

Certificate in
Web Designing
under SCVT Craftsman Training Scheme

**Certificate in
Web Designing
under SCVT Craftsman Training Scheme**

Eligibility : 12th pass under 10+2 system or duly recognized Diploma in Engineering from any AICTE approved Polytechnic Diploma of 3yrs duration after class 10th.

Fees : 20,000/-

Age : As per Department's normal ITI Admission norms

Duration of Training : 52 Weeks (1 year) @ 30 hrs/week.
- 2 hrs/week for Library
- 2 hrs/week for Week End Exam
- 2 hrs/week for Extra Curricular Activity

Total : 6 hrs/week

30 - 6 = 24 hrs/week total course hours.

Total Practical hrs/week : 12 hrs

Total Theory hrs/week : 12 hrs

Total Course duration : 52 x 24 hrs = 1248 hrs

Total no. of hours for Practical : 52 x 12 hrs = 624 hrs

Total no. of hours for Theory : 52 x 12 hrs = 624 hrs

Total Students per Batch : 25

Objectives of the Course :

- 1) Learning Fundamental of Computer.
- 2) Learning basics of E-Commerce management.
- 3) A student can learn various operating systems.
- 4) To attain optimum skill level for Web page designing.
- 5) Learning various software packages and operating systems like Windows NT, Linux, VB Script, JavaScript, HTML, DHTML, Oracle 8.0, Flash 4.0, Dreamweaver 3.0, Photoshop 5.5, Core Java, ASP etc.
- 6) A student can do Web Page Management.
- 7) A student can successfully do Project work.

Minimum Hardware and Furniture required for Web Designing trade under the aegis of SCVT pattern

| Sr. No. | Hardware and Furniture Specification | Quantity Reqd. for 4 Batches |
|---------|--|---|
| 1 | Server with P- III or P- IV Processor @ 500 MHz with 128 MB RAM, 10.2 GB HDD, 1.44 MB FDD, 16 Bit Ethernet Card, 52x CD ROM Drive, SVGA Color Monitor, 101 Keyboard, Mouse, Sound Card and Speakers + Microphone Separate Telephone line for Internet connection with 56.6 Kbps Modem Web Camera and Mpeg Encoder | 1 |
| 2 | Nodes with P-III Processors @ 500 MHz. with 64 MB RAM, PCI Card, 10.2 GB HDD, 1.44 MB FDD, 16 Bit Ethernet Card, SVGA Color Monitor, 101 Keyboard, Mouse | 25 |
| 3 | 5 KVA Stabilizer | 2 |
| 4 | 0.5 KVA UPS for Server | 1 |
| 5 | 16 Port Hub for LAN RJ 45 Connectors an UTP Cable | 2 Hubs (Cable and Connectors as per Requirement) |
| 6 | 132 Column Dot Matrix Printer | 1 |
| 7 | Desk Jet or Laser or Ink jet Printer | 1 |
| 8 | Scanner | 1 |
| 9 | Window A.C. With 1.5 and 2 ton capacity | 2 (one of 1.5 Ton / one of 2 Ton) |
| 10 | Vacuum Cleaner | 1 |
| 11 | Computer Tables with Sun mica Top Having Sliding Tray for Keyboard and one shelf for Storage | 25 |
| 12 | Student Chairs with Castor and Adjustable Height Having Cushion | 25 |
| 13 | Cushion Fix Chairs with Rest arm and Movable writing pad support | 25 |
| 14 | White Board | 2 |
| 15 | Over Head Projector or any other Multi Media Type Display Device | 1 |

Note : Each Batch Comprising of 25 Students.

Software required for Web Designing trade under the aegis of SCVT pattern

| Software Specification |
|--|
| Windows NT (Server) , Windows NT (Workstation) Core Java, JDK 1.3, Flash 4.0, Dreamweaver 3.0, Photoshop 5.5, MS-Office 2000 All Softwares should be license version |

Faculty Qualification :Diploma in Computer Science/Computer Application/Computer Technology (2 years OR more) by any Institution approved by AICTE. OR BCA (3 year course) or MCA or BE (Computer Science) from any recognized university.

In addition to above, the faculty should have minimum 3 years of teaching experience in any reputed Computer Institute in respect of topics covered in the course.

Faculty Requirement :**FOR ONE BATCH** Minimum 2 faculties are needed with above qualification for 1 batches each of 25 students. (1 Faculty for theory and 1 faculties as a lab coordinator)
FOR TWO BATCHS Minimum 3 faculties are needed with above qualification for 2 batches each of 25 students. (1Faculty for theory and 2 faculties as a lab coordinator)

Note : Theory and practical should be conducted simultaneously for each batch of 25 students

Area Requirement :For Practical Lab : 300 Sq. ft.
For Theory Room : 200 Sq. ft
For Library Room : 150 Sq. ft.

Office Space, Pantry Should be there. Separate Toilet Facility for ladies and gents should be there.

Total Area requirement for Institute is 1200 Sq. Ft. minimum in good

Reference Books : ABCs of Windows 98, Computer Basics, Teach yourself Java in 24 hours , Teach yourself Dreamweaver 3.0, Flash 4.0 Magic, Teach yourself Photoshop 5.5 in 24 hours, MS-Office 2000 No experience required.

Exam Pattern : 1Hour Theory (100 marks) & 2 hours Practical (300 marks). Mid-term exam should be conducted after six months. Final examination should be conducted at the end of the course.

Web Designing Subjects & Duration

| Sr. No | Topics | Course duration in weeks | Total Theory hrs. | Total Practical hrs. |
|---------------|-----------------------------|---------------------------------|--------------------------|-----------------------------|
| 1 | Computer Fundamentals & DOS | 2 | 24 | 24 |
| 2 | Windows NT 4.0 | 2 | 24 | 24 |
| 3 | MS-Word 2000 | 2 | 24 | 24 |
| 4 | MS- PowerPoint 2000 | 1 | 12 | 12 |
| 5 | MS-FrontPage 2000 | 2 | 24 | 24 |
| 6 | Visual InverDev | 3 | 36 | 36 |
| 7 | Photoshop 5.5 | 6 | 72 | 72 |
| 8 | Macromedia Flash 4.0 | 2 | 24 | 24 |
| 9 | Macromedia Dreamweaver | 3 | 36 | 36 |
| 10 | HTML, DHTML | 2 | 24 | 24 |
| 11 | VB Script, Java Script | 4 | 48 | 48 |
| 12 | Cold Fusion | 1 | 12 | 12 |
| 13 | Core Java | 9 | 108 | 108 |
| 14 | ASP introduction | 2 | 24 | 24 |
| 15 | e-Commerce Fundamentals | 2 | 24 | 24 |
| 16 | Cutting Edge Technology | 5 | 60 | 60 |
| 17 | Project | 4 | 48 | 48 |
| | TOTAL | 52 weeks | 624 hrs. | 624 hrs. |

Computer Fundamentals & DOS

Week wise Break-up

Week - 1

Introduction

Booting process

What is Computer?

History of Computer

- A Tribute To The Past
- Generations Of Computer

Types Of Computers

- Micro Computer
- Mini Computer
- Main Frames
- Super Computer

Applications of Computers

Advantages of Computers

Computers and Human Beings

Basic Computer Organization

- Input Devices
- Memory
- Processor
- Output Devices

Units of Memory

Types of Memory

Storage Devices

- Tapes
- Disks

Difference Between Data and Information

Need of Information

Types of Programming Languages

- High Level Languages
- Low Level Languages

Data Organization

What are Data Files

What are Program Files

What are Batch Files

What are Command Files

The Numbering Systems

Decimal System

Binary System

Binary Coded System

What are ASCII Text Files

Role of ROM-BIOS in a Computer System

Software
Different Types of Software

- System Software
- Application Software
- Custom Software

Interpreters
Compilers
Assemblers
Editors
Hardware
Types of Computer Hardware
Latest in Computer Hardware

DOS

Week - 2

Concepts of an Operating System

- DOS Buffers

Types of Operating Systems

- Single User
- Multi User

Functions of an Operating System

- Device Management
- Memory Management
- Disk Organization

Understanding Disk Organization

- Tracks
- Clusters
- Sectors

Role of Config.sys
Understanding the Concepts of System Area on the disk
Understanding the Concepts of User Area on the disk
DOS file naming Conventions
DOS Wildcards (* , ?)
Importance of MS-DOS.SYS, IO.SYS, COMMAND.COM
DOS Internal Commands
DOS External Commands
DOS Device Descriptors

- CON, PRN
- LPT1, LPT2, LPT3
- COM1, COM2, COM3, COM4

Windows NT 4.0

Week - 3

Introduction to Windows NT 4.0

Understanding Windows NT

- Differences between Windows NT Server and Windows NT Workstation
- Features of Windows NT Server 4.0

- Customizing Windows NT Server 4.0
- Hardware and software requirements
 - Hardware requirements
 - Software requirements
- Getting more information
 - Using Windows NT Help
 - Using troubleshooting wizards in Help
- Installing Windows NT Server 4.0**
- Before you begin
 - Pre-installation checklist
- Running Windows NT Server Setup
 - Upgrading to Windows NT Server 4.0
- Selecting Setup options
 - FAT vs. NTFS
 - Choosing a licensing option
 - Network protocols
 - Logging on to Windows NT Server 4.0
- Windows NT Workstation 4.0 Basics**
- Introducing Windows NT Workstation
 - Starting and shutting down Windows NT Workstation
 - Windows NT Security
- Touring the Windows NT Desktop
- Customizing your work environment
 - Changing how your desktop looks
 - Creating shortcuts to files and folders
 - Customizing the Start menu
- Viewing the contents of your computer
 - Organizing files and folders
- Starting, closing, and switching between programs
 - Starting programs automatically
 - Using the Task Manager to quit a program
- Getting connected to the World Wide Web
 - Touring Internet Explorer 5.0
 - Exploring the World Wide Web
- Understanding Control Panel
- Printer Settings
- Task Bars
- Understanding Accessories in Windows NT 4.0 Workstation

Week - 4

Windows NT Server 4.0 Basics

- Understanding networks
 - LAN vs. WAN
 - Making the connection
- Components of a Windows NT network
 - Workgroups and domains
 - Servers: Primary Domain Controllers, Backup Domain Controllers, and member servers
 - User accounts
 - Groups
 - Built-in accounts and groups
- Account policies, user profiles, and user rights
 - Account policies
 - User profiles
- User rights
- Understanding Control Panel

Printer Settings
Task Bars
Understanding Accessories in Windows NT 4.0 Server

MS-Word 2000

Week - 5

Getting Started with Word 2000

What's New with Word 2000?
Installing Word 2000
Starting Word 2000
Exiting Word 2000
Understanding Elements of the Word Window
Working with Menus
Working with Toolbars
Working with Dialog Boxes
Controlling Word Window
Getting Help Using Office Assistant
Microsoft Word Help Window

Entering & Edit Text and Moving Around the Document

Typing Text
Navigating Through Text
Moving Directly to Specific Page
Creating, Saving and Opening files
Accessing File & Folders
Creating Folders
Renaming and Deleting Files
Moving and Copying Files
Understanding Templates and Wizards
Selecting a Template or Wizard for a New Document
Inserting new text into existing text
Deleting, Moving & Copying Text
Undoing Mistakes in Text
Restoring deleted Text

Viewing & Printing Documents

Switching Views
Arranging Multiple Document on the Desktop
Zooming Document
Previewing document before printing
Printing Document

Formatting Characters & Paragraphs, Pages

Changing Fonts, Font size, Color
Applying Boldface, Italic, Underline, Text Effects
Removing & Copying Font Formatting
Changing Line Spacing & Alignment
Setting Tabs Spots & Indents
Creating Bulleted and Number Lists
Coping and Removing Paragraph Formatting
Adding Borders & Shading to Paragraph

Changing Margins, Page Orientation and Size
Adding Page Numbers, Page Borders, Headers & Footers
Inserting Page Breaks, Section Breaks
Creating Footnotes & Endnotes
Creating Table of Contents
Adding hyperlinks to your Text
BookMarking Specific Locations in Your Document

Working with Styles, Checking Spelling & Grammar, Thesaurus

Applying Styles to Text
Modifying Styles
Fixing Spelling & Grammar Errors
Working with Thesaurus
Correcting Text Automatically
Inserting Standard Blocks

Week - 6

Editing Shortcuts

AutoCorrect Text
Finding & Replacing Text
Inserting the Date, Symbols, Fields
Sorting Lists

Working with Tables Columns and Graphics

Creating, Formatting & Modifying Tables & Columns
Navigating, Typing, Selecting & Changing Tables
Sorting Text within Table
Inserting Images from Clipart Gallery & other Places
Drawing Shapes with Drawing Tools
Using WordArt
Sizing, Moving & Cropping Images

Generating a Multiple Mailing using Mail Merge

What is Mail Merge?
Starting your Form Letter
Creating your List of Recipient Data
Merging the Letter and Data
Editing Recipient Data
Merging Envelopes and Labels
Merging Selected Record

Inserting Data From Other Office 2000 Applications in Word 2000 Documents

Inserting Data from Excel Worksheet into Word 2000 document
Embedding Data from Excel in Word document
Exporting PowerPoint Presentation to a Word 2000 document
Adding an Individual PowerPoint slide to Word document

Sending E-mail through Word 2000

Sending Word document as an E-mail message
Sending Word document as an Attachment through an E-mail
Sending any Document as an E-mail Attachment

MS-PowerPoint 2000

Week - 7

Getting Started

What's New in PowerPoint 2000?
Starting PowerPoint 2000
Using Help
Using Office Assistant
Exiting PowerPoint 2000
Creating Your First Presentation
Using AutoContent Wizard
PowerPoint Opening Screen
Types of Toolbars
Types Of View
Customizing the Sample Slides
Spell Checking the Presentation
Printing Presentation
Saving, Opening and Creating Presentations
Using AutoLayout
Adding New Slides
Creating Bulleted or Numbered Slides
Moving Slide
Deleting Slides
Page Setup

Text Objects in PowerPoint 2000

Difference Between Text Objects & Text Boxes
Move and Copy a Text Object
Change Font properties such as font type, size, and color
Format Bulleted or Numbered Text
Change Text Object Attributes
Find and Replace Command

Working with Clip Art and Pictures

Inserting a Clip Art Image or Picture
Move Copy and Resize Images
Grouping & Ungrouping Clip Art
Image Objects Enhancing with Borders, Fill Color, Brightness & Shadows
Animate Images
Add Images to Clip Gallery

Customizing the Presentation

Creating Custom Color Scheme, Custom Background
Creating & Printing Speaker's Notes
Creating Handout for Audience

Working With the Masters

Types of Masters
Formatting the Masters
Saving a Presentation as a Template

Slide Show Basics

Viewing Presentation
Adding Temporary Annotations to the Presentation
Slide Timings
Hide Slide
Create a Summary Slide

Adding Special Features to a Slide

Adding Special Effects such as Transitions and Animation
Customizing the Same Slide Show for Two different Audiences
Working with Text Boxes, WordArt and PowerPoint Guides
Using AutoShape
Grouping & Ungrouping Object
Rotating Objects
Special Effects to the Lines and Objects
Creating and Using Tables
Embedding or Linking a Preexisting Excel Worksheet in PowerPoint Slide
Creating & Editing Charts and Graphs with Microsoft Graph
Using Microsoft Organization Chart
Inserting Multimedia Elements into a PowerPoint Presentation
Using and Creating Macros to Automate Tasks
Creating Web Pages in PowerPoint

MS-FrontPage 2000

Week - 8

Creating a Site

Using Wizards and Themes
Setting Up Style Sheets
Checking Links and Spelling

Working with Frames

Creating Frames Pages
Splitting Frames
Editing Frames Pages

Altering Images

Cropping and Resizing
Working with Images and Text
Creating a Transparency

Week - 9

Adding DHTML and Other Media

Adding DHTML Effects
This is a Good Place for a Plug-In
Adding Video
ActiveX

Managing a Site

Security
Adding and Removing Users
Checking Files Out and In

Other Timesavers and New Features

Adding a Hit Counter
Adding an Ad Banner
Add a Search Form

Visual InterDev

Week - 10

Presenting Visual InterDev 6
Creating Your First Visual InterDev Project
Creating the Content for your Application
WYSIWYG Editing with Visual InterDev
Enhancing Your Web Page Through Client-Side Script
Extending Your Web Page Through Server-Side Script
Integrating Objects into Your Applications

Week - 11

Communicating with a Database
Using the Visual Data Tools for Maximum Productivity
Managing Your Database Components
Fundamentals of Active Server Pages
Extending Web Pages Through Design-Time Controls
Unleashing the Power of the Visual InterDev Programming Model
Building a Database-Driven Web Application

Week - 12

Building an Integrated Solution with Components
Managing Your Web Site with Visual InterDev
Debugging Your Applications with Visual InterDev
Exploring the Working Modes of Visual InterDev
Effective Team Development with Visual InterDev and Visual SourceSafe
Designing an Effective Site with the Site Designer
Making a Difference with Dynamic HTML

Adobe Photoshop 5.5

Week - 13

Introduction To Photoshop 5.5

Hardware Requirements For Photoshop 5.5
What Is New In Photoshop 5.5
How To Install Photoshop 5.5
How To Start Photoshop

Photoshop 5.5 Opening Screen

Menu Bar
Title Bar
Toolbox
Status Bar
Pallets

Different Menus In Photoshop 5.5

File Menu

New
Open
Open As
Close
Save
Save As
Save A Copy
Revert
Place
Import
Export
Automate
File Info
Page Setup
Print
Jump To
Preference
Color Setting
Adobe Online
Exit

Week - 14

Edit Menu

Undo
Cut
Copy
Copy Merged
Paste
Paste Info
Clear
Fill
Stroke
Free Transform
Transform
Purge

Image Menu

Mode
Adjust
Duplicate
Apply Image
Calculation
Image Size
Canvas Size
Crop
Rotate Canvas

Histogram
Trap

Week - 15

Layer Menu

New
Duplicate Layer
Delete Layer
Layer Option
Adjustment Option
Effects
Type
Add Layer Mask
Enable Layer Mask
Disable Layer Mask
Group With Previous
Ungroup
Arrange
Align Linked
Distribute Linked
Merge Layer
Merge Visible
Flatten Image

Select Menu

All
Deselect
Reselect
Inverse
Color Range
Feather
Modify
Grow
Similar
Transform Selection
Load Selection
Save Selection

Week 16

Filter Menu

Artistic
Blur
Brush Strokes
Distort
Noise
Pixelate
Render
Sharpen
Sketch
Stylize
Texture
Video
Other

View Menu

New View
Preview
Gamut Warning
Zoom In
Zoom Out
Fit On Screen
Actual Pixel
Print Size
Show/Hide Path
Show/Hide Edges
Show/Hide Guides
Lock Guide
Clear Grid
Show/Hide Grid
Snap To Grid

Week - 17

Window Menu

Cascade
Title
Arrange Icon
Close All
Show Tools
Show Navigator
Show Info
Show Options
Show Color
Show Channels
Show Paths
Show History
Show Status Bar

Week 18

Introduction To Photoshop Toolbars

Marquee Tool & Its Subtools
Move Tool & Its Subtools
Lasso Tool & Its Subtools
Stamp Tool & Its Subtools
History Brush Tool & Its Subtools
Pencil Tool & Its Subtools
Blur Tool & Its Subtools
Dodge Tool & Its Subtools
Pen Tool & Its Subtools
Type Tool & Its Subtools
Gradient Tool & Its Subtools
Magic Tool
Airbrush Tool
Paint Brush Tool
Eraser Tool
Measure Tool

Paint Bucket Tool
Eye Dropper Tool
Hand Tool
Zoom Tool

Working With Pallets

Navigator Pallet
Info Pallet
Options Pallet
Color Pallet
Swatches Pallet
Brushes Pallet
Layer Pallet
Channels Pallet
Paths Pallet
History Pallet
Actions Pallet

Macromedia Flash 4.0

Week 19

Flash Basics

An Overview Of Flash
Introduction To Flash 4 Interface
Basic Flash Movement

Creating With Flash

Layers
Flash Rotation And Scaling
Flash Drawing Tools:
Line
Oval
Rectangle
Freeform
Symbols
Using Instances Of Symbols In Your Flash Movie
Changing All Instances By Changing The Symbol In Flash
Using A Button Symbol Instance In Your Flash Movie
Adding Interactivity
Using Motion Guides

Week 20

Shape Tweening

Flash Shape Tweening

Sounds

Organizing Sounds In Your Flash Movie
Importing A Sound (.Wav) File Into Your Flash Movie
Adding A Sound Loop To Your Flash Movie
Adding Overlapping Event Sounds To Your Flash Movie
Stopping Sounds In Your Flash Movie

Dreamweaver 3.0

Week - 21

The Basics of Building a Site

Combining Windows
Creating a New Site or Connecting to An Existing Site
Import Text from MSWord
Using the Quick Tag Editor

Working with Frames

An Easy Way to Create Frames
An Easier Way to Create Frames
The Easiest Way to Create Frames
Noframes Content

Week - 22

Adding "Behaviors"

Swapping an Image
Perform a Browser Check
Adding New Behaviors

Inserting Media

Inserting Java Applets
Inserting Shockwave and Flash Movies
Using Other Editors

Week - 23

Managing Your Site

Linking to Your Remote Site
Checking In and Checking Out Documents
Synchronizing Your Files

Other Dreamweaver 3 Timesavers

Creating HTML Stylesheet
Automating Repetitive Tasks
Using Design Notes

HTML & DHTML

Week - 24

Introducing Web Pages and HTML

Creating Your First HTML Document
Stepping Out : Linking Your Way around the Web
Publishing Your HTML Document
Understanding the HTML Document Life Cycle
Site Design and Navigation
Planning and Designing Your Web Page
Formatting the Body Section of Your Pages

Dividing a Window with Frames
Lay Out Technology
Adding Graphics
Presenting Information in Tables
Web Typography

Week - 25

Advanced HTML

Optimizing Your Pages for Internet Explorer 5
Optimizing Your Pages for Netscape Navigation 4
Including Multimedia
Using Style Sheets
Developing HTML Forms
Exploring and Navigation Dynamic HTML (DHTML)
Sample Web Page Creation with all possible tags

JavaScript

Week - 26

Introduction to JAVASCRIPT

Versions Of JavaScript
Embedding JavaScript
JavaScript Grammar
Variables And Data Types

Operators

Arithmetic or Computational
Comparison
Boolean
String and Assignment
Special
Statements
Conditionals
Loops
Object Manipulation
Comments

Week - 27

Functions

Defining Functions
Calling Functions

Objects

Document Object Model
Properties
Methods
Creating Objects

Event Handlers

VBScript

Week - 28

Introduction to VBScript

What is VBScript?
Adding VBScript to Web Pages
The <SCRIPT> Tag
Non-Supporting Browsers
Working with Variables
Declaring Variables
Scope of Variables
Constants
Arrays

Week - 29

More on VBScript

Objects and VBScript
Adding Objects to Web Pages
Linking VBScript with Objects
Controlling VBScript Routines
Conditional Statements
Looping Statements
Using VBScript with Forms
Validating Your Forms

Cold Fusion

Week - 30

Getting The Database Ready

What's Cold Fusion?
Who Needs It?
Installing Cold Fusion and Defining a Data Source
Examining Your Database
Review

The Beauty Of Templates

Cold Fusion Templates
Template Basics
SQL Statements
More CFOUTPUT
CFIF and CFELSE
Review

Advanced Functions, Troubleshooting

More Template Building
Headers and Footers
Testing and Troubleshooting Your Templates
More Information on Cold Fusion
Review

Core Java

Week - 31

An Introduction to Java

Java as a Programming Tool

Advantages of Java

The Java "White Paper" Buzzwords:

Simple

Object-Oriented

Distributed

Robust

Secure

Architecture Neutral

Portable

Interpreted and High Performance

Multithreaded

Dynamic

Java and the Internet

Applets at Work

Server-side Java

A Short History of Java

Common Misconceptions About Java

The Java Programming Environment

Installing the Java Software Development Kit

Setting the Execution Path

Installing the Library Source and Documentation

Installing the Core Java Program Examples

Navigating the Java Directories

Development Environments

Using the Command Line Tools

Troubleshooting Hints

Using an Integrated Development Environment

Locating Compilation Errors

Compiling and Running Programs from a Text Editor

Graphical Applications

Applets

Week - 32

Fundamental Programming Structures in Java

A Simple Java Program

Comments

Data Types

Integers

Floating-Point Types

The Character Type

The Boolean Type

Variables

Assignments and Initializations

Constants

Operators
Increment and Decrement Operators
Relational and Boolean Operators
Bitwise Operators
Mathematical Functions and Constants
Conversions Between Numeric Types
Casts
Parentheses and Operator Hierarchy
Strings
Concatenation
Substrings
String Editing
Testing Strings for Equality
Reading the On-line API Documentation
Reading Input
Formatting Output
Control Flow
Block Scope
Conditional Statements
Indeterminate Loops
Determinate Loops
Multiple Selections-the switch Statement
Breaking Control Flow
Big Numbers
Arrays
Array Initializers and Anonymous Arrays
Copying Arrays
Command Line Parameters
Sorting an Array
Multidimensional Arrays
Ragged Arrays

Week - 33

Objects and Classes

Introduction to Object-Oriented Programming
The Vocabulary of OOP
Objects
Relationships Between Classes
Contrasting OOP with Traditional Procedural Programming Techniques
Using Existing Classes
Objects and Object Variables
The Gregorian Calendar Class of the Java Library
Building Your Own Classes
An Employee Class
Using Multiple Source Files
Analyzing the Employee Class
First Steps with Constructors
The Methods of the Employee Class
Method Access to Private Data
Private Methods
Final Instance Fields
Static Fields and Methods
Static Fields
Constants. Static Methods
Factory Methods

- The main Method
- Method Parameters
- Object Construction
- Overloading
- Default Field Initialization
- Default Constructors
- Explicit Field Initialization
- Parameter Names
- Calling Another Constructor
- Initialization Blocks
- Object Destruction and the finalize Method
- Packages
- Using Packages
- Documentation Comments
- How to Insert Comments
- Class Comments
- Method Comments
- Field Comments
- General Comments
- Package and Overview Comments
- How to Extract Comments
- Class Design Hints

Week - 34

Inheritance

- Extending Classes
- Inheritance Hierarchies
- Polymorphism
- Dynamic Binding
- Preventing Inheritance: Final Classes and Methods
- Casting
- Abstract Classes
- Protected Access
- Object: The Cosmic Superclass
- The equals and toString methods
- Generic Programming
- Array Lists
- Object Wrappers
- The Class Class
- Reflection
- Using Reflection to Analyze the Capabilities of Classes
- Using Reflection to Analyze Objects at Run Time
- Using Reflection to Write Generic Array Code
- Method Pointers! Design Hints for Inheritance

Interfaces and Inner Classes

- Interfaces
- Properties of Interfaces
- Interfaces and Abstract Classes
- Interfaces and Callbacks
- Object Cloning
- Inner Classes
- Using an Inner Class to Access Object State
- Special Syntax Rules for Inner Classes
- Are Inner Classes Useful?

Are They Actually Necessary?
Are They Secure?
Local Inner Classes
Static Inner Classes
Proxies
Properties of Proxy Classes

Week - 35

Graphics Programming

Introduction to Swing
Creating a Frame
Frame Positioning
Displaying Information in a Panel
2D Shapes
Colors
Filling Shapes
Text and Fonts
Images

Event Handling

Basics of Event Handling
Example: Handling a button click
Selecting Event Listeners
Example: Changing the Look and Feel
Example: Capturing Window Events
The AWT Event Hierarchy
Semantic and Low-Level Events in the AWT
Event Handling Summary
Low-Level Events
Focus Events
Keyboard Events
Consuming Events
Mouse Events
Actions
Multicasting
The Event Queue
Adding Custom Events

Week - 36

User Interface Components With Swing

The Model-View-Controller Design Pattern
A Model-View-Controller Analysis of Swing Buttons
An Introduction to Layout Management
Border Layout
Panels
Text Input
Text Fields
Input Validation
Password Fields
Text Areas
Labels and Labeling Components
Selecting Text
Editing Text
Making Choices

- Check Boxes
- Radio Buttons
- Borders
- Combo Boxes
- Sliders
- Menus
- Building Menus
- Icons in Menu Items
- Check Box and Radio Button Menu Items
- Pop-up Menus
- Keyboard Mnemonics and Accelerators
- Enabling and Disabling Menu Items
- Tool Bars
- Tool Tips
- Sophisticated Layout Management
- Grid Layout
- Box Layout
- Grid Bag Layout;
- The gridx, gridy, gridwidth, and gridheight Parameters
- Weight Fields
- The fill and anchor Parameters
- Padding
- An Alternative Method to Specify the gridx, gridy, gridwidth, and gridheight Parameters
- Using No Layout Manager
- Custom Layout Managers
- Traversal Order
- Dialog Boxes
- Option Dialogs
- Creating Dialogs
- Data Exchange
- File Dialogs
- Color Choosers

Week - 37

Applets

- Applet Basics
- A Simple Applet
- Running the Applet Viewer
- Viewing an Applet in a Browser
- Converting Applications to Applets
- Life Cycle of an Applet
- Security Basics
- Pop-Up Windows in Applets
- The Applet HTML Tags and Attributes
- Applet Attributes for Positioning
- Applet Attributes for Code
- Applet Attributes for Java-Challenged Viewers
- The OBJECT Tag
- Java Plug-In Tags
- Passing Information to Applets
- Multimedia
- URLs
- Obtaining Multimedia Files
- The Applet Context

- Inter-Applet Communication
- Displaying Items in the Browser
- A Bookmark Applet
- It's an Applet
- It's an Application
- It's Both! JAR Files
- The Manifest
- Jar Caching
- Self-Running JAR files
- Resources
- Optional Packages
- Sealing

Week - 38

Exceptions and Debugging

- Dealing with Errors
- The Classification of Exceptions
- Advertising the Exceptions That a Method Throws
- How to Throw an Exception
- Creating Exception Classes
- Catching Exceptions
- Catching Multiple Exceptions
- Re-throwing Exceptions
- A Final Look at Java Error- and Exception-Handling
- Some Tips on Using Exceptions
- Debugging Techniques
- Useful Tricks for Debugging
- Assertions
- Using a Console Window
- Tracing AWT Events
- The AWT Robot
- Profiling
- Coverage Testing
- Using a Debugger
- The JDB Debugger
- The Forte Debugger

Week - 39

Streams and Files

- Streams
- Reading and Writing Bytes
- The Complete Stream Zoo
- Layering Stream Filters
- Data Streams
- Random-Access File Streams
- ZIP File Streams
- Putting Streams to Use
- Writing Delimited Output
- String Tokenizers and Delimited Text
- Reading Delimited Input
- Random-Access Streams
- Object Streams
- Storing Objects of Variable Type
- Object Serialization File Format

The Problem of Saving Object References
Output Format for Object References
Security
Versioning
Using Serialization for Cloning
File Management

ASP (Active Server Pages)

Week - 40

Getting Started with ASP

What are active Server Pages?
Running ASP Pages
Creating ASP Pages
Creating your First ASP Pages

Dissecting your First ASP Script

Understanding ASP Scripts
What your ASP Script Returned to the Browser
The ASP Process

Working with Variables

What is a Variables?
Data Types
Integer
Floating-point Numbers
VBScript Operators

Working with Objects

What are Objects?
The Building Blocks of Objects
Built-in ASP Objects
Collections
Working with Objects
Events

Using the Response Object

What is the Response Object?
Dissecting the Response Object

Working with the Request Object

Accessing the HTTP Headers
Accessing the Environment Variables
Using Cookies

Debugging your ASP Scripts and Handling Errors

Debugging your ASP Scripts
Handling ASP Errors Gracefully

Week - 41

Using Databases

What are Relational Databases?
Why use Database?

Working with Database using ASP

Reading from a Database Using ASP

Database and ASP
Connecting to a Database
Reading Data from a Database

Inserting, Updating, and Deleting Database Records

Inserting Records
Updating Records
Deleting Records

Examining the Recordset Object

Enhancing Information Retrieval
Understanding the CursorType and CursorLocation Properties
Sorting Recordsets
Filtering Recordsets

Using SQL Statements to Query Data

What is SQL?
The SELECT SQL Statement
Allowing Users to Query Data

Using Advanced Database Techniques

Advanced Features of the Recordset Object
Using Stored Procedures
The Command Object

Practicing Intelligent Application Design

Why Design Matters
Good Database Design Techniques
Good ASP Design Techniques

E-Commerce Fundamentals

Week - 42

Understanding Electronic Commerce

What is E-Commerce?

Overview of E-Commerce

Visiting the Sites
Introduction to Commerce Server

Building a Site

Creating a Site Foundation
Creating a Site
Working with the Server Administration Pages

Enhancing the Product Catalog

Introducing Commerce Server Objects
Modifying Wizard-Generated Catalog Pages
Adding Product Search Capability
Implementing Cross-Sell

Managing a Shopping Cart

Managing a Shopping Session
Adding Items to a Shopping Cart
Displaying, Updating, and Removing Items
Implementing Price Promotions
Implementing Upsell

Week - 43

Processing Orders

Understanding Order Processing
Running the Order Processing Pipeline (OPP)
Understanding the Plan Pipeline

Checking Out

Capturing Shopper Information
Computing Order Value
Adding a Scriptor Component

Completing the Purchase Process

Understanding Purchase
Executing the Purchase OPP
Tracking an Order
Securing Business Transactions

Tracking Shopper Information

Using Cookies to Track Shoppers
Using Registration Table to Track Shoppers

Introducing Business-to-Business Commerce

Business-to-Business Commerce
Business Partner Functionality

Week - 44 to 48

Cutting Edge Technology

(To tech latest Software available in the Market)

Week - 49 to 52

Project

