

Ltrim function strips the text of leading blanks. The "&0" prefix causes a digit string to be interpreted as Octal and "&H" prefix causes it to be interpreted as hexadecimal.

The Click event procedure for the option buttons use the Oct or Hex function to display CurrentNum in the appropriate number system.

### Exercise 2.4 - List Box Application

Any text entered into a textbox can be added to a list box or deleted from a list box.

Create a form with a textbox, a list box, three labels and four command buttons as shown below.

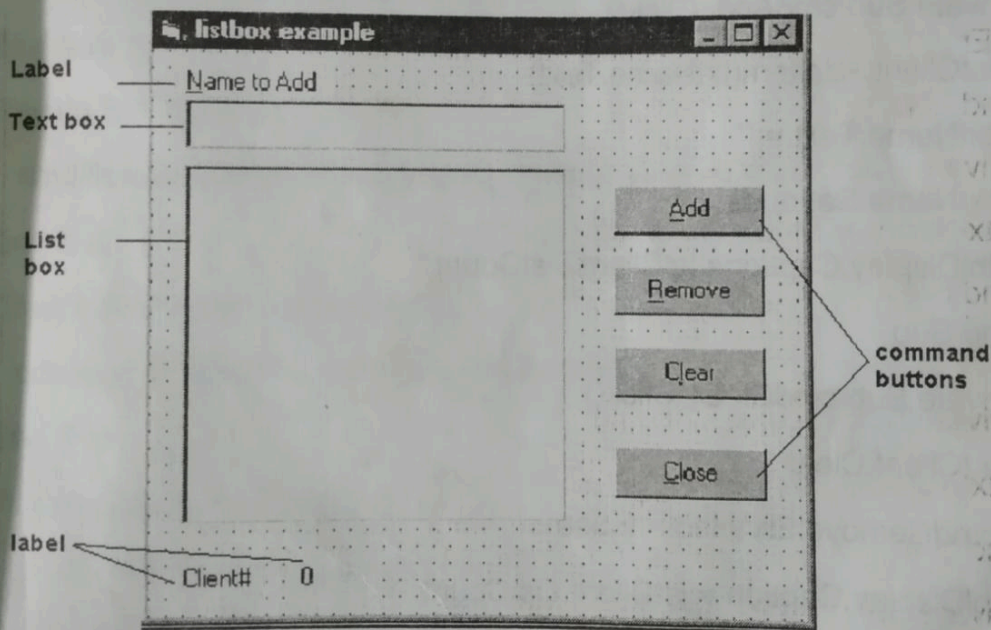


Figure 2.4 : Interface for exercise 2.4

The following table lists the property settings for the objects in the application.

Names	Caption	Property
txtName	Empty	
lbl Name	&Name to Add	



Programming Fundamentals

IstClient		Sorted=True
lblCients	#Clients	BorderStyle=1 fixed
lblDisplay	Empty	
cmdAdd	&Add	
cmdRemove	&Remove	
cmdClear	C&lear	
cmdClose	&Close	

Add the following code :

```
Private Sub cmdAdd_Click()  
    IstClient.AddItem(txtName.Text)  
    txtName.Text = ""  
    txtName.Setfocus  
    lblDisplay.Caption= IstClient.ListCount  
End Sub  
  
Private Sub cmdClear_Click()  
    IstClient.Clear  
    cmdRemove.Enabled = False  
    lblDisplay.Caption = IstClient.ListCount  
End Sub  
  
Private Sub cmdClose_Click()  
    Unload me  
End Sub
```

```
Private Sub cmdRemove_Click()  
    Dim ind as integer  
    ind=lstClient.ListIndex  
    If ind >=0 then  
        lstClient.Removeitem ind  
        lblDisplay.Caption = lstClient.ListCount  
    else  
        Beep  
    End if  
    cmdRemove.Enabled=(lstClient.ListIndex<>-1)  
End Sub  
Private Sub lstClient_Click()  
    cmdRemove.Enabled =lstClient.Listindex <> -1  
End Sub  
Private Sub txtName_Change()  
    cmdAdd.Enabled = (Len(txtName.Text) >0 )  
End Sub  
Private Sub Form_Load ()  
    cmdAdd.Enabled = (Len (txtName.Text)>0)  
End Sub
```

### Properties & Methods of list box Control

**ListCount** : method, which returns the number of items in the list. ListCount provides specific information for other controls also :

- ◆ **ComboBox** and **ListBox** controls - the number of items in the list.
- ◆ **DirListBox** control - the number of subdirectories in the current directory.



- ◆ **DriveListBox** control - the number of drive connections.
- ◆ **FileListBox** control - the number of files in the current directory that match the **Pattern** property setting.

If no item is selected, the **ListIndex** property value is  $-1$ . The first item in the list is **ListIndex** = 0, and **ListCount** is always one more than the largest **ListIndex** value.

**Sorted**: A property, which can be set to True or False to sort the items in the list.

**RemoveItem** : method to delete an item from the list.

**AddItem** : method to add item to the list.

**Clear** : clears the contents of a listbox, control box or clipboard that is not bound to a data control.

**ListIndex** : method returns and sets the index of the currently selected item in the controls. The first item in listbox has listindex equal to 0.

### Exercise 2.5 - Checkbox control array and ListBox

Any color that is selected by clicking on the checkbox is added to the list box and is removed from the list box when the checkbox is deselected.

Design a form interface as shown below.

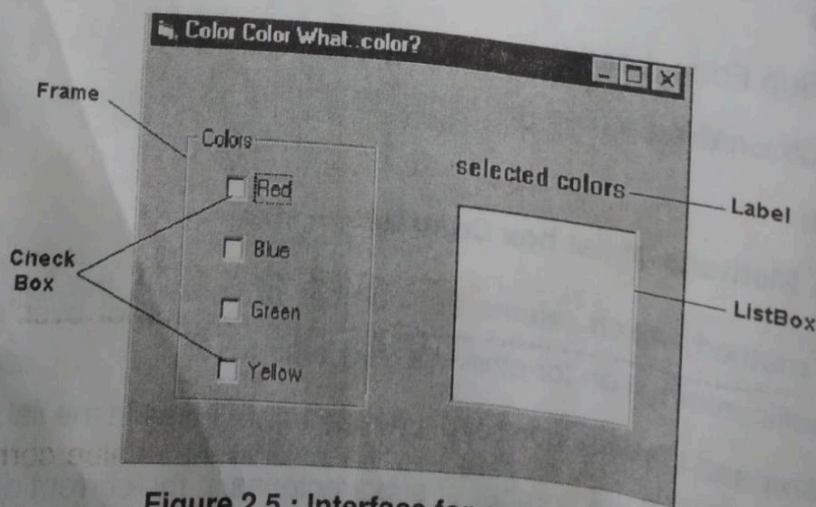


Figure 2.5 : Interface for exercise 2.5

**Note** : Ch  
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**Note** : Check box control array is created by giving the same name such as 'chkColor' to all the checkbox controls. Then each checkbox is identified by using an index starting with zero. Caption property can be used to describe the purpose of the checkbox. In our example the Name properties are set to Red, Blue, Green, Yellow. Before placing the checkboxes it is better to have a frame control, so that all the check boxes representing various colors can be identified as a group. The listbox's Name property is LstColors.

**In the chkcolor clicked event Add the following Code**

```
Private Sub chkcolor_click (Index As Integer)
    If chkcolor (Index) Then
        Lstcolors.AddItem chkcolor (Index).Caption
    else
        For I = 0 to (Lstcolors.listcount - 1)
            If lstColors.list(I) =chkColor(Index).Caption Then
                lstColors.RemoveItem I
            End if
        Next
    End if
End Sub
```

### Horizontal & Vertical Scroll Controls

Horizontal and Vertical scroll controls are types of controls which operate independently from other controls and have their own set of events, properties and methods.

The Value Property (Which by default, is 0) is an integer value corresponding to the position of the scrollbox. When the scrollbox position is at the minimum value,