

# Advanced Data Modelling with DAX

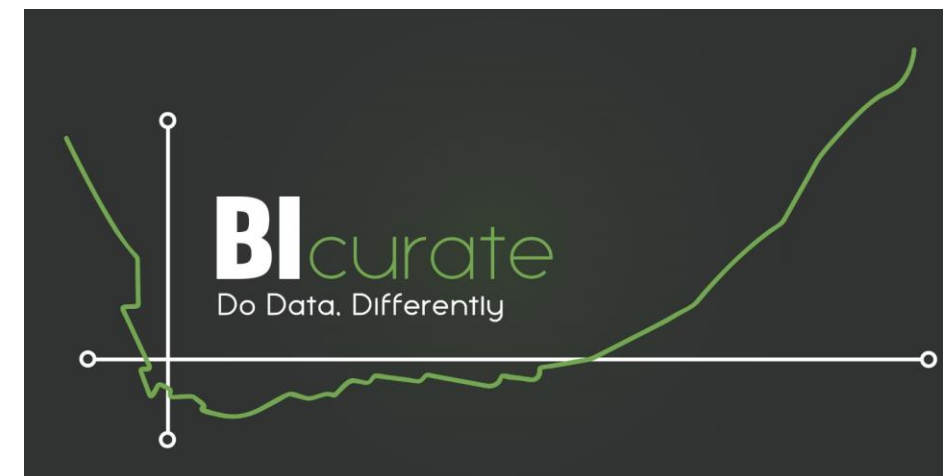
James McGillivray





# About Me

Who has 2 thumbs, and a catalogue of bad jokes?



**Microsoft  
CERTIFIED**

Solutions Expert

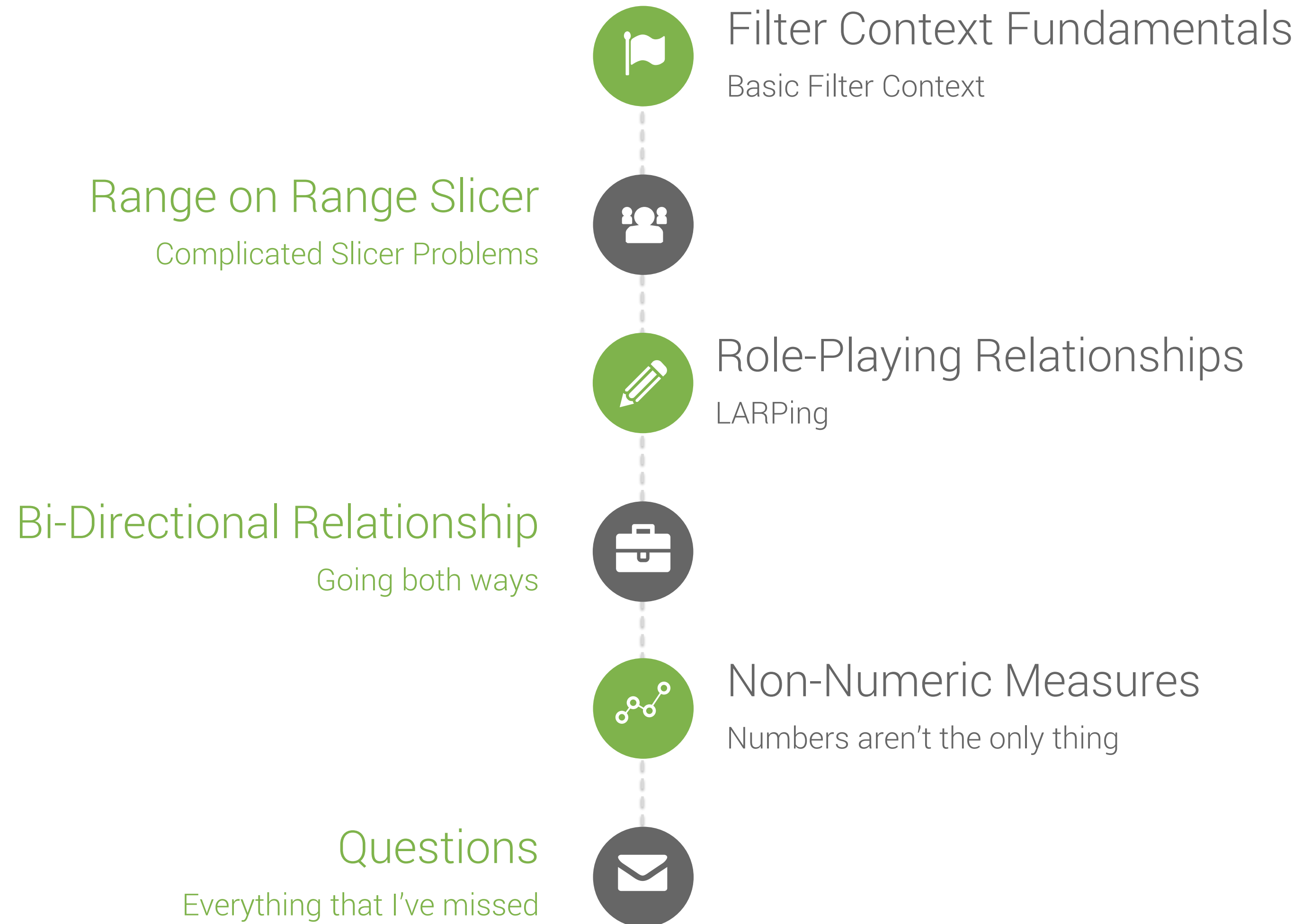
Data Management and  
Analytics

<b>Microsoft CERTIFIED</b> Solutions Associate SQL 2016 Business Intelligence Development	<b>Microsoft CERTIFIED</b> Solutions Associate BI Reporting
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# Our Agenda for Today

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# Filter Context Fundamentals

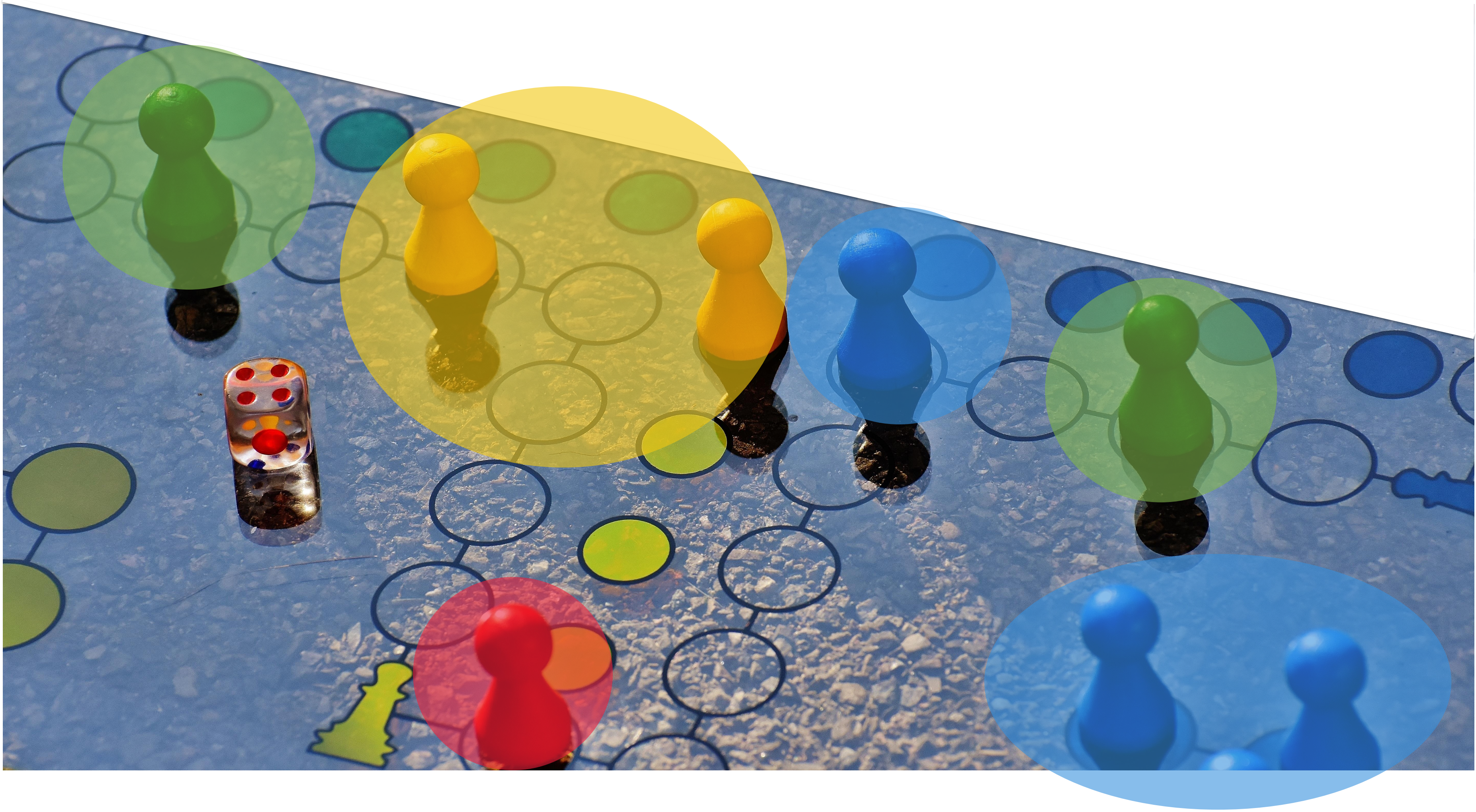
An overview





# Filter Context

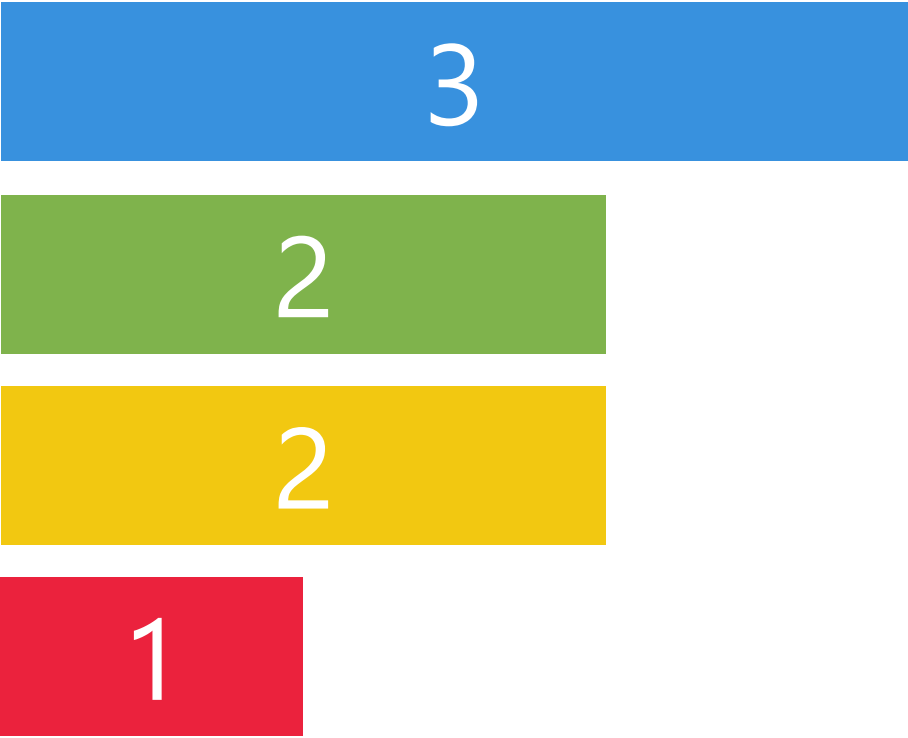
Recalculating....



Outside Visuals



Inside Visuals





# Advanced Modelling

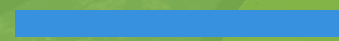
Tricky Scenarios



On The Range



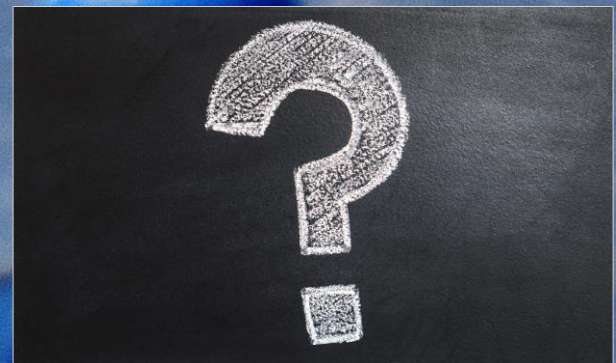
Role Play



Goes Both Ways



Who Needs Numbers?







# On The Range

Dealing with from and to type values





# Slicers for Ranged Values

How / Why / When

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## Key Concept

Data is stored as a range with a bottom and top, or start and end value.



## When to Use It

Employee Start and End Date  
Minimum and Maximum Values



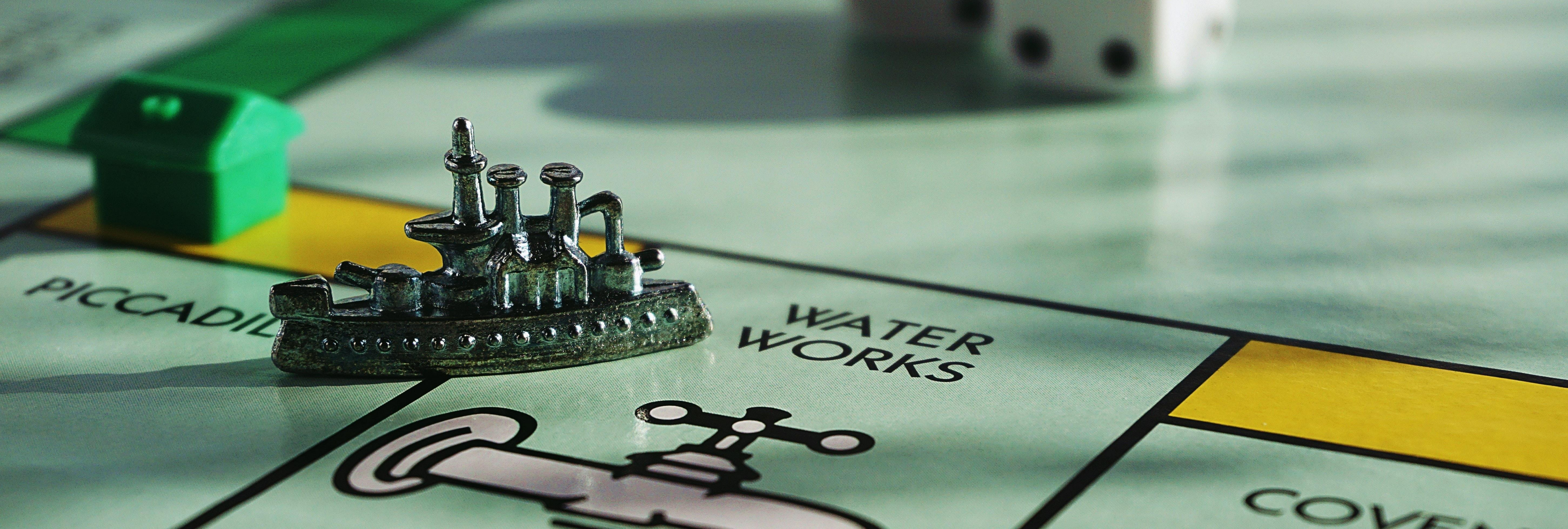
## How to Use It

CUSTOM FILTER



## Demo





# Role Playing

More than just order and ship date





# Role Playing Dimensions

How / Why / When



## Key Concept

Changing filter context by using multiple relationships to a single column



## When to Use It

Role playing dimensions  
Comparison



## How to Use It

USERRELATIONSHIP



## Demo





# Bi-Directional Relationships

Goes both ways





# Bi-Directional Relationships

How / Why / When

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## Key Concept

Being able to drill from Fact to Dimension, not vice versa



## When to Use It

When you need to apply filters against the direction of the relationship



## How to Use It

CROSSFILTER



## Demo





# Non-Numeric Measures

Who needs numbers?





# Interesting Data Types

How / Why / When

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## Key Concept

Sometimes numbers are not  
enough



## When to Use It

When you need to apply filters  
against the direction of the  
relationship



## How to Use It

STRING MANIPLUATION  
ISBLANK  
IF  
CONCATENATEX



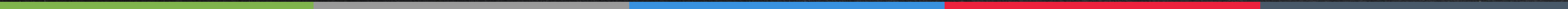
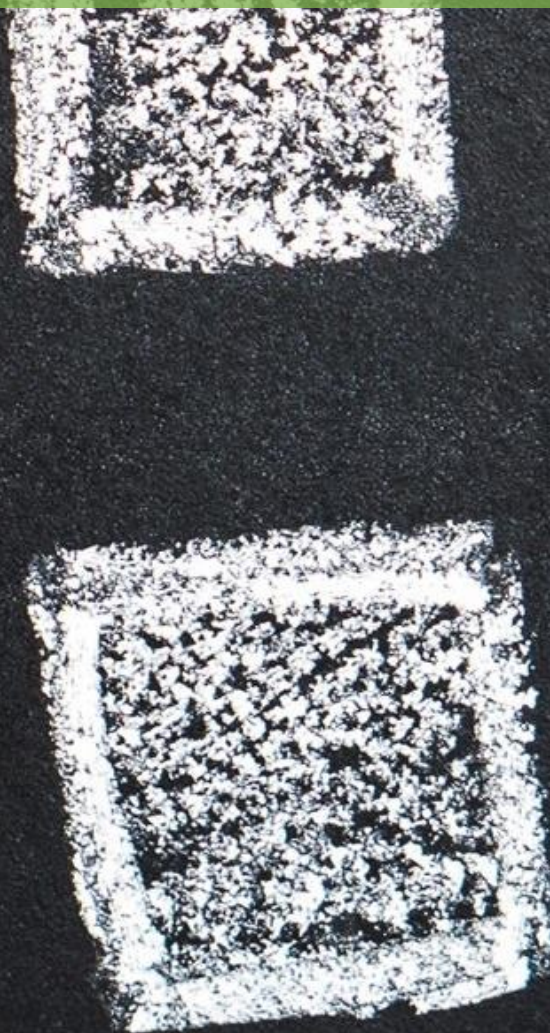
## Demo





# Questions

And, hopefully, answers.







Thank you for  
attending



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