SARDAR RAJA COLLEGE OF ENGINEERING

RAJA NAGAR, ALANGULAM

Department of Computer Applications

Subject Name	**:**	**VISUAL PROGRAMMING**
Subject Code	**:**	**MC9243**
Year	**:**	**II – M.C.A**
Semester	**:**	**IV**

Mrs. S.Mageshwaran

Asst. Prof /MCA

MC9243 VISUAL PROGRAMMING **L T P C 3 0 0 3**

UNIT I WINDOWS PROGRAMMING 8

The windows programming Model – Event driven programming – GUI concepts – Overview of Windows programming – Creating and displaying the window – Message Loop – windows procedure – WM_PAINT message – WM_DESTROY message – Data types – Resources – An Introduction to GDI – Device context – Text output – Scroll Bars – Keyboard – Mouse – Menus.

UNIT II VISUAL BASIC PROGRAMMING 10

Visual Basic Applications – Form and properties – Variables and Constants – Variant type – Procedure scope – Main – Control statements – control arrays – Creating and using Controls – Menus and Dialogs – Programming fundamentals – Objects and instances – Debugging – Responding to mouse events – Drag and Drag drop events Responding to keyboard events – keypress, keyup, keydown events – Using grid control – Graphics controls – shape and line control – File system controls – Common dialog controls – Processing files – Accessing databases with the data controls.

UNIT III VISUAL C++ PROGRAMMING 9

Visual C++ components – Introduction to Microsoft Foundation Classes Library – Getting started with AppWizard – Class Wizard – Event handling – Keyboard and Mouse events - WM_SIZE, WM_CHAR messages - Graphics Device Interface - Pen, Brush, Colors, Fonts - Single and Multiple document interface - Reading and Writing documents - Resources – Bitmaps creation, usage of BMP and displaying a file existing as a BMP

UNIT IV CONTROLS 9

Dialog Based Applications, controls – Animate control, image list, CRect tracker – Tree control – CtabControl – Dynamic controls – slider control – progress control – Inheriting CTreeView – CRicheditView – Modal Dialog, – Modeless Dialog – CColorDialog – CfileDialog.

UNIT V ADVANCED CONCEPTS 9

Domain Name System – Email – World Wide Web (HTTP) – Simple Status bars –Splitter windows and multiple views – Dynamic Link Library – Data base Management with ODBC – TCP/IP – Winsock and WinInet, – ActiveX control – creation and usage – Container class.

TOTAL : 45 PERIODS

TEXT BOOKS:

1. Charles Petzold, "Windows Programming", Microsoft press, 1996.

2. J. David Kruglirski, "Programming Microsoft Visual C++", Fifth Edition, Microsoft press, 1998.
3. Marion Cottingham "Visual Basic", Peachpit Press, 1999.

REFERENCES:

1. Steve Holzner, "Visual C++ 6 programming", Wiley Dreamtech India Private Ltd., 2003.
2. Kate Gregory "Using Visual C++", Prentice Hall of India Pvt., Ltd., 1999.
3. Herbert Sheildt, "MFC from the Ground Up". Deitel , " Visual Basic 6.0 How To Program", Pearson Education, 1999.

MC9243 VISUAL PROGRAMMING

Description:

- A programming language that uses a visual representation
  (such as graphics, drawings, animation or icons,
  partially or completely)
- A visual language manipulates visual information or supports visual interaction, or allows programming with visual expressions
- Any system where the user writes a program using two or more dimensions
- A visual language is a set of spatial arrangements of text-graphic symbols with a semantic interpretation that is used in carrying out communication actions in the world

Objectives:

- Explain the difference between event-driven programming and command-line programming.
- Design, code, test, and debug simple event-driven programs that respond to user events.
- Develop code that responds to exception conditions raised during execution.
- Differentiate between the responsibilities of the UIMS and the application.
- Differentiate between kernel-based and client-server models for the UI.
- Compare the event-driven paradigm with more traditional procedural control for the UI.
- Describe aggregation of widgets and constraint-based geometry management.
- Explain callbacks and their role in GUI builders.
- Identify as many commonalities as you can that are found in UIs across different platforms.

Micro Lesson Plan

Hours	Lecture Topics	Reading
	UNIT I Windows Programming	
1	The windows programming Model , Event driven programming	
2	GUI concepts ,Overview of Windows programming	
3	Creating and displaying the window (AV Class)	
4	Message Loop , windows procedure	T1
5	WM_PAINT message , WM_DESTROY message	
6	Data types , Resources	
7	An Introduction to GDI , Device context	
8	Text output Scroll Bars , Keyboard ,Mouse , Menus	
	UNIT II Visual Basic Programming	
9	Visual Basic Applications , Form and properties	
10	Variables and Constants , Variant type , Procedure scope	
11	Main , Control statements , control arrays	
12	Creating and using Controls , Menus and Dialogs , Programming fundamentals	
13	Objects and instances , Debugging , Responding to mouse events	T3
14	Drag and Drag drop events Responding to keyboard events (AV Class)	
15	Keypress, keyup, keydown events , Using grid control , Graphics controls	
16&17	shape and line control , File system controls , Common dialog controls – Processing files	
18	Accessing databases with the data controls	
	UNIT III Visual C++ Programming	
19	Visual C++ components , Introduction to Microsoft Foundation Classes Library	
20	Getting started with AppWizard , Class Wizard , Event handling	
21	Keyboard and Mouse events ,	
22	WM_SIZE, WM_CHAR messages	T2
23	Graphics Device Interface, Pen, Brush, Colors, Fonts	
24	Single and Multiple document interface (AV Class)	
25	Reading and Writing documents , Resources	
26	Bitmaps creation, usage of BMP	
27	Displaying a file existing as a BMP	
	UNIT IV Controls	
28	Dialog Based Applications, controls	
29	Animate control, image list, CRect tracker	
30	Tree control , CtabControl	
31	Dynamic controls	T2
32	Slider control , progress control (AV Class)	
33	Inheriting CTreeView	
34	CRicheditView	
35	Modal Dialog, , Modeless Dialog	
36	CColorDialog , CfileDialog	
	UNIT V Advanced Concepts	
37	Domain Name System ,Email	
38	World Wide Web (HTTP) , Simple Status bars	
39	Splitter windows and multiple views	
40	Dynamic Link Library	T2
41	Data base Management with ODBC (AV Class)	
42	TCP/IP	
43	Winsock and WinInet	
44	ActiveX control , creation and usage	
45	Container class	