

<b>What is Data?</b>	Data can be anything like a name of person rollno of student or name of a city.
<b>What is Information?</b>	When Data is in meaning full way or related with each other its called Information.
<b>What is Database?</b>	Database is an organized collection of related information.
<b>What is DBMS?</b>	DBMS stands for Database Management System. The system which collect data from user and manage that data properly, is called Database Management system.
<b>What is RDBMS?</b>	RDBMS stands for Relational Database Management System. RDBMS is advance feature of DBMS. RDBMS provide the facility to create a relation between two tables.
<b>What is FILE ?:-</b>	In FoxPro File is a collection of records and fields. Row represent record and column represent field.
<b>What is RECORD ?:-</b>	Data is stored in one horizontal line of database is called record. In other words Record is a collection values in fields of table.
<b>What is FIELD ?:-</b>	Field is a basic part of any database column is also called field but in a perfect way <u>Field is a collection of data of same type and nature.</u>
<b>What is Col. Width?</b>	The number of digit you specify with each fieldname is called column width.
<b>What is FoxPro?</b>	FoxPro is one of the leading DBMS(Database Management System) software for pc. This is enhanced version of the FoxBASE+ Software FoxPro is also called RDBMS software.
<b>DBMS software:-</b>	1.Dbase      2.Foxpro      3.Foxbase
<b>RDBMS software:-</b>	1.Oracle      2.Foxpro      3.MySQL server      4.MS Access
<b>Extension of FoxPro:-</b>	1) '.txt' 2) '.dbf' 3) '.prg' 4) '.scr' 5) '.frx'

## What is FoxPro?

FoxPro is one of the leading DBMS(Database Management System) software for pc. This is enhanced version of the FoxBASE+ Software FoxPro is also called RDBMS software.

**DBMS software:-** 1.Dbase 2.Foxpro 3.Foxbase

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### ✦ Rules to create a new file:-

1. Filename must start with an alphabets
2. Filename has maximum of eight characters.
3. Filename has only alphabets (A to Z, a to z, "\_" underscore , 0 to 9 digit)
4. In Filename there must be no white space.
5. Filename must be unique. we can not type the same name as we type earlier.

### ✦ Rules to create a New Field:-

1. Fieldname must start with an alphabets
2. Fieldname has maximum of ten character long
3. Fieldname has only alphabets (A to Z, a to z, "\_"underscore , 0 to 9 digit)
4. In Fieldname there must be no white space.
5. Fieldname must be unique.

## Difference between DBMS and RDBMS:-

DBMS	RDBMS
1. DBMS stands for Database Management System.	1. RDBMS stands for Relational Database Management System.
2. In DBMS we cannot create relation between two tables.	2. RDBMS provide facility to create relation between two tables.
3. DBMS may satisfy less than 7 to 8 rules of Dr.E.F.Codd.	3. DBMS may satisfy more than 7 to 8 rules of Dr.E.F.Codd.
4. In DBMS there is no security of data.	4. In RDBMS there are multilevel of security. (1) Logging in at o/s Level (2) Command Level (3) Object Level
5. Each table is given extension of DBMS	5. Many tables are grouped in one database in RDBMS.
6. DBMS use a 3GL.	6. DBMS use a 4GL.
7. Ex. of DBMS are Dbase, FoxBASE, Foxpro	7. Ex. of RDBMS is Oracle, Access, SQL server.

## Data types available in FoxPro

### 1. Numeric:-

Numeric datatype is use to store numeric data into a field. We can store 0 to 9 digit, decimal point and plus or minus sign. A numeric field can hold upto 20 digit wide. A numeric fields can also have a decimal part. The decimal part can be upto 0 to 18 digit. To store a field like Roll\_no, mobile\_no, phone\_no, salary, pincode etc numeric field type is used.

### 2. Float :-

Float datatype is similar to numeric. Difference between two is that for arithmetic calculation numeric datatype is used while float is used for scientific calculation. It can also hold upto 20 digit wide. We can store 0 to 9 digit, decimal point and plus or minus sign. To store the fields like Rate, percentage, average float is commonly used.

### 3. Character :-

Character datatype is use to store string type information. It can store A to Z , a to z alphabets 0 to 9 digit and underscore with special symbols etc. To store the fields like name, address, result etc character is used. Character is default datatype for all the fields. In Character data type we can store upto 254 character. Default size of character is 10 fix.

### 4. Date :-

Date datatype is use to store date in any field. The default format of date is (mm/dd/yy). The fix length of date is 8.To store the fields like Dob, doj, ex\_date etc date field is used.

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### **5. Logical :-**

The length of logical field is 1. we can store 'T' or 'F' or 'Y' or 'N' in logical field. 'T' or 'Y' for true and 'F' and 'N' for False. To store the information like pass/fail, absent/present etc. logical field type is used.

### **6. Memo :-**

Memo field is special field of FoxPro in which you can store any amount of data. Memo field is use to store long textual information. The name of memo file has '.fpt' extension. FoxPro allocates a ten bytes space in main dbf to store the location of memo data is in auxiliary memory.

### **7. General :-**

General field is use only for FoxPro for window version. In general field we can store textual data, picture, sound etc.

Note :- In FoxPro picture field type is not used.

## Simple commands of FoxPro:-

### 1. Creat command:-

Create command is use to create a new database file in FoxPro. We have to specify the name of file after the create keyword.

Syntax : creat <tablename>

Example : creat student

### 2. Clear command:-

Clear command is use to clear the screen.

Example : clear

### 3. Dir command:-

Dir command is use to see all the database file list of your current folder.

Example : Dir

### 4. Append command:-

Append command is use to append a new record in your table.

Syntax : append [blank]

Example : append

### 5. Display structure command:-

Display structure command is use to display a structure of your currently open table.

Example : disp stru

### 6. Modify structure command:-

Modify structure command is use to modify the structure of your currently open table.

Example : modi stru

### 7. Use command :-

Use command is use to open a your table in current work area. Use command is also use to close currently open table is well.

Syntax : use <tablename>[in <expn>/<workareaname>]

Example : creat student

### 8. Insert command:-

Insert command is use to insert a new record in database file. We can insert blank record through insert command. Before clause is use to insert a record before the current position.

Syntax : insert [Before][Blank]

Example : insert before

### 9. Display command:-

Displays the contents of records in the current table/.DBF and the results of expressions.

Syntax : Display[[FIELDS] <field list>]

[<scope>]

[FOR <expL1>]

[WHILE <expL2>]

[OFF]

[[FIELDS] <field list>] Clause:- All fields from the table/.DBF are displayed unless you include

FIELD NO. FIELD NAME FIELD TYPE FIELD LENGTH FIELD DECIMALS

## 10. List command :-

List command displays all the records of currently open table and the result of expression.

Syntax:-           List   [[FIELDS] <field list>]  
                          [<scope>]  
                          [FOR <expL1>]  
                          [WHILE <expL2>]  
                          [OFF]

### **[[FIELDS] <field list>] Clause:-**

All fields from the table/.DBF are displayed unless you include FIELDS <field list>. Then, only the fields included in the field list are displayed.

### **[<Scope>] clause:-**

The scope clauses are:

[1] ALL [2] NEXT <expN>    [3] RECORD <expN>    [4] REST

You can specify any scope of records to display. Only the record that fall with in the range of records specified by the scope are displayed. The default scope for LIST is the ALL record.

### **FOR<expL1>] clause:-**

Including the FOR clause lets you conditionally display records, filtering out undesired records. If the FOR clause is included, only the records that satisfy the logical condition <expL1> are displayed.

### **[WHILE <expL2>] clause:-**

If the WHILE clause is included, records are displayed for as long as the logical expression <expL2> evaluates to true.

### **[OFF] clause:-**

Include OFF to suppress record number display. If OFF is omitted, the record number is displayed before each record.

## 11. Edit /Change command:-

Edit or Change command is use to edit the record which are inserted before by us.

Syntax:-           Edit   [[FIELDS] <field list>]  
                          [FOR <expL1>]  
                          [WHILE <expL2>]  
                          [FREEZE<fieldname>]  
                          [NO APPEND][NO DELETE]  
                          [NO CHANGE | NO MODIFY]

### **[[FIELDS] <field list>] Clause:-**

<b>Display</b>	<b>List</b>
1. Default scope of Display command is current record.	1. Default scope of List command is all record.
2. Display command displays the record pagewise.	2. List command does not displays the record page wise.
3. Display command displays the field headings when there are more than one page record.	3. List command does not displays the field headings when there are more than one page record.
4. Display command displays the records which are marked for deletion when set deleted is on.	4. List command displays the records which are marked for deletion when set deleted is on.

<b>Edit</b>	<b>Browse</b>
1. Edit command will display the output in the format of Row wise that is like a append screen.	1. Browse command will display the output in the format of Row and column wise that is like a table.
2. The edit command does not have width option.	2. The browse command have width option.
3. Edit command is little bit difficult because for each and every modification you need to reach to a particular record. So it is time consuming.	3. As you can show all the record at a time, it is easy process for modification.
4. Edit command does not support toggle delete or to insert a new record.	4. Browse command allows you to delete record as well as to append record.

<b>Sorting</b>	<b>Indexing</b>
1. Sorting a database file create a new database file.	1. Indexing a database file creates an index file.
2. Sorting help us to search the desired information quickly.	2. The indexfile helps us to search information where a particular record is available.
3. Sort command is automatically attached with '.dbf' extension.	3. Index command is depend on type to attached with '.ecx' or '.idx' extension,
4. The sort file is bigger in size than the index file.	4. The index file is smaller in size than the sorted file.
5. Sorting is a slow process.	5. Indexing is a faster process.