

ODP Planning Software

M&E Lunch & Learn Thu 11 July 24

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Department for Levelling Up,
Housing & Communities



Building M&E Capability for the ODP project

Producing monthly data reports

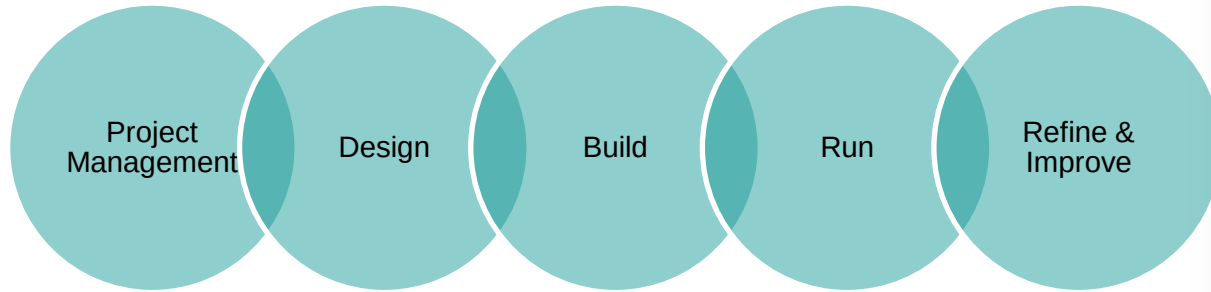
BI Data Transformation Concepts

Examples using PowerBI

Questions



Building M&E Capability for the ODP project



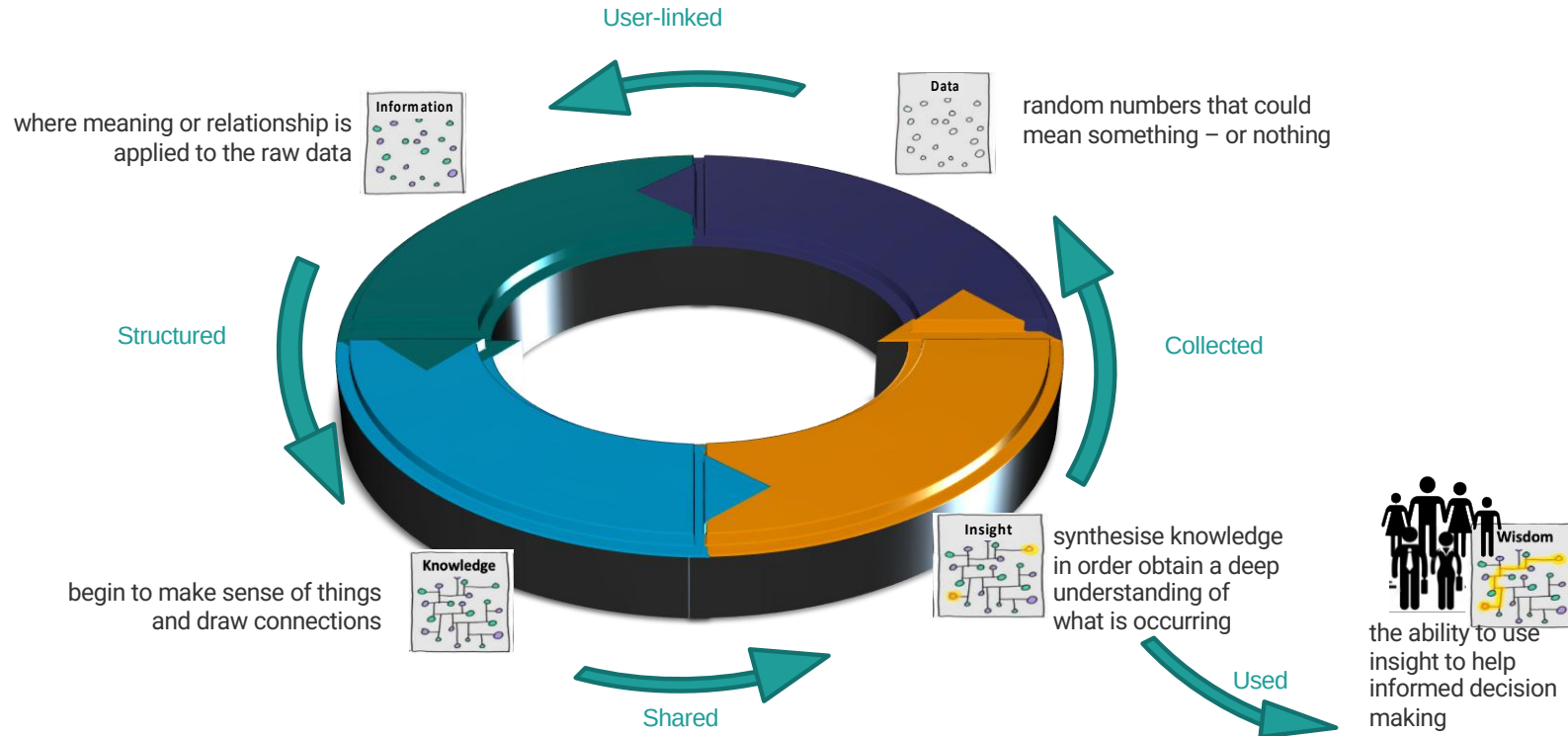
Project Management

Project Logic	Theory of change Simple benefits / business case Operational improvement target
Methodology	Waterfall vs Agile User centred, System migration..
Leadership and Organisation	Impact (scale and Value) Product improvement

Design

There is a difference between the benefits we want to understand, the metrics we measure, and the data we collect

Design



Design

There is a difference between the benefits we want to understand, the metrics we measure, and the data we collect

- Be crystal CLEAR AND FOCUSED on the benefits
- Be PRAGMATIC about metrics and mindful of accuracy & precision
- Be PERSISTENT AND CREATIVE about data collection

Design

Benefits and metrics	<i>Start with commitments & decisions and work backwards</i>
Data collection:	<i>Collect what you need not what you can get Be as clear as you can be about data structure</i>
Test design:	<i>Explain to stakeholders and remind regularly</i>
Analysis output	<i>Don't over engineer</i>
Technical architecture	<i>Get agreement & support commitment in writing Don't over engineer (manual steps are fine)</i>

Build

Time	<i>What can you get when?</i> <i>Long lead-time scope</i>
People capabilities	<i>Upskill</i> <i>Secure Project / external resources</i>
Baseline measures	<i>Explain to stakeholders and remind regularly</i>

Run

Communicate Insight & ideas NOT data

- Simple high-level visuals that directly link to insights & ideas
- Only more if asked for context or to answer deeper questions
- Be ready for questions on data coverage, accuracy and precision

Continually review the M&E set-up

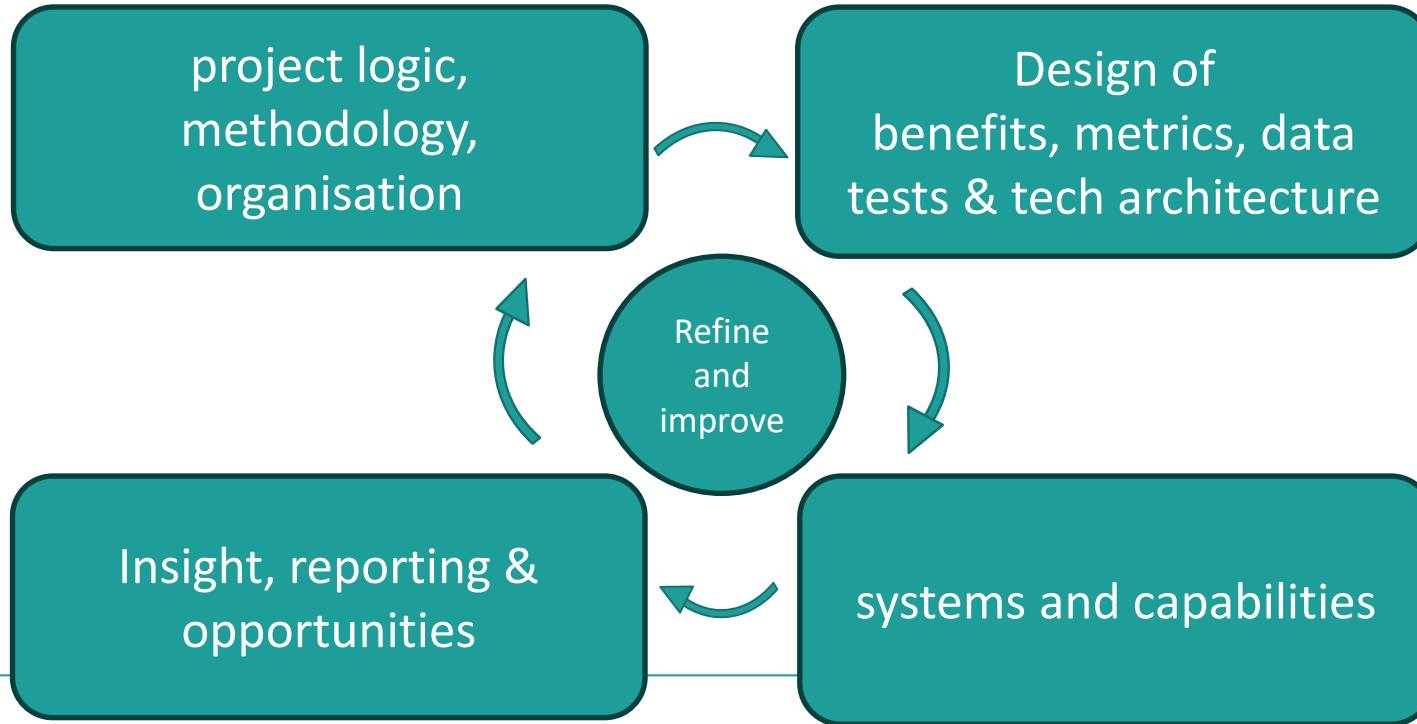
- What decisions are being made on the basis of the information?
- What new tests should be run?
- How should we be updating our data collection?
- What data can we STOP collecting?

Refine and Improve

Continually review the M&E set-up

- What decisions are being made on the basis of the information?
- What new tests should be run?
- How should we be updating our data collection?
- What data can we STOP collecting?

Building M&E Capability for the ODP project

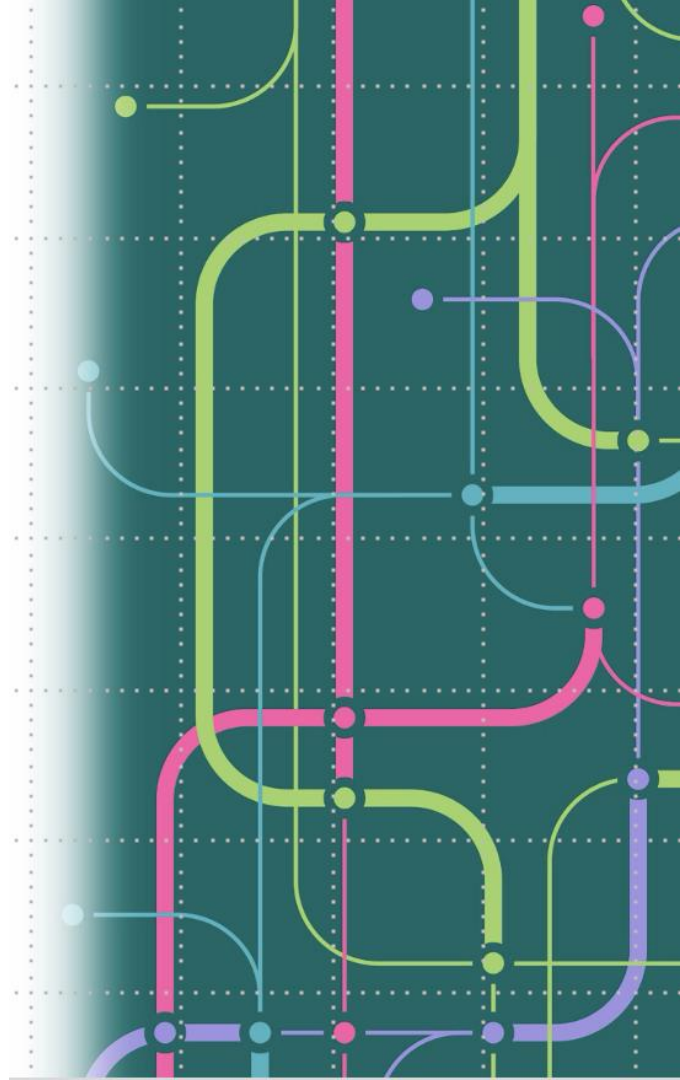


Producing monthly data reports

The M&E Working Group has set standards for ODP Planning Software reporting that requires submission of monthly data files.

These are joined to produce a central dataset that enable analysis to compare and contrast activity across LPAs, and identify opportunities for sharing of best practice.

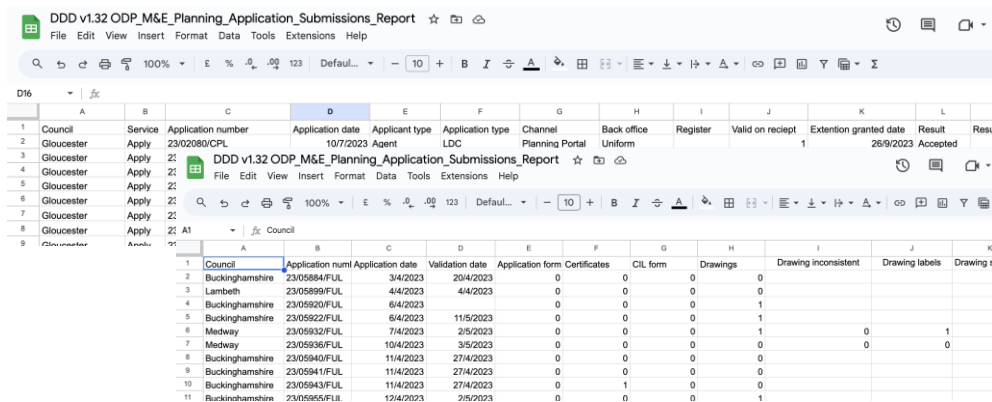
PowerBI can be used to transform data (such as that extracted from back office systems) to automatically produce these reports



Producing standard data reports

The M&E Working Group produces

Data Definition Documents that specify precisely what data is needed on a monthly basis, and in what format



	A	B	C	D	E	F	G	H	I	J	K	L
1	Council	Service	Application number	Application date	Applicant type	Application type	Channel	Back office	Register	Valid on receipt	Extension granted date	Result
2	Gloucester	Apply	23/02080/CPL	10/7/2023	Agent	LDC	Planning Portal	Uniform			1	26/9/2023 Accepted
3	Gloucester	Apply	23/02080/CPL	10/7/2023	Agent	LDC	Planning Portal	Uniform			1	26/9/2023 Accepted
4	Gloucester	Apply	23/02080/CPL	10/7/2023	Agent	LDC	Planning Portal	Uniform			1	26/9/2023 Accepted
5	Gloucester	Apply	23/02080/CPL	10/7/2023	Agent	LDC	Planning Portal	Uniform			1	26/9/2023 Accepted
6	Gloucester	Apply	23/02080/CPL	10/7/2023	Agent	LDC	Planning Portal	Uniform			1	26/9/2023 Accepted
7	Gloucester	Apply	23/02080/CPL	10/7/2023	Agent	LDC	Planning Portal	Uniform			1	26/9/2023 Accepted
8	Gloucester	Apply	23/02080/CPL	10/7/2023	Agent	LDC	Planning Portal	Uniform			1	26/9/2023 Accepted
9	Gloucester	Apply	23/02080/CPL	10/7/2023	Agent	LDC	Planning Portal	Uniform			1	26/9/2023 Accepted

	A	B	C	D	E	F	G	H	I	J	K
1	Council	Application num	Application date	Validation date	Application form	Certificates	CIL form	Drawings	Drawing inconsistent	Drawing labels	Drawing s
2	Buckinghamshire	23/05884/FUL	3/4/2023	20/4/2023	0	0	0	0	0	0	0
3	Lambeth	23/05899/FUL	4/4/2023	4/4/2023	0	0	0	0	0	0	0
4	Buckinghamshire	23/05920/FUL	6/4/2023	6/4/2023	0	0	0	0	1	0	0
5	Buckinghamshire	23/05922/FUL	6/4/2023	11/5/2023	0	0	0	0	1	0	0
6	Medway	23/05932/FUL	7/4/2023	2/5/2023	0	0	0	0	1	0	0
7	Medway	23/05936/FUL	10/4/2023	3/5/2023	0	0	0	0	0	0	0
8	Buckinghamshire	23/05940/FUL	11/4/2023	27/4/2023	0	0	0	0	0	0	0
9	Buckinghamshire	23/05941/FUL	11/4/2023	27/4/2023	0	0	0	0	0	0	0
10	Buckinghamshire	23/05943/FUL	11/4/2023	27/4/2023	0	1	0	0	0	0	0
11	Buckinghamshire	23/05950/FUL	12/4/2023	2/5/2023	0	0	0	0	1	0	0

Producing standard data reports

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Data Definition Documents that specify precisely what data is needed on a monthly basis, and in what format

A Checker application that can review submissions before they are sent to identify any format errors

Discrepancies 24-04 Applications Medway 10-23 03-24 (1).txt

This is a document cataloging errors within the ODP M&E Planning Applications Report Data given in the oppose the given instructions on formatting within the ODP M&E Planning Applications Report Data Defir month.

Fields:

- Council - String - The area of the council sending the data
- Service - String - The abbreviated title of the service that a given application is on
- Application number - String - The unique ID of a given application
- Application date - Date - The date on which the application was recieved by the council
- Applicant type - Enum - The type of applicant that the application was sent over
- Application type - Enum - The type of application
- Channel - Enum - The channel through which the application was sent
- Back office - Enum - The back office system which the application is sent over
- Register - Enum - The service used to publish application details to meet legal requirements
- Valid on receipt - Boolean - The validity of an application at the moment it is recieved by the
- Extension granted date - Date - The date on which an extension was granted for the processing of
- Result - Enum - The result of the application, if it has one
- Result date - Date - The date on which the application was resolved, if it has been

Errors (copy and paste this into a csv file if you'd like to sort it):

```
field(s),row,issue
N/A,Field,Unexpected field Valid on receipt
N/A,Field,Unexpected field Extension granted date
N/A,Field,Missing field Valid on receipt
N/A,Field,Missing field Extension granted date
Applicant type,2,Unexpected value
Application type,2,Unexpected value
Channel,2,Unexpected value
Applicant type,3,Unexpected value
Application type,3,Unexpected value
Channel,3,Unexpected value
Applicant type,4,Unexpected value
Application type,4,Unexpected value
Channel,4,Unexpected value
Applicant type,5,Unexpected value
Application type,5,Unexpected value
Channel,5,Unexpected value
```

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Documents that detail the SQL queries needed to extract data for back-end systems (e.g. Uniform)

ODP ME PLANNING APPLICATION REPORTS
DATA EXPORT DOCUMENTATION FOR APPLICATIONS RECEIVED
 Documentation produced by Medway Council Business Intelligence Team

Contents
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1.3 Enforcements
 The SQL query used to return the necessary data for the enforcement cases is shown below. The notes need to be removed before pasting the query into Power BI.
 Important: The SQL query is deliberately written to ensure the names of some columns received table and column names in one appropriate REFERENCE I

in how the query should be written, Oracle databases can only be interrogated by queries written in Oracle SQL, henceforth referred to as SQL queries

- Power BI desktop (to build the report)
- Power BI service (to publish and share the report)
- Power Automate – to allow the export of transformed and filtered data out of the

the exported data files

documentation was written

header bar: From the list of pop window will appear SQL query to retrieve the data generated VPN to return data, the database is hosted. The Data r the "Advanced options" there in, it is advisable the user writes thepad/Notepad ++ apps) to be

UPDATE AND
 last 1998 day)

SELECT
 FROM
 AS ANALYTICAL
 ANALYTICAL
 The date of the
 name
 for
 Date of the
 decision
 Outcome of
 enforcement
 Ref
 enforcement
 a time

cases opened
 per BI
 names of some
 red table and
 column names
 are appropriate

not comma, parentheses (bracket),
 as the user take care when

Producing standard data reports

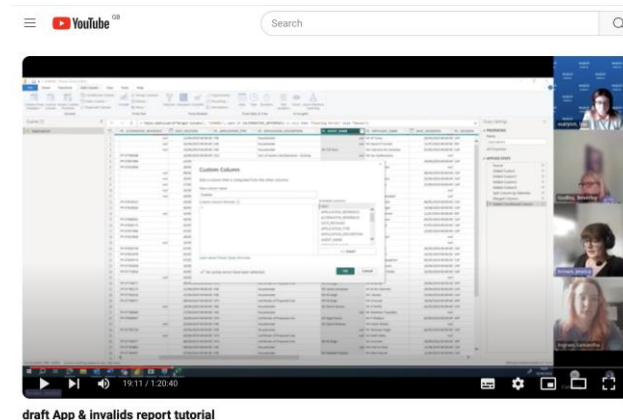
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Documents that detail the SQL queries needed to extract data for back-end systems (e.g. Uniform)

Video 'walk through' tutorials to help each LPA set up the PowerBI transforms needed to produce reports



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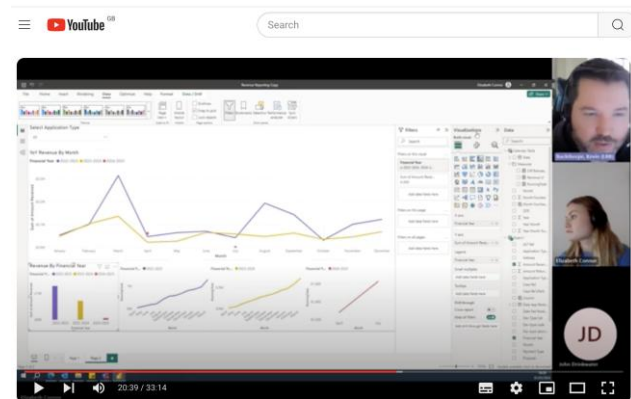
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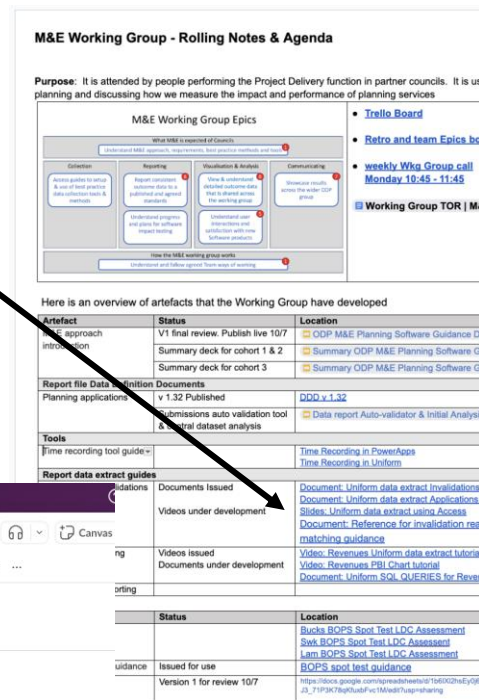
Video 'walk through' tutorials to help each LPA set up the PowerBI transforms needed to produce reports

Video 'walk through' tutorials for building PowerBI dashboard visuals



ODP M&E revenue charts guidance

- M&E Working Group Weekly Meeting Rolling Agenda
- At the top of the ME working Group Slack Channel



BI Data Transformation Concepts

Column Renaming

Remove duplicates / errors

Filtering Data

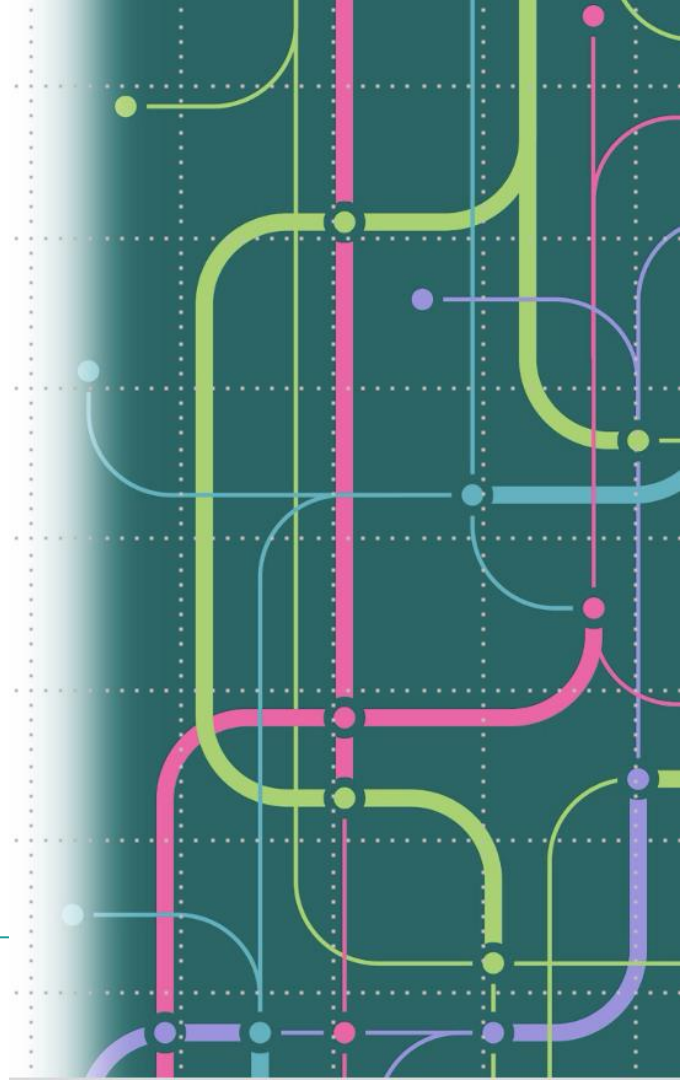
Data Type Conversion

Adding Custom Columns (Calculated Fields)

Merging Queries (Join)

Aggregating Data (Group)

Pivot and Unpivot



Data type conversions

e.g. watch out for dates!!!

Format	Description
YYMMDD	Two-digit year, two-digit month, two-digit day
MMDDYY	Two-digit month, two-digit day, last two digits of year (example: 121599)
YYYYMMDD	Four-digit year, two-digit month, two-digit day (example: 19991215)
DDMMYYYY	Two-digit day, two-digit month, four-digit year (example: 15121999)
MMDDYYYY	Two-digit month, two-digit day, four-digit year (example: 12151999)
DDMMYY	Two-digit day, two-digit month, last two digits of year (example: 151299)
YYMMDD	Last two digits of year, three-letter abbreviation of the month, two-digit day (example: 99JAN02)
DDMMYY	Two-digit day, three-letter abbreviation of the month, last two digits of year (example: 02JAN99)
MMDDYY	Three-letter abbreviation of the month, two-digit day, last two digits of year (example: JAN0299)
YYYYMMDD	Four-digit year, three-letter abbreviation of the month, two-digit day (example: 2003JUL04)
DDMMYYYY	Two-digit day, three-letter abbreviation of the month, four-digit year (example: 04JUL2003)
MMDDYYYY	Three-letter abbreviation of the month, two-digit day, four-digit year (example: JUL042003)
YYYYMM/DD	Four-digit year, separator, three-letter abbreviation of the month, separator, two-digit day (example: 2003/JUL/25)
DD/MM/YYYY	Two-digit day, separator, three-letter abbreviation of the month, separator, four-digit year (example: 25/JUL/2003)
MM/DD/YYYY	Three-letter abbreviation of the month, separator, two-digit day, separator, four-digit year (example: JUL/25/2003)
YY/DDD	Last two digits of year, separator, three-digit Julian day (example: 99/349)
DDD/YY	Three-digit Julian day, separator, last two digits of year (example: 349/99)
YYYY/DDD	Four-digit year, separator, three-digit Julian day (example: 1999/349)
DDD/YYYY	Three-digit Julian day, separator, four-digit year (example: 349/1999)
MONTH	Month (example: December)
DAY	Day of the week (example: Friday)
HHMM	Two-digit hour, two-digit minutes (example: 0330 for 30 minutes past 3 o'clock)
HHMMSS	Two-digit hour, two-digit minutes, two-digit seconds (example: 033045 for 30 minutes and 45 seconds past 3 o'clock)
HH:MM	Two-digit hour, separator, two-digit minutes (example: 03:30)

YYDD	Last two digits of year, three-digit Julian day (example: 99349 for the 349th day of 1999)
DDYY	Three-digit Julian day, last two digits of year (example: 34999)
YYYYDD	Four-digit year, three-digit Julian day (example: 1999349)
DDYYYY	Three-digit Julian day, four-digit year (example: 3491999)
YYMM/DD	Last two digits of year, separator, two-digit month, separator, two-digit day (example: 99/12/05)
DD/MM/YY	Two-digit day, separator, two-digit month, separator, last two digits of year (example: 05/12/99)
MM/DD/YY	Two-digit month, separator, two-digit day, separator, last two digits of year (example: 12/15/99)
YYYYMM/DD	Four-digit year, separator, two-digit month, separator, two-digit day (example: 1999/12/15)
DD/MM/YYYY	Two-digit day, separator, two-digit month, separator, four-digit year (example: 15/12/1999)
MM/DD/YYYY	Two-digit month, separator, two-digit day, separator, four-digit year (example: 12/15/1999)
YYMM/DD	YYMM/DD Two-digit year, separator, three-letter abbreviation of the month, separator, two-digit day (example: 99/JUL/20)
DD/MM/YY	Two-digit day, separator, three-letter abbreviation of the month, separator, two-digit year (example: 20/JUL/99)
MM/DD/YY	Three-letter abbreviation of the month, separator, two-digit day, separator, two-digit year (example: JUL/25/99)
YYYYMMDDTH:MMSS	ISO-8601 format: Four-digit year, two-digit month, two-digit day, T (time) indicator, two-digit hour, two-digit minutes, two-digit seconds in Universal Time (also called Zulu Time or Greenwich Mean Time), Z (Zulu time) indicator (example: 20031207T123000Z)
YYYYMMDDZ	ISO-8601 date format: Four-digit year, two-digit month, two-digit day, Z (Zulu time) indicator (example: 20031207Z)
MM/DD/YY HH:MM:SS	Two-digit month, separator, two-digit day, separator, last two digits of year, two-digit hour, separator, two-digit minutes, separator, two-digit seconds (example: 12/15/99 03:30:45)
YYMMDD HHMMSS	Last two digits of year, two-digit month, two-digit day, two-digit hour, two-digit minutes, two-digit seconds (example: 991025 033045)
YYYYMMDDTH:MMSS	Four-digit year, separator, two-digit month, separator, two-digit day, T represents a blank separator, two-digit hour, separator, two-digit minutes, separator, two-digit seconds (example: 2002-02-02 03:30:45)
YYYY-MM-DD	Four-digit year, separator, two-digit month, separator, two-digit day (example: 2002-02-02)
YYYY-MM	Four-digit year, separator, two-digit month (example: 2002-02)
YYYY	Four-digit year (example: 2002)
--MM--DD	Two dashes, two-digit month, separator, two-digit day (example: --12-02)
---DD	Three dashes, two-digit day (example: ---02)

Custom columns

e.g. Adding an 'Applicant Type' Column

Applications Report PowerBI Guidance

1. On the top header, select add column, and then custom column.
2. In the popup window, give the name APPLICANT_TYPE to this column and then type the following formula:

```
= if [AGENT_NAME]<> null and  
[APPLICANT_NAME]<> null then "Agent"  
else if [AGENT_NAME]<> null then  
"Agent" else if [APPLICANT_NAME]<>  
null and [AGENT_NAME]=null then  
"Householder" else null
```

*if the agent name is not blank return
"Agent"*

*if the applicant name is not blank and the
agent name is blank then return
"Householder"*

otherwise return a blank value.

3. Click OK to add the new column.

Join

e.g. linking complaints data to applications

applications

Table 1 

1		
2		

complaints

Table 2 

1		
3		
4		

Outer Join 

1				
2				
3				
4				

Inner Join 

1				

Left Join 

1				
2				

Union  + 

1		
2		
1		
3		
4		

Group

e.g. Counting the total revenue from a set of applications

Name	State	# of Friends
Matt	CA	300
Lisa	CA	500
Jeff	CA	600
Sarah	FL	400

State	COUNT(*)
CA	0
FL	0

Pivot

e.g. Producing the invalidations report with one row per application

Application	Invalidation
1	drawing
1	fee
1	form
2	fee
3	drawing
3	fee

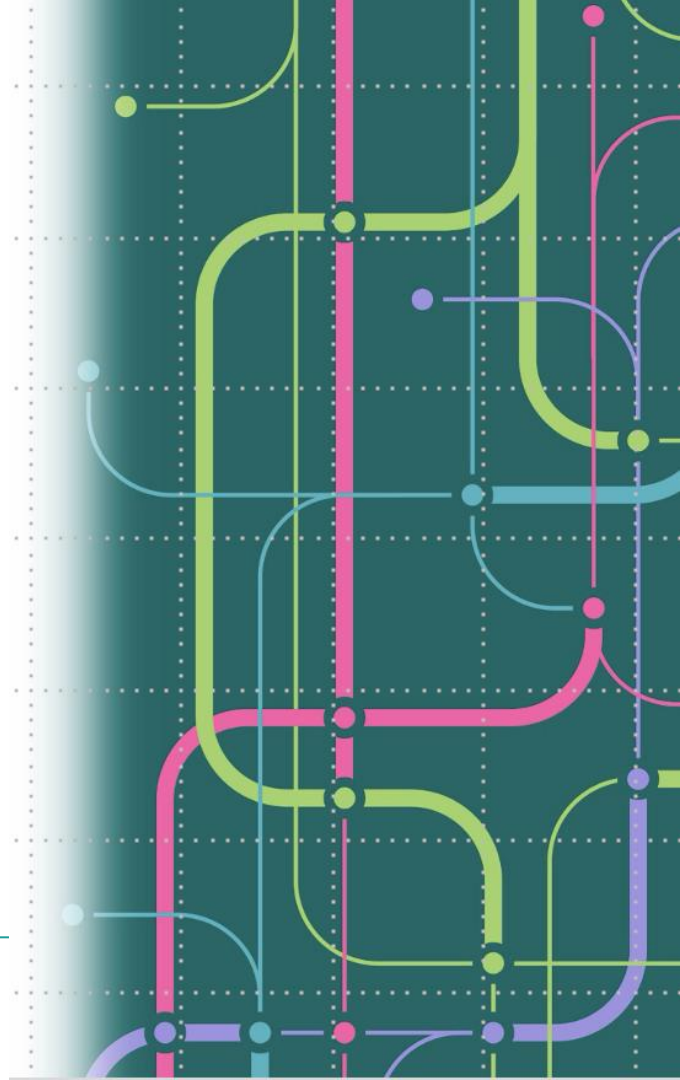


Application	drawing	fee	form
1	1	1	1
2	0	1	0
3	1	1	0

Examples using PowerBI

OFFICIAL

OFFICIAL



Questions?

Monitoring and Evaluation Guidance

A more comprehensive description and explanation of our M&E approach and methods

M&E Working Group weekly calls

Team focussed on the development of best practice methods and tools

M&E Performance Lead

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Department for Levelling Up,
Housing & Communities

