

# SharePoint Online/Office 365 Training

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## Development

Intended for: Developer / Architect / Enterprise Content Manager / Administrator

Prerequisites: Development Skills

### OVERVIEW

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Majority of SharePoint development courses start the development portion without giving you practical understanding of out-of-box SharePoint functionality and its strengths and limitations. By the time you open Visual Studio in our course, you will be an expert in collaboration, enterprise document management, search, workflows, and many other aspects of SharePoint. With that knowledge you will understand not only the **how** but the **why** of SharePoint development.

We will cover the most important aspects of the SharePoint API and how to access it using client and JavaScript object models. Additionally, you will learn to access and manipulate SharePoint lists using REST API. For the app development, you will build a SharePoint hosted app that uses SharePoint components. Also, you will create a provider hosted app that utilized Windows Azure web app, SQL, no SQL tables and BLOB storage. We will discuss app security, developer workflow, and deployment options in details.

### Learn all the topics covered in the Fundamentals & Administration courses plus:

- Learn the most important aspects of the SharePoint client, JavaScript, and REST APIs.
- Build and deploy SharePoint hosted app that uses pages, ribbon actions, lists, and app parts.
- Learn about app deployment in an organization and SharePoint app store licensing model.
- Understand developer workflow.
- Understand app security
- Build an asp.net MVC provider hosted app that resides on Windows Azure.
- Use entity framework to access SQL Azure data.
- Use Azure blobs and no SQL tables storage, CORS, signed URLs, and REST APIs

## 1. Definitions, History, and Expectations

- Overview / Definitions
- History / Editions
- How to Make SharePoint Successful

## 2. Sites Organization

- Content Creation and Organization
  - Site collection
  - Site
  - Top link bar
- App launcher: SharePoint homepage
- Classic vs Modern Navigation / Interface
  - Team Sites
  - Communication Sites
  - Hub Sites
    - Content roolup
    - Register / Associating hub sites
- Site navigation
  - Quick launch bar
  - Site contents
- Site Templates
  - Features
  - Site template comparison

## 3. List

- Columns
- Filters
- Views
- Form configuration
- Versions
- Alerts
- Large lists: metadata navigation and indexed columns
- Search

## 4. Documents

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- Columns, views, managed metadata
- Get a link functionality
- Co-authoring and track changes
- Syncing using OneDrive for Business
- Versions
  - When are version created
  - Check out - check in
  - Major, minor, and approval
- Folders vs. metadata
- Search and Delve

## 5. Pages, Web Parts, Apps

- Classic and modern pages
- Types of pages: Wiki, Standard, Modern, Application
- Web Parts
- Apps
- What's not supported in modern pages

## 6. Office 365 Groups

- Navigation
- Group members and settings
- Conversations
- Calendar
- Group library
- Planner

## 7. MS Teams

- Chat
- Organize conversations with Channels and Tabs
- Permissions / External Guests
- Online Meetings
- Documents with Office & SharePoint
- Sync with OneDrive
- Integrations
  - Connectors / Apps
  - Bots

## 8. OneDrive

- Personal documents and site

- User profile

## 9. Personal and social features

- User Profiles
- MyAnalytics
- Yammer

## 10. Classic Tasks and Calendars

- Tasks
- Organize for project management
  - Indents
  - Timeline
- Calendars
  - Connect to Outlook
  - Overlays in SharePoint

## 11. Security

- Authentication vs. authorization
- Permission levels
- Site collection administrator
- SharePoint groups
- Sharing - Get a link functionality
- Members groups security
- External users

## 12. Templates and Publishing Infrastructure

- Site and list templates
- Publishing infrastructure and limitations in the modern interface

## 13. Project: Libraries and Lists

- Research documents
  - Document library with metadata
  - Permissions by folder
  - Views without folders
  - Metadata creation and navigation
- Project site management
  - Project directory
  - Project site template

## 14. Microsoft Flow Basics

- Templates and connectors
- Events, actions, conditions, dynamic content
- Create a flow from a template and from scratch
- Run and check Flow activity
- Demo: Document Approval
- Demo: Training/class sign up
- Demo: Flow buttons
- Demo: Recurrence, send monthly email

## 15. Workflow Administration

- Create and manage environments
- Security
- Data locality
- Data loss prevention policy

## 16. Microsoft Flow Custom Services

- JSON and dictionary actions
- SharePoint REST APIs
- Read and write data from SharePoint

## 17. Workflow deployment

- Move
- List template
- Update

## 18. PowerApps

- Create an app from SharePoint
  - Customize SharePoint List Form
    - Chase size orientation
    - Format text
    - Add Rules
    - Create Additional views – create, show, or edit

- Add multimedia
- Create an app from scratch
- Form Design
  - Visual Layout
  - Screens
  - Data connections
  - Logic and rules
  - Validation
  - External data

## SECTION 3 - Business Intelligence

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### 19. Business Intelligence Introduction

- Definition
- Information collection, analysis, and delivery
- Microsoft product descriptions

### 20. Excel and Data Modeling

- Excel Data Model
  - Create tables
  - Identify relationships
  - PowerPivot – advanced data model manipulation
- Presentation
  - Pivot tables and charts
  - Slicers and conditional formatting
  - PowerView
- Publishing to SharePoint
  - Publishing options and permissions
  - Pages and web parts

### 21. External Connections and Data Refresh

- External Connections
  - SharePoint Lists – OData Feed
  - Azure SQL Server
- PowerBI App
  - Enable Data Refresh

- Data connection details
  - Location
  - Authentication
  - Secure Store

## 22. Excel with PowerPivot

- Import data and create relationships
- Calculated columns and DAX
- Measures, hierarchies, and KPIs
- PowerBI Admin Center

## 23. Excel PowerQuery

- Getting data using PowerQuery

## 24. Excel PowerMap

- Use PowerMap

## 25. PowerBI Admin Center

- Gateways and datasources

# SECTION 4 - Administration

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## 26. Site Collection Management

- Definition
- Why separate site collections
- Management

## 27. Site Columns

- Definition
- Scopes and updates

## 28. Managed Metadata - Taxonomy Term Store

- Terms sets and term groups

- Choice Column vs. Managed Metadata Column
- Enterprise keywords
- General Recommendations for Taxonomy Development

## 29. Content Types

- Content type information architecture
  - Hierarchies and inheritance
  - Document templates
  - Workflows
  - Information management policies
- Use cases
- Content Type Syndication Hub

## 30. Document sets

- Metadata and page layouts
- Versioning and workflows

## 31. User Profiles

- User Profiles
  - Properties
  - Settings
  - Permissions
  - Audiences
- My Sites
  - Configuration
  - Promoted sites

## 32. Search Administration

- Search administration
- Search Schema – properties and refiners
- Content search web parts
- Query suggestions
- Query rules
- Analytics

## 33. Final Project

- Metadata and Search



## 34. EDiscovery

- eDiscovery cases
  - eDiscovery sets
  - Sources
  - Custodians
  - Queries

## 35. Using PowerShell in SharePoint Online

### SECTION 5 - Development

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## 36. Development Goals

## 37. SharePoint APIs

- How to access the SharePoint API
  - JavaScript Object Model - JSOM
  - REST
  - Server and client object model
- Working with SharePoint API
  - Site collection organization
  - List manipulation
  - List data retrieval
  - Permissions

## 38. App Development

- What to do
- Host web, app web, isolated domain
- Development options
- SharePoint hosted vs. provider hosted
- Components
  - Pages, custom actions, modules, app parts,
  - Features, packages
- App manifest and permissions

## 39. SharePoint App Deployment

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- Organizational deployment
- App gallery
- Deployment scope: tenancy vs web
- Updating apps

#### **40. Provider Hosted App**

- Solution Structure
  - App and web projects
  - ASP.NET MVC (Model View Controller)
  - Running locally
- Deployment
  - Registering in the tenant – client id and secret
  - Publishing to Azure website
- Data Storage
  - SQL – Entity framework
  - Blob storage - signed URLs
  - No SQL Tables - REST APIs and CORS
- Licensing

#### **41. App Security Model**

- General
  - App authorization policy types
  - Low trust and high trust apps
  - Registering apps
- Context token auth flow
  - Context and access tokens details
  - Helper classes
  - Caching context token beyond the session

#### **42. Office 365 App Development**

- Architecture
- SharePoint Apps vs Office 365 apps
- Connecting from external systems