Use conditional functions like IF, SWITCH, ISBLANK and AND to create calculated columns in a report on music tours.

Before you can do this exercise, you'll need to download and unzip this file .

Open the **Music Tours - Conditional Functions.pbix** file in the folder shown above and go to the **Table view** of the **Tour** table.

Add a calculated column called **Average Attendance** to compute the average number of people attending to each show.

Add a calculated column called **Duration** which uses an **IF** function to test if the **Start year** is the same as the **End year**. If so, return **Single year**, otherwise return **Multi year**.

Create a matrix visual to display the results shown in the diagram below:

Duration	Average of Shows	Average of Actual gross
Multi year	139.19	$298,974,746.81
Single year	64.64	$147,722,787.82
Total	**113.10**	**$246,036,561.16**

Unsurprisingly, longer tours make more money.

Add a calculated column called **Crowd size** which uses the **SWITCH** function to describe the **Average attendance** according to the following table:

Average attendance	Description
Is blank	Unknown
Less than 25,000	Small
25,000 to less than 50,000	Medium
50,000 or more	Large

Use this new column in a slicer visual to filter a table of tours. The result could look something like the diagram shown below:

Crowd size	Tour name	Artist	Shows	Average attendance
☐ Large	24K Magic World Tour	Bruno Mars	191	18,597.73
☐ Medium	Beautiful Trauma Tour	Pink	156	19,799.02
■ Small	Blond Ambition World Tour	Madonna	57	15,574.95
☐ Unknown	Break Every Rule World Tour	Tina Turner	220	18,181.82

Choosing different options in the slicer affects the values shown in the table.

Add a calculated column called **Success** which describes each tour according to the following criteria:

Criteria	Description
Actual gross is at least 200,000,000 AND **Attendance** is at least 2,000,000	Smash hit
Actual gross is at least 200,000,000 OR **Attendance** is at least 2,000,000	Modest success
Anything else	Abject failure

*Remember that you can use the **AND** and **OR** functions, or the **&&** and **||** operators to combine conditions.*

Use the new column in a matrix visual to count the tours for each category.

Crowd size		Success	Count of Tour ID
☐ Large		Abject failure	13
☐ Medium		Modest success	6
■ Small		Smash hit	13
		Total	**32**
☐ Unknown			

You can use the slicer you created earlier to filter the results.

Save and close the file.