**macob**
IT Solutions

**Microsoft**
**CERTIFIED**
Solutions Expert

# MICROSOFT CERTIFIED SOLUTIONS EXPERT (MCSE)

# COURSE DURATION -30 HOURS                    FEE-3500 AED

## What is MCSE?

The MCSE Certification is a certification to become a system engineer. They are a series of exams that test a person's knowledge with various Microsoft technologies like Windows Server, SQL Server, Exchange Server, SharePoint, System Center (SCCM) and Office 365.

## WHY SHOULD YOU HAVE MCSE CERTIFICATION?

The MCSE certification skills help you to determine the business necessity and chart it out. Further, it helps you to troubleshoot network issues, and install and configure various network constitute.

# Contents in Detail

### SERVER

1. WINDOWS SERVER
2. EXCHANGE SERVER
3. VIRTUALISATION

### WINDOWS SERVER

#### A. IT INFRASTRUCTURE-

  I. Windows Server Administration Fundamentals
  II. Networking Fundamentals
  III. Security Fundamental

#### B. WINDOWS SERVER 2016

  I. Installation, Storage, and Compute with Windows Server 2016

II. Networking with Windows Server 2016

III. Identity with Windows Server 2016

## C. WINDOWS SERVER 2012

I. Installing and Configuring Windows Server 2012

II. Administering Windows Server 2012

III. Configuring Advanced Windows Server 2012 Services

## D. SERVER INFRSTRUCTURE

I. Designing and Implementing a Server Infrastructure

II. Implementing an Advanced Server Infrastructure

## 1. EXCHANGE SERVER

### Messaging

o Core Solutions of Microsoft Exchange Server 2013

o Advanced Solutions of Microsoft Exchange Server 2013

## 2. VIRTUALIZATION

### 1. SERVER VIRTUALISATION

Server Virtualization with Windows Server Hyper-V and System Center

#### WINDOWS CERTIFICATION

1. IT INFRASTRUCTURE

Windows Operating System Fundamentals

2. WINDOWS 10

- Configuring Windows 8.1
- Supporting Windows 8.1
- Installing and Configuring Windows 10
- Deploying and Managing Windows 10 Using Enterprise Services

3. WINDOWS 7

- Installing and Configuring Windows 7 Client
- Troubleshooting and Supporting Windows 7 in the Enterprise
- Planning and Managing Windows 7 Desktop Deployments and Environments

4. ENTERPRISE DEVICE AND APPS

- Deploying Windows Desktops and Enterprise Applications
- Administering System Center Configuration Manager and Intune.

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**APPLICATIONS**

1. OFFICE 365

   Enabling and Managing Office 365

## Course content

1. Planning and provisioning Office 365
2. Managing Office 365 users and groups
3. Configuring client connectivity to Microsoft Office 365
4. Planning and configuring directory synchronization
5. Planning and configuring Exchange Online services
6. Planning and deploying Skype for Business Online and Microsoft Teams
7. Planning and configuring SharePoint Online
8. Planning and configuring an Office 365 collaboration solution
9. Planning and configuring security and compliance in Office 365
10. Monitoring and troubleshooting Microsoft Office 365
11. Planning and configuring identify federation

### DATABASE

### SQL SERVER

1. DATABASE: Fundamentals
2. MCSA (1) SQL 2016 DATABASE DEVELOPMENT
   - Querying Data with Transit-SQL
   - Developing SQL Databases

     (2) SQL 2016 DATABASE ADMINSTRATION
   - Administering a SQL Database Infrastructure
   - Provisioning SQL Databases

     (3) SQL 2016 BUSINESS INTELLIGENCE DEVELOPMENT
   - Implementing a SQL Data Warehouse
   - Developing SQL Data Models

     (4) SQL SERVER 2012/2014
   - Querying Microsoft SQL Server
   - Administering Microsoft SQL Server Databases
   - Implementing a Data Warehouse with Microsoft SQL Server

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**DEVELOPER**

1. Visual studio
2. Microsoft azure

1. VISUAL STUDIO

Developer

- o Software Development Fundamentals
- o HTML5 App Development Fundamentals

Windows store app using HTML5

- HTML5 App Development Fundamentals
- Essentials of Developing Windows Store Apps Using HTML5 and JavaScript
- Advanced Windows Store App Development Using HTML5 and JavaScript

Windows store app development using HTML5 and JAVASCRIPT

- o Programming in C#
- o Essentials of Developing Windows Store Apps Using C#
- o Advanced Windows Store App Development Using C#

## Web Applications

- o Programming in HTML5 with JavaScript and CSS3
- o Programming in C#
- o Developing ASP.NET MVC 4 Web Applications
- o Developing Microsoft Azure and Web Services

## Contents

- Installing windows server 2012.
- Disk Management – MBR, GPT, VHD, Basic disk, Dynamic disk, storage pool, disk pool.
- NTFS file system and its features – file permissions, quota, VSS, offline files.
- Hyper-V – Creating and configuring virtual machines.
- Hyper-V – Creating and configuring virtual machine storage.
- Hyper-V – Creating and configuring virtual networks.
- DHCP – Deployment and configuration.
- DNS – Forward and reverse lookup, primary/secondary/stub zone, forwarders, root hints, caching.

- Only DNS, Dynamic DNS.
- Installing Active Directory domain controllers.
- Active Directory user, group, OU management.
- Create and manage Group Policy objects (GPOs).
- Configure security policies.
- Configure application restriction policies.
- Configure Windows Firewall.
- Deploy and manage Windows Deployment Services (WDS).
- Configure Distributed File system (DFS).
- Configure File Server Resource Manager (FSRM).
- Configure routings.
- Configure NAT.
- Configure VPN.
- FSMO roles.
- Active Directory backup and restoration.
- Active directory task delegation.
- Configure Network Load Balancing (NLB).
- Configure failover clustering.
- Manage Virtual Machine (VM) migration.
- Plan and implement failover clustering.
- Plan and implement highly available storage solution.
- Plan and implement virtualization hosts.
- Plan and implement virtualization guests.

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# EXCHANGE 2016

**COURSE DURATION-30 HOURS**          **FEE-3500AED**

**WHAT IS EXCHANGE 2016?**

Microsoft Exchange Server 2016 is the latest iteration of the Exchange Server messaging platform and is tentatively scheduled for release in the latter half of 2015. Exchange 2016 combines the mailbox and Client Access Server (CAS) roles, which should allow for simpler designs and architecture.

**WHY EXCHANGE IS IMPORTANT?**

Microsoft Exchange enables email to be delivered directly to a server. It works by sending the emails back to your individual workstations in which your staff can access. Small and medium-sized companies can achieve three benefits from using Microsoft Exchange.

**Core Solutions of Microsoft® Exchange Server 2016**

**About this course**

This course will provide you with the knowledge and skills to plan, deploy, manage, secure, and support Microsoft® Exchange Server 2016. This course will teach you how to configure Exchange Server 2016 and supply you with the information you will need to monitor, maintain, and troubleshoot Exchange Server 2016. This course will also provide guidelines, best practices, and considerations that will help you optimize performance and minimize errors and security threats in Exchange Server 2016.

The secondary audience for this course will be candidates that are IT professionals who are looking to take the exam Core Solutions of Microsoft Exchange Server 2016 as a standalone, or as part of the requirement for the Microsoft Certified Solutions Expert (MCSE) certification.

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**At course completion**

After completing this course, students will be able to:

- Deploy and manage Exchange Server 2016.
- Plan and configure the Mailbox server role.
- Manage recipient objects, address policies, and address lists in Exchange Server 2016.
- Plan and implement the Client Access server role in Exchange Server 2016.
- Securely plan and configure Microsoft® Outlook Web App and mobile messaging using the Client Access server.
- Understand and manage highly available Client Access servers in Exchange Sever 2016.
- Plan for disaster mitigation, implement backup and recovery for Exchange Server 2016.
- Plan and configure message transport in an Exchange Server 2016 organization.
- Plan message security options, implement an antivirus solution, and implement an anti-spam solution.
- Configure permissions and secure Exchange Server 2016.
- Monitor, maintain, and troubleshoot an Exchange Server 2016 environment.

## Advanced Solutions of Microsoft Exchange Server 2016

### About this course

This course will provide you with the knowledge and skills to configure and manage a Microsoft Exchange Server 2016 messaging environment. This course will teach you how to configure Exchange Server 2016, and it will provide guidelines, best practices, and considerations that will help you optimize your Exchange Server deployment.

### At course completion

After completing this course, students will be able to:

- Design and implement Exchange Server 2016 Unified Messaging.
- Design and implement site resiliency for Exchange Server 2016.
- Plan a virtualization strategy for Exchange Server 2016 roles.
- Design and implement message transport security.
- Design and implement message retention in Exchange Server 2016.
- Design and implement messaging compliance.
- Design and implement administrative security in an Exchange Server 2016 environment.
- Use the Windows PowerShell® 3.0 command-line interface to manage Exchange Server 2016.
- Design and implement integration with Exchange Online.
- Design and implement messaging coexistence.
- Design and implement Exchange Server migrations from non-Exchange messaging systems, and upgrades

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## Course Objectives

After completing this course, students will be able to:

- Plan and implement Microsoft Exchange Server 2016 prerequisites and requirements.
- Prepare your Active Directory for Exchange Server 2016.
- Manage Exchange Server 2016 clients.
- Administer Exchange Server using the Exchange Management Shell and Exchange Admin Center.
- Manage Exchange Server 2016 recipients.
- Plan and Implement Public Folder Mailboxes.
- Plan and Configure Administrative Security and Auditing.

## COURSE CONTENT

1**.**     Installation, Storage, and Compute with Windows Server 2016.

2.     Networking with Windows Server 2016.

3.     Identity with Windows Server 2016.

4.     Upgrading Your Skills to MCSA: Windows Server 2016.

5.     Securing Windows Server 2016.

6.     Implementing a Software-Defined Datacenter.

## Course Outline

## COURSE INTRODUCTION

## MODULE 0

- Welcome to Microsoft Exchange Server 2016 Infrastructure

- Course Syllabus and Grading

- Discussion Forums and Getting Help

- Getting to Know You

## MODULE 1

Exchange Server 2016 Prerequisites and Requirements

 - Introduction to Exchange Server and Active Directory Integration

- Hardware and Software Requirements

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- Prepare Active Directory for Exchange Server 2016 Deployment

**MODULE 2**

Manage Exchange Server 2016

- Manage Exchange Server and Client Settings

- Introduction to Exchange Management Shell

**MODULE 3**

Manage Exchange Server 2016 Recipient Objects

- Mailbox Recipient Objects

- Email Address Policies.

**MODULE 4**

Manage Mail-enabled Object Permissions

- Mailbox Permissions

- Manage Mailbox Folder Permissions

-Auto mapping

**MODULE 5**

-Plan and Implement Public Folder Mailboxes

- Plan and Implement Public Folder Mailboxes

-Plan and Configure Administrative Security and Auditing

**MODULE 6**

- Configure Role-Based Access Control

- Exchange Server Split Permissions

- Configure Audit Logging

# MSSQL

**COURSE DURATION-30 HOURS**                **FEE-3500AED**

## Overview

Microsoft SQL Server is one the most popular Relational Database Management System (RDBMS) used in Microsoft universe. It can be used for data storage as well as for data retrieval for applications which can be either on desktop or Web/Browse.

## Course Objectives:

Learn about SQL – Structured Query Language

- Build database using Data Definition Language Statements Perform basic CRUD operations using Data Manipulation Language statements like Insert, Update and Delete Write and call Stored Procedures and Functions stored in database.
- Write and manage database triggers, cursors and Index.

## Pre-requisite / Target Audience:

This sql server course can be taken by any beginner who wants to build career in Information Technology. The subscriber needs to have working knowledge of Windows Operating System.

## Module 1

### Introduction to Basic Database Concepts

In this module we learn about Basic concepts and advantages of DBMS and limitations of file management system, and also about 3 data base models

- What is Data, Field, Record and database?
- Limitations of File Management System.
- Basic Concepts of Advantages of DBMS.
- Exploring Relational DBMS
- Understanding Client and Server

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## Module 2

### E-R Modeling and Diagram

In this module we learn about entity, attributes and relationship, identify the entities and attributes How to draw a E-R diagram and translating the E-R diagram in relation schema.

- Analyzing the Requirement
- Identify Entities and their Relationships
- Drawing E-R Diagram
- Conversion of E.R. Diagrams into Tables

## Module 3

### Normalization

In this module we learn about what is normalization, types of normalization, data before and after normalization, benefits of normalization.

- First Normal Form
- Second Normal Form
- Third Normal Form Practically Normalizing Tables

## Module 4

### Introduction to SQL Server

In this module we learn about SQL Server, history of sql server, types of system databases, communication between frontend and backend and sql server editions.

- What is SQL Server Version history and different editions?
- Basic Features Components and Tools
- Starting and Stopping SQL Server Instances / Services
- Introduction to Management Studio
- Types of System Databases in SQL

## Module 5

### Introduction to SQL

In this module we learn about types of sql statements, databases in sql server, how to create a database,

datatypes in sql server, and about DDL Statements.

- Basics of SQL Types of SQL Statements
- DDL, DML, DQL, DCL and TCL
- Create Database using Management Studio

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- Datatypes in SQL Server
- Exploring DDL Statements on Table using Management Studio

# Module 6

### DDL and DML Statements

In this module we learn about how to create a table, alter and drop a table ,and about DML statements, like insert update and delete statements.

- Why write statements in Frontends?
- Create, Alter and Drop Table Insert,
- Update and Delete Statement Truncate Statement

# Module 7

### Working with Queries (DQL)

In this module we learn about select statement, top, distinct string and arithmetic expressions,

Sorting the data and about sub queries and where clause(codition).

- Understanding Select Statement
- Usage of Top, Distinct, Null etc... keywords
- Using String and Arithmetic Expressions
- Exploring Where Clause with Operators
- Using Advanced Operators
- Sorting data using Order By clause
- Working with basic of Sub Queries

# Module 8

### Aggregate Functions

In this module we learn about how to use aggregate functions like sum, mean, max, avg what is difference between having and where clause, group by clause rollup and cube operator.

- Using functions in Queries
- Count, Sum, Min, Max, Avg Group By and Having Clause
- Using Group By with Rollup and Cube

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## Module 9

### Joins and Set Operations

In this module we will know about joins and types of joins how to join the tables and about Sub queries, types of operators like union, intersect and except and how to add the tables and relationship between them.

- Introduction to Joins Cross Joins
- Inner Join
- Outer Join
- Self-Join
- Co-related Sub Queries, Set Operations using Unions, Intersect and Except

## Module 10

### Implementation of Data integrity

In this module, we will learn correctness of data and types of integrity and types of constraints.

- Entity integrity
- Domain integrity
- Referential integrity
- Types of constraints

## Module 11

### Working with Constraints

In this module, we will learn about how to create a constraint,types of constraints,and difference between unique, not null and primary key constraints.

- Unique
- Not NULL
- Primary Key
- Default Check Foreign Key

## Module 12

### Implementing Views

In this module, how to create a view, advantages of views, altering and dropping a view And advanced options while creating view.

- Introduction & Advantages of Views
- Creating, Altering, Dropping Views
- Advance Options while Creating a View

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- SQL Server Catalogue Views

# Module 13

### Data Control language (DCL)

In this module, we will learn how to grant permission and revoking of roles.

- Creating Users & Roles
- Granting & Revoking of Roles & privileges
- Managing using Management Studio

# Module 14

### Working with Indexes

In this module, how to create a index, advantages and disadvantages of index, and types of index and dropping index, and also about index structure.

- Introduction Clustered and Non Clustered Index
- Creating and Dropping Indexes

# Module 15

### Writing Transact-SQL (T-SQL)

In this module, what is script and what is batch, variables and if else statements and working with temporary tables, and checking with the existence of database objects.

- What is T-SQL?
- Scripts and Batches Declaring Variables
- Using Statements
- Working with Temp tables
- Error Handling
- Using System Functions / Global Variables Using Dynamic SQL

# Module 16

### Working with Stored Procedures and Functions

In this module, we will learn how to create a stored procedure and difference between stored procedure and table, advantages of procedures and about types of parameters.

- Introduction to stored procedures
- Benefits of Stored Procedures
- Creating, Executing Modifying, Dropping
- Input–Output and Optional Parameters

- System defined SP's and Functions.
- User defined Functions

# Module 17

### Implementing Triggers

In this module, we will learn about what is trigger and how to create a trigger, types of triggers How to use a rollback Tran.

- Introduction to triggers
- Constraints vs Triggers
- Creating, Altering, Dropping triggers
- for/after/instead of triggers
- Using Rollback Tran

# Module 18

### Working with Cursors

In this module, how to create a cursor, what is cursor, types of cursor and benefits of cursor.

- Creating Cursors
- Cursors vs. Select
- Types of cursors
- Locks on cursors
- Advantages of cursors

# Module 19

### Transaction Control Language (TCL)

In this module, we will learn what is transaction, transaction management and what are acid properties, what are isolation levels and about implicit and explicit transactions.

- Introduction Transactions process
- Types of transactions (Implicit, explicit)
- Working with Locks, Types of locks

# Module 20

### Backup and Restore

In this module, how to backup database and how to restore a database and how to generate a sql script, and executing a sql script and how to attach and deattach a database.

- Generating SQL Script

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- Executing SQL Script
- Generating Change Script
- Taking database Backup
- Restoring database using backup
- Attaching and Detaching of database

# Module 21

**Advance Features**

In this module we will learn about ranking functions and about how to use xml datatype.

- Pivot Table
- Common Table Expression
- Ranking Functions Using BLOB data type
- Using XML data type

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# SHAREPOINT

## Overview:

Gone are those days when we used to manage all information in a corporate manually. For every type of requirement we have different solutions but integrating them is a big nuisance. SharePoint integrated intranet, document management, content management is an excellent way to find secure place to store, organize, share, and access information from almost any device. To get started using the extraordinary features of SharePoint all an associate in the organization need is just a browser like IE or Firefox or Chrome. SharePoint is a pre-developed ASP.NET application by Microsoft for managing day to day activities of a corporate portal.

## Course Objectives:

This course is divided into 4 parts. They are:

- SharePoint Fundamentals
- SharePoint Designer and Branding
- SharePoint Administration
- SharePoint Development.

### In SharePoint 2016 Fundamental

- Understand IIS Web Server and hosting websites in IIS.
- Understand the role of SharePoint in developing Corporate Portal.
- Creating Sites and Subsites.
- Understanding and the use out of the box lists and libraries to build the SharePoint site.
- Creating Custom Lists and Libraries.
- Working with Content Types and Site Columns.
- Use out of the box Web Parts.
- Use out of the box workflow management.

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### In SharePoint 2016 Designer and Branding

- Develop familiarity with SharePoint Designer 2016.
- Creating External Lists using BCS
- Branding SharePoint site.
- Working with Master Pages and Themes.
- Creating forms for lists and libraries using InfoPath.

### In SharePoint 2016 Administration

- Installing and configuring all the required software's products to work with Microsoft SharePoint 2016.
- Creation of SharePoint Web Applications, Site Collections, Sites and Sub sites.
- Managing permissions for Active directory users in database based on Claims authentication.
- Provisioning Service Applications and binding with Web Applications.
- Managing large amount of data and documents using Content management features like document sets, document IDs and content organizer.
- Configuring and manage user profile service and activate various socializing features of SharePoint 2016.
- Implementing Search Features in the site. Learning PowerShell and writing scripts to performing important admin related operations.
- Plan and execute Backup and Restore.

### In SharePoint 2016 Development

- Customizing most widely used sections of the SharePoint (site collections,sites,lists, lists items, list queries, fields).
- Using CAML Queries and LINQ to fetch data from SharePoint lists.
- Understand features and executing custom code while features are activated and deactivating.
- Write code for custom event handlers.
- Building and deploying web parts.
- Develop custom workflow solutions for SharePoint.
- Using features and solutions for deploying projects in Microsoft SharePoint Server 2016.
- Developing Sandboxed solutions with limited access.
- Accessing external data using BCS.
- Develop custom Application Page with Client Side Object Model.
- Using RESTful and OData.
- Develop SharePoint Apps for different environments.

**Pre-requisite / Target Audience:**

**Fundamentals Module** – Basic knowledge of using Windows and MS-Office products.

**Designer and Branding Module** – HTML and CSS

**Administration Module** – Though we cover from ground up, basic knowledge of networking will be added advantage.

**Developer Module** – Basic knowledge of C# and ASP.NET is mandatory.

# Module 1

### General Introduction

In this module, we will talk about brief introduction to IIS, hosting a site in IIS. What is Pool, worker process and App domain. We also learn about HTTP life cycle and more about application security like HTTPS and SSL Certificate, and how to create certificate and add to respective application, how to create groups and users in active directory

- What is IIS
- IIS Website and Web Application
- Steps to Create Multiple Websites on Port 80
- What is Application pool
- What is ISAPI Filter/Application?
- Web Garden and Web Farm
- HTTPS and SSL
- Active Directory and Users Creation

# Module 2

### Introduction to SharePoint

In this module, we will cover most important points about SharePoint and its features, and we will discuss briefly about six pillars of SharePoint, actually how does it works in real time environments. We also see about roles and different version of SharePoint.

- What is SharePoint?
- Role of SharePoint in LAN
- High level Features
- Six Pillars of SharePoint
- SharePoint 2016 Benefits
- Roles in SharePoint
- Version History of SharePoint
- SharePoint Editions

# Module 3

### SharePoint Installation and Administration

In this module, we will talk installation of SharePoint , what are the pre-requisite for installing SharePoint.

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- Server Hardware and Software Requirements
- Supported Browser on Client
- Types of Installation
- Software's to be Installed

## Module 4

**SharePoint Site Hierarchy**

This module describes, how can we create web application, site collection and customization of homepage and creating sites and subsites. Create quota and how to use quota on application, create template and use it for different applications.

- Creating Web Application
- Creating Site Collection and Top-level Site
- SharePoint Site Homepage
- Branding Look and Feel
- Working with Quota Templates
- Creating Sites and Sub Sites
- Save Site as Template and Creation Site Using Template

## Module 5

**Lists**

This module deals with complete about Lists, means creating list and adding custom columns to list

- Introduction to Lists
- Creating Custom Lists
- Adding Custom Columns
- Alert Me Option
- Sort and Filter List
- Create /Manage List View
- Site Column
- Content Type
- List Template
- Metadata Navigation Settings and List Throttling

## Module 6

**Predefined Lists and Libraries**

In this module, we will discuss about what are the predefined Lists and Libraries, how to add one or more files to library, and how to add/edit/delete document and giving permissions to view or edit the document, check in and check out of the documents, we will also cover how can we manage document and save it as template, we can use metadata to populate in SharePoint columns and we set icon on

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document. Most important point is mapping our library to network driver from there we can directly access our files/documents.

- Predefined Lists
- Predefined Libraries
- Create Document Library
- Add one or more files to a document Library
- Adding Custom Columns to the Library
- Add/Edit/Delete Document properties
- Enabling Approval
- Versioning Documents
- Check Out, Edit and Check in Files
- Managing Document Template
- Editing Document Template
- Use Word to Populate Metadata in SharePoint Columns
- To set Icon for new Document types
- Mapping Library to Network Drive
- Document Workspace
- Information Policy

# Module 7

### SharePoint Designer 2013

In this module, we look at designing part, thus how we can create our own design and integrate to SharePoint site.

- Introduction to SharePoint Designer 2013
- Creating and Opening Site in SPD 2013
- Creating/ Customizing Lists and Libraries
- Ghosted and Ung hosted pages
- Understanding Master Pages

# Module 8

### Branding SharePoint Sites

We will cover, how can we brand our SharePoint team sites and public sites, we can create master pages and access it to different applications, an creating one custom theme and use it on different sites.

Interaction with JavaScript on SharePoint pages.

- Branding site Team Sites
- Branding SharePoint Publishing sites
- Custom Master Pages and Layout Pages

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- Creating Custom Theme
- Creating and using a Design Package
- Using Device Channels
- Adding Interaction SharePoint Pages by using JavaScript

# Module 9

**Security -User Groups and Permissions**

In this module, we discuss about giving permissions by creating and giving permission at groups and

users level in active directory, especially for managing permission for subsite and editing list and

libraries, how can we manage accounts

- Authentication Vs Authorization
- Creating users and Groups in Active Directory
- SharePoint Groups
- Creating Custom Permission Groups
- Creating Custom Permission level
- To bind User/Groups and Permission Level
- Managing Permissions in Sub site
- Permissions for Lists Libraries or List Item
- To set Site Confirmation and Deletion of Unused Sites
- Managed Accounts
- Allow users to Create their Own Sites
- Additional Security Features

# Module 10

**Claim bases Authentication**

In this module, we will cover about claim based authentication working and authentication for

accessing sql server, and Creating Web Application using CBA and how to enable form based

authentication, and creating zones and how to use it mapping.

- How does claim based Authentication Works
- Creating SQL Server Database for Authentication using Membership and Role Provider
- Creating Web Application using CBA
- Allowing anonymous access in a Web Application
- Enable Forms based Authentication
- Editing Web.Config of WebApplciation, Central Admin Application and STS
- Zones in SharePoint
- Creating Alternate Access mapping.

# Module 11

### Understanding Service Applications

In this module, we will cover about service applications, thus what is service application and what are

the benefits of service application using on sites. We also cover service application life cycle.

- What is Service Application?
- Benefits of Service Application
- Service Application Life Cycle
- Installing Service Applications and associating with Web Applications
- List of Service Applications

# Module 12

### Enterprise Content Management

In this module, we will talk about ECM and various ECM content types.

- Introduction to ECM
- Provisioning Managed Metadata Service Application
- Term store Management Tool
- Enterprise Content Types
- Document Sets
- Document Id Service
- Content organizer
- Documents and Records Managements

# Module 13

### User Profile Service Administration

We will discuss about social computing, how to use profile service application and how can we manage

user profiles on sites. What is activity feed job and how to use them on working sites. How to create and

configuring communities on SharePoint sites.

- What is Social Computing?
- Managing User Profiles
- User Profile Service Application
- Synchronization Service
- Working with My Site
- Activity Feed Job

- Following settings Creating and Configuring Communities
- Working with Audience

# Module 14

**Administering and Configuring Search**

In this module, we will discuss about search solution and what is the purpose of enterprise search solution and more brief about MS server side products. What are all the new features in 2016 and configuring crawler settings, queries and result setting. Creating search administration at site level to search for data, and creating keywords and etc. for better provisioning.

- Purpose of Enterprise Search Solution
- Microsoft Server Side Search products
- What's new in SharePoint Search Server 2016
- Logical architecture for Enterprise Search Components
- Setting up Search service Application
- Configuring Crawler Settings
- Queries and result Settings
- Search Administration at Site Collection level
- Creating Keywords, Definitions, Best Bets and Synonyms
- Creating Search Scopes

**Module 15**

**PowerShell**

In this module, we will talk about PowerShell commands, and writing scripts in windows PowerShell, SharePoint PowerShell snapping on managing sites, creating and managing web application and site collection and site using PowerShell scripts windows.

- Overview of PowerShell
- Pipelining of Command lets
- Windows PowerShell Scripts
- Using .Net objects
- SharePoint PowerShell Snapin
- Creating/Managing a Web Application
- Creating/Managing Site Collection and Site

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**Module 16**

**Backup and Restore**

In this module, we will talk about how to take backup and restore of web application and granular

backup of site collection, and how to export and importing of lists.

- Complete Backup of Web Application
- Complete Restore of Web Application
- Granular backup of Site Collection
- Exporting and Importing of Lists

**Module 17**

**Server Object Model**

We will discuss about server object model in detail and various server objects. How to work with list and

document libraries, and some sample examples on object model.

- Site Architecture and Server object Model
- SPWebApplication, SPSite, SPWeb, SPList and more
- Working with List
- Working with Document Libraries
- Sample Programs to understand the Object Model

**Module 18**

**Camal and Linq Queries**

In this module we will talk detail explanation about CAMAL and Linq Queries.

- CAML Overview
- Querying Lists using CAML
- Querying Joined Lists using CAML
- Linq to SharePoint Overview
- Using SPMetal Tool
- Querying Lists using Linq
- Querying based on lookup Column
- Querying Joined Lists using LINQ

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**Model 19**

**Features**

This module explains about features part of SharePoint 2016, how can we access SharePoint root

directory, and creating new feature and deploying and manage sharepoint solution using PowerShell

commands.

- SharePoint Root Directory
- Features Overview
- Features Scope
- Creating a new Feature and Deploying using V.S 2012
- Feature Events
- Managing SharePoint Solution using Powershell Commands

**Module 20**

**CAMAL**

In this module, we will discuss about creating site columns, custom actions and site definition using

CAMAL, and how can we modify the UI using custom actions.

- Creating lists SiteColoumns, CustomActions and SiteDefinition
- Modify the User Interface using the Custom Actions
- Creating the Site Definition

**Module 21**

**Types of Pages in SharePoint**

This model describes about various types of pages in SharePoint in detail.

- Site Pages
- Application pages
- Master Pages

**Module 22**

**Event Receivers**

This module gives us knowledge on Event functionalities in SharePoint and how to handle event

handlers and receiver, and registering and sample examples on before events and after events.

- Event Handlers-Before Events and After Events
- Event Receiver Base Classes

- Registering Event Handlers
- Example of Before Events
- Programming After Events

## Module 23

**Working with Web Parts**

In this module, we will discuss about creating web parts and adding to sites, and different types of

web parts in SharePoint. We can talk about more about content rollup and different filters and forms,

media and content and search, social collaboration in SharePoint.

- Content Rollup
- Filters
- Forms
- Media and Content
- Search
- Social Collaboration
- Building a Simple Web Part
- Persisting Properties
- Editing properties in Editor Web Part
- Developing Custom EditorWebPart
- Composite Web Part
- Visual Web Part
- Web Part Communication

## Module 24

**Sandboxed Solutions**

In this module, we will discuss about sandboxed solution and benefits of it. We can compare solution

with web farm solution and how to enable sandboxed solution through central admin. How to create

sandboxed solution and deploy on site, and few windows powershell for admin.

- What is Sandboxed Solution?
- Comparing Farm Solution with Sandbox Solution
- Benefits of using Sandbox Solution
- To enable sandboxed solutions by using Central Admin
- Create a Sandbox Solutions Project with a Web Part Build and Deploy the Sandboxed Solution
- Using Windows PowerShell for Administration Sandbox Solutions

**Module 25**

**Business Connectivity Service**

This module describes everything business connectivity service

- Creating a BDC Project in Visual Studio
- Working with Entities and Methods
- Type Descriptor
- Using Data in External List
- Granting Permissions to the BDC List

**Module 26**

**Workflow**

In this module, we will learn about workflow and built in workflows features in sharepoint 2016. We can

create workflow using Visio and designer 2016. We can build workflow using visual studio and deploy.

- What is Workflow?
- Built-in SharePoint 2016 WorkFlows
- Workflow Manager
- Building Custom Workflow using Visio 2016 and SharePoint Designer 2016
- Site Workflow
- Publishing and Deploying Workflow
- Building Custom Workflow using Visual Studio 2016

**Module 27**

**Client Object Model**

In this module, we can learn about complete Client Object Model.

- How Client Object Model Works?
- Managed Client Object Model and Design
- Understanding Load and Execute Query Methods of Client Context
- Adding List and List Items
- Querying List data using Camal
- Performing Crud Operations over List
- Querying Large Lists
- JavaScript Client Object Model
- Overview
- Performing Async Operations using SP.Client Context object
- Fetching Lists Properties
- Crud over Lists

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**Module 28**

**Rest API and OData Standard**

This module explains what are the roles and OData in SharePoint in detail and explains about rest service

architecture in SharePoint and few examples of it.

- Role of rest and OData in SharePoint
- SharePoint Rest Service Architecture
- Rest End Points using OData queries to Select Filter and Sort
- Example to Create, Update and Delete Lists
- Example to Add, Edit and Delete Items in the List

**Module 29**

 **Apps for SharePoint 2016**

In this module, we will discuss about APPS

- Overview
- Apps Hosting Options
- Configuring an Environment for apps for SharePoint
- Manage the App Catalog in SharePoint 2016
- Using office 365 and NAPA tool for Development
- Deploying SharePoint SharePoint Hosted App using VS 2012
- Developing Custom Action
- Developing Client WebPart
- Using Rest API
- Deploying Provider hosted App
- Deploying Auto Hosted App

**Module 30**

 **InfoPath**

In this module, we will discuss about InfoPath in detail. About InfoPath

- Creating SharePoint List and Publishing SharePoint SharePoint Site
- Creating Form and Publishing to SharePoint Site
- Deploy Form Templates that Contain Form Code that requires full trust
- Writing Custom Code in InfoPath form
- Walkthrough to Delete SharePoint List Items from InfoPath form
- Convert Word forms to InfoPath
- Convert Excel Documents to InfoPath

**Module 31**

**InfoPath Digital Signature**

This module will explain digital signature on InfoPath.

- Publish an InfoPath form to forms Server and digitally sign it
- Enable Sections in an InfoPath form to accept digital Signatures
- Digitally sign an InfoPath Form and Submit using email

**Module 32**

**InfoPath External Data**

In this module, we will talk about InfoPath external data and more info about external data

- Retrieve data from SharePoint Lists and your databases into InfoPath forms
- InfoPath Validation Formatting
- Template Part – Email field with Built in Validation
- Enhance InfoPath form with Validation, Formatting and Lookups

**Module 33**

**New Features in SharePoint 2016**

- Fast Site Creation
- Feature Activation
- Navigation
- Hybrid Feature
- Document Library Support
- Office 365
- Security Improvements
- User Improvements

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**What we have?**

- All trainers are certified ─ Practical oriented approach
- Live/ Real-time server administration training
- 24/7 phone support for technical issues resolution
- Flexible timings ─ Each candidate get personalized training
- Gets hand on experience in server side issue resolution
- Chance to visit live data centers
- Special training materials with screen shots, easy to learn
- 100 % pass assured exam assistance.