NAIPUNNYA SCHOOL OF MANAGEMENT

A Project of the Archdiocese of Ernakulam - Angamaly
Affiliated to the University of Kerala
Accredited by NAAC with A Grade
An ISO Certified Institute

ADD ON COURSE 2022-23

ADD-CSA-10

DIPLOMA IN C# WEB PROGRAMMING

DEPARTMENT OF COMPUTER SCIENCE AND APPLICATIONS

ADD-CSA-10: DIPLOMA IN C# WEB PROGRAMMING

(60 Hours)

Aim

On completion this course, student should able to get basic information about the C# web programming it will help the student to develop Web Applications using C#. It is also provided information about Visual Studio features for working with CSS

Course Objective

- Recognize, diagram, and implement introductory programming concepts using C#
- Determine logical alternatives with C# decision structures utilizing iteration, class methods, fields, and properties.
- Assemble forms, classes, and controls into C# solutions utilizing arrays and file/database access methods

Syllabus

Module1: Understanding role of Web Server and Web Browser, Brief about HTTP Protocol. HTTP Request structure, Form Tag and comparison between Get and Post methods, HTTP Response Structure, Understanding HTML Form Tag and elements within it, Javascript using Sample Programs.

Module 2: C# Overview, Object Orientation, Configure Visual Studio, Best Friend, Variables & Data Types, Operators, Making Decisions, Arrays, Iteration, Classes & Objects, Static & Parameters, Structures & Interfaces, File & Directory I/O, Windows Forms, Database Operations

Module 3: Creating the GUI for Your First Visual C# Application, The .NET Framework - an Overview, Framework Components, Framework Versions, Types of Applications which can be developed using MS.NET, MS.NET Base Class Library, ,MS.NET Namespaces, MSIL / Metadata and PE files, The Common Language Runtime (CLR), Managed Code, MS.NET Memory Management / Garbage Collection, Common Type System (CTS), Common Language Specification (CLS), Types of JIT Compilers, Security Manager.

Module 4: Introduction to Database Management System, Tables, Rows, and Columns, creating a Database in Visual Studio, The DataGridView Control, connecting to an Existing Database and Using Details View Controls, More About Data-Bound Controls, Selecting Data with the SQL Select Statement.

Module 5: Introduction, Well Formed and Valid XML Document, Structure of XML Document, XML DOM Parser, XPath Specification, XML and DataSet, XMLDataDocument for reading from DataSet, XMLTextWriter & XMLTextReader, XPathDocument & XPathNavigator. What is Debugging, Build Configuration (Debug and Release), List of Debugging Windows, Break Point Hit Count and Condition, Debugging Exception, what is Diagnostics? Debug and Trace Classes, Types of Listeners, Boolean and Trace Switch.

Course Outcome

- Upon completion of this course, the student will be able to:
- Read, write, execute, and debug C# applications, Understand variables and data types
- Code decision and control structures (if, if/else, switch, while, do/while, for) and use primitive data types
- Write user-defined methods, Write and manipulate arrays
- Write programs using object-oriented programming techniques including classes, objects, inheritance, and polymorphism
- Use graphical user interface (GUI) components
- Understand C#'s Event Handling Model
- Write code to access and manipulate databases

References

1. Starting Out with Visual C# by Tony Gaddis
2. C#: The Complete Reference: Herbert Schildt
3. C# 8.0 and .NET Core 3.0: Mark J. Price, 4th edition, Packt Publishing
4. Head First C#: Andrew Stellman, 4th edition, O′Reilly Publishing