**PROGRAMMING CLASSES**

**UNIT OF MAGENOTO SOFTWARE PVT LTD**

**AN ISO 9001:2015 CERTIFIED**

**SYLLABUS OF ASP.NET**

**OVERVIEW OF .NET (ASP.NET)**

* **Intro to .NET**
* **Drawbacks  of  Current  Trend**
* **.NET  Framework**
* **Key Design Goals**
* **CLR, CTS, MSIL, & Other Tools**
* **Multiple  Language  Interaction  &  Support**
* **Moving from Project to Assemblies…**
* **Security Services   and   environment**
* **Vista & IIS 6.0/7.0 & their requirements**
* **Installing  &  Configuring  VS.NET/.NET  2.0/3.0/3.5**
* **AJAX(ATLAS)  importance  in  Web  applications**
* **The need for AJAX & the Solution**

**ACTIVE SERVER  PAGES .NET ROLE**

* **Shifting from ASP to ASP.Net, Asp.net to web 2.0 (new)**
* **ASP.Net as Framework, Namespaces**
* **ASP.Net – New Scenario in development process with IDE – VS.NET**
* **Web Pages to Web Forms, HTML – ASP.NET, State management- an Important Objective**
* **Understanding the ASP.NET Execution Scenario**
* **C#.Net role in ASP.NET Development**
* **ASP.NET/C#.Net – the Industry approach**
* **HTML, HTML Controls, ASP.NET Controls**
* **Client-side & Server-side Controls**
* **Consuming HTML Client/Server Controls in WebForms**
* **Consuming ASP.Net Controls in WebForms**
* **Understanding the Rendering Nature of Controls Developing a Simple Startup Application**

**ASP.NET WEB FORMS – THE NEW TECHNOLOGY(BEGINNING)**

* **Introducing Web Forms, Worker process**
* **Working  with  Server  Controls**
* **Applying Styles to Controls, Themes, Skins etc**

**FORM**

* **Page Directives  and its use**
* **Separating  Code  &  Design**
* **New  Code  behind  Techniques**
* **Implementing  ASP.NET  Server  Controls**
* **Types of ASP.NET & their need/render**
* **Intrinsic – Validation – Bound – DataSource**
* **Navigation – Login – Web Parts & AJAX.-as building blocks Asp.net.**

**WEB FORMS – INTRODUCTION TO AJAX INPUT VALIDATION**

* **Validating Form with Validation Controls of Asp.net**
* **Using RequiredFieldvalidator control**
* **Using CompareValidator Control Using RangeValidator Control**
* **Using  CustomValidator  control**
* **Create Server-side / Client-side functions for – CustomValidator Control**
* **Group Validations & avoiding Validations.**
* **Finally – Client Targets & ValidationSummary control**

**ADO.NET I – DATABASE SERVICES  (V1.1/2.0/3.5)**

* **XML, XML to HTML, XML & Databases**
* **XML Schema Definition Tool**
* **Overview of ADO.NET/ XML Support in .NET**
* **Connect/Insert/Update/Delete,Query data -using ADO.NET**
* **Retrieve data with datasets**
* **Data Adapters, Understanding Data tables**
* **Build Data table programmatically**
* **Filter and sort Data table, Data Relations**
* **ADO.NET  LINQ**

**ADO.NET – II**

* **Parameters  with  Command  Object**
* **Stored  Procedures  with  ADO.NET  using  –output  parameters**
* **Develop  a  Registration  form  using  ADO**

**PRESENTING DATA USING ASP.NET BOUND CONTROLS (USING VB.NET/C#)**

* **ASP.Net  bound  controls**
* **DataSource  Controls**
* **Repeater & its uses.**
* **DataBound  and  DataAware  Controls**
* **Bind  data  to  Dropdownlist  Control**
* **Datalist  control**
* **DataGrid(1.1/2.0)  Control**
* **GridView  &  its  importance  in  Development**
* **GridView(Basic)  –  simple  uses**
* **GridView  (Advanced)  –Runtime  Fields,  Empty  DataRows,  NTier  …**
* **FormView  &  DetailsView**
* **ListView**

**AJAX (ATLAS )**

* **Introduction to Microsoft  AJAX.(Code  name  ATLAS)**
* **XML Http object**
* **Programming  with  XML  HTTP  Object**
* **Advantages and Disadvantages of AJAX.**
* **Features of AJAX.**
* **MS Implementation of AJAX**

**ASP.NET ERROR HANDLING &  DEBUG.**

* **Error Handling & .NET Runtime**
* **Avoid Errors before they occur**
* **Structured Error Handling**
* **Catching  General  Exceptions**
* **Catching Specific Exceptions**
* **Throwing  Exceptions**
* **Custom  Exceptions**
* **Page  Level  Error  Handling**
* **Application  Level  Error  Handling**

**USER CONTROLS**

* **Creating  User  Controls**
* **Adding member to user controls.**
* **Registering User Controls**
* **Properties  &  Methods**
* **Dynamically  loading  user  controls**
* **Master Pages**

**CONFIGURING ASP.NET APPLICATION**

* **Web Application configuration-Advantages.**
* **New Configuration Model, ASP.NET Confn Tool**
* **Web Application Machine Configuration**
* **Global Assembly Cache, Strong Names VS2005.**
* **Working with Assembly Info**
* **Web.Config,  Machine.Config**
* **Process Model –System Configuration**.

**ASP.NET WEB APPLICATIONS**

* **About Session & Application object**
* **Comparison between Session & Application**
* **Using the Global.asax file**
* **Managing  Application  State**
* **Http  Handlers**
* **Application & Session Variables**
* **Application & Session Events**

**CACHE SERVICES**

* **Caching  Overview**
* **Advantages  of  Caching**
* **Comparing with Application & Session var’s**
* **Page Output Caching**
* **Page  Data  Caching**
* **Fragment Caching**

**SECURITY**

* **Security  Overview**
* **Authentication  &  Authorization**
* **Windows-based  Authentication**
* **Passport  Authentication.(WebServices)**
* **Forms-based  Authentication**
* **Memberships**
* **Authorizing  Users  and  Roles**
* **User  Account  Impersonation**

**DEPLOYMENT**

* **Deploying  ASP.NET  Application**

**ASP.NET XML WEB SERVICES**

* **Introducing   XML Web Services**
* **Differences Between DCOM / Remoting / Web Services**
* **Asp.net Webservices.**
* **Writing a Simple Web Service**
* **Xml web services stack, SOAP,WSDL,UDDI,Sync an**
* **Async calls**
* **Web Service Type Marshalling**
* **Using Data in Web Services**
* **Using Objects and Intrinsic**
* **HTML  Pattern  Matching**
* **WCF**

**WEBPARTS**

* **New concept in Web Apps.**
* **Advantages and Disadvantages.**
* **Predefined/ user defined controls with webparts.**

**WINDOWS VISTA-NEW FEATURES**

* **Gadgets/side bars.**
* **Office  2007**
* **VS to VS.net tools for office**.

**MOBILE APPLICATIONS**

* **Mobile  forms**
* **Mobile Environment – Today’s Need.**
* **Needed  Infrastructure**
* **WAP, WML overview.**
* **MS Mobile Explorer.**
* **Open ware Simulators.**
* **Line smart phones   and Pocket PC Applications**.

**SSSSMARTPHONE AND POCKET PC**

* **What is Smartphone / Pocket Pc?**
* **Application for   smartphone / pocket pc**
* **Deploying / Run application in devices / Live**