, what is Multimedia, Multimedia: making it Work. New York McGraw-Hill

Krumm, R (1993) Access Workshop, New York, USA, Brady publishing

Jennings, R (1997) Using Access 97, Indianapolis, USA, Que Corporation

- Irwin, R & Prague, C & Reardon, J (2002)** Access 2002 Bible, Hungry Minds Inc
- Microsoft (2003)** Access 2003 Online help, Microsoft Office professional Edition 2003, USA
- OH&S (1985)** Federal Government Occupational Health and Safety Act 1985
- Privacy Act (1999)** Federal Government Privacy Act 1999
- Longman (1992)** Longman English Language and Culture Dictionary, Great Britain, Richard Clay, PLC



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