Course Name:
Diploma in .NET Technology
Course Code: D5

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Diploma in .NET technology

1. **Introduction:**

   ASP.NET is a web application framework developed and marketed by Microsoft to allow programmers to build dynamic web sites, web applications and web services. ASP.NET is built on the Common Language Runtime (CLR), allowing programmers to write ASP.NET code using any supported .NET language.

   Visual Basic was designed to be easily learned and used by beginner programmers. The language not only allows programmers to create simple applications, but can also develop complex applications. Programming in VB is a combination of visually arranging components or controls on a form, specifying attributes and actions of those components, and writing additional lines of code for more functionality. Since default attributes and actions are defined for the components, a simple program can be created without the programmer having to write many lines of code.

2. **Eligibility:**

   Graduate in any discipline

3. **Duration:**

   260 Hours. Two Hours each day
   - Theory 60 hours
   - Practical 200 hours

4. **Course Details:**

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<tr>
<th>Type of course</th>
<th>Syllabus</th>
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   **HTML SYLLABUS**

   **INTRODUCTION**
   The World Wide Web (WWW)
   HTML History
Hypertext and Hypertext Markup Language
Microsoft Front Page

**HTML DOCUMENTS**
Dividing the document into 2 parts.
  - Headers
  - Body

**Tags**
  - Representing 2 types of tag (odd and even)

**Elements of an HTML Document**
  - Text Elements
  - Tag Elements
  - Special Character elements

**STRUCTURAL ELEMENTS OF HTML DOCUMENTS**

- Header tags
- Body tags.
  - Paragraphs
  - Titles
  - Lists
    - Numbered list
    - Non-Numbered lists
    - Definition lists

**FORMATTING HTML DOCUMENTS**

- Logical styles (source code, text enhancements, variables)
- Physical Styles (Bold, Italic, underlined, crossed)

**MANAGING IMAGES IN HTML**

- Image format (quality, size, type, …)
- Importing images (scanners)
- Tags used to insert images
- Frames

**CREATING TABLES IN HTML DOCUMENTS**

- Tags used in table definition
- Tags used for border thickness
- Tags used for cell spacing
- Tags used for table size
- Dividing table with lines
- Dividing lines with cells
- Cell types
  - Titles cells
  - Data cells
HYPERTEXT AND LINK IN HTML DOCUMENTS

URL/FTP/HTTP
Types of links.
   Internal Links
   External Links
Link Tags
Links with images and buttons
   Links that send email messages

SPECIAL EFFECTS IN HTML DOCUMENTS

Text fonts
Sensitive Images
Tip tables
Page background
   Variable
   Fixed
Rotating messages (Marquee)
Counters

MULTIMEDIA

Audio files and acceptable formats (AIFF, AU, MIDI, WAVE)
   Inserting audio files
Video files and acceptable formats (MPEG, Quick Time, Video for Windows).
   Inserting video files
   Screen control attributes (WIDTH, HEIGHT, ALIGN).
   Start control attributes (START, FILEOPEN, LOOP, LOOPDELAY, MOUSEOVER).

MANAGING FORMS

Interactive forms
Creating data entry forms

ASP.NET

- Introduction to ASP
  - Introducing web application
  - Understanding ASP.net
  - Creating an ASP .net application using the visual studio .net IDE
  - Cascading style sheets
  - Creating a web form in ASP .net
• Controls and Events
  o Server controls in ASP .net
  o Creating custom controls
  o Handling events in ASP .net
  o Creating web form using server controls

• Templates
  o Data binding
  o Web server control templates
  o Creating templates for server controls
  o Manipulating the data in a database

• Working with XML
  o Introducing XML
  o Working with XML server controls
  o Binding XML data to web form controls
  o Converting relation data into an XML document
  o Using the information search tool
  o Using SQL server full text search

• Active X and COM
  o Invoking COM/com+ and activex components
  o Creating multi-tier web application

• Using Web Services and COM Components
  o Creating and Invoking Web Services
  o Invoking COM/COM+ and ActiveX Components
  o Creating a Multitier Web Application

• Error Handling And Debugging
  o Implementing Error Handling in Web-Based Applications
    ▪ Types of Errors
    ▪ Error Handling
  o Testing Web-Based Applications
    ▪ Guidelines for Testing
  o Debugging Web-Based Applications
    ▪ Using Visual Studio.NET Debugging Environment
  o Implementing Tracing in a Web-Based Application
    ▪ Page-level Tracing
    ▪ Application-level Tracing
    ▪ Using the Trace Object
    ▪ Using Trace Listeners
    ▪ Using Trace Switches
  o Introduction to Secure Sockets Layer
  o Installation of Front Page Server Extensions

• State Management and Accessibility
  o Understanding State Management
    ▪ Overview of State Management
    ▪ Client—Side State Management Options
    ▪ Server-Side State Management Options
    ▪ Database Support
  o Sending Email from an Asp.NET page
ITKC COURSE DETAILS

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- Implementing Accessibility,
  - Designing Accessibility Application
- Creating Web Application using Accessibility

- Globalization And Optimization
  - Globalization in ASP.NET
    - Implementing Globalization
    - Character Encoding
    - Mirroring
    - Validating Nonlatin User Input
    - Working with Resources
    - Configuring a Web Application for Globalization
  - Optimizing Web Applications
    - Understanding Caching
    - Output Caching
    - Fragment Caching
    - Data Caching
  - Creating a Web Form in ASPNET
  - Migration from ASP to ASPNET
  - Code Access Security

- Configuring and Securing Web Applications
  - Configuring ASPNET Web Applications
    - Hierarchical Configuration System
    - Structure of a Configuration File
    - Configuration Sections
    - Adding and Retrieving Custom Configuration Information
  - Securing ASPNET Web Applications
    - Microsoft, NET Framework Security
    - Configuring an ASP.NET Application for Security
  - Implementing Form Authentication

- Deploying an ASP.NET Web Application
  - Introduction to Deployment
  - Types of Deployment Projects
  - Creating a Web Setup Project
    - Creating a Web Setup Project Using the Setup Wizard
    - Creating a Web Setup Project Manually
    - Working with Deployment Editor
    - Deployment Guidelines for ASP.NET Applications
  - Deploying a Web Application using the Web Setup Project
  - Authenticode Signing
  - Microsoft Passport Services

- Project Development (So as to understand development of forms, control of forms, reports and dynamic web application).

VB.NET

1. Getting Started with .Net
1. Type of application architecture
   a. The .net framework
   b. Introduction to Visual basic .net
   c. Visual studio .net integrated development environment

2. Creating windows form
   a. Visual basic .Net language feature
   b. Working with form

3. Implementing object – oriented Programming in visual basic .Net

   a. Introduction top common dialog classes

5. Working with ADO.Net
   a. The ado.net object model
   b. Connecting to a database

6. Accessing and Manipulating data
   a. Implementing complex data binding
   b. Implementing simple data binding
   c. Filtering and sorting Data
   d. Displaying Data from Multiple table

7. Performing data updates
   a. Updating data
   b. Maintaining data concurrency

8. Creating report
   a. Data access to crystal report

9. Creating menus and working with MDI application
   a. Menu in Vb.Net
   b. Introduction to the toolbar and image list controls

    a. Performing file I/O operation
    b. Threads

11. Exception handling and debugging
    a. Handling Exception
    b. Handling Errors
    c. Debugging application
    d. Tracing and Debugging Application
    e. Searching for Bugs

12. Providing application assistance
    a. Creating help system
    b. Displaying context sensitive help
    c. Creating help

13. Creating Components
    a. Introduction to components
    b. Component architecture in .Net
c. Component Classes  
d. Life Cycle of a component  
e. Creating Components  

14. Introduction use controls and managing components  
a. User controls  
b. User control class  
c. Creating customize user controls  
d. Creating customer control form the control class  

15. Creating and using web services  
a. Introduction to web services  
b. Creating a web service  
c. Using a web service in a windows application  
d. Using web services in web application  

16. Deploying .Net application  
a. Deploying project editors  
b. The file systems editor  
c. Registry editor  
d. File type editor  
e. User inter face editor  
f. Customer action editor  
g. Launch condition Editor  

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5. **Fee:**  
Rs. 15000/- (exclusive of all the taxes)