

Question

Remains

- 11 Start Note on → Treeview, List View, Image List, Tab Strips, Slider Control, Toolbars.
- 12 Describe five type of text box.
- 13 Start note on DAO.
- 14 Define option button with example.
- 15 Start note on Masked Edit Control box.
- 16 What is object oriented lang. Is VB is object oriented?
- 17 Difference between High and low level.
- 18 Difference between Event and procedure oriented.
- 19 What is menu editor.
- 20 Difference between Traditional and Visual Programming.
- 21 What is recordset? Explain.
- 22 What is ActiveX Control. Explain.
- 23 Describe OLE? Explain.

V.A.P.K. Gupta

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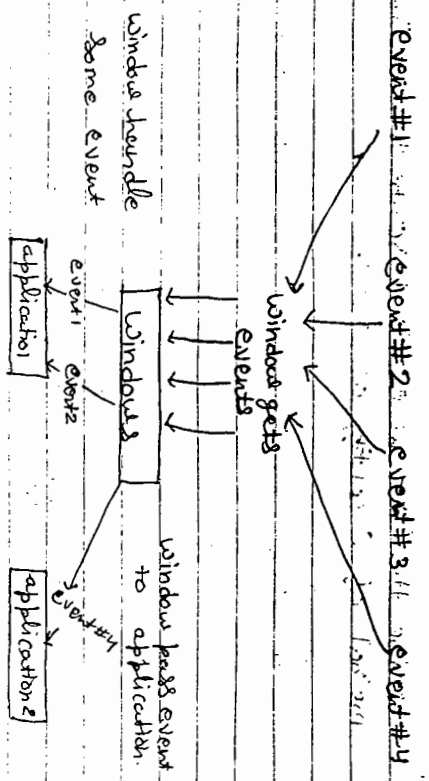
Q- Describe the various events. Describe the various method of Creating an event.

Ans → An event is an activity that occur during a Program execution such as a mouse click or Key stroke. Event determines the Control reactions to external Conditions. Control recognize events but your application handle them. A Command button will recognize that it was clicked but it won't react to the event unless you provide some code. In other word you must tell VB what to do when the user clicks the specific button. Once you specify a Subroutine for the Control click event, this Subroutine execute each time the Control is click. The Subroutine determines how a Control react to an event is called an event handler.

→ To write an event handle for Control follow two step.

- 1 Go to the Code window.
- 2 At the top of Code window there is two drop down list. The first contain the name of all Control and second list contain all events of selected Controls.

→ When window recognize an event it check that event is system event or not, but event directly needed by application window passes that event to the application.



→ window is a multitasking operating system. So more than one program can simultaneously run your program at the time event occurs and ignore all others. For example :-

→ If your program need occupying message at preset time your program will have to check timer event to see whether the correct time span has passed. If another program did not required timer event that program would ignore all timing event that window send it to.

Event procedure :-

- 1) When user click any of the Command button window recognize that an event just took place.
- 2) window analyses the event and realize that the event belongs to your application.

- 3) window passes the event and control to given application.

4) If your application has an event procedure written for the control that received the event, the event procedure code executes.

Common Control Event →

Here some common event can occur during an application executes.

- (1) Activate → This event occurs when a form get focus. If application contain multiple form the activate event occurs when the user change to a different form by clicking on a form or select form by menu.

- (2) Click → This event occurs when user click any where on the form. If the user click a form that partially hidden from view, because another form has the focus both click and activate event take place.

- 3) Dblclick → This event occurs when user double click the a form.

- 4) Deactivate → This event occurs when another form gets the focus. Both the activate and deactivate event occur when the user select a different form. you may change to write event procedure for both event for each form.

5) Initialize → This event occurs when the form is first generated.

6) Load → This event occurs right as the form is loaded into active memory and appears on the screen.

7) Paint → This event occurs when windows must redraw the form because the user uncovered part of the form from under another object such as icon.

8) Resize → This event occurs when the user changes the size of the form.

9) Unload → This event occurs when application removes a form from the window using code when an application is terminated all loaded forms are first unloaded.

Mouse Events →

The event triggered by mouse action are most common event in the programming with VB.

Click & DoubleClick → The click event takes place when the mouse button is pressed left button; the doubleclick takes place when user double-clicks the left mouse button.

②

MouseDown, mouseup → The mouse down event takes place when the mouse button is pressed, and mouseup event takes place as it is released.

MouseMove → This event takes place continuously as the mouse is moved over a control.

The order in which mouse events take place as follows:-

- 1) As the mouse moves around the mouse event is triggered continuously.
- 2) When the user presses a button the event is triggered.
- 3) If the user continues to move the mouse around while holding down the button the program keeps receiving mouse events.
- 4) When the user releases the mouse button, the mouseup event is triggered.
- 5) The left mouse button was held down the click event triggers immediately after the mouseup event.

Keyboard event → Keyboard events are generated by keystrokes. The keyboard events are KeyPress, KeyDown andKeyUp.

1) KeyDown → Key down event occurs whenever user presses a key. Therefore both the key down and key press event can occur at the same time.

(2) Key up → The Key up event occurs when every user releases a key.

(3) Key press → This event occurs when user holds down the key and keyboard auto repeat the character. The key press event always associate with what ever object has the focus. If no object has focus the key press event associated with the form.

The Key pressed key press event produces procedure always contain an integer. The definition of Key press event →

```
Private Sub Test_KeyPress(KeyAscii as Integer)
    End Sub.
```

Key ascii argument is the ascii character of key pressed.

Method :-

Objects have a method which are the actions they can carry out method as the actions of an objects. The form object for example know how to clean itself and you can invoke the cls method to clean a form. A form also knows how to hide itself an action that you can invoke from within your code with hide method.

1) Clean → The clean method tells the control to discard its contents. If the object is a listbox, the clean method removes all its item from the control. The clean method can also be applied to the clipboard object to clean its contents.

2) Move → All controls are visible at anytime provide a method that lets you move and resize them & within your application code.

Control.move, left, top, width, height.

Control is control name, left, top, are coordinate of upper left corner of control. new position and width, and height are the control new dimensions.

3) Additem, Removeitem → This methods are used to manipulate the item in listbox and control box control. The application doesn't know how the item are stored in the control. It issue the additem method and control take care of appending the new item in the list. They are the action each control can perform without any assistance from the programmer. Method hide the implementation details of control feature and programmer can exploit exploit feature by calling a method which is similar to setting a property value.

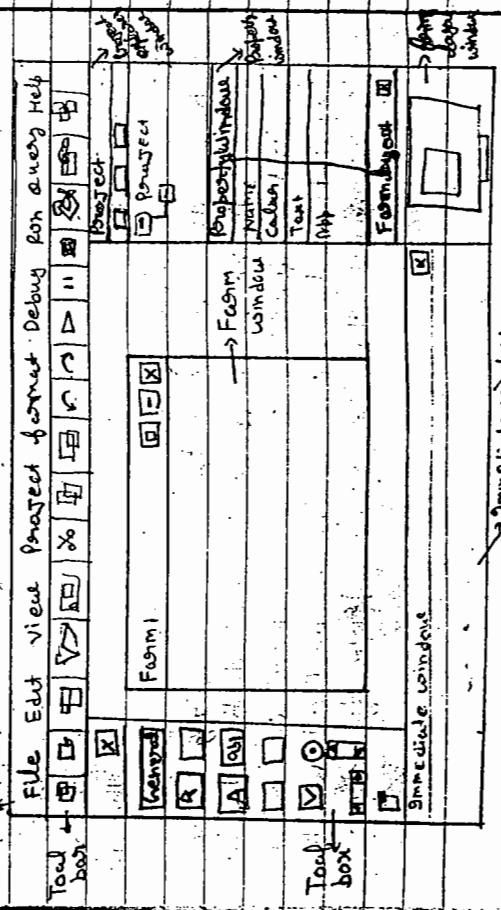
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Q-2 What do you mean by IDE (Integrated development environment)?

Ans -> Visual Basic is not just a language. It's an integrated development environment in which you can develop, run, test, and debug your application with the visual basic you can create following type of application.

- 1 Standard Exe
- 2 ActiveX exe, ActiveX DLL
- 3 ActiveX Control
- 4 ActiveX Document Exe, ActiveX Document DLL
- 5 VB application wizard
- 6 Data project
- 7 DHTML Application
- 8 ITS Application
- 9 Addin

In the visual basic IDE which is made up of a no. of components.



1. Menu Bar -> The menu bar contains the commands you need to work with visual basic. The basic menu are:-

- * File:- Contains the commands for opening and saving executable files and list of recent projects.
- * Edit:- Contains editing commands plus a no. of command formatting & editing.
- * View:- Contains commands for showing or hiding component of the IDE.
- * Project:- Contains commands that add component to the current project.
- * Debug:- Contains usual debugging commands.
- * Format:- Contains commands for designing the control on the form.
- * Run:- Contains commands for start breaks, and end execution of current application.

2. Tool bar:- Toolbars give you quick access to you commonly used menu commands.

- * Standard toolbar:- The standard toolbar is display by default. Just below the menu bar and
- * Edit toolbar:- It contains the commands of the edit menu.
- * Debug toolbar:- The debug toolbar contains the command of debug menu.

3. Toolbox -> The toolbox contains the icons of controls you can place on a form to create the application user interface. Toolbox contains the pointer icons and 20 ActiveX controls.

To place a Control on a form you first select it with the mouse and then move the mouse over the form when the mouse over the form the cursor turns into a cross, and you can move a control on a form. In the toolbox we can add more control from the component.

4 Project window → The window title is Project is displaying the component of the project.

Project window list its component in tree-structure listing. You can expand and shrink the detail by clicking plus and minus sign that appears to the next object groups. If we double click on a form that form form window appears in the window editing area.

- The Project window contains three buttons
1. Code window button
 2. View object button
 3. Toggle folder button.

5 Property window →

The property window contains the property settings for selected controls. Property are the attribute of an objects. Such as size, color and caption. Visual Basic sets the control initial for property values. When you display the property window for a control you can modify its values. Each property has a name you can work with particular property and each property has a value that you either VB assign.

6 Form layout window → The Form layout window is which is in the lower right corner of Visual Basic IDE, to determine the initial position of the form in your application. You can move forms around and place them on top of each other. These window is useful in application that uses multiple form because you can specify how form is positioned with respect to the main form.

7 Immediate window → The Immediate window is at the bottom of IDE. While application is running you can stop it and use the immediate window to examine and to change the value of application variable and to execute Visual Basic command in Immediate mode. Immediate window is one of the reason of popularity of VB.

8 Form window →

The form window is the main screen and in it you design and edit the application user interface. The same window display text editor in which you can enter and edit the application code. It display two windows.

1. Form itself
 2. Code window
- To switch between these windows click icons at the top of project explorer window.

Q → Explain a Control structure available in VB with Example.

Ans → An application needs a built in capability to test condition and take a different course of action depending on the outcome of test. Visual Basic provides many control structures.

1. If then → The most important statement in program is the If statement. It provides you application can begin to analyze data and make decision based on that analysis. The body of If can have more than one statement. The body after called the block.

Format:- If Conditional then

Block of one or more statement
End if

The Conditional is any expression that return a true or false result. The Conditional might be a Boolean variable. If and only if the condition is true does the code body of if execute.

If the code you write executed sequentially one statement after another. If your program be more decisive and execute only part of the program if the data warrants partial execution. The if body close with End if.

```
if (txtSales > 5000) then
```

```
    Bonus = txtSales * 0.12
```

```
    Sales = txtSales * 0.11
```

```
end if
```

2. If with else → A variation of the If-then statement is the If-then-else statement which execute one block of statement if condition is true and another if the condition is false.

```
if Condition then
```

```
    Statement block - 1
```

```
else
```

```
    Statement block - 2
```

```
end if
```

Else is optional part of if statement. Else specifies the code that execute if comparison test is false. Sometime If-else statement is called mutually exclusive statement.

VB evaluate a condition, if condition is true the first block is execute then jump to the end of statement. If condition is false VB ignore the first block of statement and execute the block of following keyword else.

```
if hours > 40 then
```

```
    Bonus = 400
```

```
else
```

```
    Bonus = 600
```

```
end if
```

3. Nesting If-else statement → If you embed If-else statement inside another If-else statement you have to use the else if to start the nested If statement.

If condition then
 Statement block-1
 else if Condition 2 then
 Statement block-2
 else if Condition 3 then
 Statement block-3
 else
 Statement block-4
 End if

The Condition are evaluated from the top, and if one of them is true, the corresponding block of statement is executed. The else clauses is executed if none of the previous expression are true.

If score < 50 then
 Result = "Fail"
 else if score < 75 then
 Result = "Pass"
 else if score < 90 then
 Result = "Very good"
 else
 Result = "Excellent"
 End if

4. Select Case → Select Case structure compare one expression to different value. The advantage of Select Case statement over multiple If-then-else statement is that it makes the code easier to read and maintain. The select case structure test a single

expression which evaluated once at the top of structure. The result of the test is then compared with several values. And if it matches one of them, the corresponding block of statement is executed. The case statement is useful when you must make several choice based on data value.

Select case expression
 Case value
 Block statement-1
 Case value
 Block statement-2
 Case value
 Block statement-3
 Case else
 Block statement
 End select.

5. Do-while loop → Do loop execute a block of statement for as long as condition is true. The condition in each do loop is an expression control as Boolean. There are two variation of Do loop statement.

- (1) Do while (condition)
 Statement block
 Loop
- (2) Do until condition
 Statement block
 Loop

A loop can be executed either while the condition is true or until the condition becomes true. These two variations use the keywords while and until to specify how long the statement are executed.

If condition is false the do while loop is skipped. When the loop statement is reached VB evaluates expression and repeats the statement block as the do while loop if the expression is true.

1. For loop → For loop executes a series of one or more statement a fixed no. of time or until a condition is reached. The for loop is a multiline statement.

For Counter = Start to end [Step: increment]
Statement
Next Counter

The keyword in square bracket is optional. The argument counter, start, end and increment are all numeric. On executing For-next loop VB complete following steps.

1. Set counter equal to start.
2. Test to see if counter is greater than end. If so exit the loop. If increment is negative VB test to see if counter is less than end.

3. Execute the statement in the block.
4. Increment counter by the amount specified with the increment argument.

5. Repeat the statement

For value = 0 to 1000 Step 100
Label.Caption = value
Next

1. While → The while-end loop executes a block of statement while a condition is true. The while-end loop has following syntax:-
While Condition
Statement-block
wend

If condition is true, all statement are executed and when the wend statement is reached control returned to while statement which evaluate condition again. If condition is still true the process is repeated. If condition is false the program resume with the statement following the wend statement.

number = 0
while number <= 20
total = total + number
number = inputbox("Please enter value")
wend

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Q = What do you understand By event driven programming?

Ans -> In the event driven programming the sequence of operation pass an application is determine by user interaction with the application interface. The event caused by the user determine the flow of the application.

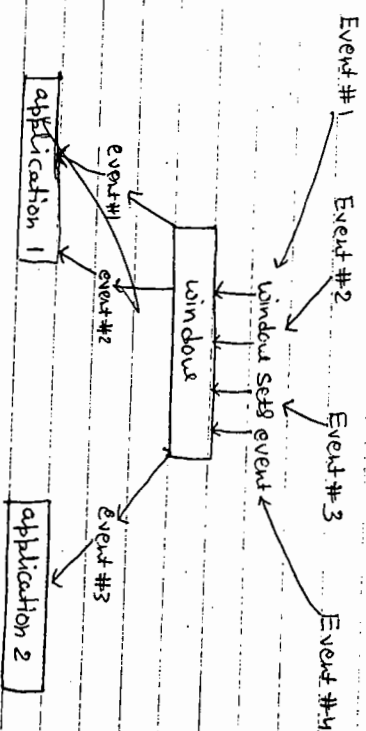
An event is an activity that occurs during a program execution such as mouse click or key-stroke. Event driven programming applied to programming that respond to window events. window handle a few event but passes most to program currently showing. window is a multitasking OS. So, more than one program can simultaneously your program must handle any and all events appropriate at the time the event occur and ignore all the others.

For example, if your program need to display a warning msg at a preset time interval your program will have to check the time event to see whether the correct time span has passed since the last warning. If another program running at the same time did not require the times the prog. could ignore all timing event.

A visual Basic program consist the visual interface that make up the window & control that the user sees and interacts with. In addition programming code connect everything

together. Each control is both automated and set up to respond to the programming code. eg a command button will visually show a click action when the user click the button with mouse with the mouse. when showing the program you have to do nothing more than place the button on the form for the button to operate.

Other aspect of the command button, however are other given control such as the besides the button that you can change although, VB assign default value.



Once we place control on a form and assign their individual property value we are ready to write programming code that responds to event. The same control can trigger several different kinds of events.

Q → What is Common dialog box Control. How it is created explain with example why it is used?

Ans → Common dialog box :- VB provide a special dialog box which perform six different actions such as :-

- (1) Open a file
- (2) Print a file
- (3) Save a file
- (4) Color a file
- (5) Font selection
- (6) Help about file

The more our application matches the look and feel of popular windows application such as Microsoft word the more likely your users will adopt quickly to our application. If we write SW to sell we know the imp. of user acceptance especially when it comes to convincing the user to purchase future upgrade.

Therefore when we write an application that open a file or prints to the printer we can do one of following.

- * Mimic the style of other application dialog boxes that perform the same tasks.
- * Write our own dialog box and improve the style of standard dialog boxes.

→ The Common dialog box Control is a Control we can add to our application

that produce one of several standard dialog box with very little effort on our part.

→ The dialog boxes that the Common dialog boxes Control produces are modal. A modal dialog box is one that the user must close by clicking OK or Cancel before user can continue with any other part of application.

Create Dialog boxes →

- (1) To add Common dialog box Control in the toolbox For this.

Project → Component → Microsoft Common dialog box.

- (2) Select the entry and click OK. The last Control in your toolbox will now be the Common dialog box.

- (3) Click on the Common dialog box then it

- create a object of Common dialog box class.
- (4) Double click on object of Common dialog box class and define the coding.

→ When we run the program the Common dialog box Control takes on the appearance of one of the dialog boxes listed. VB takes care of the dialog box display by putting the dialog box in the center of the screen no matter where we place the Common dialog Control on the form. We must apply one of the following method to the Common dialog box.

* Should calendar display the calendar selection dialog

Hand-drawn diagram of a 10x10 grid representing a 100-acre field. The grid is divided into four 5x5 quadrants. The top-left quadrant is labeled "Bottle Cakes". The top-right quadrant is labeled "Cakes" and "Boys". The bottom-left quadrant is labeled "Lain Dais". The bottom-right quadrant is labeled "Red Cinnamon". To the left of the grid, there is a 5x5 grid of squares, with the text "Cuborn Cakes" written to its left. To the right of the grid, there is a 5x5 grid of squares, with the text "Red Cinnamon" written to its right.

(Color selection dialog box)

Property \rightarrow Property of Color dialog box if flag value

Flag Value

Description:

- 0 Set the initial Calera value
- 1
- 2 Display Calera dialog box with custom
- 3
- 4 Prevent users from defining custom
- 5
- 6 Display help also.
- 7
- 8

* Font dialog box \rightarrow Show font display the font selection dialog box

Font

Font

Just

Font Size

size

Font Style

Bold

Italic

Regular

☐ strikethrough

☐ underling

OK

cancel

Property \rightarrow property of Font dialog box.

Eleg Value

Description

- | | |
|--------|---|
| 8 H100 | Ensure that the dialog box allows only font from the window character set |
| 8 H200 | Enable the dialog box apply-button |
| 8 Y000 | Ensure that the dialog box select only fixed pitch font |
| 8 H4 | Display the dialog box help button |

- * File Open dialog box → Show open displaying the file

Open dialog box. In this we specify the extension of the such as, text file, batch file etc.

[illegible]

* Save dialog box \rightarrow Shows Save dialog the save the file in any path as well as any extension such as .doc, .txt etc

* Help dialog box - Show help displaying the help dialog box. In this we can access any help file.

File Save

Save in:

List of file:

File name:

Save as icon:

* Print dialog box → Shows print details the print dialog box. In this we can setting the printer and printing page.

Print

Name:

Status: Ready

Type: HP Series

Comment: Copies

Print style: No. of copy:

Print selection:

① Difference between Image box and Picture box.

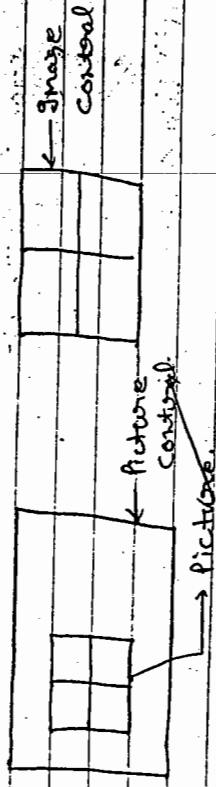
Ans → Image box and Picture box both do basically the same thing. They allow you to place picture from graphic file on a form. The difference of both are.

→ Image box → The Image Control is more efficient and work best in the sluggish application on slower pc.
→ Picture box → The picture box control offer more flexibility by supporting additional method and property.

Condition where image control is best or picture box is best.

(*) Memory management → Where memory is most or critical factor then we use image control because it contain less memory than the picture control.

(*) Provide more method or facility → Where memory is not critical but provide a various method then we picture control because it support more method then image.



9 Difference between Combo box and List box ?
A Combo box - List box Control occupies a

user specified amount of space on the form and is populated with a list of items. The user can select one or more items with the mouse. The item to be inserted in the list box through the code or list property in the property window. Each new item in the list property must be entered on a separate line. To change line press ~~ctrl~~ enter when you are done entering item press enter and the item will appear in the list box control on the form user can't enter data in a list they can only select item which will be manipulated by the application when they click a button or the some other actions.

A list box control display a list down form which the user can select one or more item. The user can't edit the data in the list box directly. VB add a vertical scroll when the list of data is too long for the list box.

Function for list box:-

iv clear -> The clear method remove all item from the control. It syntax is as following
list1.clear

(ii) list count -> This is the no. of item in the list. The item in the list can be accessed with the index value.

(iii) list -> This is an array that hold the list item. The element list(i) holds the first element of the list and so on.

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(iv) list index -> This is the index of the selected item in the list. If multiple items are selected, list index is the index of most recent selected item. This list property can be used to access specific element in the list.

Combo box :- Combo box are those control that usually display a text box and a drop down list. This control also contain multiple item but occupies less space on the screen. The combo box is expandable list control. The user can select expand it to make a selection and retract it after the selection is made. The main advantage is user can add new information. The Combo box are three types.

1 VB Combo drop down (1) -> Drop down Combo include a drop down list a text box. The user can select from the list box

2 VB Combo simple (1) -> Simple Combo box include a simple text box and a list

which doesn't drop down the user can select from the list as type in the text box. The size of simple Combo box includes both the edit and list portion. By default a simple Combo box is sized so that none of the list is displayed increase ~~height~~ property to display more of the list.

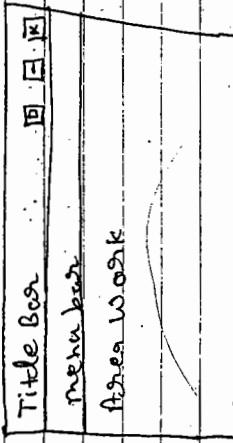
3 VB Combo drop down list (2) -> drop down list this style allow a selection only from the drop down list. This is a good one to keep in mind when we want want to

restrict the user input. If we want to use this one you should also consider simple list boxes.

Combo box:-	Text box, Control
	List box, Control

Q → What do you mean by SDI and MDI interface. Explain some MDI property and method with example.

Ans → SDI → SDI stands for single document interface. SDI limits our application to one open document window at a time. Most application that we write will probably be SDI application. For example - Notepad.



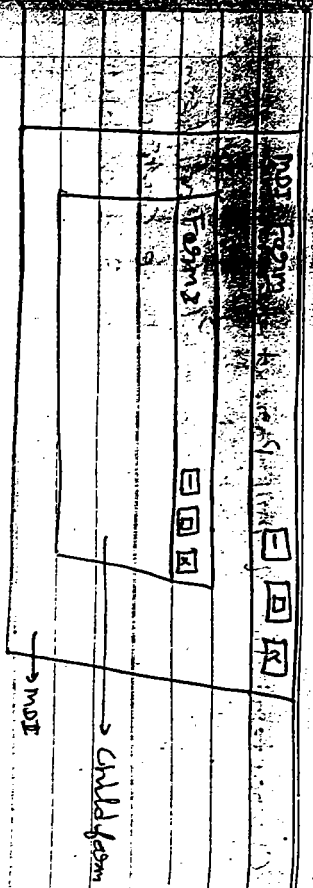
MDI → MDI stands for multiple document interface. It allows us application to contain multiple document windows. To effect the interface, let's our work with several set of data in multiple windows within our program. Each document window is called a child window. For example - msword etc.

Characteristic of MDI Parent form →

1. An application can have only one MDI form.
2. The MDI can contain only those controls that support the align property such as checkbox, scrollbar, control. We can't place other controls on MDI form.
3. We cannot use the print method or any other graphic method to display information on MDI form.
4. The MDI parent windows and all child windows are represented by a single icon on the window task bar. If the parent form is minimized then all child forms are returned to the same layout.
5. If a menu is defined for a child form the menu is displayed in the parent form menu bar. If a menu is defined for the parent form it is not shown at all. If a child form has its own menu in the active form.

Characteristic of MDI Forms →

1. Each child form is displayed within the confines of the parent form. A child form can't be moved outside the boundary of MDI parent form.
2. When a child window is minimized its icon is displayed in the parent window not on the window task bar.
3. When one child form is maximized all other child forms are maximized as well as.



Property of MDI →

(i) Arrange Property → VB provide offer these window on an MDI forms we can cascade them, title them vertically, horizontally. The user can resize and moves the window around but the automatically placement come in the handy when the MDI form became messy and user can rearrange easily.

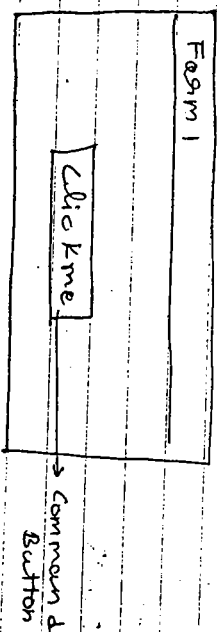
MDI Child → VB provide a facility to user or developer any form work as a child of MDI form as work as a separate value. startup position → VB provide other facility to the user and developer to specify the initial position of the form from those startup position.

Property	Value
Maximized	0
Center owner	1
Center Screen	2
Window default	3

Q = What do you mean by property, event and method. What is run time property?

Ans → Property → property are the attribute of an object such as color, size, caption, text etc. we can adjust the appearance of control on the form with point and click operation.

All characteristics of an object are also known as property. For example → we can set the string that appear on command button by locating the caption property in the property window and typing a new value such as "click me". To change the color of a form locate the back color property in the property window and click the arrow button next to the current value of color.



VB provide many type of property which are following as:

1. Appearance → In the property we can set the following active action value.

* Appearance - in this we can set the value as 3-D or flat.

- * Back color → In this we can set the back color of any object.
- * Border Style → In this we can set the border of any label or object. It's value are None, Fixed style, Fixed dialog.
- * Caption → In this property we can type any word on the command, or other object.

3 Behaviour → In this property we set the behavior of the form and any object.

- * Right to left → To set the words comes from left or right.
- * Visible → This property is used in run time. Any object see in run-time or not.

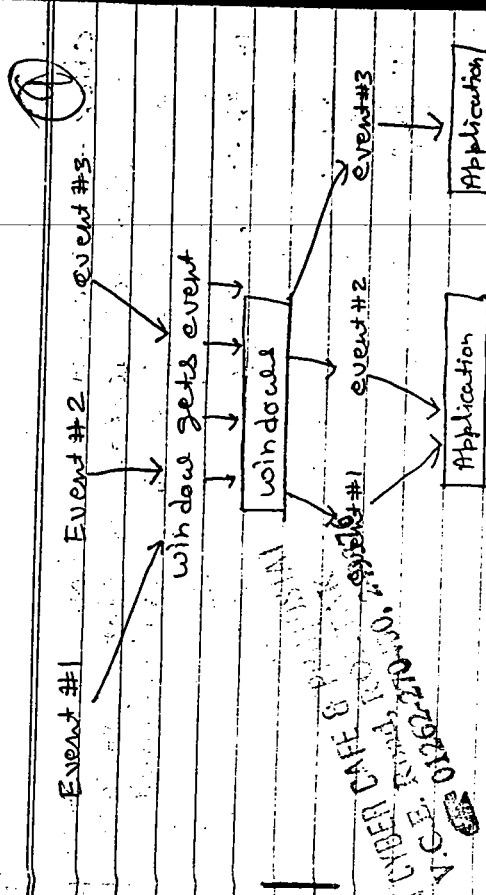
3 DDE → This property is used in linking of database such as link mode or link topic.

4 Font → To set the style, font style of any object with the help of font property.

5 Position → With the help of this property we can set the x-axis, y-axis, left margin, height, width of any object.

6 Scale → With the help of this property we can set the scale left, height mode, scale top, scale width.

Event → An event is an activity that occurs during a program execution such as mouse click or keystroke.



Event management By any windows. Any action performed by pressing a key on the keyboard or clicking a mouse for which code can be written is an event procedure that runs whenever the event occurs.

Event occurs as a result of the user action or program code or they can be triggered by the system depending on the event the corresponding event procedure is executed but some event recognized by one object may not be the same as recognized by other object. Some of the event which are used very frequently are the load event in a form and click event of a command button.

Click → This event occurs when the user clicks anywhere on the form. If the user clicks (presses) a button that partially hidden from view.

DoubleClick → This event occurs when the user moves the double click on the form.

MouseDown → This event occurs when the user moves the cursor on the form.

KeyPress → This event occurs when the user presses any key. This event works with ASCII code.

KeyDown → This event occurs when the user presses down any key.

KeyUp → This event occurs when the user releases any key from the form.

Method → method are procedures that operate on object. method cause an object to perform an action. method are part of object like properties and perform the action you want.

Some Common method

1. Clear
2. Add item
3. move

Q = what is function. How a function in VB & o. explain with some internal function in VB. How many value can a subroutine procedure method?

Ans → Function → function is set of instruction that perform a specific task. The primary job of a function is to return a specific item. A function contain many argument.

Function -
Functionname (argument 1 - - N) as type

End function

A function call is always part of a statement.

Variable name = function name (arg1 - - argN)

Unlike the argument list in a call to a sub procedure the argument sent to a function are enclosed in parentheses.

after the function name the argument may appear as literal value matches the data type specified in function definition.

Passing parameter → usually the code in a procedure needs some information about the state of the program to do its jobs. This information is passed to the procedure as argument when the

procedure is called parameter as argument we are passing the parameter in two forms.

Passing parameter by value
Passing parameter by reference

Passing parameter by value → When a variable is passed by a value then only a copy of a variable is passed to it. But if there is any change in the value caused by the procedure then it affects the value and not the variable itself. By val keyword must be used to indicate that a variable is passed by value.

Example →

function functionName (By val as Integer) as type datatype

function emp (By val empno as integer as integer)

Text1.Text = "001"

end function

Passing argument by reference → In VB we pass by reference is by

default where the original argument in the procedure can gain access to the actual variable content from its memory address location to the result the variable value.

Can be permanently changed by the procedure to which it is passed by value.

function functionName (By Ref as Integer) as type

Some internal function →

1 Int (numeric value) → Int() return the next lowest integer portion of its argument.

Int #A1 = Int(6.8)
↓
variable name
Integer function

2 Fix (numeric value) → fix() return the truncated integer portion of the argument.

Int #A1 = fix(-1.8)
↓
variable name
Return value

3 Abs() → Return the absolute value of any value.

Int #A1 = Abs(-19)
↓
variable name
Return value

String function →

(i) Len() → This function calculate the length of the string.

int msg = MsgBox (Len("abcdef"))
Return '5' value.

(ii) Left (string value, numeric value) → This function return the character from left side of a string.

Str A = "abcdef"

Str1 = Left(Str, 1)

Str store 'a' only.

Other Internal function →

msg box) → A message box is a small dialog box used for output during a program execution. The user can close the message box by clicking a command button and can move the message box but the user can't resize the message box.

int response = msgbox (strprompt, [int style], [str title])

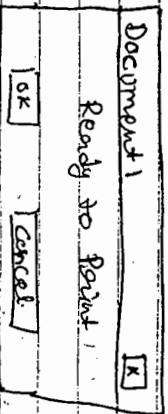
strprompt → To set any message.

int style → To set style of any button such as.

Value	Name	Description
0	Vbok only	OK button
1	Vbok cancel	OK and Cancel
2	Vbabort & retry ignore	OK, Cancel & Retry
3	VbYesNo, Cancel	Yes, No, Cancel
4	VbYes, No	Yes, No
5	VbRetry, Cancel	Retry, Cancel

str title → To set the title of msg box.

int response = msgbox ("Ready to print", 2, document)



Input Box: An input box is a message box with a field in which the user can type a value such as a word or phrase that might answer a question we ask in the box title.

str answer = inputbox (strprompt, [str title], [str default], [int x pos], [int y pos])

strprompt → To set the any message on the input box.

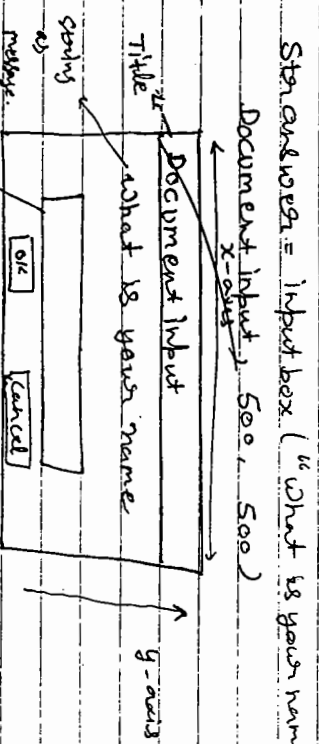
str title → To set the title of input box.

str default → To set default message on the input box.

int x pos → To set the position of input box.

int y pos → To set the position of Y-axis of input box only Y-axis.

Document 1 = input box ("What is your name", "Document Input", 500, 500)



98/03/22

Q → Tree View?

Ans → Tree View :- Tree view present data in hierarchical way such as the view of

in the window Explorer. Tree are composed of cascading branches of nodes and each node

usually consist of an image and label (set with the text property). Image for the nodes

are supplied by Image List Control associated with the tree view control.

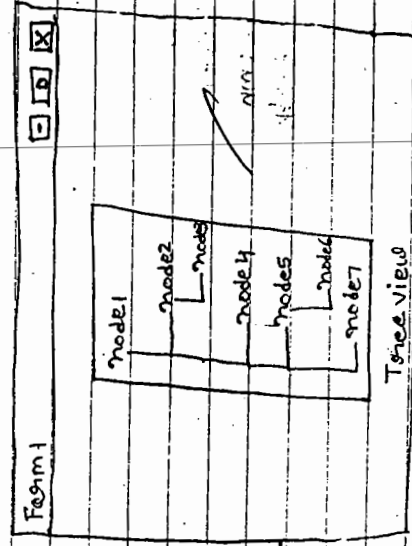
→ A node can be expanded or collapsed depending on whether or not the node has

child nodes. At the topmost level are root nodes, and each root node can have any no

of child nodes. Each node in a tree is a programmable node object which belong to the

nodes collection. Each member of the collection has unique index and key property that allow

you to access the property of node.



Q. Short Note →

Ans → List View → List view Control display

as its name implies lists of items. The list view is displaying the lists of files each item in a list view control is itself a listitem object and can have both text and image associated with it. The listitem object are stored in the listview listitem property.
List View can display data in four different way:-

- (i) Icon mode → Can be manipulated with the mouse allowing user to drag and drop and rearrange object.
- (ii) Small icon mode → Allow more listitem object to be viewed.
- (iii) List mode → Presents a sorted view of the listitem object.
- (iv) Report mode → Present a sorted view, with sub-items allowing extra information to be display.

The listview in windows explorer display files in Report mode. In this mode you add sub-item to each item and text in these sub-item will appear under the various column headings.

→ You usually associate two & image list control with a list view one to hold the icon for icon view mode and one to hold small icon for other three modes.

Q. Short note on Image List Control? (1/1)

Ans → Image List Control →

Image list Controls

are invisible control that serve one purpose to hold images that are used by other controls. Image list control gives you another way to store a group of images in a single place you add images to an image list control at design time using insert picture button in the control property page you can also add image to an image list at run time using add method.

→ To use the image in the image list you usually associate the image list with a window common control. In image list each image has an index value as you can specify the key value.

→ You can also search the images in & image list with the listimage collection picture property. For example if you wanted to add image in picture through image list.

Picture1.picture = imageList1.ListImages(1).Picture

Property Page		Image List Control	
Index	0	Key	1
Tag			
<div>Images</div> <div> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> </div>			
<input type="button" value="Insert"/> <input type="button" value="Remove"/> <input type="button" value="ImageCont"/>		<input type="button" value="OK"/> <input type="button" value="Cancel"/> <input type="button" value="Help"/>	

Q → Tab Strips
Ans → Tab Strips

present the user with a group of tabs that acts like the dividers in a notebook. The tab strips the user can click a tab and see a whole new panel of data like opening a file folder.

The most common use of tabs strips today is to organize dialog boxes. often these dialog boxes that let the user set program options into many different panels, all hidden from view except the current one the user has selected.

→ In this way you can pack a great deal into a small space in a dialog box and avoid the need for many dialog boxes.

→ A tab strip control consists of one or more tab object in a tabs control.

Collection: At design and runtime you can

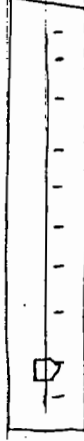
set the Tab object appearance by setting property and at run time by invoking method.

To add and remove objects.

General	Tab	Font	Picture
Index	<input type="text"/>	Insert Tab	Remove Tab
Caption	<input type="text"/>		
Key	<input type="text"/>		
Tag	<input type="text"/>		
ToolTipText	<input type="text"/>		
Image	<input type="text"/>		
OK			Cancel
			Apply

Q → Slider Control
Ans → Slider Control

The slider control works similarly to a scroll bar. It is a little box with optional tick marks that contain a slider. The user can move the slider by dragging it, clicking the mouse to either side of the slider. Just as scroll bar key property are max, min and value which determine largest, smallest and current value for slider. The key event is scroll event, which is triggered when the user moves the slider on a slider control.



Adding a slider control follow these steps:-

- (1) Select the project/component menu item and click Controls tab in Component box.
- (2) Select Microsoft Windows Common Controls item.
- (3) Close Component box by clicking OK. Slider tool appear in tool box.
- (4) Set the slider orientation property to Horizontal or vertical to specify as you want.
- (5) Set the slider min, max, SmallChange, LargeChange.
- (7) Set the slider TickFrequency property to the no. of units between ticks on slider scale.
- (8) Add the code you want to the slider event you want. Change on scroll.

Q → Short Note on Toolbar?

Ans → Toolbars →

Toolbars are the bars at the top of a window that are filled with button and sometimes other control like

Combo box.

→ A toolbar contain button that corresponds to item in an application menu providing in an easy interface for user to reach frequently used function and command. The user can also customise toolbar - double clicking a toolbar at anytime open the customise toolbar dialog box which allow the user to hide, display or rearrange toolbar button.

→ To add the toolbar control to a form, you select Project/Component menu item, then click the Control tab in the Component dialog box, select Microsoft Windows Common ~~dialog~~ box common control and click OK. The toolbar add on the toolbar.

→ To add a button to toolbar you add button object to its button collection, by working with toolbar property page each button can have text or image. Set text with caption property and image with image property for each button. Object at runtime you can add or remove button by using add or remove method.

→ After add a toolbar to a form its align property is by default is top.

→ You add button to toolbar control at design time by right click the control and clicking the property item in the menu that appears. The toolbar property page is open.

Property Page			
General	Button	Picture	
Index <input type="text"/>	<input type="button" value="Insert button"/>	<input type="button" value="Remove button"/>	
Caption <input type="text"/>	Description <input type="text"/>		
Key <input type="text"/>	Value <input type="text"/>		
Style <input type="text"/>	Width <input type="text"/>		
Tag <input type="text"/>	Image <input type="text"/>		
<input type="checkbox"/> Visible <input type="checkbox"/> Enabled <input type="checkbox"/> MixedState			
Button menu			
Index <input type="text"/>	<input type="button" value="Insert button"/>	<input type="button" value="Remove button"/>	
Text <input type="text"/>	Key <input type="text"/>	Tag <input type="text"/>	
<input type="button" value="OK"/> <input type="button" value="Cancel"/> <input type="button" value="Apply"/>			

you insert new button by click insert button. when you add a new button to a toolbar you can associate a picture or caption with it. Each button gets a new index value which will be passed to the click event handler. and in last click OK button to close property page.

Add Image to Toolbar Button →
Add images to button in toolbar before we add images

to Image Control just Control After added the image just Control. The & image just Control associated with toolbar. For add image in toolbar follow these Step.

- (1) Right Click on the toolbar and select property Page and go on property Page.
- (2) Next, Click the button tab in the property Pages.
- (3) Enter the index of the image Control you want to connect to the first button in the box labeled R. Image.
- (4) Keep going for other button entering the image Control indices of the image you want to connect to those button.
- (5) Click on OK button to close property Page.

Q → List various types of boxes used in AIR? Explain five of them?

Ans → 1. Text box 2. List Box 3. Combo box
4. Drive list box 5. Directory List Box
6. file list box 7. Check Box
8. Rich text Box 9. Image Combo box
10. Picture Box

(1) Text Box → Use the text Box Control when you want the user to type something. Such as answer to a prompt. When you want to collect values such as name, address, information. Text box don't make for good Yes/No true/false answer.

When you place value at design time, it is default value and user will see at runtime. At runtime user can change the value of text box.

There are useful property of text Box.

(i) Alignment → This property determines how the text align inside a text box

whose multiline property is true.

(ii) Locked → This property determine whether the user can enter a value or change the default value of text box. If true the user cannot change the text box value.

(iii) maxlength → This property determines the maximum character that text box will accept.

(iv) multiline → This property specifies that the text box can hold more than one single line.

(v) scrollbars → This property determines how many scroll bars appear on text box.

0 → No scrollbar

1 → Horizontal scrollbar

2 → Vertical scrollbar

No Text → This property specifies the text that appears in text box.

2. Directory List Box →

Directory list box control is used to let user select a directory folder. This control is smart enough to search the hard computer and determine which directories exist in the system. A directory list box displays the directory structure of current drive. The current directory shows up as an open file folder. Sub directories of the current directory are shown as closed folders.

→ The list property of directory list box

creates a little different than the list box. While sub directory of current directory

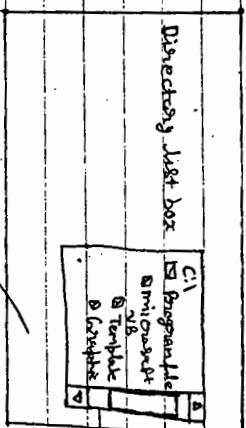
are numbered 0 to listcount-1. It uses negative index for current directory and its parent

and grandparent directory.

→ For example -1 is the index for the

current directory, -2 for its parent directory and so on.

The important property of directory list box is path property which holds the path of current directory. When the user changes the current path a change event is generated.



3. Rich Text Box →

The Rich text box control is a full blown word processor. It provides all functionality of text box control. It gives you the capability of mix different font size, and attribute and it gives you precise control over the margins of text. You can place image in the Rich text box.

The standard property of Rich text box

control is TextRTF property. This is similar to the text property of text box control. This property

the text currently display by the control. The TextRTF property returns the text along

with any formatting information. You can use the Rich text control to specify the text

formatting including paragraph indentation, font font size, color, style.

RTF stand for Rich text format which is the standard of storing information along with text by using Rich text box control the programmer no need to supply the formatting code.

To add rich text box to a form follow these steps:-

- (1) Select the project/components menu item.
- (2) Click the Control tab in Component box.
- (3) Find and select the Microsoft Rich text box Control box, and click on OK to close Component box.
- (4) The rich text control now appear in tool box and you can use it to add rich text box to your form.

[Important property of Rich text box]

(1) Selftext, Selstart, Sellength →

These property are related to selecting text in the Rich text boxes. Selftext show the selected text. Selstart tells the starting position of text. Sellength tells the length of text. For example → if we change the selected text in to upper case → RichTextBox1.Seltext = UCase (RichTextBox1.Seltext). In another example if we want to find length of text then we use sellength or selstart property.

RichTextBox1.Selstart = 0

RichTextBox1.Sellength = Len (RichTextBox1.Text)

(ii) Selfbold, selfitalic, selfunderline, selfstrikeout :-

These

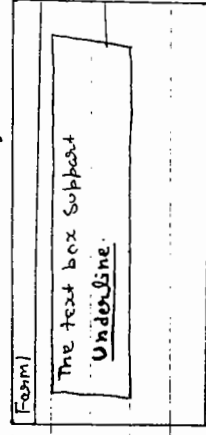
property are used for to make the text Bold, italic, underline, strikethru. For example-

RichTextBox1.Seltext = RichTextBox1.Find ("underline")

RichTextBox1.Selstart = ("underline")

RichTextBox1.Selunderline = true

RichTextBox1.Selbold = True



(iii) Selindent, selchangingindent, Selrightindent →

To indent

Paragraph by paragraph we use this property.

Selindent → Indent the first line of the paragraph.

Selchangingindent → Indent all other lines of the paragraph with respect to Selindent.

Selrightindent → Set right indentation of paragraph.

[Same method of RichText Box]

1. Span and up to :-

Sh many text editor

user select an entire word or sentence.

or move pointer to end of word. By using

Span and up to method we can add

Same capability to application. The upto method specifies the characters that identify where the pointer will move. The up span method to specify the characters that signal the end of selection.

Syntax:-

Rich text Box: Span Characterset, [Fromstart, [negate]]

The characterset parameter is a string that specifies the set of characters to look for. The fromstart parameter determines which direction the insertion point moves. The negate parameter specifies the whether the characterset define the set of target characters.

When you call the span method the Rich text box, Control starts searching from the current position for one of the characters in specified characterset. The first character found cause the search to stop.

(iii) SaveFile and Load :- These method are related to the file.

Save file -> Save the content of Control to a disk file.

Load file -> Load the content from a file.

Syntax ->

Rich Box: Save file (filename, filetype)

Rich text Box: Load file (filename, filetype)

Filename is the full path name of file whose content of Control to be saved. and file type determine how the control content will be saved.

Q -> Short note on Data access object?
Ans -> Data Access Object ->

Data access object is a structure of object for accessing database through your code. All the functionality of data control is also available to your code, through Data Access Object. When VB working with databases it uses Microsoft Jet database engine. The Jet engine represented a considerable advance for VB, because now you could work with all kind of data format in the field of database: text, integer, long, double, date, character. The Jet engine also support SQL.

Microsoft added the data control to VB, and you can use that control to open Jet database. Microsoft also added a set of data access objects to VB.

(i) DBEngine -> The Jet database engine.

(ii) Workspace -> An area hold one or more database

(iii) TableDef -> Definition of a table.

(iv) QueryDef -> Definition of query.

(v) RecordSet -> The set of record that make up the result of a query.

(vi) Index -> An ordered list of record.

-> Working with Data Access Object, you can use the database and recordset Data Access Object in your procedures. The database and Recordset Object each have property and method of their own and you can write procedure that use these property and method to manipulate your data.

(i) Creating DAO database → For creating database

To add a reference to of Microsoft DAO Object Library. Select the Project/Reference menu item. Select Microsoft DAO Object Library then click OK. We can make use of data object in library to create a new database. Create data base is a method of DAO workspace object.

(ii) Creating table with tabledef object →

We create a table by tabledef object and you can append field to the table.

(iii) Add an index to a tabledef object → you use an index to a

Sort a table and you create an index with DAO CreateIndex method. The CreateIndex method create an index object and you can make one of the field in a table that table index with that index object Create field method.

(iv) Creating a recordset → After defining a database table with DAO

Tabledef object you can append that object to database object which add table to that object. You can use openrecordset method to open record set and working with data. set recordset = database.openrecordset (Source, type, options, locked) (Source, type, options, locked)

Q → Define Option Button? How it is created in VBA?

Ans → Option Button is created in VBA

Option Button is also called

Radio Button. You can select or deselect them. They are in round shape. Option button always work together. When you select

one option button in a group other are automatically deselected. For this reason

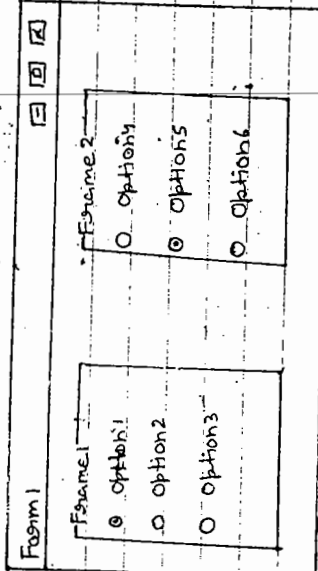
any application that uses more than one group of option button on a form must

use a frame to separate the groups.

→ The value property of option button

tells you whether a option button was selected by the user. If the value property is true, the user selected that button; otherwise its

value property is false.



We use the frame control to group option button together. A frame for each group of option button you want on a form and add option button to the frame. Each frame of option button will act as its own group and user can select one

Option button in a group.

How option button is created ->

For Creation of

option button we select option button

from form toolbar and drag it to form.

On a form, option button has a property

caption. we change the caption

property of option button and give

a meaning full name. If we use

want to select male then one option

button then we make a group of

Example ->

Private Sub Command1_Click()

If Option1.Value && Option3.Value = True

Text1.Text = "Kajal"

Text2.Text = "5000"

MsgBox "Person is male & elder"

Else If Option1.Value && Option4.Value = True

Then

MsgBox "Person is male and tiny age"

Text1.Text = "Anil"

Text2.Text = "6000"

Else

MsgBox "Person is female"

Text1.Text = "Anu"

Text2.Text = "7000"

End If

End Sub

Q → MASK EDIT Box Control?

Ans → MASK EDIT Box Control →

The masked edit Box Control can save ~~let~~ you a lot of code work when you try to control the input to text boxes. This ~~Box~~ control will seem like an ordinary text box. The difference is that you can restrict the character entered without having a write code in the key events. The masked edit control let you set up input field such as phone no. with ~~area~~ area code and automatic parentheses and hyphens.

→ You can show any character in the control - to give user a visual cue that they should be entering a phone no. or a social security no. This control is data aware.

→ The most important property of mask edit box control is mask. ~~when~~ you can set this property at run time as well as design time. This property controls what the user see and what he or she enter. For example if you wanted to allow only a U.S. phone number to be entered.

maskedEditBox1.Mask = "(###)-###-####"

Form1

Enter your telephone no. (###)-###-####

→ we can set the custom property of masked edit Box Control. Right click on the control and click on the property menu. The property dialog box is shown.

Property Page

General Color Font Picture

☒ AutoTab ☒ Hide Selection ☒ Allow Prompt

Mask MaxLength

Format PromptChar

MousePointer

BorderStyle

Clip Mode

OLE Drag Mode

OLE Drop Mode

OK Cancel Apply

The most common ~~mask~~ character used

In mask.

Mask Character

#

Description

Require the user to enter a

digit only.

Decimal placeholders.

Mask Characters

- | | Description |
|---|---|
| , | Thousand Separator |
| : | Time Separator |
| ~ | Convert all characters that follow to uppercase |
| < | Convert all characters that follow to lowercase |
| A | Alphanumeric characters be entered |
| 9 | Allow digit to be entered |
- All other symbols are displayed as themselves. If you want to have one of the special characters show up precede it with a backslash (\). For example using '\# #' as a mask would show up as # followed by a blank where user can enter digit. These are some predefined masks:

Mask	Description
##-??-##	medium date
##-##-##	short date
##:##??	medium time
##:##	short time

Q: What is Object oriented language? Is it an object oriented language?

Ans: Object oriented language →

Object oriented language is an approach to program organization and development which attempt to eliminate some of the pitfalls of conventional programming method. Object oriented language follows bottom-up approach. We divide the program into sub program. In object oriented language you program made up of object with certain property and functionality. With OOP you work with package consist of both data and functions that manipulate them. OOP has some ~~feature~~ feature as compare to conventional programming.

(i) Classes → A class is usually describe as the template from which an object is

actually made. When you create an object from class you have created an instance of the class. The instance of your class are actual object.

→ All tools on the toolbar are classes. When you add a text box to form you have made an instance of text box class. The members of a class are property, constant and method that belong to class.

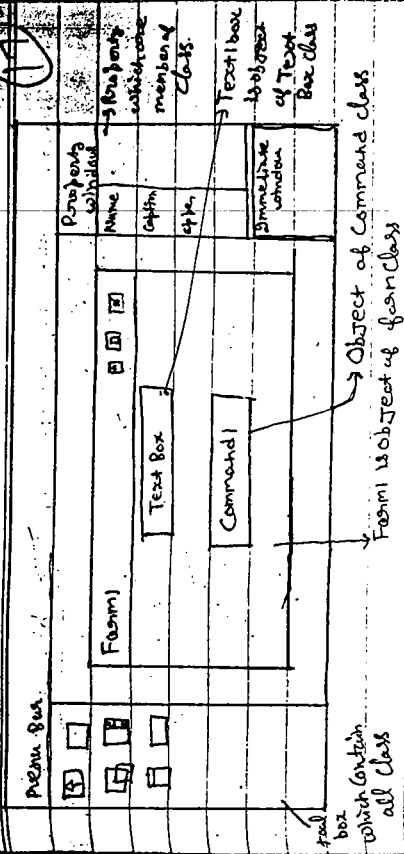
(ii) Encapsulation → Encapsulation is another key concept in working with objects.

Encapsulation is where we combine the data and behaviour in one package and hiding the implementation of data program. Should interact with data only through object method and properties. VB fully support encapsulation.

(iii) Inheritance → The ability to make classes that are based on other classes is called inheritance. The purpose of inheritance is reuse the code. VB support the inheritance because VB IDE and wizards will do an equally good job of saving you from needless typing.

(iv) Interface & Polymorphism :- VB decided to use COM from mechanism used in windows to implement control and other OLE object. This is called interface. The purpose of interface is to implement a programming idea that is usually called polymorphism. Polymorphism means more than one form. VB support the Polymorphism.

VB is basic support these all feature of object oriented programming so we can say VB is a object oriented programming.



Merits :-

1. It solve the complex problem.
2. It divide the comp program into small object.
3. It is easily understood as compare to procedure oriented.
4. It provide the reusability, encapsulation, abstraction etc feature.
5. It follow the bottom-up approach.
6. We can create no. of object of particular class.

-: string

Q - Describe the Difference between high level and low level language?

Ans → Low level language →

Low level language

Is called machine language. In the machine language each data and program instruction is represented by series of 0 and 1. These language is understood by computer becoz it is in binary format. In others used in machine language each member, character is represented by ~~series~~ combination of 1 or 0 codes. Each instruction contain two part.

1. OP-Code 2. Address.

Demerits →

- Low level language are machine dependent.
- It require the knowledge of hardware.
- It produce more errors.
- Time taken for developing program.
- Size of program is very lengthy.
- Programs are very difficult to debug.
- High preparation costs.

Merits:-

- Computer can easily understand.
- No need to compiler.
- Time taken to execute program is less.

High level language → Language in which

instruction are given in

English like text rather than in Binary digit that computer understand are known as high level language.

→ Instruction used as termed macro-instruction which means that a single instruction may produce several line of machine language code. These language also known as procedural language becoz these language require every step of task to submitted to the computer in the form of procedure.

Demerits →

- It take more time for execution.
- It consume more main memory becoz it require compiler.

Merits →

- High level languages are machine independent.
- High level language are simple and well understood, learnt by users.
- These languages are very easier debugging.
- It consume less time for development of program.
- It provide good documentation for well understood.
- All program are very easy in their maintenance.

Low level language

High level language

1 It is easy to understand By Computer

1 It is easy to understand by user

2 It not need to other program like compiler

2 It requires the compiler for convert High level to low level

3 It's execution speed is very fast

3 It's execution speed is low as compare to low level program

4 It consume more to develop a program

4 It consume less time

5 It is machine dependent language

5 It is machine independent language

6 In this debugging is very difficult

6 In this debugging is not difficult

7 It requires the knowledge of hardware

7 It not require knowledge of hardware

Q → Difference between Event oriented and Procedure oriented language?

Ans → Event-oriented

Procedure-oriented

1 It does not follow a pre-determined path. It use top to bottom approach. Code section in response to event.

2 Event oriented language show the Syntax error during the coding the compile time

3 Event-oriented language provide both interpreter & compiler during the coding of program

3 Does not provide these type of facility.

4 It is easy to use for both developer as well as user.

4 It is difficult to use for developer.

5 In this we see the output without create .exe file than exe file of program show output

5 In this first we create .exe file than show output

6 In this we created object which is related to real world.

6 In this we don't create any object.

- 7.9. this many feature are available-
- i) Inheritance
 - ii) Polymorphism
 - iii) Dynamic Binding
 - iv) Data hiding
 - v) Data Abstraction

7.10. doesn't provide any object oriented procedure.

Q → what is menu editor? How the menu is created in VB?

Ans → menu are most common and characteristic element of window user interface menu that contain sub menu are usually called hierarchical menu.

Menu Editor :-

You create menu in VB by using the menu editor window available by choosing Tool/ menu editor. In menu editor window you can specify the structure of your menu by adding one command at a time.

Menu Editor		<input checked="" type="checkbox"/>
Caption	<input type="text"/>	<input type="button" value="OK"/>
Name	<input type="text"/>	<input type="button" value="Cancel"/>
Index	<input type="text"/>	Shortcut <input type="text"/>
HelpContextID	<input type="text"/>	NegativePosition <input type="text"/>
<input type="checkbox"/> Checked	<input type="checkbox"/> enabled	<input type="checkbox"/> visible
<input type="button" value="←"/>	<input type="button" value="→"/>	<input type="button" value="↑"/>
<input type="button" value="↓"/>	<input type="button" value="↵"/>	<input type="button" value="Next"/>
<input type="button" value="Insert"/>	<input type="button" value="Delete"/>	
File		
..... New		
..... Open		
..... Save		
Exit		

Menu Editor

Caption text box → what you type in caption text box is what the user see.

The caption also show up in the text area inside

dialog box.

Name_text_Box → each menu item must have a central name. menu items are part of central array. The central name is used by VB for click event.

OK and Cancel button → Click OK when you finishing the designing the menu. Click Cancel if you decide not to build menu at all.

Index_Box → use the index box if you want to make a menu item part of central array.

Shortcut_Box → This box you add accelerator keys to your menu item. Recall the accelerator keys either function key or Ctrl + Key Combination.

Help_Context_ID → This is used when you are adding a help system.

Enable_Check_Box → Determine the value of enabled property of the menu item.

Visible_Check_Box → Determine the value of visible property of menu item.

Arrow_Button → These button let you work with the current menu item. Submenu

are indicated by indentation level in the text window. The left and right arrow button

control the indentation level.
→ clicking left arrow button moves the

highlighted item up one level. Clicking right
click arrow button moves it one indentation

level deeper.

→ Clicking the up arrow button interchange the highlighted menu item with item above it. Clicking the down arrow button interchange the highlighted item with the item below it.

Next button → Clicking the next button move you to next menu item. The indentation of new item is same as previous.

Insert Button → Clicking insert button a menu item above the currently highlighted menu item.

Delete Button → Clicking on delete button remove the currently highlighted item.

Q → Difference between traditional and Visual Programming?

Ans → Traditional Programming

Visual Programming

- | | |
|--|--|
| 1. It don't Provide the graphical environment. | 1. It provide the graphical programming. |
| 2. In this developer can't develop the more user friendly application. | 2. In this developer develop the more user friendly application. |
| 3. Traditional programming don't provide the tools, menu, and other control. | 3. Visual programming provide tools, menu and other control. |
| 4. In traditional programming user require a code for each control. | 4. In visual programming user just select and draw on the form. |
| 5. In traditional programming user a lot spend extra at compile time. | 5. In this it spend extra at developing time. |
| 6. In this user write more code. | 6. In this user write less code for develop application. |
| 7. Example of traditional Prog - C, C++ programming. | 7. Example → VB, Vc++ |
| 8. It don't provide help about syntax. | 8. It provide help about syntax. |

Q → What is record set? what are its main property?

Ans → Record Set →

Record set are Object that represent collection of record from one or more table.

In database programming record set are the equivalent of variable in regular programming. You can't access the table of database directly. The only way to view or manipulate record through record set object. A record set is constructed of column and rows and is similar to a table, but it contain data from multiple table.

Record set is a view of some data in the database selected from the database according to user specified criteria. There are three type of record sets.

(i) Dyna Sets → which are updatable view of data.

Dyna set are updated every time user change the database and changes they make to corresponding record set and reflected in the underlying tables. This is the most flexible and powerful type of record set. A few operation may be faster with table record set.

(ii) Snap Shots →

Snap shot are static view of same data. A Snap shot contain the records requested the moment the Snap shot was generated and you can't update Snap shots. It is least flexible record set type. The Snap shot is most efficient in term of overhead.

There is also variation of Snapshot: the forward only Snapshot which is even more limited than the Snapshot type but faster. forward only Snapshot let you move forward only. you can use this in programming situation in which you want to scan a no. of record and process them sequentially.

Table Recordset → The table recordset is a preference to a table in the database. The table is faster than other type of Recordset. always in sync with table data and can be used to update the database. But table type is limited to a single table. when accessing a table through table recordset you can take advantage of table indices to perform very fast search.

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Properties of Recordset

(i) Recordset type → This property return or set a value indicating the type of recordset object.

Constant	Value	Description
VBRTTypeTable	0	A table type of recordset.
VBRTTypeDynaset	1	A Dynaset type " "
VBRTTypeSnapshot	2	A Snapshot " "

(ii) ReadOnly → This property return or set a value determine whether the recordset is open for read only.

EOF → The EOF (end of file) property return a true/false that indicate whether the current record position is after the last record in a recordset.

BOF → The BOF (beginning of file) property return a true/false property that indicate whether a current position is before the first record in recordset object.

Option → This property set one or more characteristics of the recordset object.

Constant	Value	Description
dbdenywrite	1	In multuser environment user can't change record.
dbdenyread	2	User can't read record.
dbReadOnly	3	User can only read the data.
dbAppendonly	4	User can add new records.
dbInconsistent	16	Updates can apply on all records.
dbConsistent	32	Update apply only those record which don't have violate condition.

BOF Action → This property is set what action the data control takes when EOF property is true.

EOF Action → This property is set what action the data control take when EOF property is true.

Constant	Value	Description
vbEOFActionMoveLast	1	Reposition the control on last record.
vbEOFActionEOF	2	move past the end of recordset and land on invalid record.

Q's Active X Controls?

Ans → Active X Controls → Active X is a group of technologies consisting of

Component for the same development and implementation of application on the internet. Active X comes from dynamic data exchange which forms the basis for OLE 1.0. OLE 1.0 was used for linking object to one another or to embed the object inside another.

→ Typical example is word processors / spreadsheet combination wherein a ref. to the spreadsheet file is added to word processing document.

If user click on the reference the spreadsheet program that it is used to edit the spreadsheet could be loaded automatically and changes could be made there itself.

→ OLE automation make it possible for execution of commands of one application into another application. It also known as Active automation.

→ The development of Active X which is an extension of OLE over the internet. Another technology which has led to the development of Active X is component object model. Can provide the fundamental ability for multiple application.

→ Can define a set of standards that all component object must follow using these standard application can utilize object without knowing detail of object itself.

Types of Active X →

- i) Active X Documents
- ii) Active X Containers
- iii) Active X Servers
- iv) Active X Controls

ii) Active X Documents → one objects of com; they allow user to view the document in various ways such as graph a spreadsheet and a document. Active X document require an environment called Active X Containers. This allow a distribution of data across the internet. they also provide an effective way to distribute the software. Active X document make it easy to convert stand alone VB application to application that run across a network.

Active X Containers → one OLE Container with com interfaces added to support new interface in Active X container document. The Containers have a capacity to take on the appearance of any native application.

Active X Servers → are three types.

- i) Full Server → This works both, as an Active X Server and a fully functioned application.
- ii) Mini Server → we can use server only to include the content of one application into another application.

(iii) Automation Server → This server exposes objects, method and properties in order to enable the user to access them.

ActiveX Control →

ActiveX Control are reusable and programmable OLE Control that are used in a variety of programming or non-programming environment. They are embedded in an ActiveX Container.

→ ActiveX Controls are created using the ActiveX Control project type. This project type starts with a user control project which is similar to a form object.

→ An ActiveX Control is an extension of VB toolbox. You use an ActiveX Control just as you would use any of the standard built-in controls. When you add ActiveX Control to a program, it becomes part of the development and runtime environment.

ActiveX Control increase your capabilities as a VB programmer by retaining some familiar properties, event and method such as the properties which behave as you would expect.

→ ActiveX Controls have the extension

• OCX. You can use ActiveX Controls provided with VB or obtain from third party.

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There are no available ActiveX Components. They are ActiveX Executable, ActiveX DLL, ActiveX Control DLL, ActiveX Document Executable and ActiveX Control.

Q Describe OLE? Difference between linking and embedding? OLE in details?

Ans → OLE → OLE stand for Object Linking and embedding. OLE is a familiar term to windows user and programmer. we can embed OLE object into our application to enhance the power of our program as well as reduce coding. By using OLE object that are already defined by other application we take advantage of object reuse. OLE originally originated from extended data exchange. this uses technology used in automatic clipboard transfer. When an OLE container control is used in a VB application. This acts as a bridge to any other windows application.

OLE lets VB application access the functionality of other application in the windows environment. For example a word or excel document can be incorporated by a VB application.

It then becomes necessary to have some knowledge of .com modules which forms the basis of the OLE. This is model is called the Component Object model or .com which is an open architecture - It established a common model on interaction among

Self Software like application, libraries, modules, system software and more. The term .com differs to the technology of building interoperable components but microsoft feel that Object Linking and embedding should be renamed to simple OLE.

OLE objects → An item that has been made available by an OLE application is an OLE object.

Container Application → It is an application that contain linked or embedded object. That container is also referred to as a client because it uses the services of OLE servers.

Object embedding → With this technology, an object from one application into another application. The inserted object is a copy of the original. It can be manipulated and stored separately from the original object. For example, you can embed a group of cells from an excel worksheet in a word document. To edit the access cells, you switch to excel by double clicking on the embedded excel object.

Linking → This technique is similar to embedding except that the embedded data is also linked to the document from which it comes. Changes to the object in the server are reflected automatically. Linking in the container application does not store the object but makes a reference to the object exposed by the server application. Linked objects are not copied, each time you open the document that contains the linked object the container application contacts the server application which automatically open the most up-to-date version of the linked objects.

Difference →

Linking

Embedding

- ① When we link to another application our OLE container contains a link data object into to another application over application and documents.
- ② Embedding
- ③ When we embed an OLE container contains a copy of the object documents.

- ② In linking if the other application changes that document, our application will reflect the changes. because our application has as copy of object.
- ③ Linking does not store the object but make inserted object is a reference to the copy of original object exposed by the server application. Separately from the original objects.
- ④ Linking take less space. Embedding take more space because our application has a copy of the object.
- ⑤ Speed is very fast. If we link to another application our OLE container contains a link to another application documents.
- ⑥ Embedding not conserve memory because there is a copy of the object in the container application.

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① It is not portable. ② It is portable.

Types of OLE → These are four types of OLE.

(A) Linking

(B) Embedding

(C) OLE Automation

(D) Active X Controls

(A) Linking → Linking means that an object in the container document is only links to the server document. Linking conserves memory because there is no copy of the linked object in the container application. The drawback of linking is that it is not portable.

(B) Embedding → Embedding actually makes a copy of the object and embeds it into the container document. It provides portability.

(C) OLE Automation → OLE Automation allows the user to take control of the other application even if the application can take control of other application.

(D) Active X Controls → The active X controls include the OLE implementation of COM over the Internet.

$$\frac{93}{93} \mid \frac{1}{1} \mid \frac{07}{07}$$