

SRM UNIVERSITY
Faculty of Science and Humanities
Department of Computer Science

Subject

Name: Windows Applications Using .Net

Subject

code: PIT14204

Staff Name S. Chandra Kala

No. of Hrs

Per week: 4

List of books:

1. David S.Platt , (2001) "Introducing Microsoft .Net", Prentice Hall, New Delhi
2. Vikas Gupta , (2010),"Comdex .NET Programming ", Dream Tech Press, New Delhi.
3. Kogent Solutions,"C# 2008 Programming Black Book", Dream Tech Press, New Delhi, 2009 Microsoft ADO .Net Step by Step, Prentice Hall, New Delhi
4. O'Reilly Media (2001), Programming .NET Windows Applications.
5. Kogent Solutions, "C# 2008 in Simple Steps", Dream Tech Press, New Delhi.

UNIT I - INTRODUCTION TO C#

Introduction to .NET – Features of C# - Data Types – Value Types – Reference Types - Variables and Constants – Declaring – Assigning values – variables of nullable types – Operators – Type Conversions – Implicit and Explicit Type Conversions – Arrays – Single Dimensional and Multidimensional – Control Flow Statements – Selection – Iteration and Jump – Classes and Objects – Access Modifiers – Defining a Class – Variables – Properties and Methods – Creating Objects – Constructor and Destructors – Partial Classes – Static Classes – Extension Methods – Inheritance – Defining a Derived Class – Accessing Members of a Base Class – Abstract Classes – Sealed Classes – Interfaces – Defining Interfaces – Implementation – Inheritance – Polymorphism – Compile Time – Run Time

Session	Description	Reference with chapter
1	Introduction to .NET, Features of C#	TB5 - CH1, CH2
2	Data Types - Value Types, Reference Types	TB3 - CH3
3	Variables and Constants - Declaring, Assigning values, variables of Nullable types	TB3 - CH3
4	Operators, Type Conversions – Implicit and Explicit Type Conversions	TB3 - CH3
5	Arrays – Single Dimensional and Multidimensional	TB3 - CH3
6	Control Flow Statements – Selection, Iteration and Jump	TB3 - CH4
7	Classes and Objects – Access Modifiers, Defining a Class – Variables, Properties and Methods, Creating Objects	TB3 - CH5
8	Constructor and Destructors	TB3 - CH5
9	Partial Classes, Static Classes, Extension Methods, Abstract Classes, Sealed Classes	TB3 - CH6
10	Inheritance – Defining a Derived Class, Accessing Members of a Base Class	TB3 - CH6
11	Interfaces – Defining Interfaces, Implementation	TB3 - CH6
12	Polymorphism – Compile Time	TB3 - CH6
13	Polymorphism – Run Time	TB3 - CH6

UNIT II - WINDOWS FORMS AND WPF

Windows Forms – Form Class – Common Operations on Forms – Creating a Message Box – Handling Events – Mouse Events – Keyboard Events – Common Controls in Windows Forms – Label – TextBox – Button – Combo Box – List Box – Check Box – Radio Button – Group Box – Picture Box – Timer – Open File Dialog – Save File Dialog – Font Dialog – Color Dialog – Print Dialog – Tree View – Menu – WPF – Architecture of WPF – XAML and WPF – Common Controls in WPF – Grid – Button – Text Box – Password Box – Text Block – Border – Grid Splitter – Canvas – Stack Panel – Designer

Session	Description	Reference with chapter
14	Windows Forms – Form Class	TB3 - CH8
15	Common Operations on Forms	TB5 - CH5
16	Creating a Message Box	TB5 - CH5
17	Handling Events – Mouse Events, Keyboard Events	TB3 - CH8
18	Common Controls in Windows Forms – Label, TextBox	TB5 - CH5
19	Button, Combo Box, List Box	TB5 - CH5
20	Check Box, Radio Button, Group Box	TB5 - CH5
21	Picture Box, Timer	TB5 - CH5
22	Open File Dialog, Save File Dialog	TB5 - CH6
23	Font Dialog, Color Dialog, Print Dialog	TB5 - CH6
24	Tree View, Menu	TB5 - CH6
25	WPF – Architecture of WPF	TB5 - CH7
26	XAML and WPF	TB5 - CH7
27	Common Controls in WPF – Grid, Button	TB5 - CH7
28	Text Box, Password Box, Text Block, Border,	TB5 - CH7
29	Grid Splitter, Canvas, Stack Panel	TB5 - CH7
30	WPF Designer	TB5 - CH7

UNIT III - POINTERS, EVENTS, DELEGATES AND THREADS

Pointers – Unsafe Code – Declaring Pointers – Delegates – Declaring a Delegate – Defining Delegate Methods – Invoking Delegate Objects – Multicasting with Delegates – Events – Event Sources – Event Handlers – Events and Delegates – Threading – Thread Class – Multithreading – Thread Priorities – Thread States – Thread Synchronization.

Session	Description	Reference with chapter
31	Pointers - Unsafe Code, Declaring Pointers	TB3 - CH7
32	Delegates – Declaring a Delegate, Defining Delegate Methods, Invoking Delegate Objects	TB3 - CH7
33	Multicasting with Delegates	TB3 - CH7

34	Events, Event Sources, Event Handlers	TB3 - CH7
35	Events and Delegates	TB3 - CH7
36	Threading – Thread Class	TB3 - CH29
37	Multithreading	TB3 - CH29
38	Thread Priorities, Thread States	TB3 - CH29
39	Thread Synchronization.	TB3 - CH29

UNIT IV - REMOTING AND REFLECTION

Reflection – Using Reflection – Reflecting the Members of a Class - Dynamic Loading and Reflection - .NET Remoting – Architecture – Hosting of Objects – Single Ton and Single Call – Remoting Server – Remoting Client

Session	Description	Reference with chapter
40	Reflection- Using Reflection	TB3 - CH32
41	Reflecting the Members of a Class	TB3 - CH32
42	Dynamic Loading and Reflection	TB3 - CH32
43	.NET Remoting – Introduction, Architecture	TB3 - CH33
44	Hosting of Objects	TB3 - CH33
45	Single Ton and Single Call	TB3 - CH33
46	Building a Remoting Server	TB3 - CH33
47	Building a Remoting Client	TB3 - CH33

UNIT V - XML AND DATA ACCESS

Creating Connection String – Creating a Connection to a Database – Creating a Command Object – Working with Data Adapters – Using DataReader to work with Databases – Creating a Simple and Complex Data Binding in Windows Forms – Using the Binding Context Class – XML – Support for XML in .NET Framework – Working with Streamed XML – XML Reader and XMLWriter – File Handing – Text Reader and Text Writer - Binary Reader and Binary Writer

Session	Description	Reference with chapter
48	Introduction to ADO.Net	TB3 - CH22
49	Creating Connection String, Creating a Connection to a Database	TB3 - CH22
50	Creating a Command Object, Working with Data Adapters	TB3 - CH22
51	Using DataReader to work with Databases	TB3 - CH22
52	Creating a Simple and Complex Data Binding in Windows Forms	TB3 - CH23
53	Using the Binding Context Class	TB3 - CH23
54	XML – Support for XML in .NET Framework	TB3 - CH28

55	Working with Streamed XML – XML Reader and XMLWriter	TB3 - CH28
56	File Handling	TB3 - CH27
57	Text Reader and Text Writer	TB3 - CH27
58	Binary Reader and Binary Writer	TB3 - CH27