1.WHAT IS MICROSOFT ACCESS?

MICROSOFT ACCESS IS A DATABASE MANAGEMENT SYSTEM OFFERED BY MICROSOFT.IT USES THE SYSTEM OFFERED BY MICROSOFT.IT USES THE MICROSOFT SET DATABASE ENGINE AND COMES AS A PART OF THE MICROSOFT OFFICE SUITE OF APPLICATION.

MICROSOFT ACCESS OFFERS THE FUNCTIONALITY OF A DATABASE AND THE PROGRAMMING CAPABILITIES TO CREATE EASY TO NAVIGATE CAREERS(FORMS)

DATABASE FILE: IT IS A FILE WHICH STORES THE ENTIRE DATABASE.THE DATABASE FILE IS SAVED TO YOUR HARD DRIVE OR STORAGE DEVICES.

DATA TYPES: DATATYPES ARE THE PROPERTIES OF EACH FIELD.EVERY FIELD HAS ARE DATA TYPE LIKE TEXT, NUMBER, DATA, ETC.

TABLE:

. A TABLE IS AN OBJECT WHICH STORES DATA IS ROW & COLUMN FORMAT TO STORE DATA.

. A TABLE IS USUALLY RELATED TO OTHER DATA IN THE DATABASE FILE.

. EACH COLUMN MUST HAVE A UNIQUE NAME.

. WE CAN ALSO DEFINE PRIMARY KEY IN A TABLE.

WHAT IS PRIMARY KEY?

A PRIMARY KEY IS A RULE WHICH ENSURES THAT UNIQUE DATA IS ENTERED FOR THE FIELD & THE FIELD IS NOT LEFT BLANK.THIS IS THE FIELD THAT WOULD IDENTIFY A RECORD UNIQUE IN TABLE.

WHAT DO YOU MEAN BY FOREIGN KEY?

THE COMMON FIELD IN CHILD TABLE THAT MAINTAINS RELATION WITH MASTER TABLE IS FOREIGN KEY.

OTHERS DATABASE MANAGEMENT SOFTWARE

EX=ORACLE, MICROSOFT SAL SERVER, MARIA DE ETC.

WHAT IS DATA?

A PRESENTATION IS A FACT OR INFORMATION ABOUT PARTICULAR ENTER.

EX: -SANJOY IS A STUDENT.

(SO, DATA IS NAME, ROLL, CLASS, SEC, MARKS, SUBJECT)

WHAT IS DATABASE?

A DATABASE COLLECTION OF INTERRELATED DATA OF ORGANIZATION WHICH CONTAINS INFORMATION ABOUT A PARTICULAR ENTERPRISE.

EX.-HOSPITAL CENTER.

WHAT IS RELATIONSHIP?

A RELATIONSHIP HELPS THE USES TO COMBINE DATA FORM ONE OR MORE TABLE.

HOW MANY TYPES ARE RELATIONSHIP?

1.ONE & ONE RELATIONSHIP.

2.ONE TO MANY RELATIONSHIP .

3.MANY & MANY RELATIONSHIP.

MS ACCESS COMMON DATA TYPE ARE LISTED BELOW:

TYPE OF DATA	DESCRIPTION	SIZE
SHORT TEXT	TEXT INCLUDING NUMBER DOES NOT NEED CALCULATION EG , MOBILE NUMBER	UPTO 255 CHERACHTERS
LONG TEXT	THIS DAT TYPE IS USED FOR LENGTHY TEXT ALPHANUMERIC DATA	MAXIMUM 63,999 CHARATERS
NUMBER	NUMERIC DATA TYPE USED FOR STORING MATHEMATICAL CALCULATIONS	1,2,4,8 AND16 BYTES
DATE / TIME	STORE DATA /TIME FOR THE YEARS 100 THROUGH 9999	8 BYTES
CURRENCY	IT ALLOWS YOU TO STORE CURRENCY VALUES AND NUMARIC DATA WITH ONE TO FOUR DECIMAL PLACES	8 BYTES

AUTO NUMBER	ASSIGH A UNIQUE NUMBER OR ASSIGNED BY MICROSOFT ACCESS WHEN ANY NEW RECORD IS CREATE USALLY USED AS THE PRIMARY KEY	4 BYTES IF IT IS SETAS A REPLICATION ID
YES / NO	IT ONLY STARES LOGICAL VALUES YES AND NO	1 BIT
ATTACHMENT	IT STORES FILES , SUCH AS DIGITAL PHOTOS ,MULTIOLE FILES CAN BE ATTACHED PER RECORD	UPTO 2GB DATA CN BE STORED
OLE OBJECT	OLE OBJECT CAN STORE AUDIO , VIDEO OTHER BINARY LARGE OBJECT	UP TO 2 GB DATA CAN BE STORED
HYPERLINK	TEXT OR COMBITIONS OF TEXT AND NUMBERS STORED . THAT TEXT IS USED AS HYPERLINK ADDRESS	EACH PART OF A HYPERLINK DATA TYPE ALLOWS YOU TO STORE A MAXIMUM 2048
CALCULATE	HELPS YOU TO CREATE AN EXPRESSION THAT USES DTA FROM ONE OR MORE FIELDS	TOU CAN CREATE AN EXPRESSION WHICH USES DATA FROM ONE OR MORE FIELDS

WHAT IS ONE TO ONE RELATIONSHIP?

 THIS RELATIONSHIP IS USED TO RELATE ONE RECORD FORM A TABLE TO ONE AND ONLY ONE RECORD IS ANOTHER TABLE

ONE TO ONE RELATIONSHIP CONDITIONS

1.AT LEAST TWO TABLES.

2.TABLE WILL BE BLANKED.

3.PRIMARY KEY MUST.

TABLE NAME- DETAILS   **TABLE NAME SALARY**

E-ID(PK)   E-ID(PK)

E-NAME   DEPT

ADDRESS   POST

WHAT IS ONE TO MANY RELATIONSHIPS?

IN THE RELATIONSHIP ONE RECORD FROM A TABLE HAS A POTENTIAL TO BE RELATED TO MANY RECORDS IN ANOTHER TABLE.

ONE TO ONE MANY RELATIONSHIP CONDITIONS

1.AT LEAST TWO TABLES.

2.AT LEAST ONE COMMON FIELD IS REQUIRED IN TWO TABLES.

3.RELATION WITH PRIMARY KEY & FOREIGN KEY.

TABLE NAME: STUDENT	TABLE NAME: RESULT
S_ID (PK)	S - ID
S_NAME	ROLL(PK)
S_ADDRESS	MARKS

WHAT IS MANY TO MANY RELATIONSHIPS?

MANY TO MANY RELATIONSHIPS OCCURS WHEN MULTIPLES RECORDS IN A TABLE ASSOCIATED WITH MULTIPLE RECORDS IN ANOTHER TABLE.

MANY TO MANY RELATIONSHIP CONDITIONS

1.AT LEAST THREE TABLES.

2.AT LEAST ONE COMMON FIELD IS REQUIRED IN TWO TABLES.

3.IT IS A COMBINATION OF ONE TO ONE AND ONE TO MANY RELATIONSHIPS.

WHAT IS QUARRY?

A QUERY IS A STATEMENT THAT RELATE THE INFORMATION FROM A TABLE OR DATABASE.

IT IS VERY USEFUL RELATIONAL DATABASE CAN ENTRY DATA AND SEE IT, ALSO CAN MODIFY THE DATA.

➢ QUERICE ANSWER A QUESTION BY SELECTING AND SORTING AND FILTERING DATA BASED ON SEARCH CRITERIA.

➢ QUERICES SHOW A SELECTION OF DATA BASED ON CRITERIA(LIMITATION) YOU PROVIDE.

➢ QUERIES CAN FULL FORM AND OR MORE RELATED TABLES AND OTHER QUERIES.

DIFFERENT TYPES OF QUERY

1.SELECT QUERY

2. CROSSTAB QUERY

3.ACTION QUERY

4.SQL QUERY

5.PARAMETER QUERY

DIFFERENT TYPES OF ACTION QUERY: -

1. Update query creates the updated version of table.

2. Append query it adds record.

3. Make table query:it adds a new table.

4. Delete query: it deletes record.

FORM: -

A form is a database object that you can use to create a user interface for a database application.

HOW TO CREATE QUERY?

At first create table-and full file—add primary key-go to create tab-quarry design-show quarry table-choose any table-add-close-choose any file name-drag it-and show the table go to run option.

FULL FORM OF SQL?

Structure quarry language

DDL (Data definition language)
DML (Data multipulation language)
DCL (Data control language)

<u>Data definition language</u>

Data definition language can be defined as a standard for commands through which data structures are defined. It is a computer language that used for creating modifying the structure of database objects, such as tables, views, index etc. Additionally, it assists in storing the metadata details in the database.

SOME OF THE COMMON DATA DEFINITION LANGUAGE COMMANDS ARE:

Create -to design a table

Alert-to modify the table structure

Drop-to delete a table.

DDL

Create   table   table name (s_ID   varchar (10), s_name char (10) Address varchar (100), p_no char (10)☐go to run.

TRUNCATE: -is used to remove all records from a table, including all spaces also created for records are removed.

COMMENT: -IS used to comment to the data dictionary.

ALTER: -
- Alter table   table _name Add field_ name (for adding a new column)
- Alter   table table _name DROP field_ name (for deleting a column.)

DROP: -

   Drop   table   table name.

DML (DATA MULTIPLICATION LANGUAGE)

A data multiplication language (DML)is a computer programming language used for adding (inserting), deleting, modifying (updating)data and can select specific fields or entries on the table.

SOME OF THE COMMON DATA MANIPULATION LANGUAGE COMMANDS ARE: -

- Select
- Insert
- Update
- Delete

SELECT: -Search a data

INSERT: - Insert a new record

UPDATE: - Modify the record

DELETE: - Delete a record.

Select: -

Select field1 field2……. From tab tab name.

SELECT WITH CONDITION: -Select field1, field2…. from tab name where field name – "condition"

INSERT: - insert into table _name values ("field1-value", "field2—value," "field3 ___value" ------)

Ex: -insert/ into/ student values ("s001"," Anamika"," Barrackpore")

UPDATE: - Update tablename   set   new value where condition

Ex: -update   student   set   s__add= "Kolkata" where s__ID=" s005"

DELETE: - Delete from table _name where field name =" condition"

Ex: -Delete from student where (s__ID=" SOO4")

TYPES OF SQL COMMAND

DDL	DQL	DML	DCL
Gaeta	Select	insert	Grant
Alter		Update	Revoke
Drop		Delete	
Rename		Merge	
Truncate		Call	
Comment		Explain plan	
		Lock table	

DCL:-(Data control language) Dcl includes commands such as Grant and Revoke which mainly deals with the rights, permissions and other controls of the database system.

EXAMPLES OF DCL COMMANDS: -Grant gives users access privilege to the database.

REVOKE: -Withdraw users access privilege given by using the Grant command.

DIFFERENT BETWEEN ACCESS AND EXCEL: -

Microsoft Access and Excel are very similar yet very different. Here are some important difference points between both of them.

ACCESS

EXCEL

Deals with text number files

Microsoft Excel generally deals with

And all kinds of data.

Numeric data.

All the data is stared one time in one place.   Lots of
worksheet or or documents are a

Helps you to build a highly functional data   store
with similar repeated data.

Entry forms are report templates.   Only
the primary data entry screen is

Available.

User will be able to enter the data more efficiently   Data
accuracy and speed is not much

And accurately.

Because of the format.0

ADVANTAGE OF MS ACCESS: -

Here are the pros/benefits for using an MS Access application.

- Access offers a fully functional relation database management system in minutes.
- Easy to import data from multiple sources into Access.
- You can easily customize Access according to personal and company.
- Access works with many of the development languages that work on Windows 5.
- It is robust and flexible, and it can perform any challenging office or industrial database tasks.

- MS access allows you to link to data in its existing location and use it for viewing, updating querying and reporting.
- Allows you to create tables, quarries, form and reports and connect with the help of Macros.
- Macros in access is a simple programming construct with which you can use to add functionality to your database.
- It can perform heterogeneous joins between various data sets stored across different platforms.

HOW TO APPLY APPEND QUERY?
1. At first create 2 tables.

2. Go to quarry designed.

3. Select file table name and ebb.

4. close.

5. Drag file name.

6. Go to design make table choose unfiled table name.

7. Run then ok.

8. Go to run.

DISADVANTAGES OF MS-ACCESS?

Here are the cons for using MS access.

1.Microsoft Access is useful for small to medium business sectors. However, it is not useful for large sized origination.

2.Lacks robustness compared toDBMS systems like MS SQL server or grade.

3.All the information from your database is saved into one file. Your database is saved into one file. This can slow down reports, queries, and forms.

4.Technical limit is 255 concurrent users. However, the real-world limit is only 10 to 80(depending on the type of application WHICH YOU ARE USING)

5.It requires a lot more learning and training compared with other Microsoft programs.

WHAT IS THE KEY FIELD?
A common field on which two tables are linked is known as key field.
WHAT IS A RECORD?

A record is complete information about a subject. A record is a collection of fields and presented as a row in a table of database.

WHAT IS QUARRY?

A quarry is a question about data in a database. It results in a set of data from the database that can be used as a source of record for reports and forms.

WHAT IS REPORT?

A report is an object in MS ACCESS that is used to view and print data. Though a report is similar to a form it specially lies. In special features like help to summarize data.

WHAT ARE THE ELEMENTS OF A DATABASE?

The majan six elements of a database are table queries, form, reports, Macros, Modules.

MARKSHEET

SUBJECT: -Fill up file name any subject name.

TOTAL:-(sub1) +(sub2) +(sub3) +(sub4)—ok.

AVERAGE: -Total/4

WHAT ARE THE DIFFERENT NUMBER FIELD TYPES IN ACCESS?

The different number field types are Byte Intern Long Single   Bauble.

WHAT ARE THE TEN FIELD TYPES IN ACCESS?

Text Memo Number Data/Time Currency Autonumber Yes/No

OLE Object Hyperlink Lookup Wizard.

HOW TO APPLY QUERS TAB QUARRY?

At first type field name⯀-Go to create tab-query tab query wizard Ok⯀-Choose table-⯀next-choose heading-Next-choose Name⯀Next-choose field and function-next⯀-view the quarry⯀finish.

SALARY SHEET: -

Basic⯀Number select

DA=calculation (Basic)*10/100⯀ok

TA=calculation (Basic)*20/100⯀ok

HRA=calculation (Basic)*30/100⯀ok

GROSS=calculation (Basic)+(DA)+(TA)+(HRA)⯀ok

Pf=calculation (Gross)*50/100⯀ok

Net=calculation (Gross)-(pf)

HOW TO SHOW PROJECT TOOLBOX?

Click on view⬜Toolbox

HOW TO CREATE NEW FORM?

CLICK on project tab⬜Add form-⬜click on form⬜open

HOW TO SET FORM?

CLICK on project tab⬜project properties⬜start of object⬜select from open

HOW TO SAVE FROM AND PROJECT?

Click on file click on save from 1 as select location type the file name close yes file name save.