Level 2 Create software components using Visual Basic (7266/7267-204)

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e-Quals
Assignment guide for Candidates
Assignment A

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Level 2 Create software components using Visual Basic (7266/7267-204) Assignment A

Introduction – Information for Candidates

About this document

This assignment comprises part of the assessment for Level 2 Create software components using Visual Basic (7266/7267-204).

Health and safety

You are asked to consider the importance of safe working practices at all times.

You are responsible for maintaining the safety of others as well as your own. Anyone behaving in an unsafe fashion will be stopped and a suitable warning given. You will not be allowed to continue with an assignment if you compromise any of the Health and Safety requirements. This may seem rather strict but, apart from the potentially unpleasant consequences, you must acquire the habits required for the workplace.

Time allowance

The recommended time allowance for this assignment is **four** hours.

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Candidate instructions

Candidates are advised to read all instructions carefully before starting work and to check with your assessor, if necessary, to ensure that you have fully understood what is required.

Time allowance: four hours

Assignment set up: A scenario is provided below for this assignment.

This assignment is made up of three tasks

- **Task A** - provides a detailed design specification for software to demonstrate a user friendly graphical interface.
- **Task B** - provides presentation criteria that should be followed by candidates when producing their work.
- **Task C** - lists what the candidate should produce for their assessor.

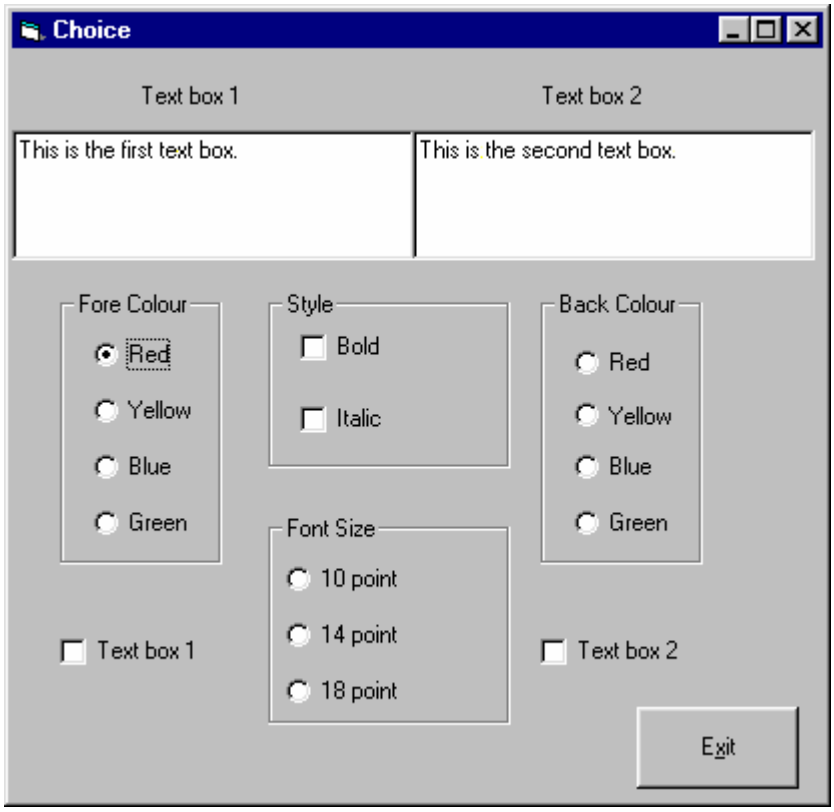
Scenario

A software development company, Technical Solutions, is developing a program for use as demonstration software for clients. As a contracted employee of Technical Solutions, you have been asked to create and test the software.

Task A

Candidates should use the following detailed specification to fulfil the company's requirements.

In this task you are required to create and test a demonstration of a user interface consisting of frames, option buttons, check boxes and text boxes. Your completed form should appear similar to the screen image shown below.



The controls must then be coded so that when a control is clicked the appearance of the text in the text boxes is altered according to the following rules:

- if the check box for Text box 1 is checked the appearance of the text in the first text box must be altered
- if the check box for Text box 2 is checked the appearance of the text in the second text box must be altered
- if the check boxes for Text box 1 and Text box 2 are both checked then the appearance of the text in both text boxes must be altered
- if neither check box Text box 1 nor Text box2 is checked then no action is taken.

1 Save the project at regular intervals as you work through the task. Save the form file as frmChoice and the project file as TaskA.

2 Set up the following as constants in the General Declarations section.

RED = &HFF&
YELLOW = &HFFFF&
GREEN = &HC000&
BLUE = &HFF0000

3 Set the Caption property of the form to: Task A *your name and the date*

4 Draw a text box control on the form, size and position it.
Set the Enabled property to False and the MultiLine property to True.
Name the text box txtText1 and set its Text property to: This is the first text box.

5 Draw a label control on the form, size and position it.
Name the label lblText1 and set its Caption property to: Text box 1

6 Draw a text box control on the form, size and position it.

Set the Enabled property to False and the MultiLine property to True.
Name the text box txtText2 and set its Text property to: This is the second text box.

7 Draw a label control on the form, size and position it.
Name the label lblText2 and set its Caption property to: Text box 2

8 Draw four frame controls on the form, size and position them. Name the frames fra1 to fra4.
Set the Caption properties for the frames to Fore Colour, Style, Font Size and Back Colour.

9 Draw and position the controls in each frame as shown in the screen image.

10 Name each control in each frame and set the Caption property according to the following specification:

Frame Identity	**Control Name**	**Caption**
Fore Colour	optForeRed	Red
	optForeYellow	Yellow
	optForeBlue	Blue
	optForeGreen	Green
Style	chkBold	Bold
	chkItalic	Italic
Back Colour	optBackRed	Red
	optBackYellow	Yellow
	optBackBlue	Blue
	optBackGreen	Green
Font Size	optFont10	10 point
	optFont14	14 point
	optFont18	18 point

11 Draw a check box control, size and position it. Name it chkTextbox1 and set its Caption property to Text box 1.

12 Draw a check box control, size and position it. Name it chkTextbox2 and set its Caption property to Text box 2.

13 Draw a command button. Name it cmdExit and set its Caption property to E<u>x</u>it

14 Code the program as follows:

a. *controlname*_Click sub procedure for each option button and check box to set the properties of the txtText1 and txtText2 text box controls to correspond to the state of the control that is clicked, according to the following rules:

i. the properties for the text box control txtText1 should be changed if the check box for Text box 1 is checked

ii. the properties for the text box control txtText2 should be changed if the check box for Text box 2 is checked

iii. the properties for both text box controls txtText1 and txtText2 should be changed if both check boxes for Text box 1 and Text box 2 are checked

iv. no action to be taken if neither check box Text box 1 nor Text box2 is checked.

b. Code the cmdExit_Click sub procedure so that the program will end when the button

is clicked.

15 Test that the program works correctly, correct any errors found and ensure the software conforms to the specification.

16 Make an EXE file and name it Choice.

17 Run the executable file and demonstrate that the program works correctly.

Task B

Candidates should follow the criteria below when producing their work:

1 The program conforms to the design specification.

2 The program uses the most appropriate data type(s).

3 Meaningful names are used when declaring variables.

4 The program syntax is consistently indented to aid readability.

5 The program is commented.

Task C

Candidates should produce the following for their assessor:

1 A printed program listing.

2 Printout of the frmChoice form.

Note

- At the conclusion of this assignment, hand all paperwork and removable media to the test supervisor.
- Ensure that your name is on the removable media and all documentation.
- If the assignment is taken over more than one period, all removable media and paperwork must be returned to the test supervisor at the end of each sitting.

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