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Ms-Access 2007

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Ms-Access is a RDBMS (Relational Database Management System) which is use to maintain database for specific organization (Like: - School, College, Bank, Company e.t.c.)User can enter huge records within a file. Ms-Access provides us the great feature to make relation-ship between multiple tables with data retrievable facility also (means add new records, delete, and modify e.t.c.)

Ms-Access file known as database and extension is ".MDB". Ms-Access is an object oriented package which use to maintain specific organization and each object has own properties that define how it will work and what work it perform.

How to start Ms-Access:-

- Click on start button
- Click on all programs
- Click on Microsoft office
- Click on Microsoft office Ms-Access 2007
- > OR
- Click on start button
- Click on Run
- Type MsAccess
- Click on ok



Database:-

A database is a collection of all those multiple tables which provide for maintain all records and prepared for all types of reports of an organization.

For maintain a database of institute, college, school etc.

Ex: - Student table

Fee table Exam table

There are seven objects in Ms-Access:-

- ➤ Table
- ➢ Query
- ≻ Form
- ➢ Report
- > Macro
- > Pages
- > Modules

Table object:-

This is primary object of Ms-Access which uses to create the structure of table according to user needs and enter large amount of information based on structure.

There are two view of table object:-

> Design view:-

For create the structure as user needs.

➢ Datasheet:-

For enter records

How to create Table in Ms-Access:-

- Open Ms-Access
- Click on blank database
- ➢ Enter any name
- Click on create button
- Click on view icon and select design view
- Enter your table name and ok
- Define the structure as you need

Field Name	Data type
Roll	Auto No
Name	Text
Add	Text
Course	Text
Fee	Currency
D_O_B	Date/Time
Remark	Memo
Picture	Ole object
Link	Hyperlink
Pin code	Number
Regular	Yes/no

- Click on datasheet view
- \triangleright Enter the records

Roll	Name	Add	Course	Fee	D_O_B	Remark	Memo

Field Type in Ms-Access

Ms-Access is a RDBMS which used to maintain database for specific organization. Database is a collection of records with multiple tables based on specified structure of tables by the user needs.

Primary element of table is fields. There are following types of field's data type as given below:-

Text field:-

This data type is use for holds text (A to Z) number (0 to 9) and any other symbols. This data type can store no. of character up to 1 to 255 characters.

Memo:-

This data type is same as text data type it storage capacity is 32000 characters.

Number:-

It has classified in to five categories:-

- Byte:-Number data type can store 0 to 9 digits only. Where byte can store value from 0 to 255 numbers without decimal.
- Integer: It has capacity 2 bytes.
- Long Integer: It has capacity 4 bytes.
- Single: It has capacity 4 bytes.
- **Double:** It has capacity 8 bytes.

Date/Time: - This data type has store to capacity date/time for records.

There are following categories of date/time:-

General Date	6/19/2007 5:34:23 PM
Long Date	Tuesday, June 19, 2007
Medium Date	19-Jun-07
Short Date	6/19/2007
Long Time	5:34:23 PM
Medium Time	5:34 PM
Short Time	17:34

Currency: - This data type use for store money value.

Auto Number:-It is used to store auto serial number from 1 and increase value one by one. This data type records cannot modify.

Yes/No:-This is logical data type which use to store logical value only i.e. Yes/No.

Ole object:-This data type is use to store image from Microsoft cup gallery from specified path by the user.

Hyperlink:-It is use to hold hyperlink address that go to website database objects or other field.

How to protect your database file?

Process:-

- Firstly close your database file
- Click on office button
- Click on open
- Select your database file
- ➢ Click on open button combo box Open ▼
- Click on open exclusive
- Click on database tools tab
- Encrypt with password
- Enter your password
- Reenter your password
- ➢ Click on ok

How to remove your password?

- Firstly close your database file
- Click on office button
- ➢ Click on open
- Select your database file
- Click on open button combo box open and click on open exclusive
- Enter your password
- Click on database tools tab
- Click on decrypt database
- Enter your password
- \succ Click on ok



CUSTOMIZE

In Ms-Access 2007 offers a wide range of customize option that allows you to make access work.

There are many types of customize: -

- > Popular
- Current Database
- > Datasheet
- > Object Designer
- > **Proofing**
- > Advance
- > Customize
- Popular: -It is used to change the color of ribbon and change the location of file saving.

Process: -

- Click on office button
- Click on access option
- Click on popular
- Click on color scheme and choose any color
- Click on default file location and click on browse button
- Select your path
- Click on ok
- ➢ Again click on ok
- Current Database: It is used to change the title bar name show the search bar for navigation pane and select the single click / double click.

- Click on office button
- Click on access option

- Click on current database
- Click on application title and enter your title
- Click on navigation pane
- Check on search bar and single click
- Click on ok
- Click on ok
- Datasheet: -These features are used to change the font color, size, background color etc.

Process: -

- Click on office button
- Click on access option
- Click on datasheet
- Define the font color, size, background color etc
- Click on ok
- Object Designer: These feature are used to modifying database object in Ms-Access including table.

Process: -

- Click on office button
- Click on access option
- Click on object designer
- Define the default font size and data type
- Click on ok
- Proofing: -This feature allows you to change automatically corrects formats the contents of the database.

- Click on office button
- Click on access option

- Click on proofing
- Click on auto correct option
- Click on replace box and type short word
- Click on with box and type full word
- Click on add button
- \succ Click on ok
- Click on ok
- Advance: -This feature allows changing the move the cursor in next field or next record.

Process: -

- Click on office button
- Click on access option
- Click on advance
- Check next record
- Click on ok

Customize: -It is used to add command in quick access toolbar.

- Click on office button
- \succ Click on access option
- Click on customize
- Select any command
- Click on add button
- Click on ok



Field Properties

As we know there are two view of table object i.e. design view and datasheet view. Design view of table object where user designs the structure of table as need. This view is divided into two parts i.e. main properties and field properties where in main panel user define name of field and data type and properties panel is used to define width and category of selected data type.

. **As for ex: -** By default text data type has capacity to enter 1 to 255 characters long but user can change according to need

student				
	Field Name		Data Type	
P	roll		AutoNumber	
	name		Text	
	add		Text	
	course		Text	
	fee		Currency	
	-			
6	eneral Lookup			
E	ield Size	255		
F	Format			
I	Input Mask			
	aption			
	Validation Pule			
L R	Validation Text			
F	Required No			

There are following field properties based on selected data type:-

- Field size: This field properties display for text & numeric field only. It is used to change size of selected data type.
 - Ex: Text (By default 50) but you can change value (10)
- ➤ Number ---→integer, byte, long integer, single, double.
- Format:-It is used to change the format of records based on selected data type, because there are available multiple categories of particular data type.

Ex: - Reg-date 05/05/05----->05-may-05 Fees: - \$5000 5,000 Currency Standard

Input mask: - It is used to specify the format in which the data must be entered. For ex: - If pin code must be displayed having a space in the middle then you have to define in field properties of pin code as given below.

Ex: - 000_000

Caption: - This field properties available with all fields. It is used to rename of selected field.

Ex: - st_name caption change it with student name now in datasheet view will display student name not st_name.

Default value: - It is used to repeat entered record of particular field in next record automatically.

Ex: - If there are all students belongs to address Chapra then you set Chapra in address field properties by default value.

Address By default ----Chapra

Validation rule: - It is used to specify conditions on particular field for enter of records. As for ex:- If you don't want to enter records of those students whose pending is greater than 1500 then

you define condition through validation rule field properties on pending fee.

Ex: - Pending----- validation rule<1500.

- Validation text: It is used to input message of validation rule.
 Ex: Validation text: Please enter the value <1500.
- Required:- It is used to set required Yes/No of particular field which field properties are yes you must be enter record on that field you don't left blank.

Filter and Query

UNIT-5

Here filter means display conditionally records from active table according to specified condition by the user.

There are two types of filter

- Filter (used in table object)
- Query (used in query object)
- Filter:-It is a part of filter method which helps to user about display filtered records.

Kinds of filter:-

- ➢ Filter by form
- ➢ Filter by selection
- Advance filter shorts
- Filter by form:-This method will hide all records first time then user needs to select any one record from particular field then click on toggle filter.

> Process:-

- Open table in datasheet view which you have to filter
- Click on home tab

- Click on advance
- Click on filter by form
- Now all records will hide you select specified records from particular field
- Click on toggle filter button
- Click on toggle filter
- Filter by selection:-It is a part of filter method which uses to display conditionally records based on the position of cursor point on particular field on particular record.
- Advance filter shorts:-It is a part of filter method which uses to display filtered records based on specified "And", "or" condition by the user.

- Click on home tab
- Click on advance
- Click on advance filter shorts
- Then a dialog box open



Field:	roll	fee	pending	fee_amt 🚽
Sort:			-	
Criteria:				
or:				

- Define the condition as you need
- Click on toggle filter
- Click on toggle filter

<u>Query</u>

It is an object of Ms-Access which uses to display filtered records based on specified condition by the user from table object data.

Process:-

- Click on create tab
- Click on Query wizard from ribbon
- Click on simple query wizard
- ➢ Click on ok
- Click on add to all button
- Click on next
- ➢ Enter any name
- Click on finished

<u>Form object</u>



It is an object of Ms-access which used to display of record in different layout i.e. horizontally, vertically, tabular, columnar etc. In form object where user can insert data from table and query object.

Form object provide data retrievable facility also (It means add new records, modify records).

Layout of form object:-There are different layout of form object:-

- Columnar: This layout display only one record at a time as vertically.
- Tabular:-This layout displays all records as horizontally with multiple records at the same time.
- Justify:-This layout is a combination of columnar and tabular layout.
- Datasheet:-It means display all records in the form of row and column.

View of form object:-Generally there are three types of form object.

- Design view:-It is user design view which does not provide any guideline to user step by step how to arrange field of table in form object.
- Form wizard:-Wizard-mean "User Friendly Guide" which provide guideline to user step by step how to arrange field of table with different layout and background color.

- Click on create tab
- Click on more forms
- Click on form wizard
- Select that table which you have to form to convert in form object
- Click on ok
- Click on add to all button
- Click on next
- Select any layout
- Click on next
- Select any background style
- Click on next
- Enter any name
- Click on finish button





<u>Report object</u>

Report is an object of Ms-Access which use to display of records sinle and more than one table in different layout.

User can insert table from two different object i.e. table object and query object.

Note:-This object does not provide data retrievable facility in this object data will be read only.

Layout of report object:-

- ➢ Columnar
- > Tabular
- ➤ Justify
- > Datasheet

We can prepare of report using

Design view and Report view

- Design view:-Where design view is user define which does not provide any guideline to user step by step.
- Report view:-Report wizard will provide guideline to user step by step how to make.

- Click on create tab
- Click on report wizard from ribbon
- Click on add to all button
- Click on next
- Click on next
- Click on next
- Select any layout
- \succ Click on next
- Select any background design

- Click on next
- Enter your report name
- Click on finish button.





<u>Macro</u>

It is an object of Ms-Access which has capacity to store from all objects. That is table, query, form, and report. The most important feature of this object when you open your file that will open in natural form.

Process:-

- Click on create tab
- Click on macro object from ribbon
- Define there name of object and table name

Action		Arguments
OpenTable		fee, Datasheet, Edit
OpenForm	-	fee, Form, , , , Normal
Form Name	fee	
View	For	m
Filter Name		
Where Condition		
Data Mode		
Window Mode	Nor	rmal

- Save it
- \succ Click on ok

<u>Switchboard</u>

It is an analysis of Ms-Access which uses to store data from form object, report object and macro object. Switchboard is not an object.

- Click on database tools tab
- Click on switch manager from ribbon
- Click on yes button
- Click on edit button
- \succ Then a dialog box open
- Enter your switchboard name

- Click on new button
- \succ Then <u>a dialog box open</u>

Edit Switchboa	ard Item	
<u>T</u> ext:	open student form	ОК
Command:	Open Form in Edit Mode	Cancel
Eorm:	irshad 💌	

- Click on ok
- Click on close
- Again click on close button

Relational Database

UNIT-9

As we know very well Ms-Access is a "RDBMS" which use to maintain database for specific organization for maintain a database user needs to create multiple related table and make relation between them based on key field.

Components of relational database:-

- ➤ Master table
- Transaction table
- ➢ Key field
- Primary key
- Foreign key
- Master table:-Those table where user enter unique records of organization. It is a collection of main records.
- Transaction table:-Those tables which use to maintain records of master table. Transaction table are depend on master table.
- Key field:-those fields which are common in every multiple table of database is called key field.
 - Like: st_id, Roll, Bank account no etc.

Key type:-There are two types of key in Ms-Access

- Primary key:-It is a rule which apply on that key field where you are confirmed. You have not to enter duplicates records. Generally this key is applied on master table.
- Foreign key:-This key is applied automatically apply on transaction table key field after created relation between master and transaction.
- Q:-How to make relation between master and transaction table?

- Create two tables in table object (student & fee)
- Click on database tools tab
- ➢Click on relationship
- \succ Then a dialog box open



- Select student table and click on add button
- Select fee table and click on add button

Student	Fee
Roll	Roll
Name	Pending
Add	Fee_amt
Course	Fee_date
Fee	

- Click on master table roll and drag into transaction table
- Click on create button



Process for pending-fee_amt:-

- Open your table in design view
- Mouse right click on fee_Amt
- Click on properties
- Click on event tab
- Click on "on lost focus"
- \succ Click on three ellipsis (...)
- Click on code builder
- Click on ok
- ➢ Write code as you need
- Pending=pending-fee_amt
- Click on save button
- Click on datasheet view
- ➤ Again click on datasheet view







How to send access data in Notepad?

Process:-

- Click on external tab
- Click on text file from export option
- Click on ok
- \succ Click on next
- Check any option like tab, comma, semi colon, other etc.
- Click on next
- Click on finish
- Check save exports steps
- Click on save exports

How to send access data in Ms-Word?

Process:-

- Click on external tab
- Click on Word from export option
- Click on ok
- Check save exports steps
- Click on save as and enter your file name
- \succ Click on save exports

How to send access data in Ms-Excel?

- Click on external tab
- Click on Excel from export option
- Click on ok
- Check save exports steps
- Click on save as and enter your file name
- Click on save exports

How to create Mail Merge through Ms-Access?

Process:-

- ➢ Open Ms-Word
- Create main file
- Save this file
- Open Ms-Access
- Create the table
- Click on external tab
- Click on export more drop down list
- Click on Merge it with Ms-Word
- \succ Then a dialog box open
- Check link your data an existing Microsoft Word Document
- \succ Click on ok
- ➢ Select your main file
- Click on open
- Then Ms-Word application open
- Click on insert merge field and insert field name one by one
 - o <<Name>>
 - \circ <<Add>>
 - < << Course >>>
 - 0 <<fee>>
- Click on preview result
- Click on finish merge
- Click on edit individual document
- Then a dialog box open
- Click on ok

Dim A As Integer

 $A = Shell("D:\Program Files\Microsoft Office\Office12\WINWORD.EXE", vbNormalFocus)$