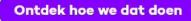


Dé Managed Services Provider

Wortell levert toekomstgerichte managed services die uw organisatie versterken met de kracht van Microsoft-technologie. Sinds 1997 bouwen wij aan duurzame partnerships door strategisch inzicht en proactieve ondersteuning, met uw bedrijfscontinuïteit en innovatie als onze prioriteit.



Wie hebben we al geholpen







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Over Wortell

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Zin om meer te leren?

Opleiding Data Engineering

- 5 weken (start morgen!), 1 dag per week
- Yours truly
- Bouw je eigen DE oplossing in Fabric, Snowflake of Databricks!

Power BI (PL-300)

- 3 weken, 1 dag per week
- Incl. examenvoucher
- Start: maandag aanstaande

Next Step for Data Professionals

- 8 maanden
- Groei naar volgende stap in je carrière
- Bijdragen aan team- en organisatiedoelen
- Focus: duurzaam inzetbaar en groei

Unlimited Learning

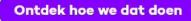
- € 325 per maand
- Alle trainingen in ons open rooster





Dé Managed Services Provider

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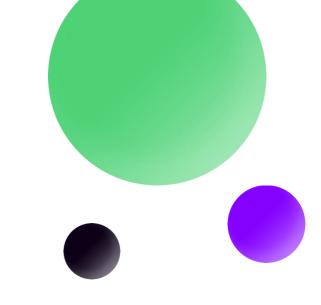




Agenda

Waar gaan we het vandaag over hebben

- How to achieve Lifecycle Management
- Deployment Pipelines: Current State
 - Setup
 - The place of Git
 - Managing multiple environments
 - Deployment Rules
 - Environment Integration
 - REST API's
- Other ways to deploy to Fabric
 - Azure DevOps
 - GitHub Actions
 - Possibilities for GitOps?
- Q&A

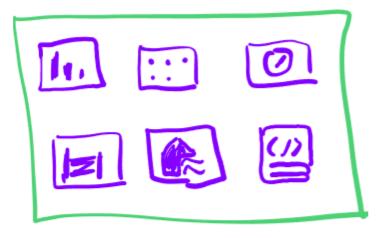




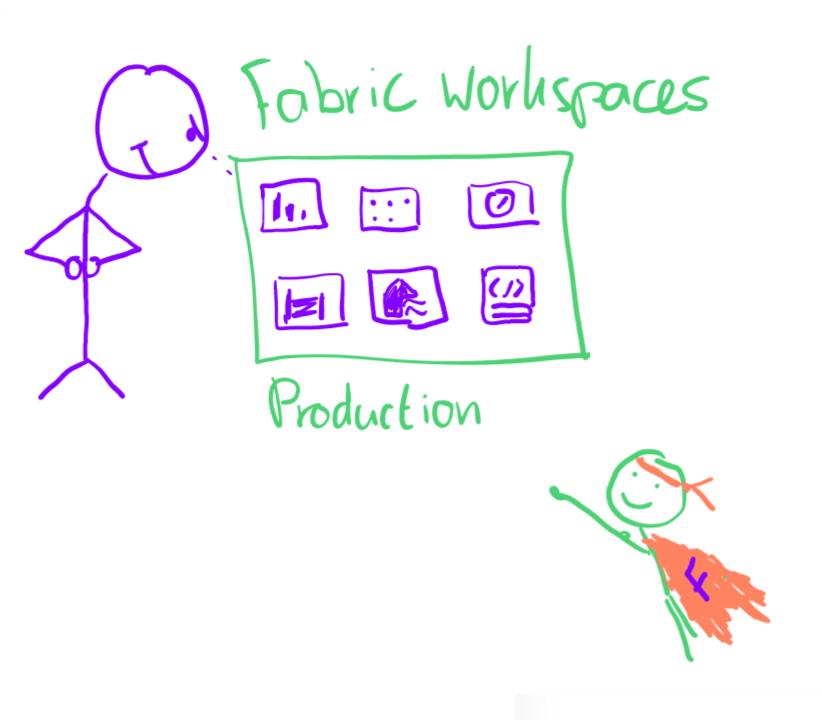
How to achieve Lifecycle Management



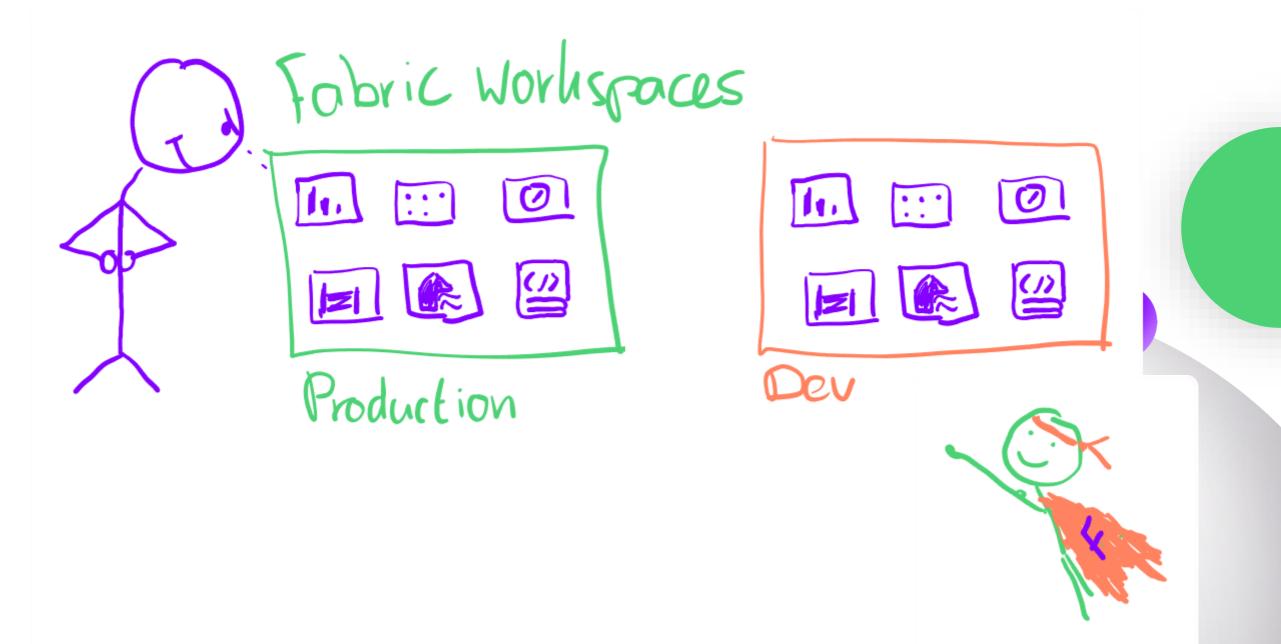
Fabric Workspaces

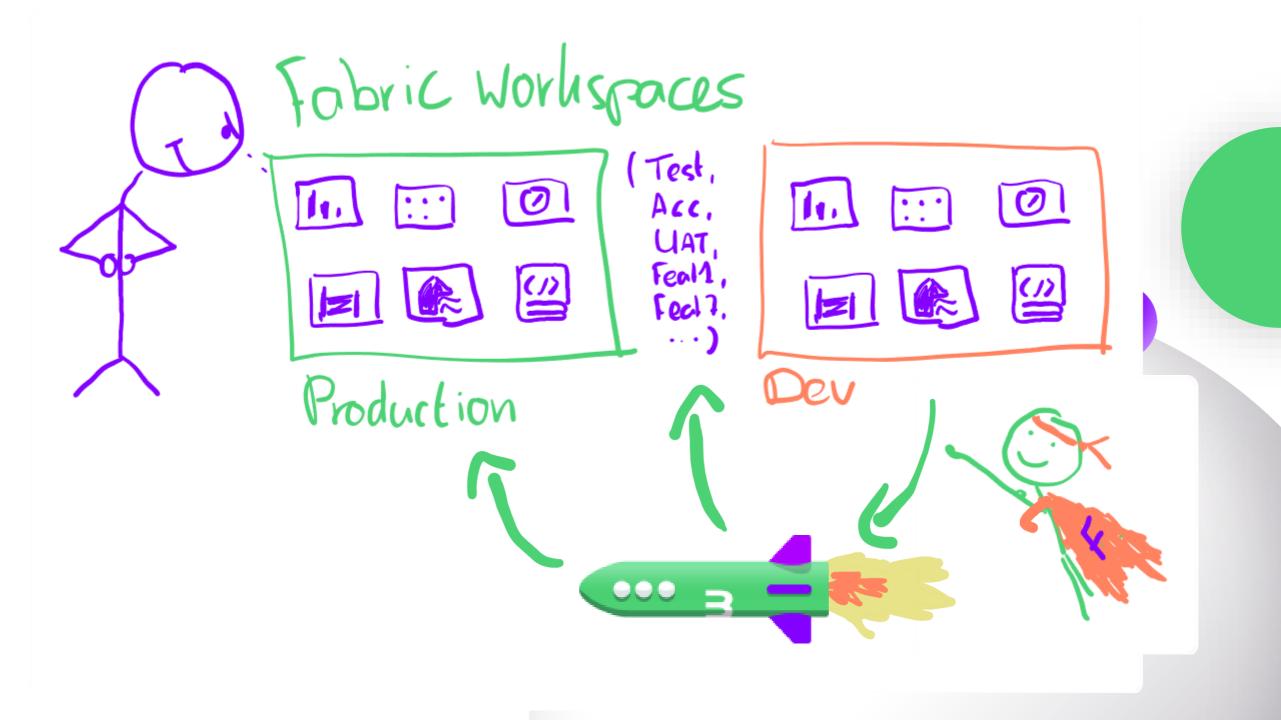


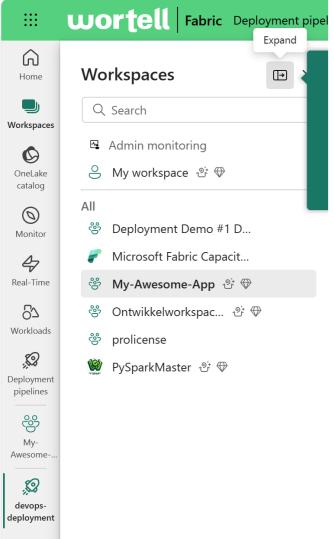


















...

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Fabric

Deployment Pipelines.

9 stages max

After initial setup: stages fixed

• Select which one is "public" (= production)

,		· · · · · · · · · · · · · · · · · · ·		-,		-,					,	· · · · · · ,	<u>,</u>		,		,,	
	Development	\rightarrow	Stage Name (6)	$\circ \rightarrow$	Stage Name (5)	$\circ \rightarrow$	Stage Name (4)	$0 \rightarrow$	Stage Name (3)	$\circ \rightarrow$	Stage Name (2)	$0 \rightarrow$	Stage Name (1)	$ \longrightarrow $	Stage Name	$\circ \rightarrow$	Test	Production
	Ū /		Ū 6	2	Ū		Ū 0		t /		⊡ ⁄		Ū /		Ū /		1 <i>D</i>	Ū /

Linear deployment

Development My-Awesome-App ∜	₽ ▶ :			Test My-Awesome-A Deployed: 06/10/25, 5	22 PM	9 1 1 1 1 1			Production Add content to t Assign a works				
				Succession dep	οyment ζ 4								
Deploy from	Test	~	Deploy		=	Select rela	ted	🕑 Depl	oyment history	Q Filter by	keyword	= Fil	ter ∨

Workspace-Pipeline stage 1:1

- Workspaces can be created on-the-fly
- ... if you have permissions in the capacity (or on PPU)

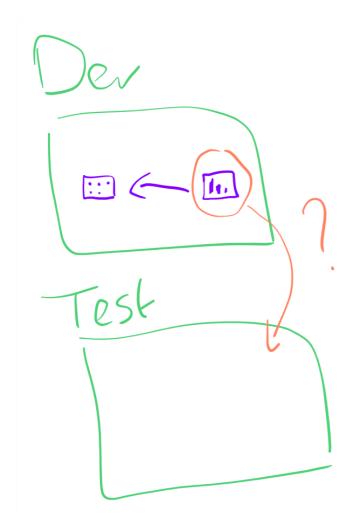


What happens during deployment?

- Workspace is created (first deployment)
- Supported, selected items from source are copied
 - Existing content is overwritten
 - Identified using the connection to the parent item
 - ID & URL remain unchanged
 - New items are copied
- Only



What about ... dependencies?



▲ Can't start the deployment

 \times

When deploying the items below, any related datasets must be included in the deployment or must already exist in the target folder. Learn more

🔟 Dashboard Wortell Smart Learning

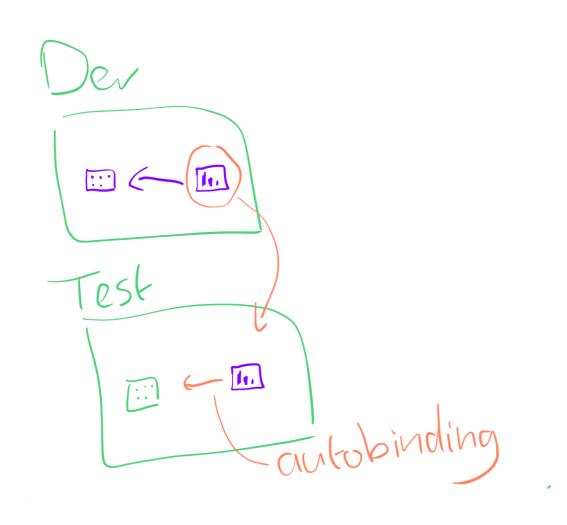
Please check the technical details for more information. If you contact support, please provide these details.

See details ~~

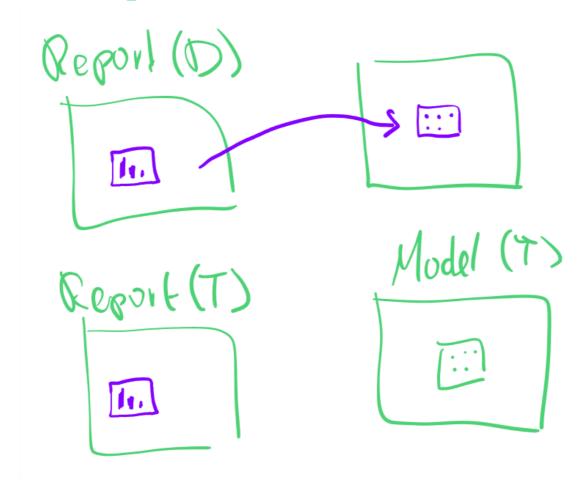
Close



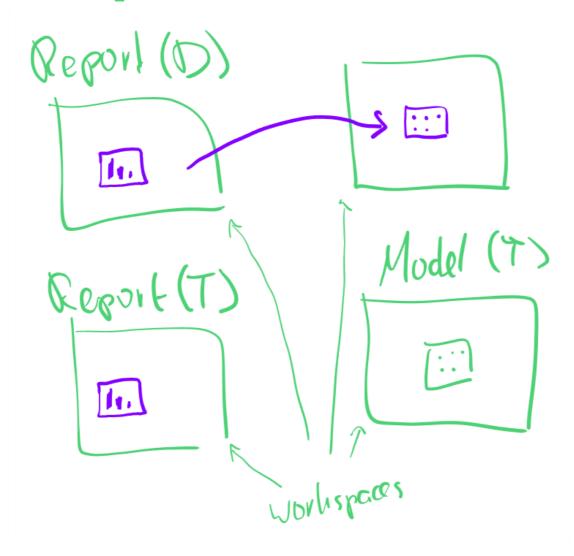
What about ... dependencies?







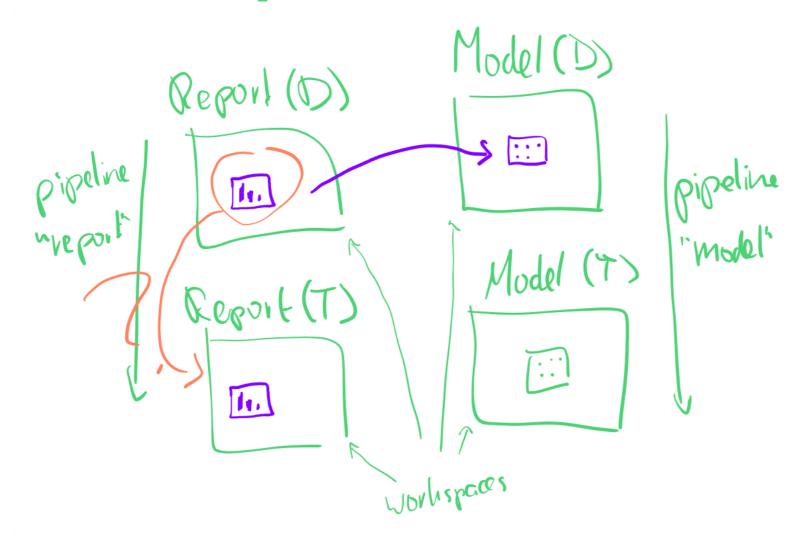




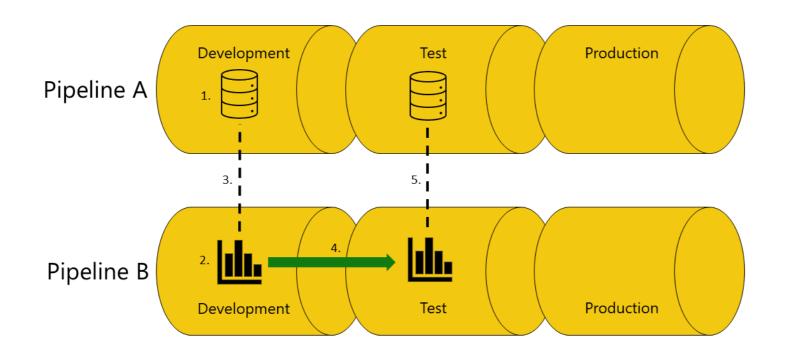


... cross-workspace? Model (D) Report (D) ::: Pipeline report Pipeline "model" 11. Model (T) Report (T [::] 11. $\widehat{}$ Workspaces

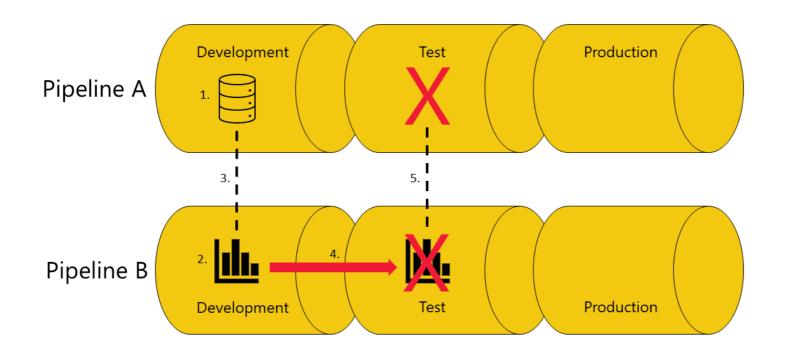






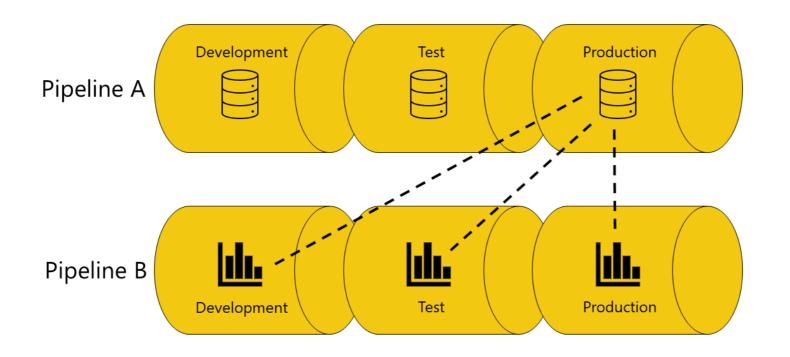






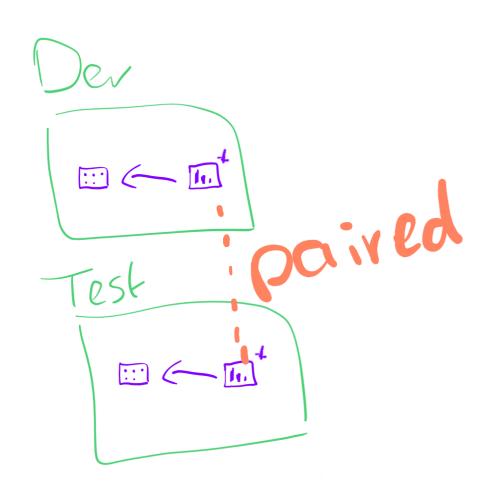


No autobinding?



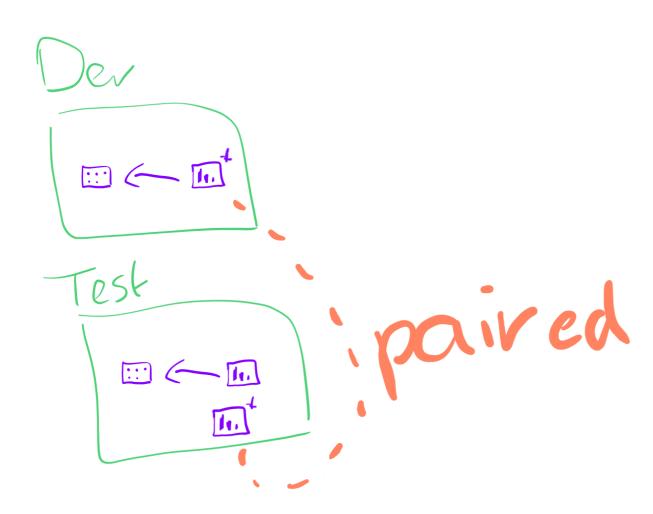


One more thing: pairing...





One more thing: pairing...





What happens to...

Items (artefacts)

- Reports
- Semantic Models
- Dataflows
- Etc.

Data & Connections

- Lakehouse tables
- Datamarts
- SQL databases
- Etc.

Security & Access control

- RLS
- Workspace permissions
- Sensitivity labels

Environment configuration

- Spark compute
- Library dependencies
- Environment variables



How to handle...

Items (artefacts)

- Reports
- Semantic Models
- Dataflows
- Etc.

Data & Connections

Security & Access control

Environment configuration

Deployment Pipelines

- Handle binding
- Move across stages

Version control

• Bind "Dev" stage to Git -> change tracking



How to handle...

Items (artefacts)

Data & Connections

- Lakehouse tables
- Datamarts
- SQL databases
- API endpoints
- Etc.

Security & Access control

Environment configuration

Deployment Pipelines

- Autobinding
- Manual binding

Deployment Rules

• Wait, what?!



What are Deployment Rules?

In general

- Stage-specific configuration
- Different databases
- Different query parameters
- Defined on an artefact (e.g. semantic model)

Parameter rule

Parameter value

Data Source Rule

Data source connection

Default Lakehouse rule

Default Lakehouse, only for **Notebook**

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What are Deployment Rules?

	1	 ← Dashboard Wortell Smart Semantic model deployment rules Set deployment rules Create rules to run when deploying this ite 		×			
		Data source rules		^			
à	Test □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		ected to this item. <u>Learn more</u> aflows that aren't displayed here. During deployi You can see all the connections and impacted d				
Ŷ	Deployed: 06/11/25, 8:38 AM	From	То				
	S Failed deployment	courses;wortellsmartlearning.c \vee	Other 🗸	Ŵ			
			Database				
			courses				
			Server				
			wortellsmartlearning.database.window				
	eploy	+ Add rule					



How to handle...

Items (artefacts)

Data & Connections

- Lakehouse tables
- Datamarts
- SQL databases
- API endpoints
- Etc.

Security & Access control

Environment configuration

Deployment Pipelines

- Autobinding
- Manual binding

Deployment Rules

- Change connection strings
- Change parameter values

${\cal B}$ Data source rules	,							
Define the data source that will be co	onnected to this item. <u>Learn more</u>							
There may be connections to other dataflows that aren't displayed here. During deployn we'll update these connections for you. You can see all the connections and impacted da sources in the lineage view.								
From	То							
courses;wortellsmartlearning.c $ \smallsetminus $	Other V							
	Database							
	courses							
	Server							
	wortellsmartlearning.database.window							
+ Add rule								

How to handle...

Items (artefacts)

Data & Connections

- Lakehouse tables
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- API endpoints
- Etc.

Security & Access control

Environment configuration

Deployment Pipelines

- Autobinding
- Manual binding

Deployment Rules

- Change connection strings
- Change parameter values

What about Key Vault?

- ... support is underway!
- Fabric **variables** will support this in the future
- .. Wait, what?!

Variables

- Item in Fabric
- Stage-specific values
- Centrally set
- Cc ADO Libraries / Variable Groups
- Can be used in
 - Data Pipelines
 - Connections
 - o Table Names
 - Parameters
 - Notebooks
 - Connection strings
 - Default lakehouses
 - Runtime parameters
 - Lakehouse shortcuts



Variables

🖹 Save 🕂 New variable 🔟 Delete variable 🖽 Add value set

Variables_1

Variables		Alternative value sets			
Name * Table	Note Type (i)	Default value set * Active ··· courses_dev	Test *	 Prod * B courses_dev	

Variables (in Git)

:

:

÷

- 2025-06-11-pbigdemo
- > 🧉 Dashboard Wortell Smart Learning.Report
- > 🧉 Dashboard Wortell Smart Learning.Semanti
- > 📒 Dev.Environment
- > 🧉 pipeline1.DataPipeline
- - > 🧉 valueSets
 - 🗅 .platform
 - 🗅 settings.json
 - 🗅 variables.json
 - M↓ README.md

ဗ္မ	main	\checkmark	\square	/	Variables_1.VariableLibrary	/

variables.json

Contents History Compare Blame





Items (artefacts)

Data & Connections

- Lakehouse tables
- Datamarts
- SQL databases
- API endpoints
- Etc.

Security & Access control

Environment configuration

Deployment Pipelines

- Autobinding
- Manual binding

Deployment Rules

- Change connection strings
- Change parameter values

What about Key Vault?

- ... support is underway!
- Fabric **variables** will support this in the future

Items (artefacts)

Data & Connections

Security & Access control

- Row-Level Security (RLS)
- Workspace permissions
- Data sensitivity labels

Environment configuration

Workspace Permissions

- Environment / stage-specific
- Permissions do not propagate

RLS

- Preserved during deployment
- Validate Post-Deployment
- Differences in sources or roles can impact RLS behavior!

Sensitivity Labels

- Do not propagate
- Manually applied

What about Deployment Rules?

Do not modify security settings

Items (artefacts)

Data & Connections

Security & Access control

- Row-Level Security (RLS)
- Workspace permissions
- Data sensitivity labels

Environment configuration

What about automation?

- Possible via the REST API
- Not configurable from within Fabric

What about Azure DevOps?

• Sure, all is possible!



Items (artefacts)

Data & Connections

Security & Access control

Environment configuration

- Spark compute settings
- Library dependencies
- Environment variables

For Spark-based artefacts

- Notebooks
- Spark job definitions

Configuration of

- Compute settings
- Spark Properties
- Library dependencies
- Runtime version



Setting up an Environment

	Wortell Fabric My-Awesome-App	Q Search	Trial: 16 days left 🗘 ଊ ⊥ ? & 🞗
Home	※ My-Awesome-App ※ Ø Ø Development + New item Co New folder → Import ∨ ✓ New folder	New item ☆ Favorites ☑ All items	X Q environ X
Workspaces OneLake catalog		Analyze and train data Propose hypotheses, train models, and explore your data to make decision	s and predictions.
() Monitor		Environment (1) Set up shared libraries, Spark compute settings,	
Real-Time	Cl Selec	and resources for notebooks and Spark job definitions.	
My- Awesome		Develop data Create and build your software, applications, and data solutions.	
Dashboard Wortell		Environment	
pipeline1	ြ Name Ty	Set up shared libraries, Spark compute settings, and resources for notebooks and Spark job definitions.	

Settings...

(1) You have unpublished changes. To apply these changes to notebooks and Spark job definition run in this environment, select Publish. To save your changes without updating the

Libraries	Spark compute configuration This configuration applies to all notebooks and and Spark job definitions in this environment. When you sele any environment-level pool details you customize. <u>Learn more</u>
∰\ Public Library	Environment pool
∭\ Custom Library	Starter Pool ~
Spark compute	Pool details (i)
Ø Acceleration	Node family Node size Number of nodes
Compute 5	Auto (Memory optimized) Medium 1 - 10
E Spark properties	Compute
Storage	Spark driver core
	4 ~
Besources	Spark driver memory
	28GB ~
	Spark executor core



Settings...

Libraries	Public libraries	> 🧀 Dashboard Wortell Smart Learning.Report	environment.yml
🕅 Built-in Library	Search and add libraries from public repositories or <u>more</u>	'> 💼 Dashboard Wortell Smart Learning.Semanti	Contents History Compare Blame
N Public Library		🗸 🧰 Dev.Environment	1 dependencies:
Custom Library	requests	∨ 🍋 Libraries	2 - pip: 3 - requests==2.32.4
		🗸 🦢 PublicLibraries	4
Spark compute		🕅 environment.yml ៈ	
Acceleration		> 🦢 Setting	
@ Compute 5		🗅 .platform	
🗉 Spark properties			



Items (artefacts)

Data & Connections

Security & Access control

Environment configuration

- Spark compute settings
- Library dependencies
- Environment variables

For Spark-based artefacts

- Notebooks
- Spark job definitions

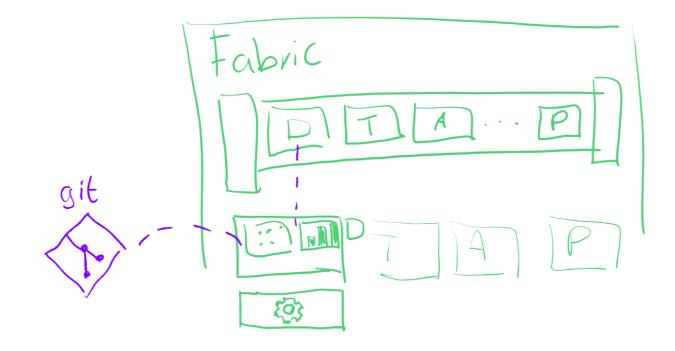
Configuration of

- Compute settings
- Spark Properties
- Library dependencies
- Runtime version

Does it deploy?

- Yes (consistency across workspaces)
- No custom Spark (default at deployment target)

Summary: Fabric Pipelines



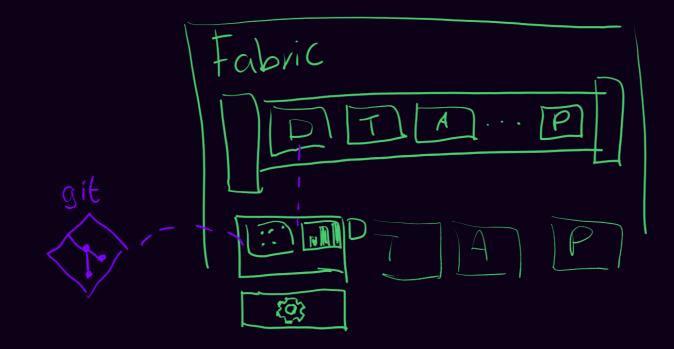


Welcome to the Dark Side

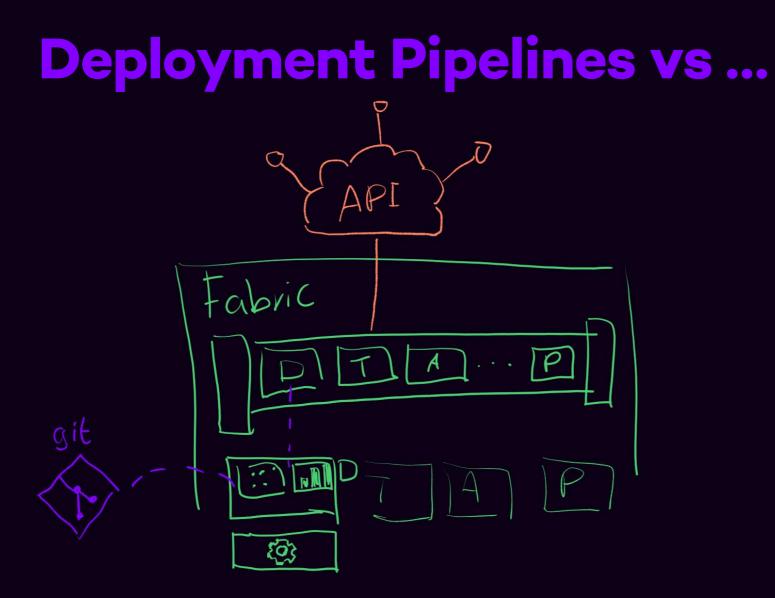
Automation, API's and other ALM tools



Summary: Fabric Pipelines









Deployment Pipelines vs ...

:

Expand table

Learn / Power BI REST APIs /

Pipelines

Reference Service: Power BI REST APIs API Version: v1.0

Operations

Assign Workspace	Assigns the specified workspace to the specified deployment pipeline stage.
Create Pipeline	Creates a new deployment pipeline.
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Get Pipeline	Returns the specified deployment pipeline.
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Deployment Pipelines vs ...

Learn / Power BI REST APIs /

Pipelines

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Get Pipeline Stages	Returns the stages of the specified deployment pipeline.
Get Pipeline Users	Returns a list of users that have access to the specified deployment pipeline.
Selective Deploy	Deploys the specified items from the source stage of the specified deployment pipeline.
Unassign Workspace	Unassigns the workspace from the specified stage in the specified deployment pipeline.
Update Pipeline	Updates the specified deployment pipeline.
Update Pipeline User	Grants user permissions to the specified deployment pipeline.

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C Expand table

Deploy options

Deploy All

- API call
- Deploys all the content to the next stage

Selective Deploy

- API call
- Deploys only specific items

Backward deploy

- Deploys items to *previous* stage
- Uses Deploy All or Selective Deploy API
- Parameter isBackwardDeployment = True

Update App

- Update app related to stage
- Uses Deploy All or Selective Deploy API
- Parameter **updateAppSettings**
 - expects PipelineUpdateAppobject
 - (not too complex)

Deploy options

Deploy All

- API call
- Deploys all the content to the next stage

Selective Deploy

- API call
- Deploys only specific items

PipelineUpdateAppSettings

Object

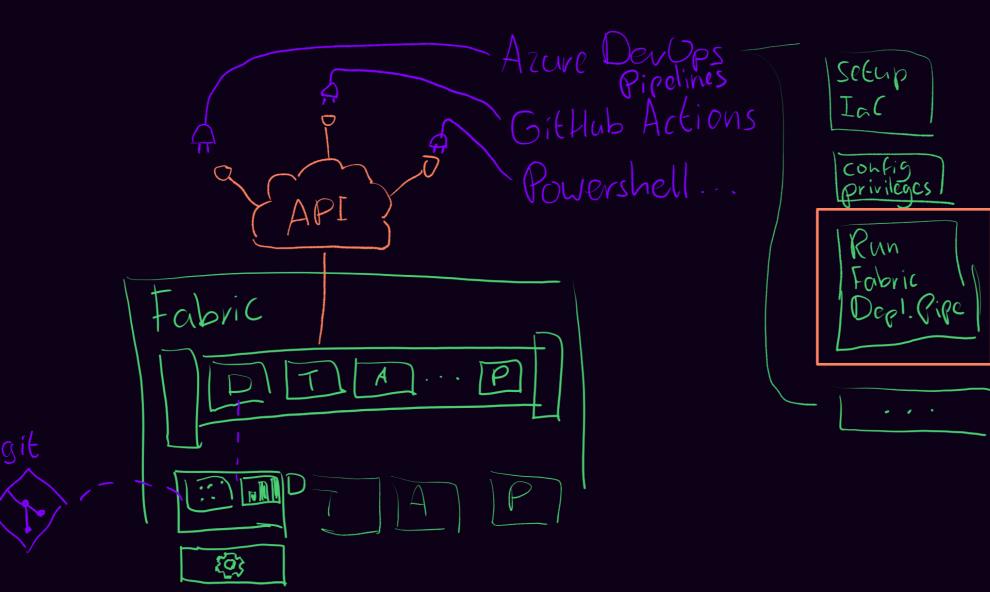
Configuration update org app after deployment

		C Expand table
Name	Туре	Description
updateAppInTargetWorkspace	boolean	Whether to update the app in the target workspace. Only deployed items that already exist in the app are updated. New deployed items are not added to the app.

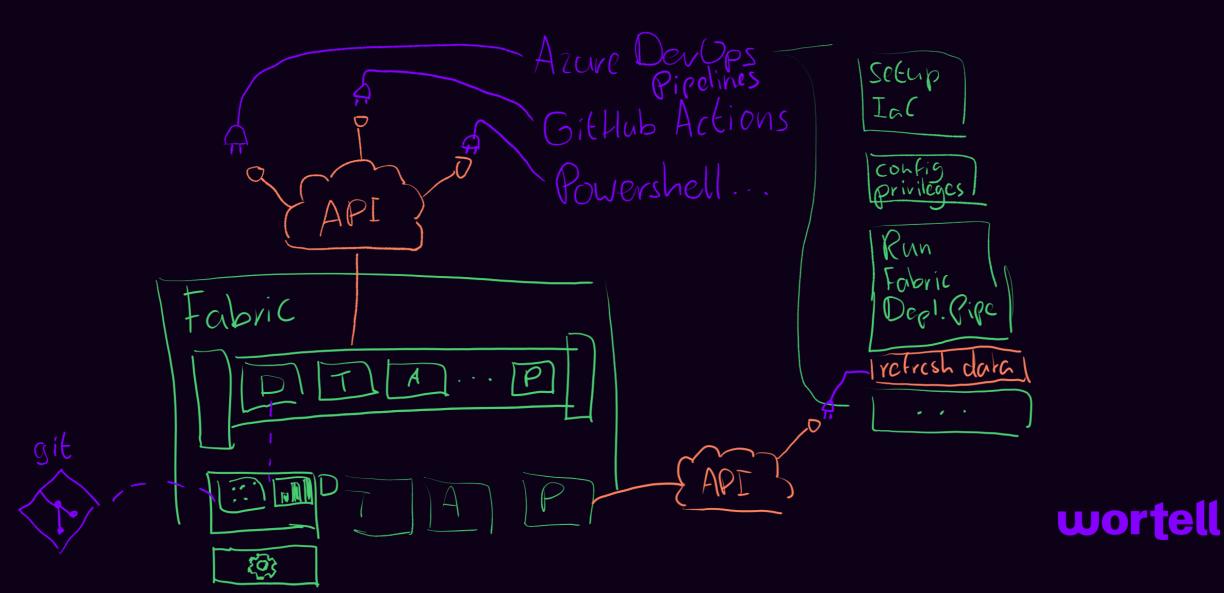
Update App

- Update app related to stage
- Uses Deploy All or Selective Deploy API
- Parameter updateAppSettings
 - expects PipelineUpdateAppobject
 - (not too complex)

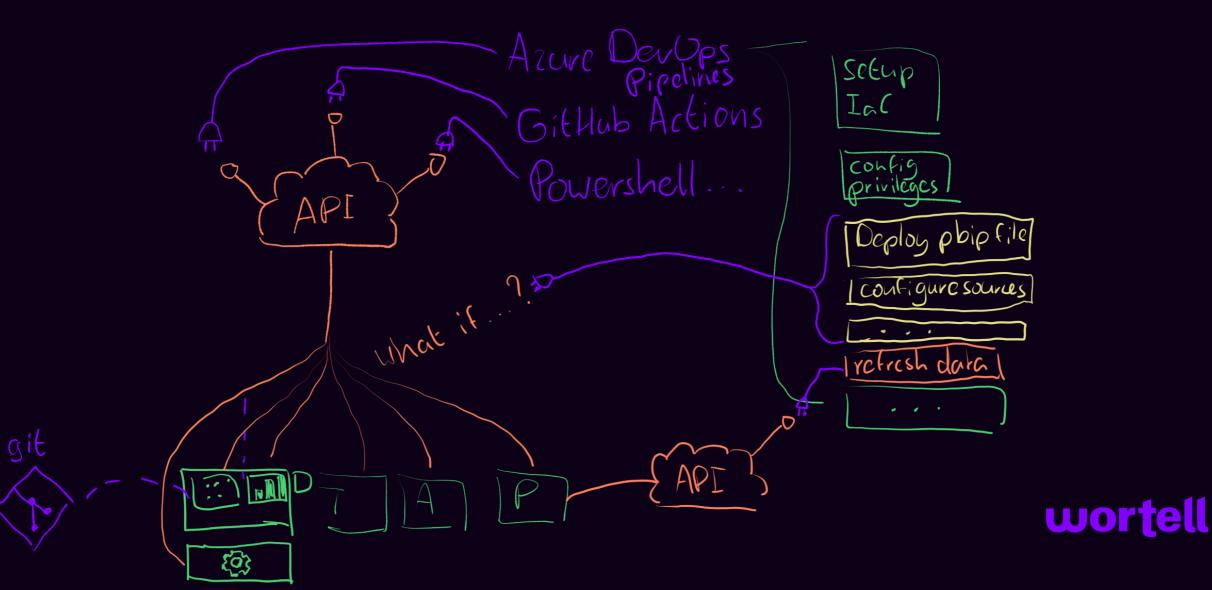
Deployment Pipelines vs ...



Deployment Pipelines vs ...



CI/CD w/o Deployment pipelines?



CI/CD w/o Deployment pipelines?

Deployment Pipelines

- Configuration Preservation
- Autobinding
- Data is preserved
- Sometimes limited, but very powerful

Manually via REST (no DP)

- Use PBIP files
- Automate deployments
- Implement Post-deployment configuration
- Handle Data Refresh
- Unlimited, but lots of customization
- Can be done via
 - Azure DevOps
 - GitHub Actions
 - GitLab CI/CD
 - Other CI/CD tooling



Wrapping up Returning to the Light Side



Use the

Fabric Pipelines API

for orchestration and automation

Connect Dev workspace to

Git

Use

Fabric Pipelines

for ALM within Fabric

Use

CI/CD tooling

for everything *around* the Fabric deployment (privileges, infra, extra refreshes, etc.)





Fabric Pipelines API

Fabric Pipelines

Git



CI/CD tooling





R

 $\left[\cdot \right]$

*[***0**]

git

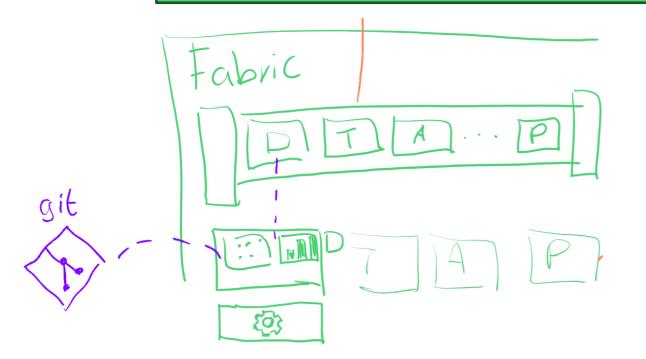
Fabric Pipelines API

Fabric Pipelines

CI/CD tooling

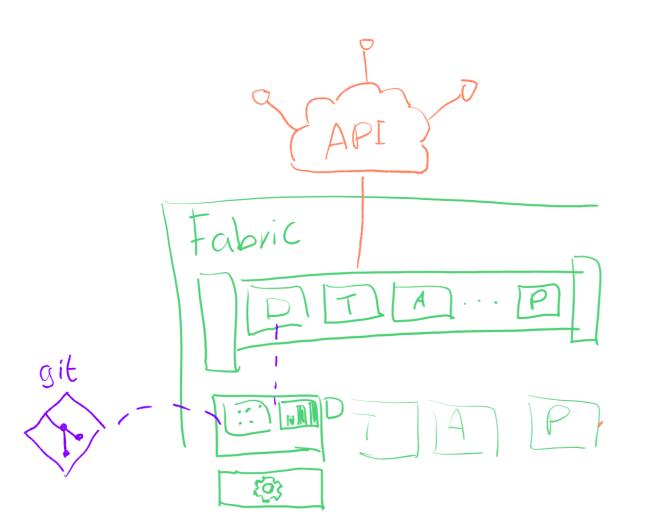


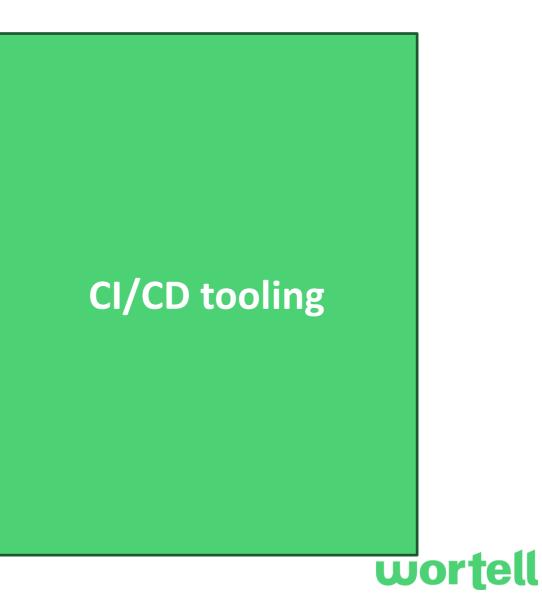
Fabric Pipelines API

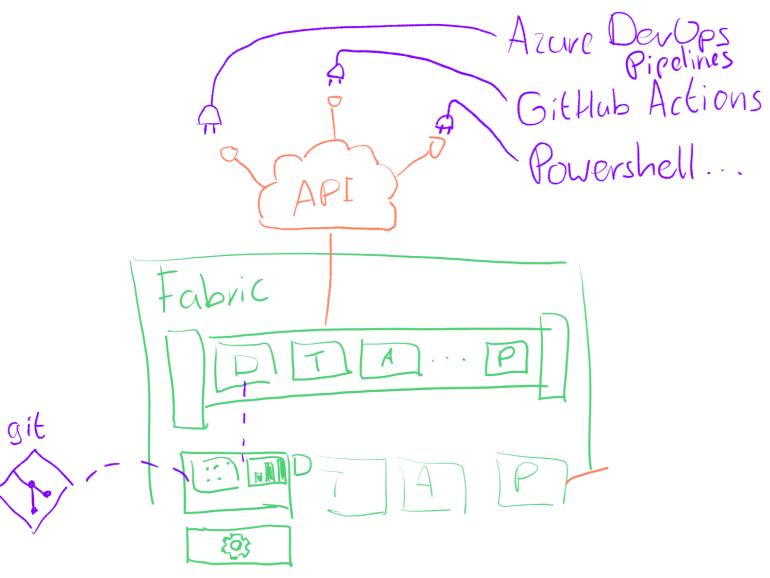


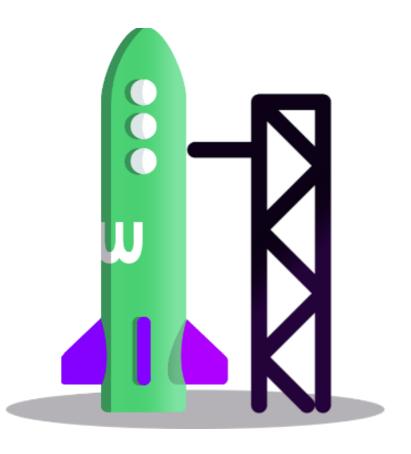
CI/CD tooling



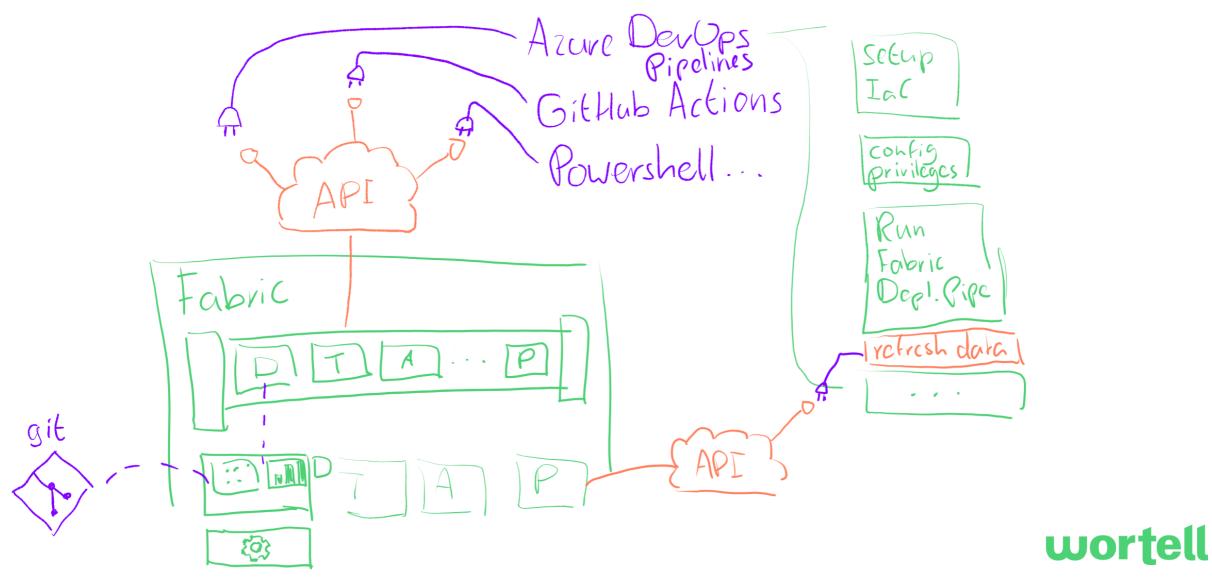


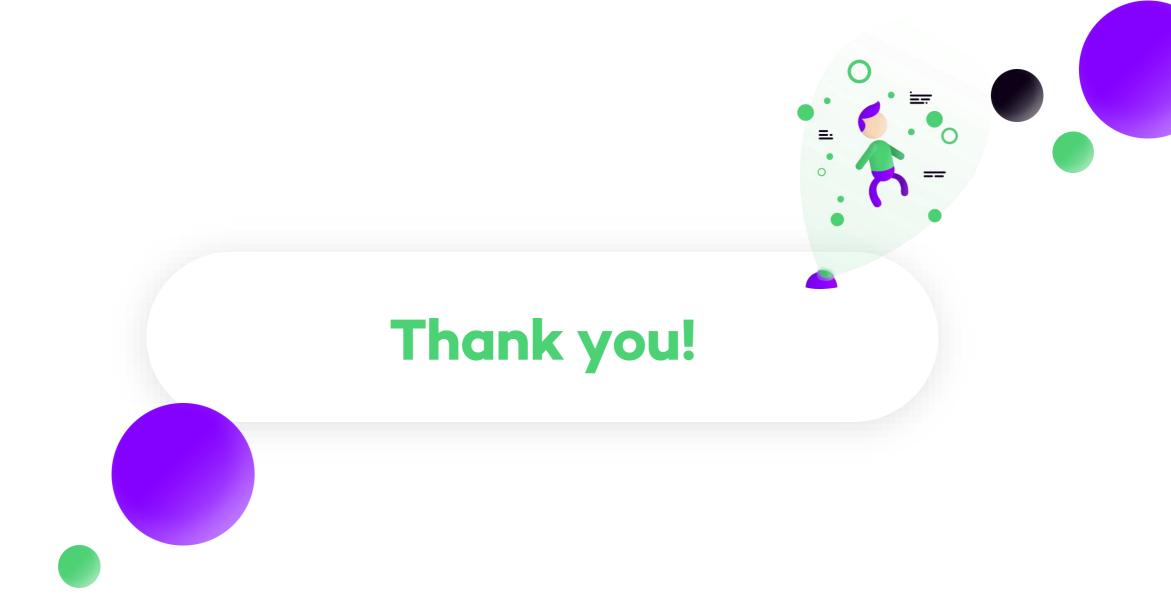
















SPENT HOURS BUILDING AN AWESOME REPORT



NO ONE USES IT



Valerie Junk PorcuBI

• Data Visualization & Storytelling

- Real-time Intelligence
- Change Management









Why focus on (core) visuals?

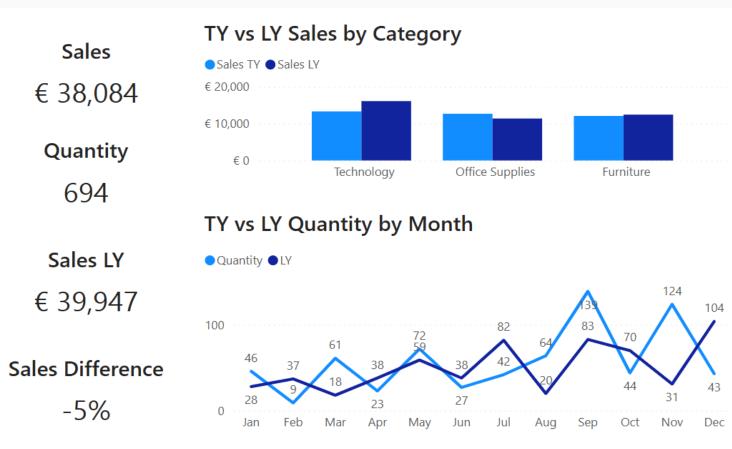
• Simplify complex data.

Improve decision-making.

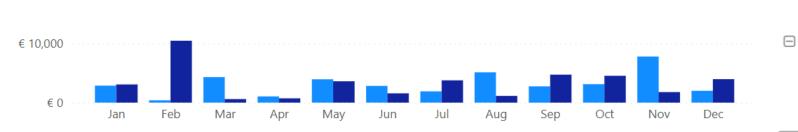
• No additional costs.

Business Intelligence Report 1

Sales TY Sales LY



Sales TY and Sales LY by Month Name Short



Sales, Quantity and Target by Month by Categ...

•	Sales TY	Sales LY	Sales YoY	Quanti ty TY
🗆 Jan	€ 2,867.46	€ 3,073.44	-6.70%	46
Furniture	€ 69.38	€ 1,615.93	-95.71%	1
Office Supplies	€ 515.28	€ 1,457.51	-64.65%	24
Technology	€ 2,282.80			21
🖃 Feb	€ 395.70	€ 10,455.49	- 96.22 %	9
Furniture	€ 359.97	€ 246.65	45.94%	3
Office Supplies	€ 35.73	€ 1,458.89	-97.55%	6
Technology		€ 8,749.95	-100.00%	
🗆 Mar	€ 4,312.97	€ 602.10	616.32 %	61
Furniture	€ 205.33	€ 354.90	-42.14%	2
Office Supplies	€ 744.01	€ 112.35	562.23%	40
Technology	€ 3,363.63	€ 134.85	2394.35%	19
⊟ Apr	€ 1,051.91	€ 727.15	44.66 %	23
Furniture	€ 908.82			9
Office Supplies	€ 47.35	€ 692.03	-93.16%	11
Technology	€ 95.74	€ 35.12	172.61%	3
🗆 May	€ 3,946.97	€ 3,611.28	9.30 %	72
Furniture	€ 2,418.83	€ 1,050.30	130.30%	17
Office Supplies	€ 992.40	€ 1,085.04	-8.54%	45
Technology	€ 535.74	€ 1,475.94	-63.70%	10
🗆 Jun	€ 2,827.69	€ 1,569.62	80.15 %	27
Furniture		€ 1,306.03	-100.00%	
Office Supplies	€ 1,339.74	€ 59.06	2168.44%	12
Tochnology Total	€ 1 407 0E € 38,083.93	€ 39,946.89	- 4.66%	¹ ⁶

No Formatting

button to drill through.

2025 Sales

Sales	Quantity
€ 38.084	694
Last Year: € 39.947 (↑-5% YoY)	Last Year: 608 (↓14% YoY)

When did we sell the most and least products?

Most products sold in September, least products in February.



Which category reached the yearly target? Category Office Supplies hit the sales target. Technology Office Supplies Furniture € 0 € 5.000 € 10.000 € 15.000 € 20

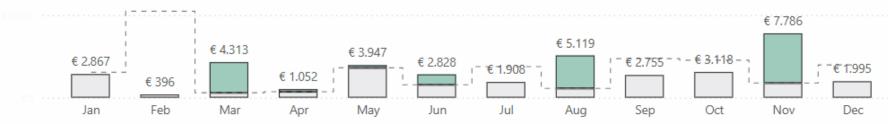


Conditional Formatting

In which months dit we hit our sales target?

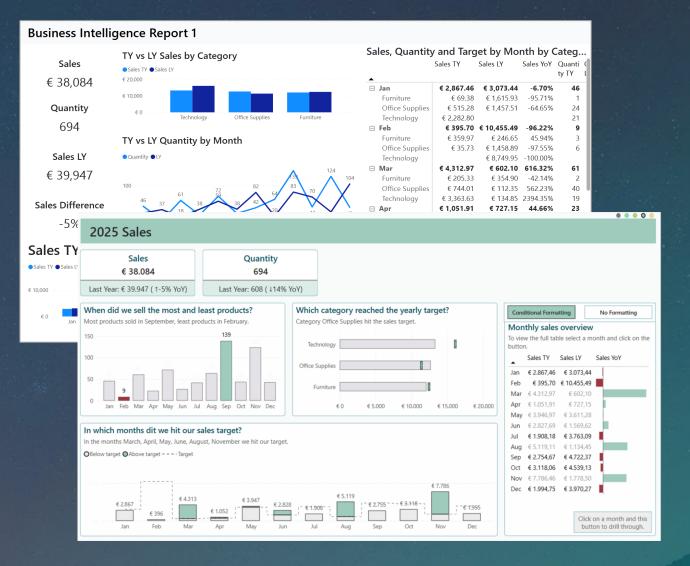
In the months March, April, May, June, August, November we hit our target.

OBelow target OAbove target - - - · Target



Design

- Design requires time.
- It depends on the audience.
- There's a thin line between too much and too little.
- Consistency is key.



TRY FAIL SUCCESS There is no innovation and creativity without failure. Brene Brown

A heatmap example



Conditional Formatting							
Category	Product	Gross Sales	Sales LY	Sum of Units Sold	Units Sold LY		
Computer	Product 1	49,128	459,198.71	4,094.00	29,191.50		
S	Product 2	732,090	2,457,246.88	9,216.00	24,811.00		
	Product 3	2,256,856	905,136.92	7,796.00	23,129.00		
	Product 4	128,796	2,875,448.87	11,091.50	40,892.00		
	Product 5	69,627	1,117,383.93	5,845.00	16,219.00		
	Product 6	85,214	633,802.59	7,233.00	27,021.00		
Headpho	Product 1	8,318,254	4,999,939.70	40,525.50	28,055.00		
nes	Product 2	6,714,356	3,353,474.59	35,383.50	33,525.00		
	Product 3	5,797,674	2,992,397.84	30,872.50	24,773.50		
	Product 4	9,216,325	8,204,704.54	66,659.50	52,427.50		
	Product 5	4,868,096	5,166,997.55	34,364.00	34,317.00		
	Product 6	7,796,254	4,066,131.34	36,423.00	22,820.00		
Office	Product 1	7,302,443	7,804,521.13	47,291.00	55,358.50		
Electronic	Product 2	7,082,499	7,396,008.97	30,822.00	41,544.00		
S	Product 3	5,204,885	6,643,460.68	33,837.00	50,226.00		
	Product 4	15,468,394	16,051,790.92	88,790.00	120,093.00		
	Product 5	10,276,638	5,183,595.39	51,090.50	53,731.00		
	Product 6	12,043,158	10,239,006.92	40,982.50	56,067.00		

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	Product 6	12,043,158	10,239,006.92	40,982.50	56,067.00		

It is not about colouring..

• Who is the audience?

• What is the experience level?

How much detail is needed?

What actions do they want to take?



	Sales TY	Sales LY	Sales YoY	Quantity TY	Quantity LY	Difference
Jan	€ 2.867,46	€ 3.073,44	-6,70%	46	28	18
Feb	€ 395,70	€ 10.455,49	-96,22%	9	37	-28
Mar	€ 4.312,97	€ 602,10	616,32%	61	18	43
Apr	€ 1.051,91	€ 727,15	44,66%	23	38	-15
May	€ 3.946,97	€ 3.611,28	9,30%	72	59	13
Jun	€ 2.827,69	€ 1.569,62	80,15%	27	38	-11
Jul	€ 1.908,18	€ 3.763,09	- <mark>4</mark> 9,29%	42	82	-40
Aug	€ 5.119,11	€ 1.134,45	351,24%	64	20	44
Sep	€ 2.754,67	€ 4.722,37	-41,67%	139	83	56
Oct	€ 3.118,06	€ 4.539,13	-31,31%	44	70	-26
Nov	€ 7.786,46	€ 1.778,50	337,81%	124	31	93
Dec	€ 1.994,75	€ 3.970,27	-49,76%	43	104	-61
Total	€ 38.083,93	€ 39.946,89	-4,66%	694	608	86

cons

• Improve readability.

- Guide attention.
- Support decision making.

	Sales TY	Sales LY	Sales YoY	Quantity TY	Quantity LY
Jan	€ 2.867,46	€ 3.073,44	-6,70%	46	28
Feb	€ 395,70	€ 10.455,49	-96,22%	9	37
Mar	€ 4.312,97	€ 602,10	<mark>616</mark> ,32%	61	18
Apr	€ 1.051,91	€ 727,15	44,66%	23	38
May	€ 3.946,97	€ 3.611,28	9,30%	72	59
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Aug	€ 5.119,11	€ 1.134,45		351,24%	64	20
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Jul	€ 1.908,18	€ 3.763,09	∇	-49,29%	42	82
Aug	€ 5.119,11	€ 1.134,45		351,24%	64	20
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Total	€ 38.083,93	€ 39.946,89		-4,66 %	694	608

Icons

		2025 Sales Report				
Icons - Sales YoY		×		Sales YoY	Quantity TY	Quantity LY
Format style	Apply to		3,44	-6,70%	46	28
Rules 🗸	Values only \checkmark		5,49	▼ -96,22%	9	37
			2,10	616,32%	61	18
What field should we base this on?			7,15	44,66%	23	38
Sales YoY 🗸			1,28	9,30%	72	59
Icon layout	Icon alignment	Style	9,62	80,15%	27	38
		Style	3,09	▼ -49,29%	42	82
Left of data 🗸	Тор 🗸	Custom 👻	4,45	351,24%	64	20
Rules		↑↓ Reverse icon order + New rule	2,37	▼ -41,67%	139	83
			9,13	▼ -31,31%	44	70
If value >= V Min Number >	\checkmark and $<$ \checkmark 0 Number \checkmark	then \bigtriangledown \checkmark \checkmark	8,50	337,81%	124	31
			0,27	▼ -49,76%	43	104
		Total € 38.083,93 € 39.94	46,89	-4,66%	694	608

2025 Calos Donort

Font color

Improve readability.

• Guide attention.

	Sales TY	Sales LY	Sales YoY	Quantity TY	Quantity LY
Jan	€ 2.867,46	€ 3.073,44	▼ -6,70%	46	28
Feb	€ 395,70	€ 10.455,49	▼ -96,22%	9	37
Mar	€ 4.312,97	€ 602,10	616,32%	61	18
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Total	€ 38.083,93	€ 39.946,89	-4,66 %	694	608

Font color

		2025 Sales Report	t			
Font color - Sales YoY			×	les YoY	Quantity TY	Quantity LY
Format at da	Anneliste			-6,70%	46	28
Format style	Apply to			-96,22%	9	37
Rules 🗸	Values only 🗸			616,32%	61	18
				44,66%	23	38
What field should we base this on?				9,30%	72	59
Sales YoY				80,15%	27	38
				-49,29%	42	82
Rules		↑↓ Reverse color order	+ New rule	351,24%	64	20
				-41,67%	139	83
If value >= V 0 Number V	✓ and <= ✓ Max Number ✓	then 📃 🗸	$\uparrow \downarrow \times$	-31,31%	44	70
If value >= V Min Number V	✓ and < ✓ 0 Number ✓	then 🔳 🗸	$\land \lor \times$	337,81%	124	31
If value >=	✓ and ∠ ✓ 0 Number ✓		TF ₩ ▲	-49,76%	43	104
		Total € 38.083,93 € 39.9	946,89	- 4,66 %	694	608

Font color

• One column or all?

Accessibility

	Sales TY	Sales LY	Sales YoY	Quantity TY	Quantity LY
Jan	€ 2.867,46	€ 3.073,44	-6,70%	46	28
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Dec	€ 1.994,75	€ 3.970,27	▼ -49,76%	43	104

Font color - Options

Provide options for

your end-user.

• Large audience =

diverse preferences.

2025 Sales Report

Conditional Formatting

	Sales TY	Sales LY	Sales YoY		Quantity TY	Quantity LY
Jan	€ 2.867,46	€ 3.073,44	∇	-6,70%	46	28
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Dec	€ 1.994,75	€ 3.970,27	∇	-49,76%	43	104

No Formatting

Slicer

Cond	itional Format	tting	Nol	Formatting		
202	5 Sales	Report				
	Sales TY	Sales LY	Sal	es YoY	Quantity TY	Quantity LY
Jan	€ 2.867,46	€ 3.073,44	∇	-6,70%	46	28
Feb	€ 395,70	€ 10.455,49	∇	-96,22%	9	37
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Cond	itional Forma	tting	No	Formatting					
202	5 Sales	Report							
	Sales TY	- Sales LY	Sal	es YoY	Quantity TY	Quantity LY			
Jan	€ 2.867,46	€ 3.073,44	∇	-6,70%	46	28			
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Dec	€ 1.994,75	€ 3.970,27	\bigtriangledown	-49,76%	43	104			

Slicer

Create a table

Options 💌	Description	
1	Conditional Formatting	
0	No Formatting	

Add a button slicer

Conditional Formatting

No Formatting

Create a measure

```
1 Font Color Conditional Formatting =
2 IF(MAX('Conditional Formatting'[Options]) =1
3 &&
4 [Sales YoY]> 0 ,
5 "#9A9A9C",
6 "#000000")
```

Conditional Formatting

Slicer

Cond	itional Format	tting	Nol	Formatting		
202	5 Sales	Report				
	Sales TY	Sales LY	Sal	es YoY	Quantity TY	Quantity LY
Jan	€ 2.867,46	€ 3.073,44	∇	-6,70%	46	28
Feb	€ 395,70	€ 10.455,49	∇	-96,22%	9	37
Mar	€ 4.312,97	€ 602,10		616,32%	61	18
Apr	€ 1.051,91	€ 727,15		44,66%	23	38
May	€ 3.946,97	€ 3.611,28		9,30%	72	59
Jun	€ 2.827,69	€ 1.569,62		80,15%	27	38
Jul	€ 1.908,18	€ 3.763,09	∇	-49,29%	42	82
Aug	€ 5.119,11	€ 1.134,45		351,24%	64	20
Sep	€ 2.754,67	€ 4.722,37	∇	-41,67%	139	83
Oct	€ 3.118,06	€ 4.539,13	∇	-31,31%	44	70
Nov	€ 7.786,46	€ 1.778,50		337,81%	124	31
Dec	€ 1.994,75	€ 3.970,27	∇	-49,76%	43	104

Cond	itional Forma	tting	No	Formatting					
202	5 Sales	Report							
	Sales TY	- Sales LY	Sal	es YoY	Quantity TY	Quantity LY			
Jan	€ 2.867,46	€ 3.073,44	∇	-6,70%	46	28			
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Other Options

Monthly sales overview

To view the full table select a month and click on the button.



2025 Sales Report								
Month	Sales TY	Sales LY						
Jan	€ 2.867,46	€ 3.073,44						
Feb	☆ € 395,70	€ 10.455,49						
Mar	€ 4.312,97	€ 602,10						
Apr	€ 1.051,91	€ 727,15						
May	€ 3.946,97	€ 3.611,28						
Jun	€ 2.827,69	€ 1.569,62						
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Aug	€ 5.119,11	€ 1.134,45						
Sep	€ 2.754,67	€ 4.722,37						
Oct	€ 3.118,06	€ 4.539,13						
Nov	★ € 7.786,46	€ 1.778,50						
Dec	€ 1.994,75	€ 3.970,27						

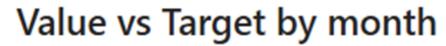
		Sales TY	Sales LY
	Jan	€ 2.867,46	€ 3.073,44
	Feb	€ 395,70	€ 10.455,49
Ì	Mar	€ 4.312,97	€ 602,10
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	Oct	€ 3.118,06	€ 4.539,13
	Nov	€ 7.786,46	€ 1.778,50
	Dec	€ 1.994,75	€ 3.970,27

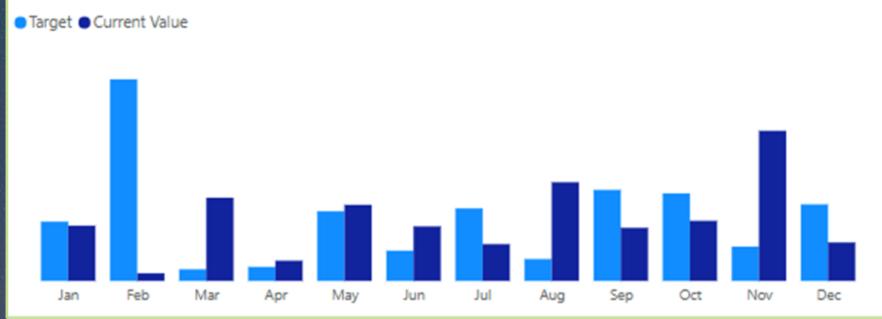
Icons - Sales YoY

Format style	Apply to	
Rules ~	Values only	
What field should we base this on?		
Sales YoY 🗸		
Icon layout	Icon alignment	Style
Left of data \checkmark	Top 🗸	Custom •
Rules		↑↓ Reverse icon order + New rule
If value = V 100 Percent V		then $\bigstar \checkmark \checkmark \times$
If value = \sim 0 Percent \sim	·	then $\bigstar \bullet$

 \times

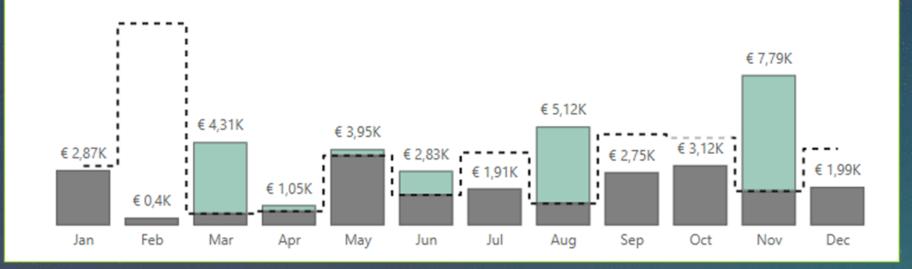
Coumn Charts & Targets (D)





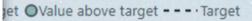
Value vs Target by month

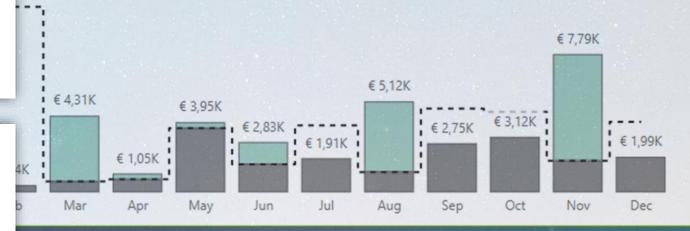
●Value below target ●Value above target - - - · Target



- 1 Value below target =
- 2 IF([Current Value]<[Target],</pre>
- 3 [Current Value],
- 4 [Target])
- 1 Value above target =
- 2 IF([Current Value]> [Target],
- 3 [Current Value] [Target],
- 4 blank())

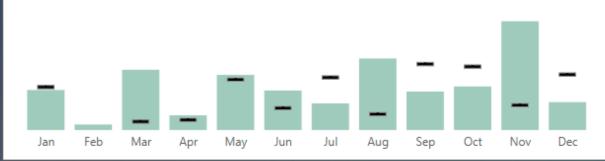
Value vs Target by month







Value vs Target by month Circles are target values Target by month rget values Feb Mar May Jun Jul Aug Sep Oct Nov Dec Jan Apr _



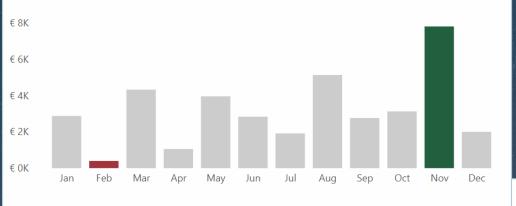
✓ Options	∨ Bar	On													
Enabled On O	Match series color	Off													
Type By field ∽	Bar color Width														
Upper bound	1														
Sales LY X >	Border color				Targe	at by r	month								
Lower bound	Border size		ct Nov	Dec	irget va		nona								
Relationship to measure	✓ Markers Marker shape —			_				-		-		-	_		-
Make symmetrical Off	Size			Jan	Feb	Mar	Apr	May	Jun	Jul	 Aug	Sep	Oct	Nov	Dec

Actions Highlight





Color - Categories	×
Format style	
Rules ~	
What field should we base this on?	
Sales TY ~	
Rules ↑↓ Reverse color order	- New rule
If value >= \checkmark 0 Percent \checkmark and <= \checkmark 100 Percent \checkmark then	$\wedge \downarrow \times$
If value $=$ \checkmark 0 Percent \checkmark then \checkmark	$\land \downarrow \times$
If value = V 100 Percent V then	$\wedge \downarrow \times$





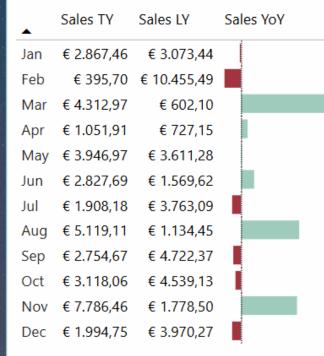


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Nov	€ 7.786,46	€ 1.778,50	
Dec	€ 1.994,75	€ 3.970,27	

Don't let the user guess!

Monthly sales overview

To view the full table select a month and click on the button.



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Click on a month and this button to drill through.

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Click on a month and this button to drill through.

1. Prioritize the User 2. Focus on Value and Actions 3. Make It Shine, But Be Picky 4. Adapt and Evolve