Building Data Models

Hands-on Lab

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Lab Overview

Abstract

During this lab, you will run several exercises that will help you achieve a better understanding of designing data models for the Common Data Service. This lab focuses on making decisions around using existing or creating new entities, designing good reusable option sets, field data types, entity relationships, etc.

Learning Objectives

After completing the exercises in this lab, you will be able to:

- Perform evaluation of requirements to decide which approach to take

Estimated time to complete this lab: *60* minutes

Exercise 1: Evaluate Requirements

Scenario

You have been tasked with building a new feature to support conducting interviews. This component should handle conducting interviews for a variety of scenarios. You've been asked to make it flexible enough, so it could be used with OOB entities like Account and Contact as well as custom entities. This feature is expected to be broadly adopted by many implementations, below is just one example for your reference.

Example Customer Use Case

Contoso currently has two needs analysis templates that they use, which are essentially pre-built Excel workbooks that contain a set of interview questions they ask their customers. Based on the customer size / complexity they choose one of the templates. As the account rep meets with the customer contact they fill out the sheet by capturing free form text answers and a rating from 1-10 of the importance or impact. This assessment is then used to shape the services they offer to the customer.

Requirements:

You need to design a data model for the new feature that meets the following requirements:

1. Must be able to track a set of interview questions that can be reused as a template each time an interview is conducted.
2. Each interview question should be able to be part of multiple sets of questions allowing an individual question to be reused.
3. Must be able to track a set of question answers and relate it back to an existing entity such as Account, Contact or Custom Entity
4. Users should be able to indicate they are starting a new interview, and specify a set of questions they want to use and allow for automation to prepare the questions to be answered

Assumptions:

For purposes of this exercise, we are making the following assumptions:

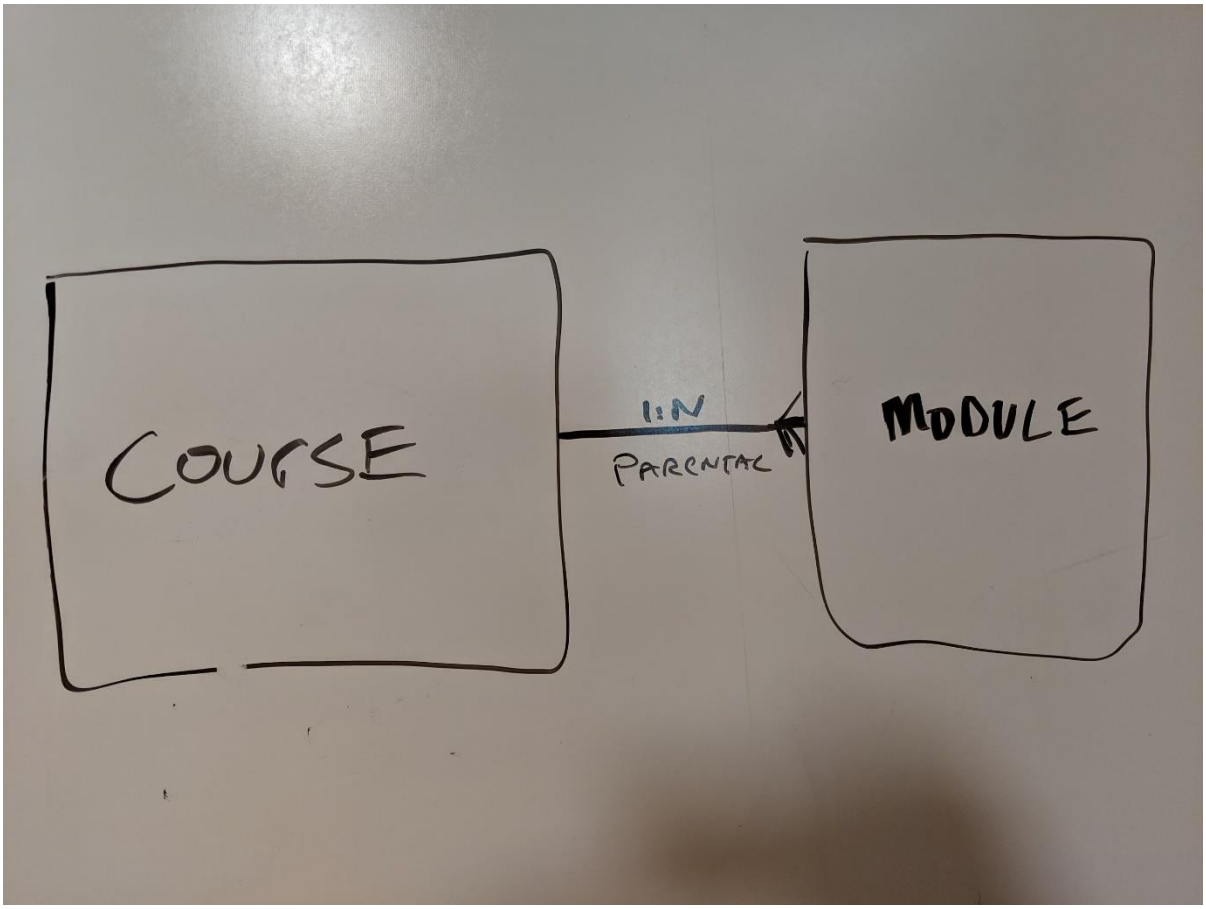
- Assume you are making an example of using the interview feature with the Account entity when you draw the proposed design.
- You will not be building or worrying about the Automation to prepare the set of questions to be answered for the purposes of this exercise.

Task 1: Perform Requirement Evaluation

Review the items listed above and design a data model that can be used for this Common Data Service implementation. Layout any new and existing entities that will be needed. Focus on what entities will need to be related together to support the needed functionality. Your structure should allow everything listed in the requirements document to be solved.

You should produce a rough drawing that looks like the following (your model has different entities!) Your drawing should indicate the following

1) The entity name and if it is existing or new
2) The relationship between the entities including 1:N or N:N
3) The relationship behavior e.g Parental, Referential, Referential Restrict Delete, Custom



Exercise 2: Review data model provided by your instructor and note the differences

Scenario

Based on the requirements, we developed the data model provided. This is not the only data model that will work for this solution, but it will meet the functionality that was listed in the requirements. To ensure that everyone is on the same page moving forward, this is the model that we will use moving forward. Look at the data model and compare it to what you proposed.

Discuss the differences:

- Which one makes more sense?
- Are there any specific advantages of one approach vs the other?
- Are there any areas where they could be combined?

Task 1: Review the data model provided by your trainer

- Review and discuss with your team.