# MICROSOFT ACCESS

MICROSOFT ACCESS is a powerful multi-user **DBMS** (Data Base Management System) developed by Microsoft Corporation. It can be used to store and manipulate large amounts of information and automatic tasks such as Maintaining Inventory and Generating Invoices.

You can develop easy-to-use data input forms. You can process your data and create meaningful reports. Database in Access has default extension of '<filename>.**ACCDB**'. DBMS consists of Data, Field, Field type, Different Files, Reports, etc.

STEPS TO OPEN MICROSOFT ACCESS

➢ Click **START** -> **ALL PROGRAMS** -> **MICROSOFT OFFICE -> MICROSOFT ACCESS -> BLANK DATABASE**.

➢ Give any name for your Database File and click **CREATE** button. The screen will be as follows:
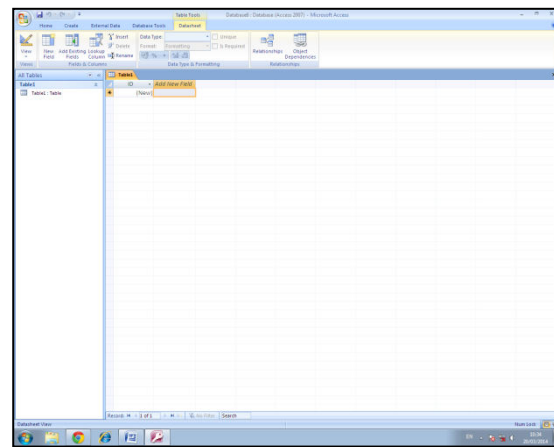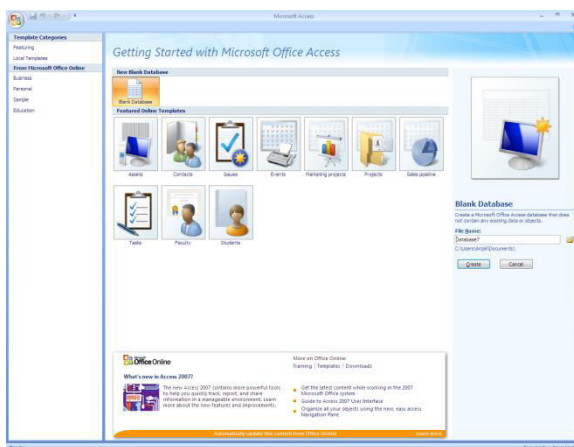
TABLE

Table is a collection of data about a specific topic, which is arranged in column and row manner. The intersection of column and row is a rectangular box, it is called as "Cell".

STEPS TO CREATE TABLE:

.   There are 4 types of views in table. They are as follow:

OPTION	USE
Datasheet View	It is used to enter data into a Datasheet Format
Design View	It is used to create a Custom Table Design
Table Templates	It is used to create a Table with pre-defined Field Names
Import Table	It is used to import external data from other Application Formats
Link Table	It is used to link to an existing data source.

1. DATASHEET VIEW

Table is created in a spreadsheet format with columns and rows. The *Fields* and *Records* are designed directly in a Datasheet view.

➢ Click **CREATE** Menu -> **TABLE.**

➢ Double click **ADD NEW FIELD** and type *Employee Name*. Similarly, **Field 2**= *DEPARTMENT*; **Field 3** = *SALARY*; **Field 4** = *DEPARTMENT NO* ; **Field 5** = *COMMISSION*.

➢ Type the following and save the Records.

Employee Name	Department	Salary	Department No	Commission
Soundarajan	Welding	4500	10	450
Mohan	Packing	5000	20	300
Anandh	Supervisor	8000	30	800
Kalyan	Welding	4500	10	450
Sudhakar	Checking	3500	20	350
Manohar	Manohar	5000	40	500

2. DESIGN VIEW

Here the fields are designed first and then the records are added.

The fields are designed by giving a name for each field and specifying their data types. Data types are the characteristic of a field that determines what type of data it can hold.

➢ Select **TABLE DESIGN** by clicking **CREATE** Menu.

Data Type	Type of data stored	Storage Size
Text	Alpha numeric characters	0-255 characters
Memo	-do-	0-64,000 characters
Number	Numeric values	1, 2, 4, or 8 bytes
Date/Time	Date and time data	8 bytes
Currency	Monetary data	8 bytes
Auto Number	Automatic Number Increments	4 bytes
Yes/No	Logical values : Yes/No, True/False	1 bit (0 or 1)
OLE object	Pictures, graphs, sound, video	Upto 1 GB
Look up wizard	Displays data from another table	Generally 4 bytes.

➢ Create *Field Name* and enter *Data Type* as given below.

Field name	Data type	Field name	Data type
Student Name	Text	*Marks Obtained*	Number
Standard	Number	*Percentage*	Number
Subjects	Text	*Remarks*	Memo
Max Marks	Number	*Signature*	Text

The screen will be displayed as follows:
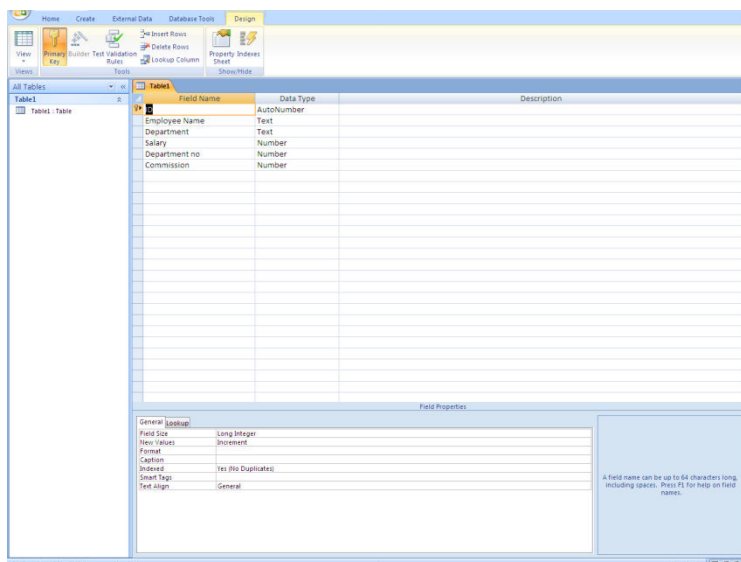
➢ Create your own Record of 50 Students - Close.

3. TABLE TEMPLATES

Pre-designed tables are available here with automatic fields like Customers, Products, Authors, etc.

➢ Click **NEW** -> **LOCAL TEMPLATES** -> **CONTACTS** -> **CREATE.**

A Table with pre-defined Field Names will be shown.

➢ Type the following under the Field Names:

ID	1
First Name	Bhuvaneshwari
Last Name	Sundar
E-mail Address	Bhuvana@hotmail.com
Business Phone	044-22673839
Company	TVS
Job Title	Sales Executive

➢ Create your own Record of 50 Names -> SAVE.

4. IMPORT TABLE

Imports table from another Database file to current Database. The table will be copied in the current database without any link.

➢ Click **EXTERNAL DATA** -> **ACCESS** -> **FILE NAME.**
➢ Click Import Tables, Queries, Forms, Reports, Macros, And Modules Into The Current Database –> OK.
➢ Select any table from the Tables tab -> OK.

5. LINK TABLE

Links tables from another database file to current database. The copied table will get a link with the source table, if any changes are made in the source it will affect the copied table.

➢ Click EXTERNAL DATA -> ACCESS -> FILE NAME.
➢ Click Link to the data source by creating a linked table –> OK.
➢ Select any table from the Tables tab -> OK.
➢ Return back to the source database and make any changes in the table and check the table in your database whether the changes are affected are not.

QUERY

The process of accessing the database and retrieving data selectively is known as **Querying**. In Access, you can query a database to retrieve selective records from one table or join one or more tables to view a multiple Table Query.

The term Query in **MICROSOFT ACCESS** refers to the dynaset that is generated as a result of the retrieval of records from one or more tables. The various options available :

OPTION	USE
Design View	Creates a Query in the Design View
Query Wizard	Creates a Select Query from the selected fields
Cross Tab Query Wizard	Summarizes the Query in a spreadsheet format.

1. DESIGN VIEW

Used to design a Query by joining one or more Tables.

- ➢ Click **CREATE** -> Select a Table from **Show Table** dialog box -> **Add** -> **CLOSE**.
- ➢ Select the *Field Names* from the drop-down list in **FIELD COLUMNS**.
- ➢ Give the 'Condition' under **Criteria** as well as **Field Name -> Close -> Save.**
- ➢ Now open the Query and view the selective data.

2. SIMPLE QUERY WIZARD

A wizard opens to create a query in step by step manner by filling the particulars it asks.

CREATE A QUERY

- ➢ Click **CREATE** Menu -> **QUERY WIZARD** from 'Other' Section. The screen will be as given:
- ➢ Select Simple Query Wizard -> OK.
- ➢ Select a Table -> Select Field Names -> Next -> Query Name -> Finish.
- ➢ Open Query in Design View and follow the instructions given under Design View heading.
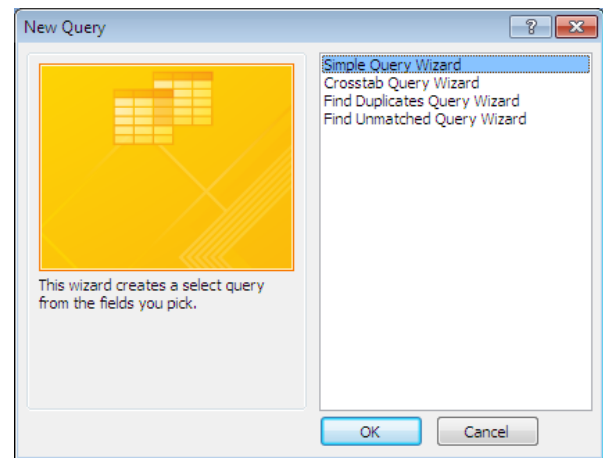
3. CROSS TAB QUERY WIZARD

Used to create a query by comparing the values in row and column wise manner.

- ➢ Click **CREATE** Menu -> **QUERY WIZARD** from 'Other' Section. Click **CROSS TAB QUERY WIZARD** -> **OK**
- ➢ Select *Tables* or *Queries* -> **NEXT** -> Select any 3 Fields from available fields list by clicking arrow ->**NEXT** -> Select any one *Field* for row heading -> **NEXT** -> Select any one *Field* for column heading and *Function* for comparing the data -> **NEXT** -> Name your query -> **FINISH.**

CRITERIA

In Query there is a facility of giving a range or criteria. For example, to list the records from an Employee table for which the salary is > 5000.

STEPS

- ➢ Select the table and add a query by retrieving only the name and salary fields.
- ➢ Select the query name and click **DESIGN** button.
- ➢ In the Criteria under Salary column specify the condition as >5000. Save and close.
- ➢ Now open the query and view the output that it will display only the records that the salary >5000.

FORMS

While data can be viewed in many ways, Forms provide a great degree of flexibility for viewing and entering data. Though a datasheet also allows you to view many records at a time, the number of fields that can be seen is limited.

Forms, on the other hand, can help you to rearrange fields and view many more on a single screen. You can also add enhanced data-validation and editing controls.

1. FORM OR BLANK FORM

Forms can be created through following methods:

➢ Select a Table -> CREATE -> FORM from Forms Section –> SAVE the form and feed the Data.
➢ Alternatively, CREATE -> BLANK FORM from Forms Section -> Double Click the Field Names from the Field List available at the right side -> Save the Form and add the records.

2. DESIGN VIEW

Forms are the containers of controls. In design view, the user has to design the form with the controls available in the toolbox and the fields from the table. The fields will be dragged to the form and it will be placed wherever necessary.

➢ Select the Table -> Click **CREATE** -> **FORM DESIGN**. The screen will be displayed as shown:
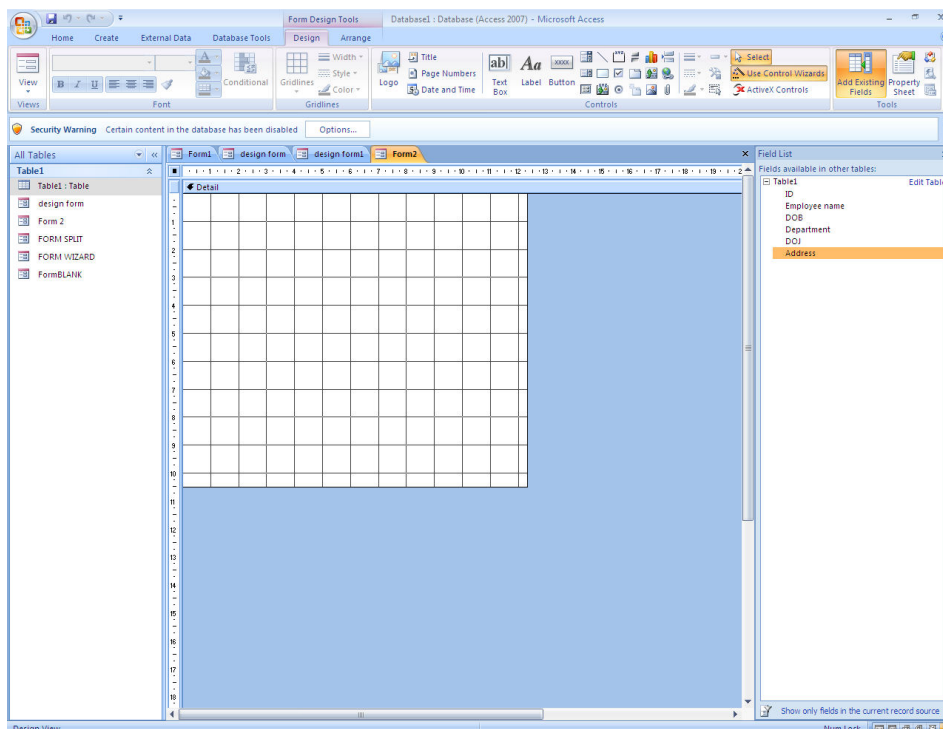
➢ Double Click the Field Names from the Field List available at the right side -> Save the Form and add the records.
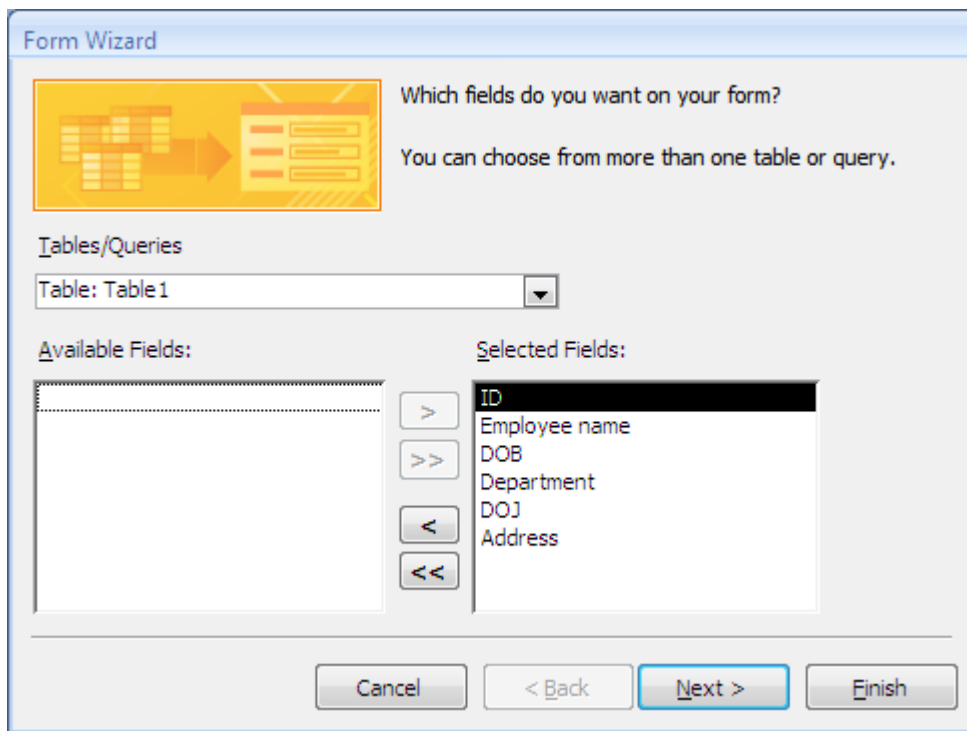
The output will be as follows:
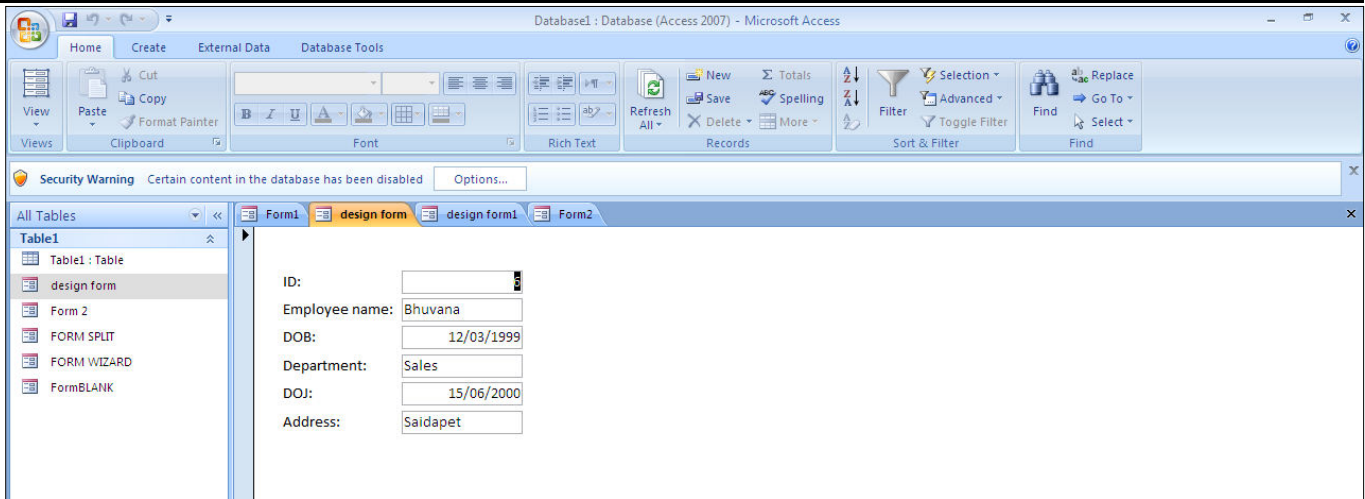
2. FORM WIZARD

To create a form in step by step manner by giving colorful backgrounds, etc. Wizards are used.

➢ Select the Table -> Click **CREATE** -> **MORE FORMS -> FORM WIZARD ->** Select the Table -> Select the Field Names -> Next -> Select the Layout -> Next -> Select the Style -> Give a Name -> Finish.

4. SPLIT FORM

In Split Form, the form is shown at the Upper Page and the Table is shown at the Bottom Page.

➢ Select a Table -> Create -> Split Form from Forms Section.

If you feed the data into the Form at the Upper Section, it will be added to the Table in Bottom Section.
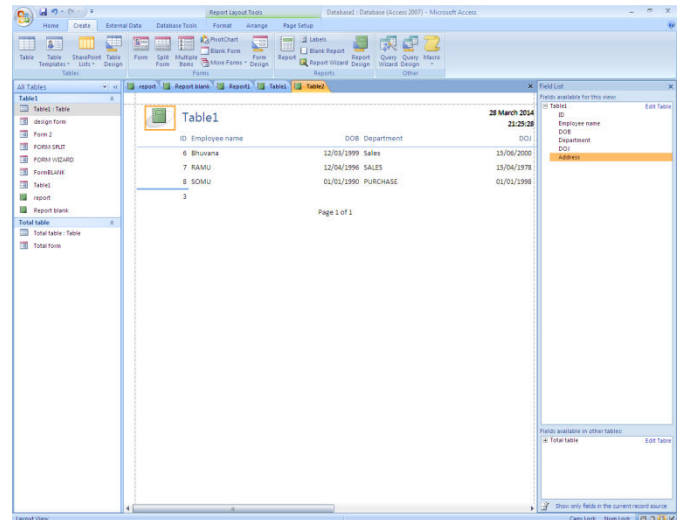
REPORTS

A Report is a flexible way of viewing and printing summary information. It enables you to display information to the required level of detail. The information can be viewed of printed in any Format.

1. REPORT OR BLANK REPORT

➢ Select a Table -> Create -> Report from Reports Section -> Save. Report is created automatically.

➢ Alternatively, Select a Table -> Create -> Blank Report -> Double click the Field Names available at the Right side -> Save.

2. REPORT WIZARD

➢ Create -> Report Wizard from Reports Section -> Select the Table -> Select the Field Names -> Next -> Select the Grouping Levels -> Next -> Select Sort Order -> Select Layout -> Select Style -> Give a Name -> Finish.
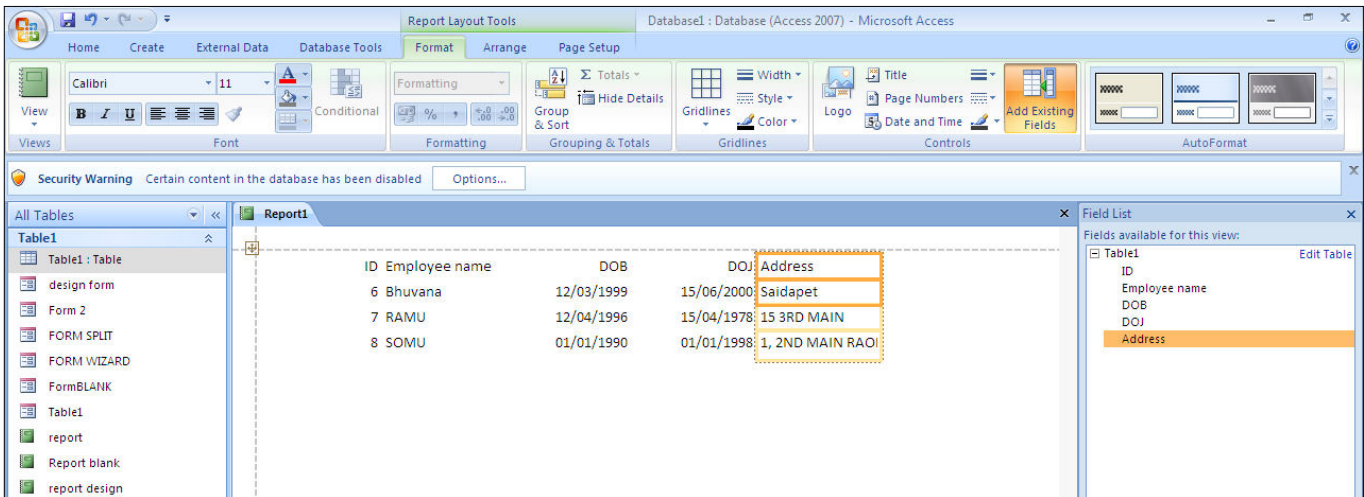
3. REPORT DESIGN

➢ Select the Table -> Click **CREATE** -> **REPORT DESIGN** -> Double Click the Field Names from the Field List available at the right side -> Save the Report and display the Report.
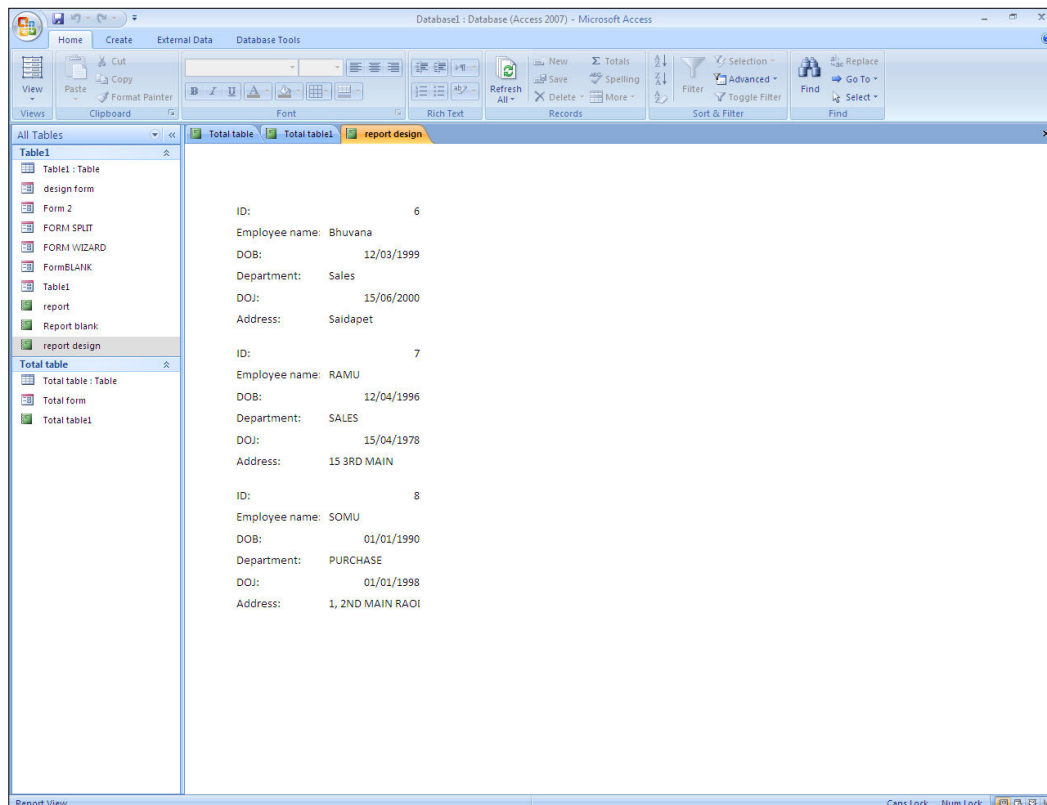
FORMAT THE REPORT

Formatting works can be done using the tools available under Format Menu. Once the Report is generated the Format Menu will be activated. You can insert Logo, Title, Date and Time, Page Numbers, etc into your Report as may be required. The screen will be as given below:

CUMULATIVE SUM

You can arrive the Cumulative Total in a Table, Query, Form or Report. Give the following formula in the respective Field in Design Mode.

=Sum([column name])

REMOVE A COLUMN OR RECORD

➢ Select the field by click on the *Field Selector* above the column or starting of the row and click **Delete** under **HOME Menu**.

HIDE COLUMN

➢ Select the Column that should Hide -> Click More from Home Menu -> Hide Columns**.**
To get back the hidden columns select **UNHIDE COLUMN;** click the particular column -> **CLOSE**.

COMPACT AND REPAIR DATABASE

You can Compact and Repair your Database file by following the steps given below:

➢ Click Office Button -> Manage -> Click Compact and Repair Database.