Power Platform

**COURSE OVERVIEW:**

In this course, you will learn about, and apply, the various Products and best practices that are in line with business and technical requirements for business solutions, data visualizations, automated workflows, and chatbots. You will also learn about the features like Microsoft Dataverse, AI Builder, Connectors of Power Platform, including how to share, distribute, and appropriately secure them.

**PREREQUISITES:**

This Course is for freshers and IT Professionals who to create custom business solutions, data visualizations, automated workflows and chatbots using Power Platform.

One doesn’t need to have deep knowledge of programming to build applications using Power Platform.

**Power Platform Syllabus**

**Introduction to Power Platform**

* Introduction
* Brief About PowerApps
* Brief About Power Automate
* Brief About Power Agent
* Brief About Power BI
* Brief About Dataverse
* Brief About AI Builder
* Brief About Connectors

**Create and Configure Environment**

* Introduction
* Types of Environment
* Activate Free Trial Environment
* Environment Scope
* Environment Permissions
* Types of Environment
* Provisioning a new environment
* Copy Environments
* Backup and Restore Environments
* more on environments.

**Manage a Dataverse Data Model**

* Assign a type for a table including standard, activity, or virtual
* Configure tables ownership
* Create new tables or modify existing tables
* Determine which type of relationships to implement including 1: n and n: n
* Configure table relationship behaviours including cascading rules
* Create new relationships or modify existing relationships
* Create new columns or modify existing columns
* Create alternate keys for tables
* Configure table properties
* Configure connection roles
* Create and configure views

**Configure Dataverse**

* Configure Relevance Search
* Configure Auditing
* Perform data management tasks including import, export, and bulk detection
* Configure duplicate detection settings
* Configure privacy preferences

**Configure Dataverse Security Settings**

* Create and manage business units
* Create and manage security roles
* Create and manage users and teams
* Create and manage column security
* Configure hierarchy security
* Configure azure ad group teams

**Model-driven Applications**

* Introduction and Approach
* UI Components
	+ Configure site maps
	+ Create and configure forms
	+ Create and configure views
* Visualization Components
	+ Create and configure charts
	+ Create and configure dashboards
* Power Apps Component Framework
* Working with Templates
	+ Word
	+ Excel
* Apply organizational branding by using themes
* Share a model-drive app

**Canvas Apps**

* Create a canvas app
* Configure Dataverse as a data source for an app
* Create canvas app screens
* Implement form navigation, formulas, variables and collections, and error handling
* Build reusable components and component libraries
* Configure offline capabilities for apps
* Interpret app checker results and resolve identified issues including accessibility issues
* Manage apps
* Monitor app analytics data
* Working with Connectors
	+ SQL Server
	+ SQL Blob Storage
	+ Twitter Connector
* Building and Using Custom Connectors.

**Portal Apps**

* Portal Apps Components
* Power Apps Portal Studio
* Expose Common Data service Dataverse data
* Configure portal web pages, forms, and navigation
* Configure portal security including web roles and page access

**Power Automate Flows**

* Introduction
* Types of Flows
* Triggers and Actions
* Instant Cloud Flows
* Automated Cloud Flows
* Approval Flows
* Dynamic content and expressions
* Implement logic: branches, loops, conditions, error handling, and variables
* Invoking Cloud Flow from Canvas App
* Sharing Cloud Flows
* Troubleshoot flows
* Import and Export Flows

**Create and manage business process flows**

* Configure a business process flow
* Add business rules, workflows, and action steps to a business process flow
* Define stages and steps
* Configure parallel branches
* Manage the business process flow table for a business process flow

**Build Desktop flows**

* Introduction to Desktop Flows
* Flow to Read and Update Excel document
* RPA: Robotic Process Automation
* Implement variables, loops, and conditionals in power automate desktop flows
* Trigger desktop flows from cloud flows
* Attended and unattended desktop flows
* Monitor automation runs

**Create Chatbot using Power Agent.**

* Introduction
* Virtual Agent Components
* Topics and Entities
* Variables and Scopes
* Create a Bot
* Share a Bot

**Implement AI Builder**

* Determine which AI Builder model type to use
* Create an AI Builder model
* Prepare source data for use by models
* Train, test, and publish a model
* Example of Form Processing AI Builder
* Consume a model by using Power Apps
* Consume a model by using Power Automate

**Managing Solutions**

* Create solutions to contain solution assets
* Create a publisher
* Add assets to a solution
* Working with Environment Variables
* Build solution-aware components
* Manage solution component dependencies
* Import-Export Solutions across Environments

PowerBI Syllabus

**Introduction to PowerBI**

* What is Data Analytics
* Type of Data Analytics
* Roles in Data
* Role of Data Analyst
* Tour of PowerBI

**Get Data in PowerBI**

* Identify and connect to a data source
* Get data from a relational database, such as Microsoft SQL Server
* Get data from a file, such as Microsoft Excel
* Get data from Web
* Understanding storage mode
* Fix performance issues
* Resolve data import errors
* Diagnose Query Performance

**Clean,transform,Load Data**

* Profile data
* Shaping table structure
* Resolve inconsistencies, unexpected or null values, and data quality issues
* Apply user-friendly value replacements
* Pivot/UnPivot
* Combine queries
* Filtering Data

**Design Data Model**

* What is Data Modeling
* Joins and Relationships
* Star Schema
* define the tables
* configure table and column properties
* create a common date table
* Relationship cardinality
* Cross-filter Direction
* Dimension and Hierarchy

**DAX**

* Create Calculated columns
* Create calculated Table
* Create Measures
* Use CALCULATE
* Time intelligence with DAX

**Create Report**

* Add visualization items to reports
* Choose an appropriate visualization type
* Format and configure visualizations
* Import a custom visual
* Configure conditional formatting
* Apply slicing and filtering
* create a paginated report
* configure bookmarks
* configure Sync Slicers
* use the selection pane
* export report data
* reports for mobile devices

**Create Dashboards**

* Publish Report
* Create Workspace
* publish, import, or update assets in a workspace
* Manage Tiles
* Pin Tiles
* Set Mobile View
* Configure Data alert
* Q & A