.Net Web Development Track

(Summer Training)

Course Name :

Microsoft SQL Server Programming

Course Description

- The course provides a high level overview of MS SQL Server and its platforms, also it discusses Transact-SQL as a programming language, how to manage database files as well as how to manage its usage among several users, how to secure your server and backup your files.

Course Requirements.

- Database-Fundamentals : https://www.udemy.com/introduction-to-basic-database-concepts/

Training Outlines:

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- SQL Server Overview.
- Installing and Configuring SQL Server.
- Introducing SQL Server services.
- Introducing and Configuring Management Studio.
- Introducing built-in Database.
- Transact SQL Statements (DML, DDL).
- Joins
- ERD & Mapping
- Subqueries
- Aggregate Function
- Group by
- Implementing Data Integrity.
- Backing Up and Restore Database.
- Transferring Data.

Course Duration:

- Lectures: 12 Hours
- Lab: 12 Hours

Course Objectives:

- Knowledge
    - Learn How to write SQL Queries
    - Knowing difference between Database objects
    - learn how to optimize sql queries
- Skills
    - Installing and Configuring SQL Server
    - Maintaining SQL Server Instances
    - Managing SQL Server Security
    - Maintaining a SQL Server Database
    - Performing Data Management Tasks
- Experience
    - obtain experience on Installing and Configuring SQL Server
    - obtain experience on designing and optimizing SQL Queries
    - obtain experience on Managing SQL Server Security

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Course Name:

C# Programming

Course Description

Students learn the concepts and the meaning of Object-Orientation. They can differentiate between Structured Abstract Data Type and Classes data type. They learn about Encapsulation, Properties, Methods, and Polymorphism and how to implement these concepts in the most common Object-Oriented programming languages. Furthermore, they acquire the concept of Embedded objects and the difference between it and the concept of Inheritance. The types of inheritance will be discussed in detail. Students will understand the need of Virtual functions in case of inheritance, and so the overriding concept. Abstract classes and Interfaces will be covered in this course.

Course Requirements.

- N/A

Training Outlines:

- History of programming: Linear, Structured, and Object-Oriented
- Object-Oriented Terminologies and Concepts
- Starting in Object-Oriented
- Encapsulations and Members' Modifiers
- Polymorphism (function overloading)
- Objects Creation & Deletion
- Static and Instance Members
- Operator overloading
- Embedded objects
- Inheritance
- Overriding
- Generics
- Delegates
- Events
- ADO

Course Duration !

- Lectures: 24 Hours
- Lab: 24 Hours

Course Objectives:

- The course gives the main concepts of Object Oriented Programing
- Explain the need for Data Encapsulation
- Describe and make use of polymorphism
- Describe when to use classes and when to use structures
- Create and use new classes through inheritance and virtual functions

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Course Name:

ASP.Net Core MVC

Course Description

ASP.NET Core is a cross-platform, high-performance, open-source framework for building modern, cloud-based, Internet-connected applications.

ASP.NET Core MVC is a rich framework for building web apps and APIs using the Model-View-Controller design pattern.

Course Requirements.

- Visual C# .Net

Training Outlines:

- MVC design pattern.
- ASP.Net MVC.
- ASP.Net Core MVC.

- Controller

- Views

- Models

- Data Validation

- Dependency injection

- Middle ware

Course Duration:

- Lectures: 18 Hours
- Lab: 18 Hours

Course Objectives:

- Developing Fast, cross-platform apps using ASP.Net core MVC.

Course Name:

Linq & Entity framework

Course Description

Ef core is a cross-platform, high-performance, open-source framework for building modern, cloud-based, Internet-connected applications.

ASP.NET Core MVC is a rich framework for building web apps and APIs using the Model-View-Controller design pattern.

Course Requirements.

- Visual C# .Net

Training Outlines:

- Linq
- Ef core code first

- Ef migration

Course Duration:

- Lectures: 9 Hours
- Lab: 9 Hours

- ## Total Hours:

- 120 Hours