From C# Spells to TMDL Sorcery: Evolving Your Power BI Magic

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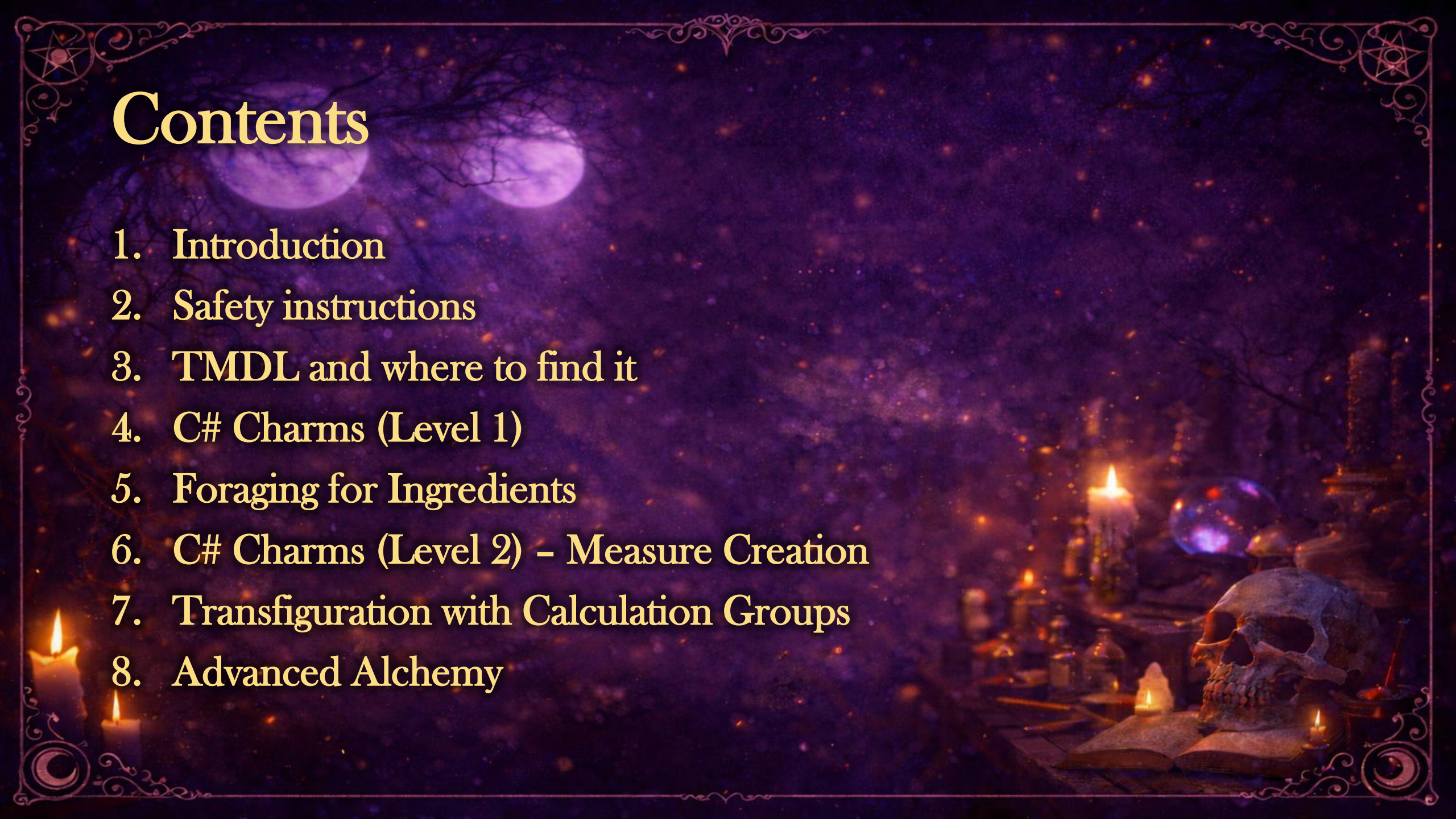

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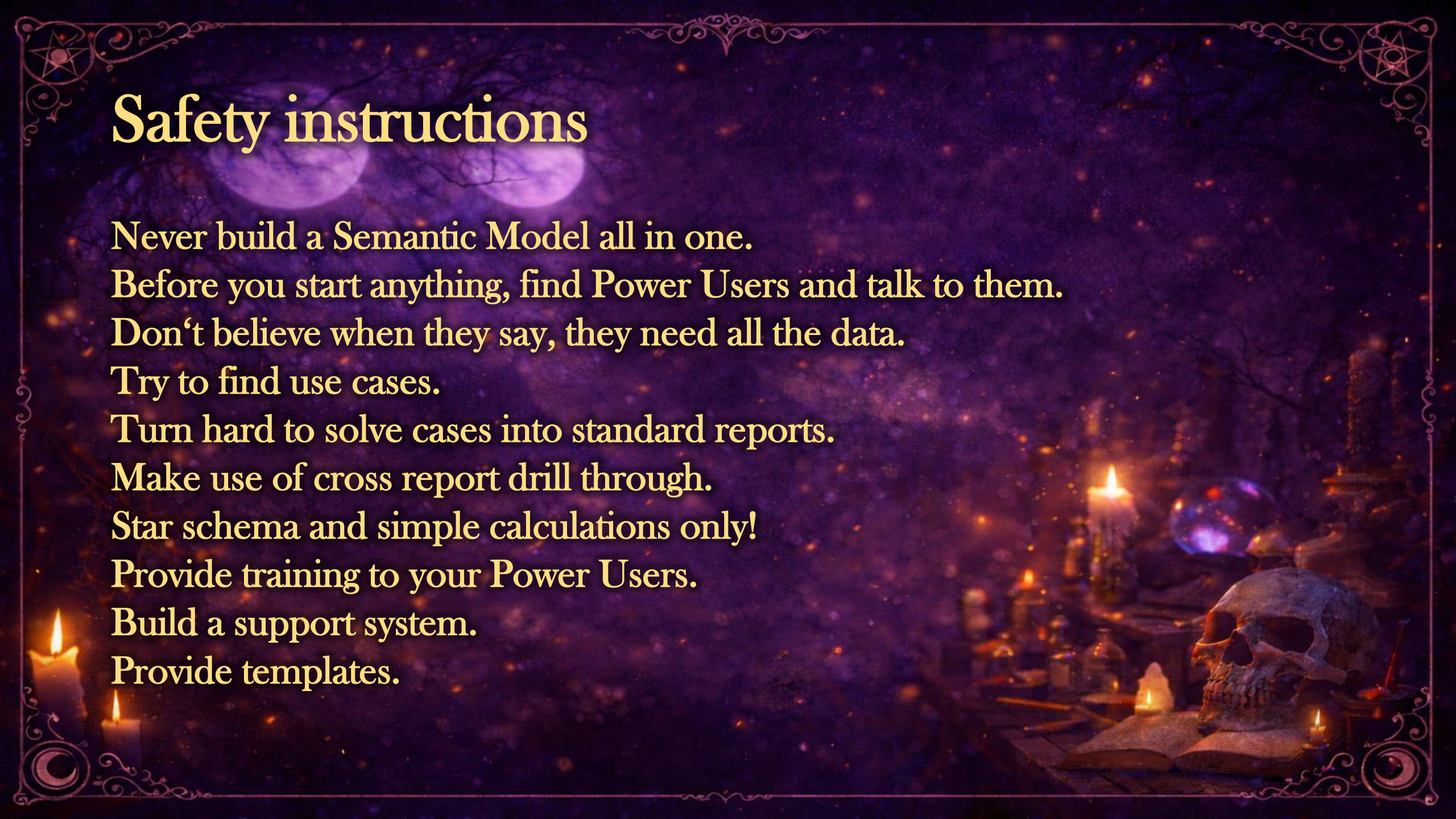
Introduction

Safety instructions

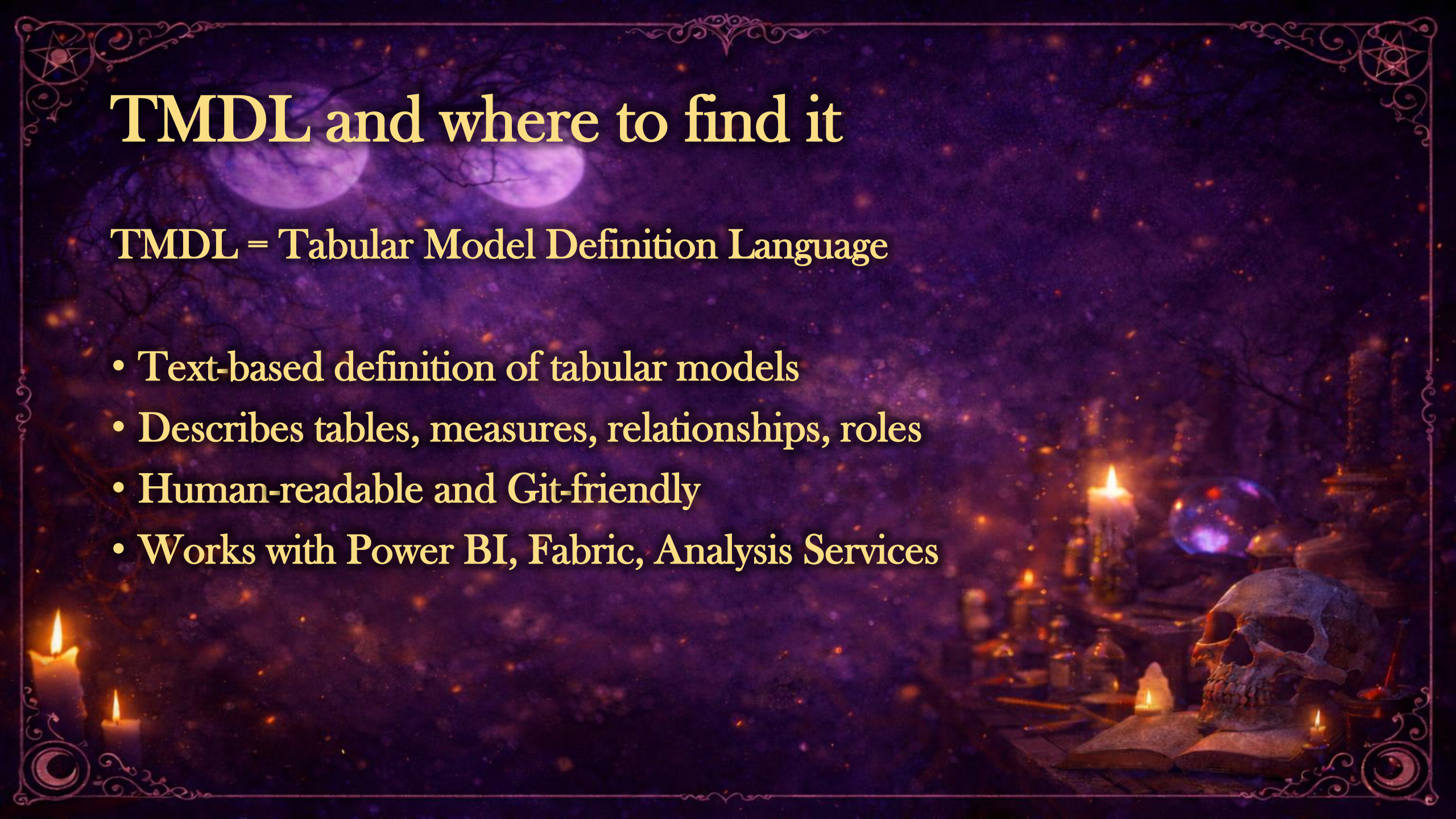
Never build a Semantic Model all in one.
Before you start anything, find Power Users and talk to them.
Don‘t believe when they say, they need all the data.
Try to find use cases.
Turn hard to solve cases into standard reports.
Make use of cross report drill through.
Star schema and simple calculations only!
Provide training to your Power Users.
Build a support system.
Provide templates.



TMDL and where to find it

TMDL = Tabular Model Definition Language

- Text-based definition of tabular models
- Describes tables, measures, relationships, roles
- Human-readable and Git-friendly
- Works with Power BI, Fabric, Analysis Services



C# Charms (Level 1)

- Programming language
- .NET (dotnet.microsoft.com) for scripts
- Useful spells:
  - Console.WriteLine("Hello World");
  - var variableName = definition;
  - for (initializer; condition; iterator) { body }

*can be exchanged for any other language

Foraging Ingredients

Collect names of KPI columns from Sales table

1. Read Sales.tmdl
2. Identify lines that start with KPI
3. Clean the names
4. Add name to a list

1. C# Charms (Level 2) – Measure Creation

Ingredients:

- List of KPI columns
- Destination tmdl file
- .FindIndex
- .StartsWith
- .Insert
- . WriteAllLines

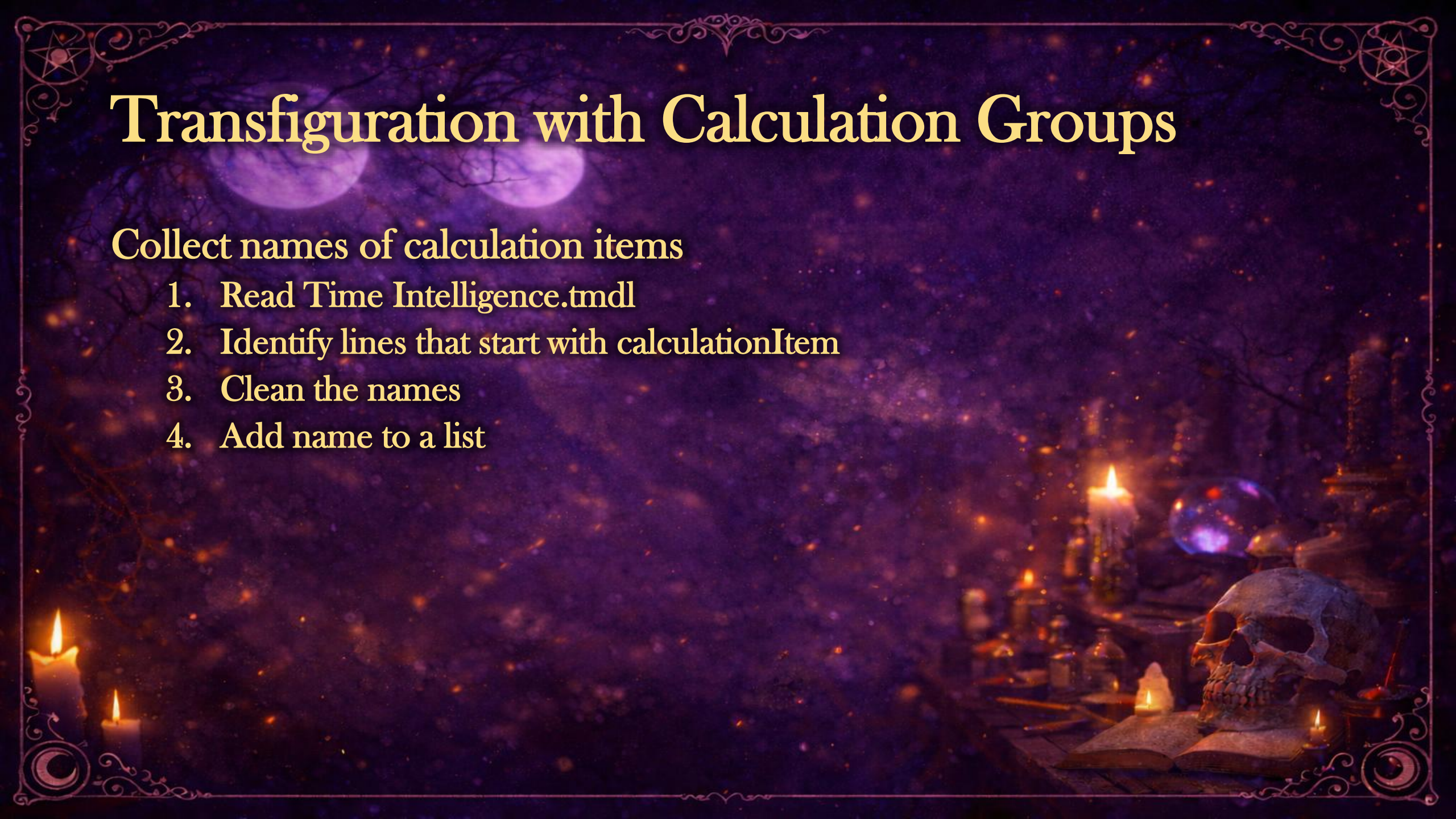
Instructions

1. Identify place for new measures
2. Iterate through KPI columns
3. Define measure for every column
4. Add new line to file
5. Write file

Transfiguration with Calculation Groups

Collect names of calculation items

1. Read Time Intelligence.tmdl
2. Identify lines that start with calculationItem
3. Clean the names
4. Add name to a list



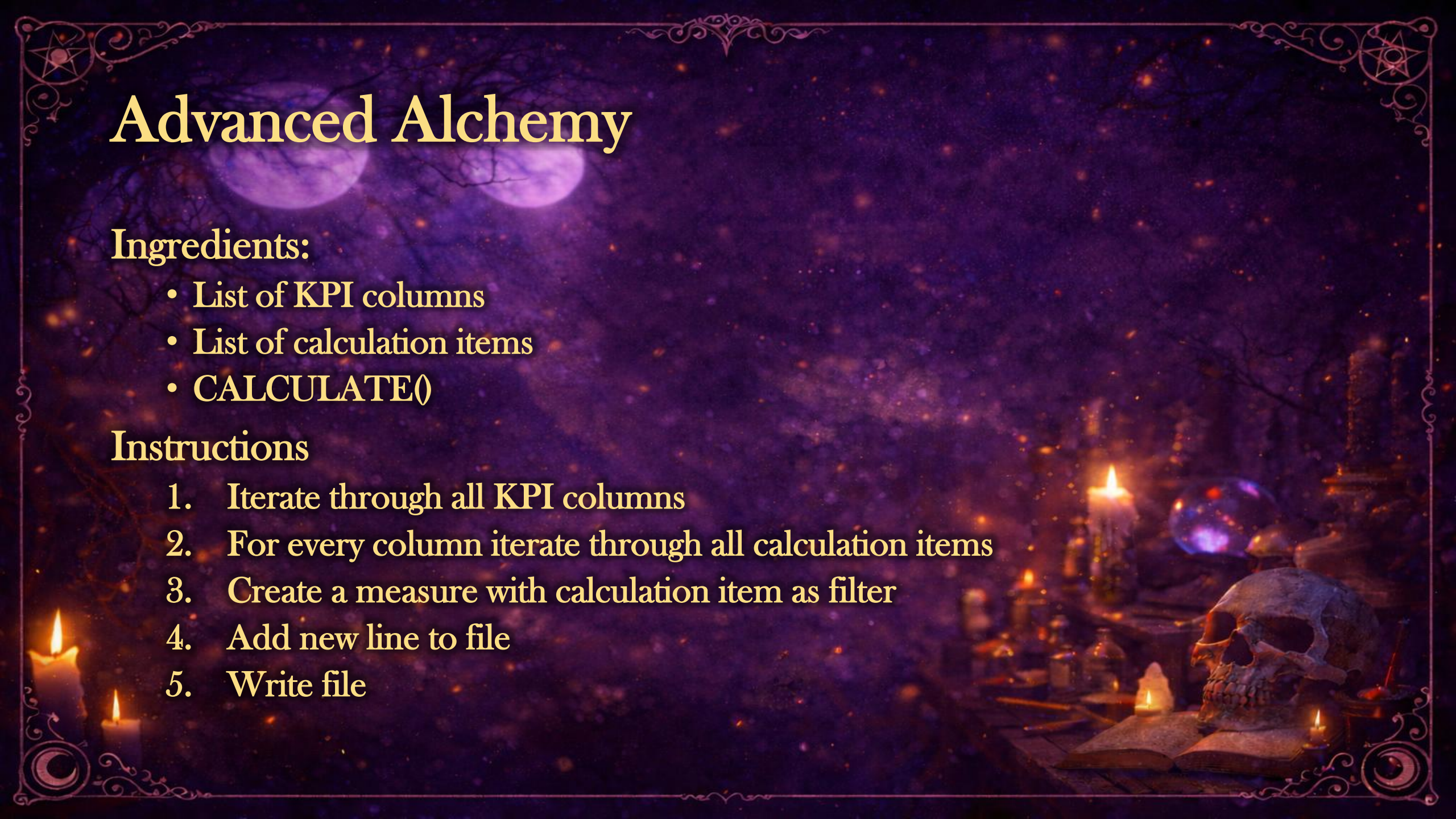
Advanced Alchemy

Ingredients:

- List of KPI columns
- List of calculation items
- CALCULATE()

Instructions

1. Iterate through all KPI columns
2. For every column iterate through all calculation items
3. Create a measure with calculation item as filter
4. Add new line to file
5. Write file



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Thank you!
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