# 77-851
Excel 2007 Expert

Exam Design

The Basics

This is a Technical Specialist exam designed to assess candidates' expert level hands-on skills in Microsoft Office Excel 2007. We are specifying an item pool of at least 125 unique items, which will be used across multiple pools. Items should be written to the Application cognitive level. For more information about cognitive levels, refer to the Cognitive Domain in Bloom's Taxonomy.
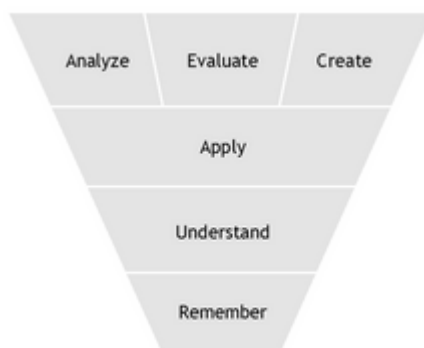
Categories in the cognitive domain of Bloom's Taxonomy (Anderson & Krathwohl, 2001)

Target Audience

This exam is intended for candidates with the equivalent of more than one year of hands-on experience in efficiently utilizing advanced features of Microsoft Office Excel 2007. These skills include capturing, formatting, calculating, analyzing, and presenting data and managing automation, data ranges, and workbooks. The successful candidate might have the role of financial analyst, data analyst, or project manager.

Objective Domain

1. **Capturing Data**

    1.1. Restrict data entry by using data validation.
    This objective may include but is not limited to: referencing external data in drop-down lists, validating data by using formulas, and encircling invalid data

1.2. Link form controls to cells.
This objective may include but is not limited to: scroll bars, check box, label, and drop-down

1.3. Import data from an external source.
This objective may include but is not limited to: importing data from a text file, importing data by using a Web query, using the Microsoft Query Wizard to edit an existing query, and referencing data in a database

1.4. Link to data in an external source.
This objective may include but is not limited to: referencing data in another workbook, refreshing and editing workbook links, and changing data refresh options to optimize file size

2. **Calculating Data by Using Advanced Formulas**

2.1. Create formulas that combine Lookup & Reference and Statistical functions.
This objective may include but is not limited to: using common Lookup & Reference functions (HLOOKUP, VLOOKUP, TRANSPOSE, INDIRECT, MATCH, INDEX, CHOOSE) and using common Statistical functions (COUNTIF, COUNTIFS, COUNTBLANK, AVERAGEIF, AVERAGEIFS, FREQUENCY)

2.2. Create formulas that combine Date & Time, Text, and Logical functions.
This objective may include but is not limited to: using Date & Time functions, using Text functions, and using common Logical functions (IFERROR,Nested IF, OR, and AND)

2.3. Manage and reference defined names.
This objective may include but is not limited to: creating a dynamic named range, creating and referencing a named formula, modifying named ranges by using Names Manager, and navigating across worksheets by using named ranges

2.4. Audit formulas.
This objective may include but is not limited to: trace dependents, trace precedents, and adding a watch to the Watch Window

3. **Managing Data Ranges**

3.1. Consolidate data ranges.
This objective may include but is not limited to: consolidating data ranges by position, by category, or with links to a source

3.2. Select and manipulate similar cells and objects.

This objective may include but is not limited to: blanks, comments, objects, conditional formats, formulas, visible cells only, and find and replace by format

   3.3. Apply advanced filtering.
This objective may include but is not limited to: using multiple conditionals on the same column, using the OR condition across multiple columns, and applying filtering to unique records only

   3.4. Protect data in a worksheet.
This objective may include but is not limited to: locking and unlocking cells, locking and unlocking objects, and hiding formulas

4. Summarizing and Analyzing Data

   4.1. Create PivotTables and PivotCharts.
This objective may include but is not limited to: consolidating multiple data ranges by using PivotTables, creating a PivotTable from an existing worksheet, creating a PivotTable linked to an external database, and creating a PivotChart from an existing worksheet

   4.2. Modify PivotTable content.
This objective may include but is not limited to: grouping (group by dates, group by numbers, group by text), inserting a calculated field, and showing report filter pages

   4.3. Perform what-if analysis.
This objective may include but is not limited to: using Scenario Manager (create scenarios, compare scenarios), using a data table, using Goal Seek, and using the Solver add-in

5. Formatting Worksheet and Chart Content

   5.1. Create custom number formats.
This objective may include but is not limited to: number formats, date and time formats, and conditional number formats

   5.2. Define advanced conditional formatting rules by using formulas.
This objective may include but is not limited to: creating rules based on dates, creating rules based on numbers, and creating rules based on text

   5.3. Add visual elements to a chart.
This objective may include but is not limited to: adding a Z axis, adding a second Y axis, and adding analysis indicators (Trendlines, R-squared value, Series lines, High-Low lines)

6. Managing Macros and User-Defined Functions

   6.1. Record and edit a macro.

This objective may include but is not limited to: recording a macro and editing a macro in Visual Basic® for Applications (VBA)

NOTE: ensure 1 item for recording a macro and 1 item in editing a macro in VBA
NOTE: for editing a macro in VBA, modify actions instead of input/output

6.2. Manage existing macros.
This objective may include but is not limited to: moving macros between workbooks, assigning a shortcut key to an existing macro, assigning a macro to a button in a worksheet, and configuring macro security levels

6.3. Create a user-defined function (UDF).