

Working with Common Data Service (CDS) for Apps



Agenda

- Motivation for the Common Data Model
- Understanding Entities, Fields, Lookups and Picklists
- Importing Data into the CDS Database
- Customizing Built-in Entities and Creating Custom Entities
- Building PowerApps which Access the CDS Database
- Building Flows to Import and Manage CDS Data



Common Data Service

- **Common Data Service (CDS) is:**
 - A Microsoft Azure–based business application platform
 - Enables you to easily build and extend applications with their business data
 - Includes a Data Model
- **One of the biggest benefits is:**
 - It does all the heavy lifting of bringing your data together in one place for your users and applications



3 Pillars of Common Data Service

- **Be the focal point for your data**
 - Bring your data together into one place
- **Be a great place to build and manage apps**
 - Help app creators and developers of all skill levels to easily create apps with the data in the Common Data Service
- **It works with the rest of Microsoft**
 - Provide out-of-the-box integrations with technologies across Microsoft including Flow, Power BI, and Office



Common Data Model Entities

- **Entities**
 - Standard set of entities comes with a common data model in the Common Data Service
 - Covers a range of common business needs
 - Grouped into categories



Standard Entities

Functional group	Description
Customer Service	The Customer Service entities manage issues from your customers, including tracking, escalation, and documentation.
Foundation	The Foundation entities contain information that is relevant to nearly every other entity group. This group contains entities such as Address and Currency.
People, Organizations, and Groups	These entities encompass a rich set of people and organizations that you might interact with, including employees, contractors, donors, volunteers, fans, alumni, and families.
Purchasing	The Purchasing entities let you create purchasing solutions.
Sales	The Sales entities let you create end-to-end sales solutions, from tracking leads and opportunities, to following through with contacts, accepting and delivering orders, and sending invoices.



Fields and Data Types

- **Default Fields**
 - Each entity contains a set of default fields
 - These fields cannot be changed or deleted
 - Some fields like *ContactID* are specific to an entity and fields like *Created on date time* are common to all entities
- You can extend standard entities by adding fields:
 - Click **Add field** and specify the new field's properties



Custom Entity

- **Create a Custom Entity**
 - When extending a standard entity is not enough
- **Data Types**
 - Fields in an entity have a data type
 - More than a dozen data types are available
- **Some representative types:**
 - *Basic types:* Text and Number
 - *More complex types:* Email and Phone
 - *Special types:* Lookup (for creating relationships) and Picklist (to hold a fixed set of values for a field)



Working with Entities

Fields • Key • Relationships • Field groups • Data

- **Fields:** see fields and data types and add fields
- **Key:** the field that identifies each row in an entity (i.e. Contact ID for the Contact entity)
- **Relationships:** connections between related entities (i.e. Product and Product category)
- **Field groups:** used to control various behaviors (i.e. which fields to automatically show when you create an app screen in PowerApps)
- **Data:** browse sample data and your own data after it's imported



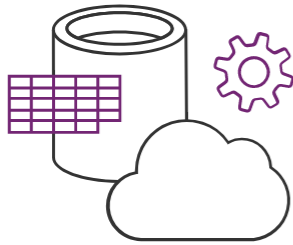
Working with Entities

- **Open in Excel:** With the [PowerApps Office Add-in](#) installed you can explore and edit your data in Excel
- **Import data:** bring in data from Excel and CSV files
- **Export data:** export data to an Excel file
- **Export template:** export the structure of an entity to an Excel file so you can populate the file and import it back into the entity
- **Settings** and **Delete:** are not available for standard entities



CDS Entities

Entities 

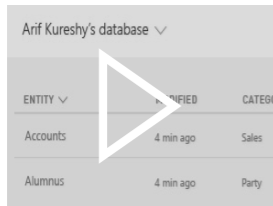


Create your own environment and database where you can build apps using the Common Data Service.

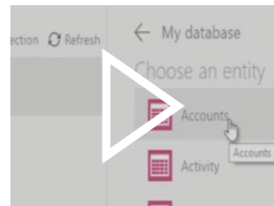


Create database

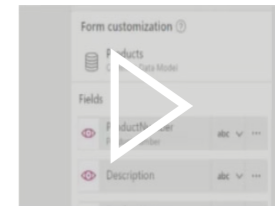
See how the Common Data Service works.



Working with entities



Creating an app



Create an app from scratch



Summary

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