UNIT-4

MS-ACCESS:-

- **Write down all steps for creating database in ms-access?**
  - ✓ This step to create a new database.
  - ✓ Now Click start >> all program >> Microsoft access 2003
  - ✓ Select blank database from the task panel on the right – hand side of the screen.
  - ✓ A dialog box is open and then give proper name for your database and after that click on create button.
- **What is MS-Access?**
  - ✓ MS-Access means Microsoft access is a relational database management system from Microsoft that support all DBMS functionally like creating, updating, deleting, inserting data and etc.
- **What is extension of Ms-access?**
  - ✓ Extension of the MS-Access database is ***.mdb.**

❖ Introduction of database :-

- A database is a collection of related information.
- A database contains records and fields. A record is a collection of different type of information about the same subject.
- For example, a telephone book is an example of database. It contains related information about each person listed in it. His or her name, address and telephone number.

❖ Explain data types of MS-Access:-

1) **Text**
2) **Number**
3) **Auto number**
4) **Currency**
5) **Boolean [YES/NO]**
6) **Date / time**
7) **Memo**
8) **OLE object**
9) **Hyperlink**
10) **Lookup wizard**

1. Text:-

- ➢ It is a default data type of ms-access.
- ➢ Text data type support the alphabet field A to Z and it also support the numeric field 0 to 9 but which don't require any kind of calculation.

2. **Number:-**
   - It supports one number data 0 to 9 not character A to Z and basically.
   - This data type used for the mathematically calculation.
   - The size occupy the field is 1,2,4 on 8.

3. **Auto number**
   - It supports only number data like number data type.
   - But the limitation is that it assigns a random number when new record is added.

4. **Currency:-**
   - Currency values and numeric data used in mathematical calculation involving data with 1 to 4 decimal points.
   - This field is used to note down currency information
     Example:- RS, Dollar

5. **Boolean [YES/NO]:-**
   - Its use to represents two optional value only yes/no then its.
   - It occupies only 1 bit size.

     Example:- Material status

6. **Date / time**
   - This data type is used to enter the date and time.
   - Date and time field occupy the 8 bytes sizes.
   - Default format of date ID MM/DD/YYYY where M stands for month D stands for date and Y stands for year in four digit representation.
   - And time format is HH/MM/SS AM/PM where H stands for hour, M is number of minutes and S is the number of seconds.

7. **Memo:-**
   - Like text data type it support the alphabet numeric data.
   - Basically if support the length text which length is up to 65,535 character.
   - Example:- if user was to store this or her full address with pin code. Number then user has to select MEMO data type.

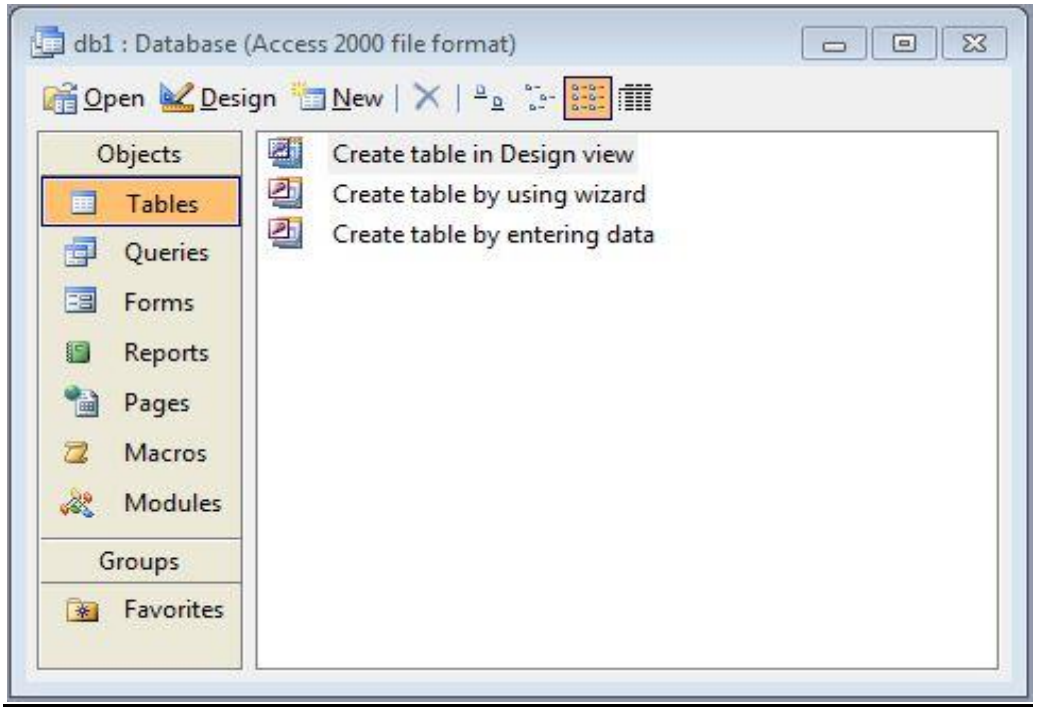
8. **OLE Object:-**
   - OLE means object linking embedded.
   - This is use for embedded the object may Microsoft word document.
   - Microsoft excel spread sheet, graphical photos, sound or other binary data and linked in a Microsoft access table and it occupy the size 1 GB.

9. **Hyperlink:-**
   - This data type is use to store the hyperlink address.
   - It can contain up to 2048 characters.

10. Lookup wizard:-

- It creates fields that allow user to choose a value from another table or from a list of value by using list box or combo box.
- Active this option starts the lookup wizard which creates a lookup fields.
- After you complete the wizard Microsoft already means access converts those fields.
- The same size as the primary key field used to perform the lookup, typically 4 bytes.

❖ **Explain Elements or object of MS-Access:-**



There are four elements of MS-Access:-

1) **Tables**
2) **Query**
3) **Forms**
4) **Reports**

I.Tables:-

- Tables are where the actual data is defined and entered. Table consists of records (Rows) and fields (columns).
- Table's means your actual physical data are defined means all the structured of your data will be decide by the table and base on structure actual physical values will be store.
- Table contain record which is known as row and other field which is known as column.
- So table is a collection of data about specific topic.

- For Example:- Student, employee etc.
- We can create table with three ways.

- **[1]. Create table in designs view**
- **[2]. Create table by using wizard**
- **[3]. Create table by entering data**

II.Query

- Query is a question about the database means with one use of field of table of record user can see the specific result of the database and also user calculation solution with the help of mathematical function.
- Example:- if user errors the five different subject marks then with calculation in the query user can make total of those five subject marks automatically so query allows user to extract database on their selected fields.
- We can create query by two ways:-
  - **(1) create query in design view**
  - **(2) create query by using wizard**

III.Forms

- A from is a one kind of graphical representation of table with the help of from user can add, delete or update record in your table when user can change any field in from or add new record in from so directly it will be change or add in table automatically.
- So with the form user can see all fields in one screen, where if you store data in table.
- The from become easy the task of data-entry.
- We can create forms by two ways.
  - **(1) create forms in design view**
  - **(2) create forms by using wizard**

IV.Reports

- When we want to point out record which we have already. Entered in database for that user has to use the report object.
- With the help of the report, user can display the information the way we want to see.
- We can create report by two ways:-
  - **(1) create report in design view**
  - **(2) create report by using wizard**

Explain controls use in form and report?

Label:- A label is to visualize a fixed text, text that we write directly into its control or caption property.

Text box:- A text box is usually used to represent data stored in a source filed of the form.

Optional Group:- An optional group is used to present a limited group of alternative. A group of option makes it easier to select a value as the user only needs then to click on the value he requires. There should only be a few options, otherwise it would be better to use a list box or a combo box instead of an option group.

Optional Button:- The optional button is usually used to add a new option to an existing option group, it can be used to present a YES/NO field if the field contains a yes value the button will appear like this if not like ○ .

Check Box:- The check box is usually used to add a new option to an existing option group, it can be used to present a YES/NO field if the field contains a yes value the button will appear like this if not, like this □ .

Combo Box:- The combo box in many cases it will be easier to select a value from a list then to remember it in or to type it.

Image:- The image is used to insert image the form, this image does not vary on changing record.

Page Break:- A page break does not have any effect on the form view but rather on the preview and at the moment of printing.

Unbound Object:- A unbound object frame is used to insert controls. Eg. A sound a word department, a graphic etc. there controls will not vary when we change the record.

Bound Object:- A bound object frame  is used to insert an image or other object that will change form one record to another.

Sub Form:- A sub form  is a form that is inserted into another. The primary form called the principal form, and the form within this is called the sub form. An form/sub form combination is often referred to as hierarchical form, a principal / details form, or a principal / secondary form.

❖ What is Report? Write down step to create a report in MS-Access.

- **Report:-**
  - When we want to print out record which we have already entered in database for that user has to use the report object. with the help of the report, user can display the information the way we want to see that particular data format.
  - So basically report is use for printing data of table or query which you select.

- **Step-1:-** Click on report object then new report wizard is open and clicks create by using wizard.

- **Step-2:-** the wizard's first window will appear in this window we have to introduce the field to be included in the report.

  - First we select **Table/Query** box for a report source, when you select any table on query then related fields, are display in below list.

  - Next we select that fields by clicking on the  button of simple double clicking on the field and if we mark mistake the click on  button the field will be removing from be first of selected fields.

  - We can select the entire field at the same time by clicking on  button or deselect all the by clicking on  button.

- **Step-3:-** Now click on next button, then we see screen in which select the grouping live within the report we can add a group header and footer and in group footer we will normally see the group total.

- **Step-4:-** Now We can see a layout wizard in this screen we select layout such as columnar and justified then click on next button.
  - Now in next dialog box gives us style like BOLD, CASUAL, COMPAC etc.
  - Select any one and then click on next button.
  - Now save a report to the specific name and click on finish button.

❖ **What is Sub Form?**

OR

❖ **Step for creating a form With sub form by taking one simple example:-**

- **Ans:-**
  - A sub form is a form that inserted in another form. the primary form is called the main form and the form within the form is called the sub form.
  - A form/ sub form combination is often referred to as a technical form, a master/ details form, or a parent/ child form.
  - form can be created manually in design view.

- **Step-1:-** Show the start the form wizard and select design view.

- **Step-2:-** A Form has **three views-Design view, form view & Datasheet view.**

  - Design view is used to add control or modification to the controls.
  - Form view is used to display add, edit, or delete record.
  - Datasheet view display all the field present on the form in a tabular form.

- **Step-3:-** Select the design view, Here you add control like label & textbox. take one label and give the name student_rollno and add textbox, add second label and give then label as student_name and textbox. Add student birth_date label and textbox and save it student form.
- **Step-4:-** Now open student form in design view, toolbox of student form is active now you have to click on sub form/ sub report in toolbox.
- **Step-5:-** Now move on you student form your mouse in form add you get sub form wizard the you have a click a table or query which you want as sub form / sub report then click on next button.
- **Step-6:-** Give the proper the name of your sub form.

❖ **Write down step for creating Relationship between two or more tables.**

- Relationship like information stored in separate stored in tables in a database. data in one table can be matched linked with data in the related table using field that both tables.
- In the Database window view at the **title bar**, click on Tools and Select **Relationship**.
- Select the table you want to link together, by clicking on them and selecting the submit button.
- Drag the primary key of the parent table and drop it into the same field in the child table.
- Select **Enforce refreshment integrity**.

- When the cascade update related fields checkbox is set, changing a primary key value in the primary table automatically update the matching value in all related records.
- When the cascade delete related record checkbox is set, deleting a record in the primary key table delete then any related records in the related will be delete.

➢ Click creates and save the relationship.