PARUL UNIVERSITY - Faculty of IT & Computer Science

Department of Computer Application

SYLLABUS FOR 4th Sem B.Sc. (IT), BCA, IMCA, IMCA (A.Y.-IV) PROGRAMME

Web Application Development Using ASP.NET (05101254)

Type of Course: B.Sc. (IT), BCA, IMCA, IMCA (A.Y.-IV)

Prerequisite: Basic Knowledge of C#.NET or VB.NET

Rationale: Dynamic ASP.NET websites or web application skill for Computer Science Student.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
Lect Hrs/ Week	Tut Hrs/ Week	Lab Hrs/ Week		T	P	T	CE	P	
3	0	2	4	60	30	20	20	20	150

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

Contents:

Sr.	Topic	Weightage	Teaching Hrs.
1	**Overview of ASP.NET Framework**: Introduction Overview of Asp.NET Framework, Client Server Architecture, Application Web Servers, Installation of IIS server, Types of Files in ASP.NET, Types of controls in ASP.NET, Page Architecture, Page Class, Introduction to standard Controls : Buttons, Textbox, Checkbox, Label, Panel, Listbox, Dropdownlist, File Upload Control, Creatng Asp.Net Application & Adding Controls to a Webpage, Running an ASP.Net Application,	17%	8
2	**ASP.NET Validation Controls**: Introduction to Validation, Client Side Validation, Server Side Validation, Types of Control : RequieredField Validator, Range Validator, CompareField Validator, RegularExpression Validator, Custom Validator, ValidationSummery Control.	13%	6
3	**State Management**: Introduction to State, Requirement of State in Asp.Net, Client Side State Management, Server Side State Management, Various State Management Techniques : View State, Query String, Cookie, Session State, Application State.	17%	8
4	**ADO.NET**: Architecture of ADO.NET :Connected Architecture & DisConnected Architecture, ADO.NET Classes & Objects : Connection, Command, DataReader, DataAdapter, DataSet, DataColumn, DataRow, DataConstraints, DataView, Gridview Control, Repeater Control, Binding Data to DataBound Controls, SQLDataSource Control, DataBinding Expressions	21%	10

5	**Master page & Theme**: Overview of Master Page, Requirement of a Master Page in an Asp.NET application, Designing Website with Master Page, Theme and CSS	4%	2
6	**Caching Application & Data**: Overview of Caching, Page Output Caching, Partial Page Caching, Absolute Cache Expiration, Sliding Cache Expiration, Data Caching	4%	2
7	**Working with XML**: Introduction to XML, Creating XML file, Reading Datasets From XML, Writing Datasets With XML.	4%	2
8	**Web services**: Introduction to web service, Standards & Protocols : HTTP, SOAP, UDDI,XML, Creating a Web Service, Consuming a Web Service	10%	5
9	**ASP.NET Application Configuration and Deployment of Application**: Introduction To Web.Config, Common Configuration Sections, AppSettings, Tracing, Custom Errors, Authentication And Authorization, Deployment of Application in web server	10%	5

*Continuous Evaluation:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

Reference Books:

1. Asp.Net 4.0– Unleashed
   Kevin Hoffman, Stephen Walther; 2010
2. Beginning ASP.NET4.5 in C.Sharp
   Mathew Mac Donald; Third Edition

Course Outcome:

After Learning the course the students shall be able to:

1. Understand .NET framework architecture and its features
2. Build dynamic web applications to demonstrate event handling, state management and content manipulation using C#
3. Develop data driven applications using ADO.NET, LINQ , XML and web services

List of Practical:

1. Create a first ASP.NET Website and execute it on a web browser.

2. Write ASP.NET program that will display "HelloWorld" on page load event.

3. Write ASP.NET program that will display "HelloWorld" in Labelcontrol on formload event.

4. Write ASP.NET program that will display "HelloWorld" in division tag or paragraph tag onclick of button.

5. Write ASP.NET program that will do following operations:

Take two string values from textbox control, contacted it &display it.

6. **Write ASP.NET program that will take two int values & calculate a^b**

7. **Write ASP.NET program that will take 3 subject marks & find Tota l& Average.**

8. **Create ASP.NET Webpage that will take feedback details from user and Display it as testimonial. Feedback Name, email and feedback desc**

9. **Create ASP.NET Web page that will upload any file to web server.**

10. **Create ASP.NET web page that will display Sleeve Items in a list box control. On the selection of display image and cost of item.**

11. **In the above ASP.NET Web page, all users to add quantity in textbox control(i.eReadonly)on clickof+&-button controls quantity should be increment & decrement then calculate payment.**

12. **Write an asp.net web page that will make student exam details from exam form and generate fee receipt. Exam details: name, exam type year, sem subject's fees.**

13. **Create ASP.NET Webpage that will test the Database connection.**

14. **Create ASP.NET web page that will display data in Gridview Control using SqlDataSource.**

15. **Create ASP.NET web page that will display data in Grid view Controlusing C# code.**

16. **Create ASP.NET Web page that will display data into Repeater control.**

17. **Create ASP.NET Web page that will display data into List box and drop-down list control using SqlDataSource.**

18. **Create ASP.NET Webpage that will display data into List box and dropdown list control on button click event using c# code.**

19. **Create ASP.NET webpage that will take User'sName & Favorite Color from TextBox & Dropdownlist. before submitting values check whether values are empty or not using required Field Validator.**

20. **CreateASP.NET Webpage that will take validate from the user into text box control using Rangevalidator.**

21. **Create ASP.NET Webpage that will check validation using Compare Validation:**
   1. Check the DataType Of Bdate
   2. Check Bdate must be greater than now/today.
   3. Check End Date Must be Greater than Start Date.

22. **Create ASP.NET Webpage that will take valid mail addresses and valid URLs using Regular Expression Validation Control.**

23. **Create ASP.NET Webpage that will not all users to enter more than10 characters Using custom validator.**

24. **Create ASP.NET Webpage that registration details like Username, Password, and Confirm Password from the user, assign validation controls on all the fields and display a validation error message.**

25. **Create an ASP.NET Webpage that will take username and password from the user and create session a session for username and display it on a webpage.**

26. **Create an ASP.NETwebpagethatwill allows users to add product details to the product master table and upload product image to the server.**

27. **Create ASP.NET web page that will display products from the product master table.**

28. **Create a webpage that will show full details of the product on click.**

29. **Create ASP.NET webpage that will display all the records into grid view control. Create Employee Table EmpID, EmpName, Bdate, and Contact.**

30. **In above ASP.NET webpage adds web controls that will insert data into grid view control.**

31. **In the above ASP.NET webpage added it button in to grid view control that will edit/update data of grid view control.**

32. **In the above ASP.NET web page add delete but not to grid view control that will delete data of grid view control.**

33. **Create ASP.NET web page that will display the current date & time and create an output cache of the webpage and create a cache by param.**

34. **Create ASP.NET webpage that will display the current date & time from user control and create a partial cache of the webpage.**

35. **Create ASP.NET web pages that will display the current date & time using absolute expiration cache.**

36. **Create ASP.NET web pages that will display the current date & time using absolute expiration cache.**

37. **Create ASP.NET a web page that will display data into grid view control and create data caching.**

38. **Create an XML file that will store student information.**

39. **Create ASP.NET Web page that will read XML file and display XML data into GridView control.**

40. **Create ASP.NET Webpage that will read data from the database and write on XML on button click.**