Universiti Malaysia PAHANG
Engineering • Technology • Creativity

COMPUTER PROGRAMMING

DECISION INSTRUCTION – 3

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Select Case Block

- A decision-making structure that simplifies choosing among several actions.

- Avoids complex nested If constructs.

- If blocks make decisions based on the truth value of a condition. Select Case choices are determined by the value of an expression called a **selector**.

Select Case Terminology

Each of the possible actions is preceded
by a clause of the form

```
Case valueList
```

where *valueList* itemizes the values of the
selector for which the action should be
taken.

Select Case Syntax

The general form of the Select Case block is

```
Select Case selector
    Case valueList1
        action1
    Case valueList2
        action2
    Case Else
        action of last resort
End Select
```

Rules for Select Case

Each value list contains one or more of the following types of items separated by commas.

1. a literal

2. a variable

3. an expression

4. an inequality sign preceded by Is and followed by a literal, variable, or expression

5. a range given in the form *a* To *b*, where *a* and *b* are literals, variables, or expressions.

Block Scope

- A variable declared inside an If or Select Case block has **block scope**.

- The variable cannot be referred to outside of the block.

Input via User Selection

- Using a List Box for Input

- Group Box Control

- Using Radio Buttons for Input

- Using Check Boxes for Input

- Events Raised by Selections

The Three Types of Controls Used for Selection

list box →

radio buttons

check boxes

Fill a List Box at Design Time via its String Collection Editor

Tasks button

IstMajors

ListBox Tasks

☐ Use Data Bound Items

Unbound Mode

Edit Items...

String Collection Editor

Enter the strings in the collection (one per line):

PhD
Master
|

Type in the string values

click here to invoke string collection editor
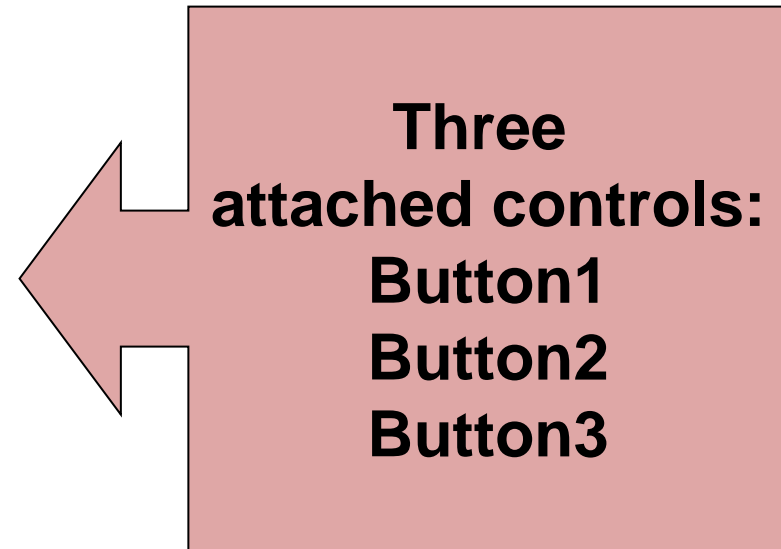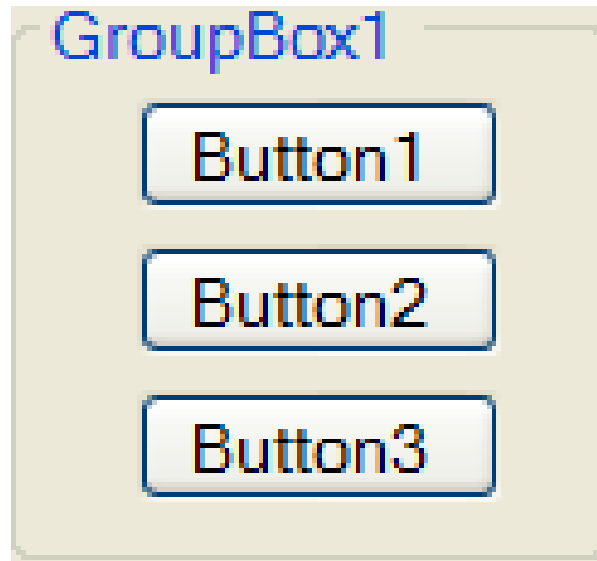
String Collection Editor

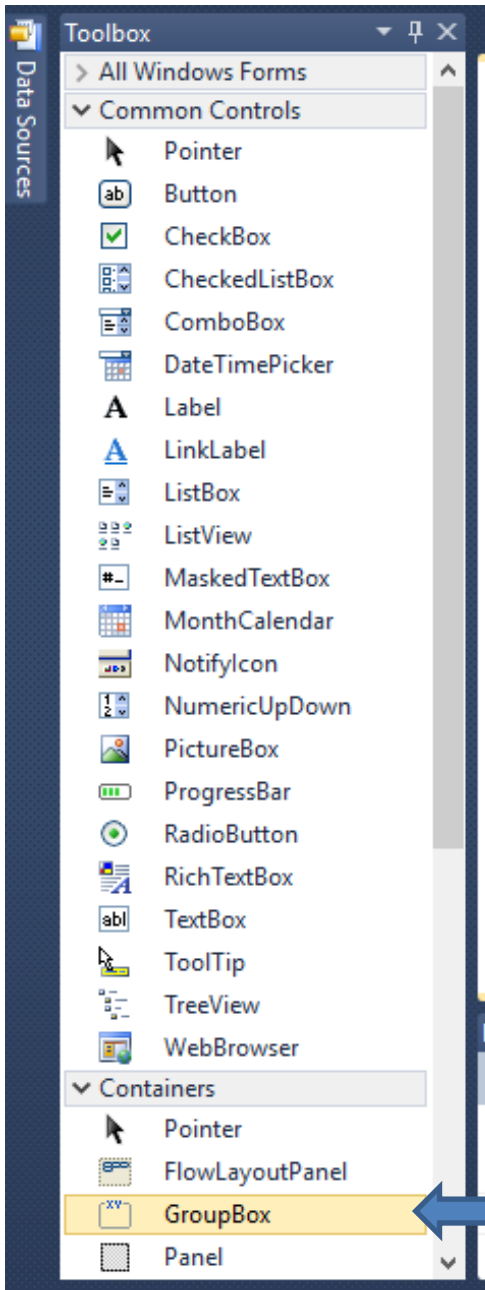- Fill by direct typing or by copying and pasting from a text editor or a spreadsheet.

PhD
Master
Degree
Diploma
Certificate
SPM
PMR

The Group Box Control

- Group boxes are passive objects used to group other objects together.

- When you drag a group box, the attached controls follow as a unit.

- To attach controls to a group box, create the group box and then place or drag the controls into the group box.

Group Box Example

Toolbox

- ▶ Pointer
- [ab] Button
- ☑ CheckBox
- CheckedListBox
- ComboBox
- DateTimePicker
- **A** Label
- A LinkLabel
- ListBox
- ListView
- #_ MaskedTextBox
- MonthCalendar
- Notifyicon
- NumericUpDown
- PictureBox
- ProgressBar
- ⊙ RadioButton
- RichTextBox
- [ab] TextBox
- ToolTip
- TreeView
- WebBrowser

∨ Containers

- ▶ Pointer
- FlowLayoutPanel
- GroupBox
- Panel

GroupBox1

Button1

Button2

Button3

**Three attached controls:
Button1
Button2
Button3**

Radio Button Properties

- To determine if a button is selected

    `radButton.Checked`

  has value True if button is selected.

- To select a radio button

    `radButton.Checked = `**`True`**

Note: At most one radio button in a group
box can be selected at one time.

The Check Box Control

- Consists of a small square and a caption
- Presents the user with a Yes/No choice
- During run time, clicking on the check box toggles the appearance of a check mark.
- Checked property has value True when check box is checked and False when not
- CheckedChanged event is raised when the user clicks on the check box
- Several check boxes in a group can be checked at the same time.

Events Raised by a Selection

- SelectedIndexChanged – raised when a new item of a list box is selected

- CheckedChanged - raised when the user clicks on an unchecked radio button or a check box; that is, when the value of the Checked property is changed.