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Microsoft Excel - Power Pivot

GoSkills online course syllabus

Thursday, May 1, 2025

Skill level
Intermediate

Lessons
33

Accredited by
CPD

Pre-requisites
Pivot Tables

Versions supported
2010, 2013, 2016, 2019, 365

Video duration
3h 12m

Estimated study time
16h 30m for all materials

Instructor
Ken Puls

What is Power Pivot?

1 The Need for Power Pivot

If you've worked with PivotTables, you'll appreciate that sometimes your source data can be too complex to work with in a PivotTable. In this video we will explore the un-solvable Pivot problem that Power Pivot can easily solve.

2 Acquiring Power Pivot and Power Query

Unfortunately Excel is not just Excel anymore. What you get depends on which "SKU" you have installed. In this module we will look at how to ensure you have the correct SKU as well as the other components you may need to download to build best in class solutions.

3 The BI Process Overview

A review of the process used to develop and update modern business intelligence solutions in Excel.

4 A Sneak Peek at Your Future

As there are many steps to build a great model, it can take some time before you see the results. For that reason we thought it might be a good idea to inspire you with our "end game" and show you the final model that we will build throughout this course.

Pivot Table Skill Review

5 Creating Basic (non-Power) Pivot Tables

The whole reason we get data in the first place is to turn it into information. And the best tool to quickly turn data into information? Excel's PivotTable! This module will review the basics of how to build and update a PivotTable.

6 PivotTable Formatting

PivotTables - whether standard or created via Power Pivot - use the same behaviors for formatting. In this module we'll look at how to properly apply Excel's formatting options to PivotTables.

7 PivotTable Filtering Tools & Techniques

In this video we will explore setting up your PivotTable using best practices to allow one-click filtering and drill down, as well as linking filters to multiple PivotTables so you can keep everything in Sync

Getting Data for Power Pivot

8 ## Facts vs Dimensions

Before we start collecting data, it is helpful to understand Facts and Dimensions. In this lesson we will cover these important dimensional modeling concepts so that you can lay out your source data tables properly.

9 ## Getting Data from Databases

This lesson will explore how to use modern techniques (Power Query) to collect and reshape your data before loading it into the Power Pivot Data Model.

10 ## Managing Power Queries

It's all about the refresh - something that will be problematic if you can't change the source data's file paths. Here we will explore how to do this, as well as show you how to keep your Power Queries organized.

11 ## Getting Data from Excel Tables

Let's be honest, a huge amount of the world's data lives in Excel. We need to be able to pull these data sources into our Power Pivot models as well. In this lesson we will show how to collect data from Excel's Table object.

12 ## Getting Data from Excel Ranges

You won't always want to format your source data as an Excel Table, and in this module we will show you how to get it into Power Pivot anyway.

Data Modeling Techniques

13 ## Creating a Power PivotTable

You've got data, and you want to build a PivotTable now. What could possible go wrong? In this lesson we will show you!

14 ## Key Concepts for Relating Data

In order to use fields from multiple tables on one PivotTable, we need to declare relationships between the tables. This lesson will explain what that means to us and the options we have in this space.

15 ## Linking Tables with One-To-Many Joins - Practice

In this lesson we will begin linking the tables in our Data Model and show you how it enriches the PivotTable experience.

16 ## Solving Many-To-Many Joins with Composite Keys - Theory

You cannot build a Many-To-Many join in Power Pivot, so what do you do when your data is in a Many-To-Many format? In this module we will explore how to work through a specific Many-To-Many case using a Composite Key.

17 ## Solving Many-To-Many Joins with Composite Keys - Practice

Knowing how to solve the issue, we are now ready to go and put this technique to the test in our sample model.

18 ## Solving Many-To-Many Joins with Bridge Tables - Theory

In this module we will explore another common Many-To-Many join issue which can be solved by creating a "Bridge" table.

19 Solving Many-To-Many Joins with Bridge Tables - Practice

Armed with the technique on fixing our Many-To-Many join problem, it's time to apply it in our sample model.

20 Creating Dynamic Calendars - Theory

Every model that will perform any kind of date/calendar intelligence must have a proper calendar table. This lesson gives you the tips that you can apply to any model to build a calendar table that dynamically updates with your data.

21 Creating Dynamic Calendars - Application

It's now time to build a dynamic calendar on the fly for our sample model. After identifying your calendar's start and end dates, it's one line of code, 5 clicks, 4 characters and the Enter key, and you're set.

22 Sorting Data Model Fields

You've got a bare bones functional model, but what is with the order of the months? Who sorts their dates in the following order: Apr, Aug, Dec, Feb? You do if you haven't told Power Pivot how to sort things properly!

Building Measures with DAX (Power Pivot's Formula Language)

23 Basic Measures – Theory

In this module we'll explore how to use Power BI's formula language to create re-usable "Measures"

24 Basic Measures – Application

It's now time to apply our knowledge of basic formulas, and build measures that add business intelligence value to our sample model.

25 Understanding Measure Calculation

Creating measures is all very well, but you need to understand why they return what they do. In this module we will explain how to identify the filter context applicable to your data point, and how that influences the way measures are calculated.

26 Performing Math with Compound Measures

This lesson explores the syntax and practical application of adding or subtracting measures from each other, and lays the groundwork for creating more complicated mathematical combinations.

27 The CALCULATE() Function – Theory

CALCULATE() is the super-charged SUM(anything) function, and mastering it is the secret to truly mastering Power Pivots's formula language. In this module we will show how it works, as well as how it impacts basic measure calculation.

28 The CALCULATE() Function – Application

In this module we will create measures using the CALCULATE() function in a our model, showing how they work and add value to our business intelligence.

29 The ALL() Function – Theory

How do you ensure that your "All Time Sales $" retains it's "All time" status when your user drills the report into a specific month? This lesson is ALL() about the function that lets you do exactly that.

30 The ALL() Function - Application

In this module we implement practical examples of using the ALL() function to our model, allowing us to modify and override the filter context of the measure. The result? Measures that only change when we want them to!

31 Time Intelligence Measures

This lesson will explore a couple of key Date/Time Intelligence measures that allow us to return Month-To-Date and Year-To-Date versions of our measures that change with the date selections made by our users.

Performance Considerations

32 The Case for Current

"Subscription Excel vs Non-Subscription Excel" and "32 bit vs 64 bit" are two huge points of concern for Power Pivot modelers. Which do you need, why is it so important, and how can you make a case to get them?

33 Performance and Stability: Design Best Practices

This lesson focuses on best practices for model design in order to keep your Power Pivot models responsive and stable.

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