



Lake Database Database Template Map Data



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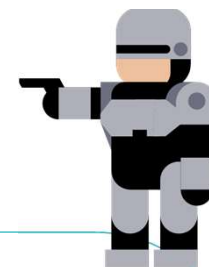
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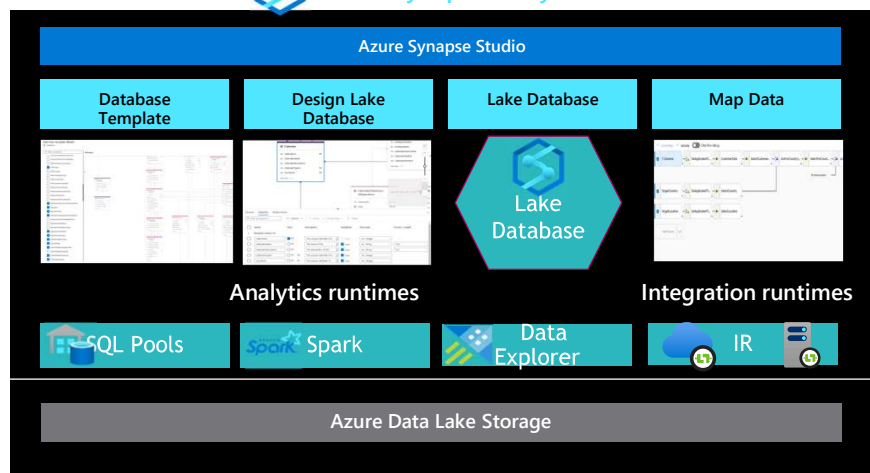
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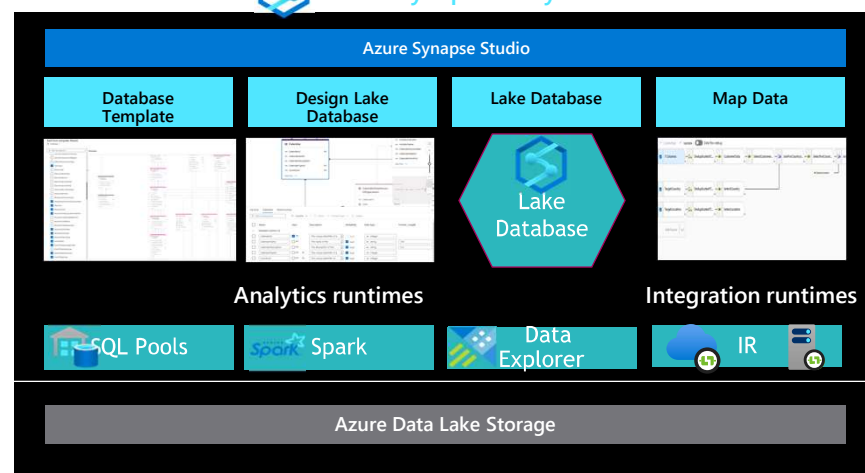




Resource Group Development

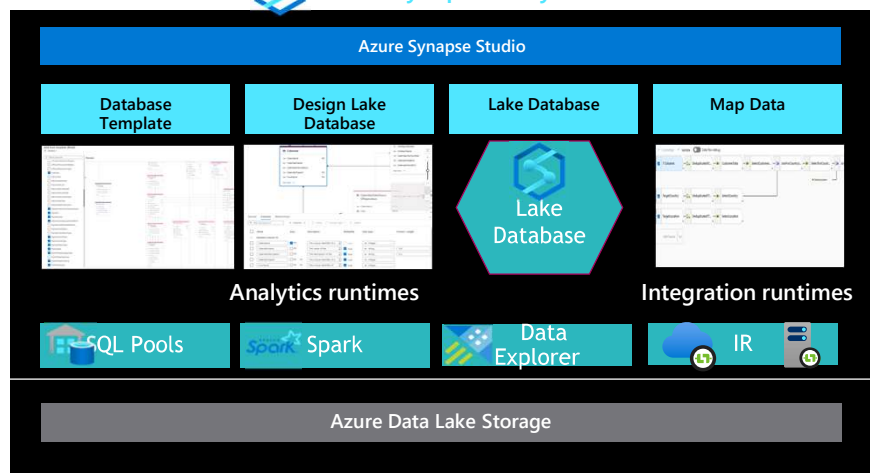


Resource Group Production





Resource Group Development



Lake Database

Why

- ❑ Accelerate time to insights based on a standardized business area schemas for different industries
- ❑ Identify gaps and opportunities in your existing enterprise data model
- ❑ Consolidate data silos and query from a single pane of glass
- ❑ Create a well-formed data lake ready for the analytics at scale
- ❑ Enrich your data with Azure Cognitive Services and Azure Machine Learning
- ❑ Develop reports easily using Power BI



Lake Database

Database Templates

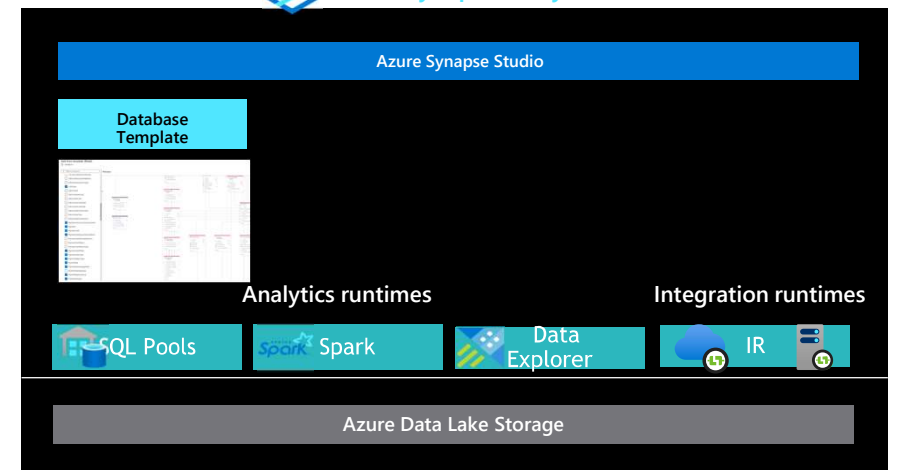
- ❑ Industry specific schema definitions

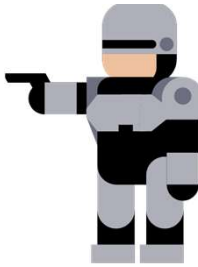


Resource Group Development



Azure Synapse Analytics

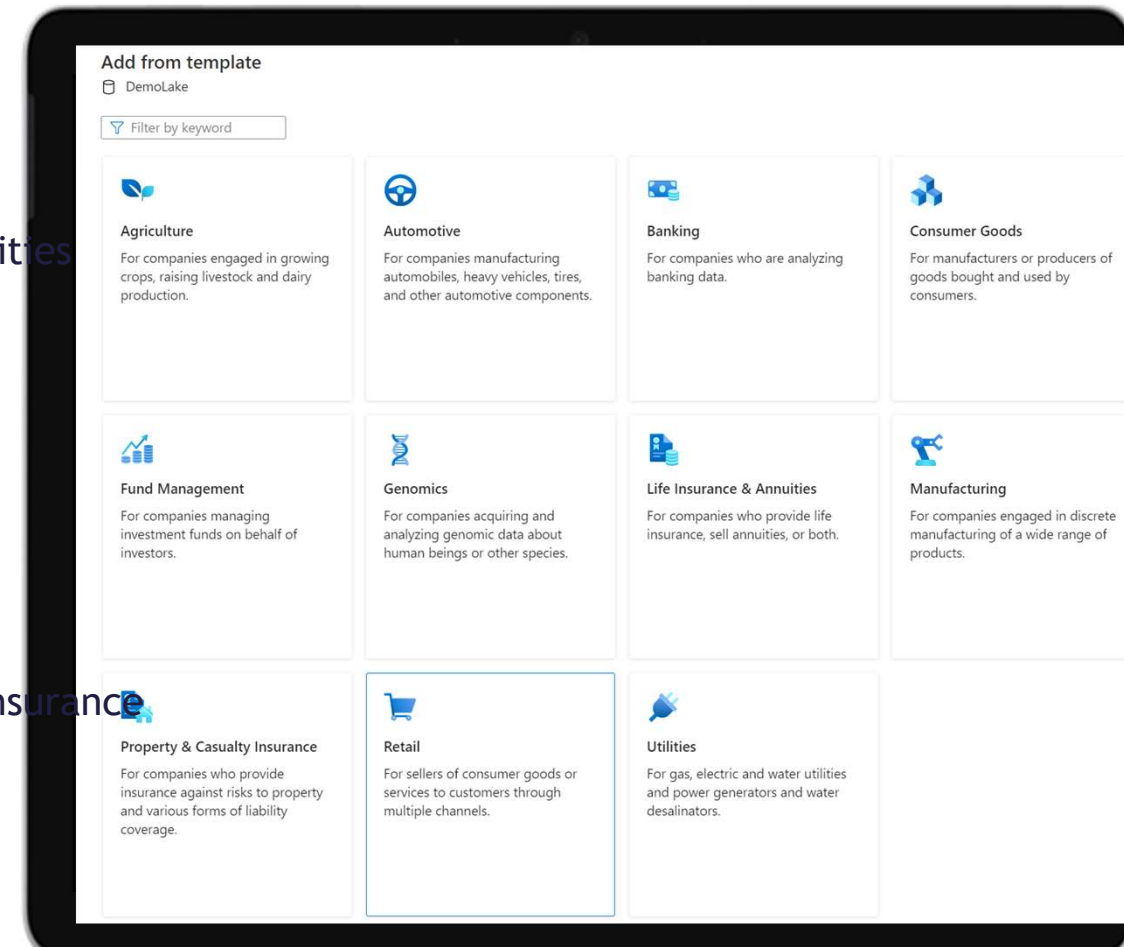


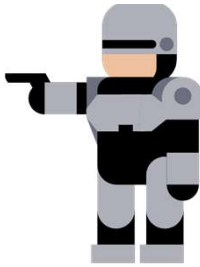


Lake Database

Database Templates

- ❑ Industry specific schema definitions
- ❑ 15 different Templates available
 - ❑ Agriculture
 - ❑ Automotive
 - ❑ Banking
 - ❑ Consumer Goods
 - ❑ Energy & Commodity Trading
 - ❑ Freight & Logistics
 - ❑ Fund Management
 - ❑ Genomics
 - ❑ Life Insurance & Annuities
 - ❑ Manufacturing
 - ❑ Oil & Gas
 - ❑ Pharmaceuticals
 - ❑ Property & Casualty Insurance
 - ❑ Retail
 - ❑ Utilities





Lake Database

Database Templates

❑ Industry specific schema definitions

❑ Enterprise Templates

Add from template (Retail)

Demolake

Filter by keyword

Filter tables: Retail

Filter by keyword

Enterprise template

☒ Retail

Business area template

☐ Accounting & Financial Reporting

☐ Budget & Forecasting

☐ Business Metrics

☐ Channel

☐ Contract

☐ Customer

☐ Customer Account

☐ Customer Credit & Collections

☐ Customer Service & Contact Management

☐ Document Management

☐ Emissions

☐ Geography

☐ Human Resources & Payroll

☐ Inventory

☐ Loyalty

☐ Manufacturing (Continuous)

☐ Marketing & Advertising

Preview

PK,FK

PK

PK

FK

FK

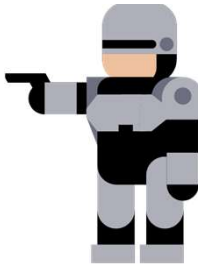
BalanceSheet

123	LegalEntityId	PK,FK
123	FinancialStatementId	PK,FK
123	PeriodStartDate	PK,FK
123	PeriodEndDate	PK,FK
e ^x	CurrentAssetsCashAmount	
e ^x	CurrentAssetsNotesReceiva...	
e ^x	CurrentAssetsInventoriesA...	
e ^x	CurrentAssetsPrepaidExpen...	
e ^x	CurrentAssetsMarketableSe...	
e ^x	CurrentAssetsAccountsRec...	

[See less](#)

NotesToFinancial Statements

123	LegalEntityId	PK,FK
123	PeriodStartDate	PK,FK
123	PeriodEndDate	PK,FK
123	FinancialStatementNoteld	PK
abc	FinancialStatementNoteText	
123	AccountingFrameworkId	FK



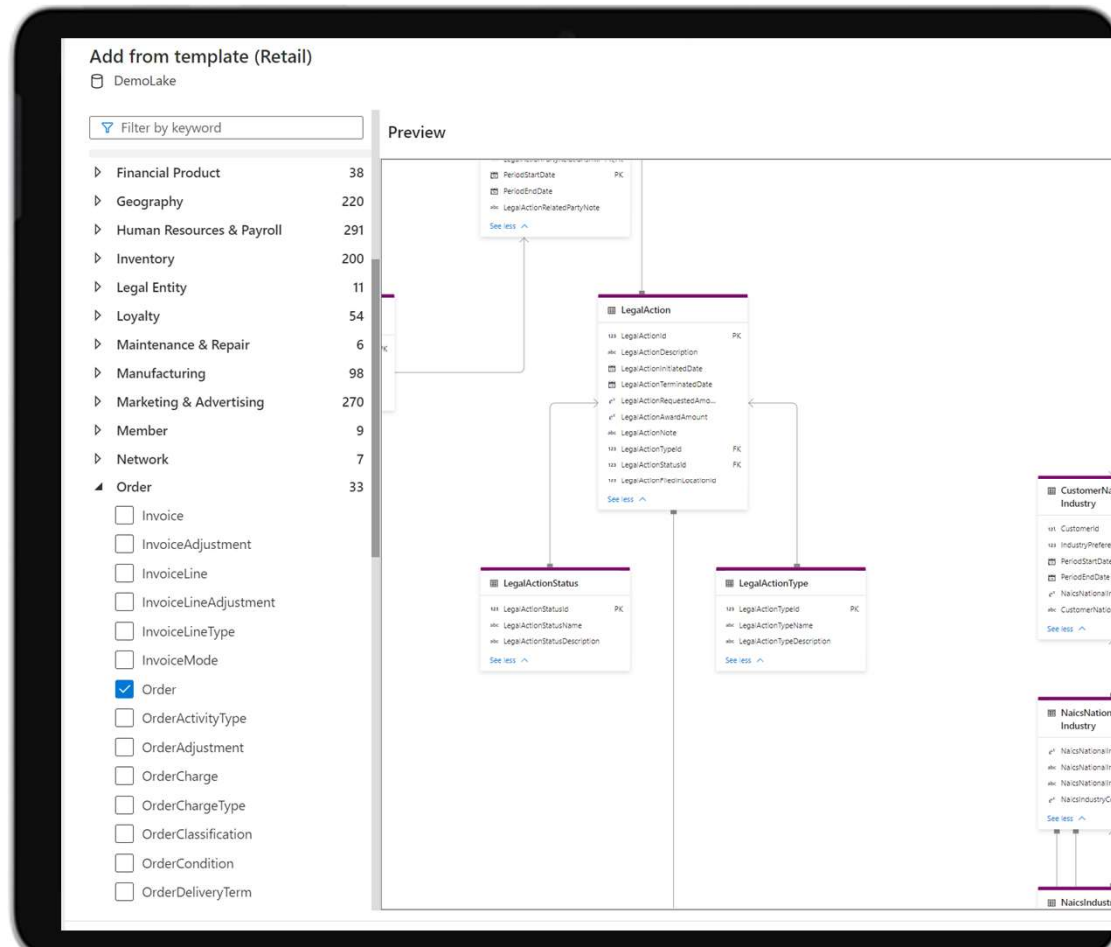
Lake Database

Database Templates

❑ Industry specific schema definitions

❑ Enterprise Templates

❑ Business Area Templates



Lake Database

Design Lake Database

❑ Create database

❑ Synapse Permissions

❑ Synapse Administrator

❑ Synapse Contributor

❑ Synapse Artifact

❑ Azure Permissions

❑ Storage Blob Data Contributor

❑ Explore Database

❑ Synapse Permissions

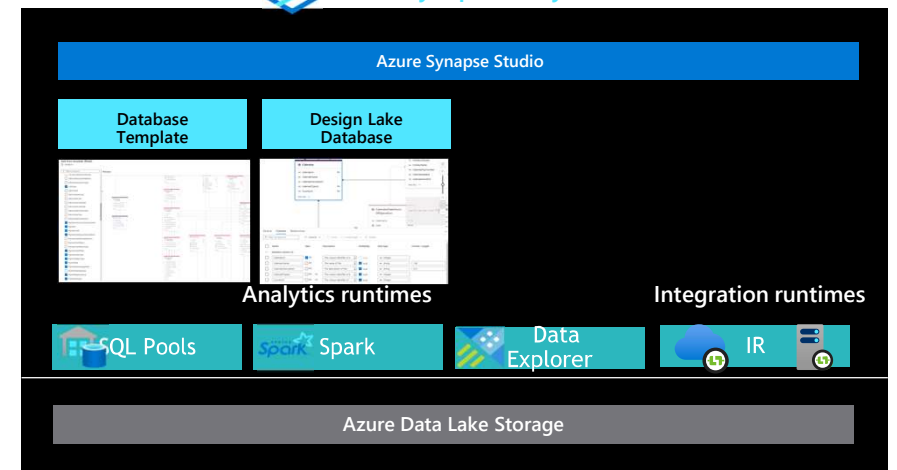
❑ Synapse User



Resource Group Development



Azure Synapse Analytics



Design Lake Database

❑ Create database

❑ Empty

- ❑ Name
- ❑ Description
- ❑ Storage Settings
- ❑ Input Folder
- ❑ Data Format
 - ❑ Delimited text or Parquet

The screenshot displays the 'Create database' interface. On the left, a 'Get started' section shows a folder icon and the text 'Get started' and 'es to build your database.' On the right, the 'Properties' panel is active, showing the 'General' tab. The 'Name' field is set to 'DEMO'. The 'Description' field is empty. The 'Storage settings for database' section shows the 'Linked service' set to 'demoেকেuwdvlmsyn01-Workspace...'. The 'Input folder' is set to 'temp/DEMO'. The 'Data format' is set to 'Delimited text'. Five teal arrows point from the list items on the left to their corresponding fields in the 'Properties' panel.

Properties	
General	Related (0)
<p>i Choose a name for your Database. This name can be updated at any time until it is published.</p>	
Name *	DEMO
Description	
Storage settings for database	
Linked service * ⓘ	demoেকেuwdvlmsyn01-Workspace...
Input folder * ⓘ	temp/DEMO
Data format *	Delimited text



Lake Database

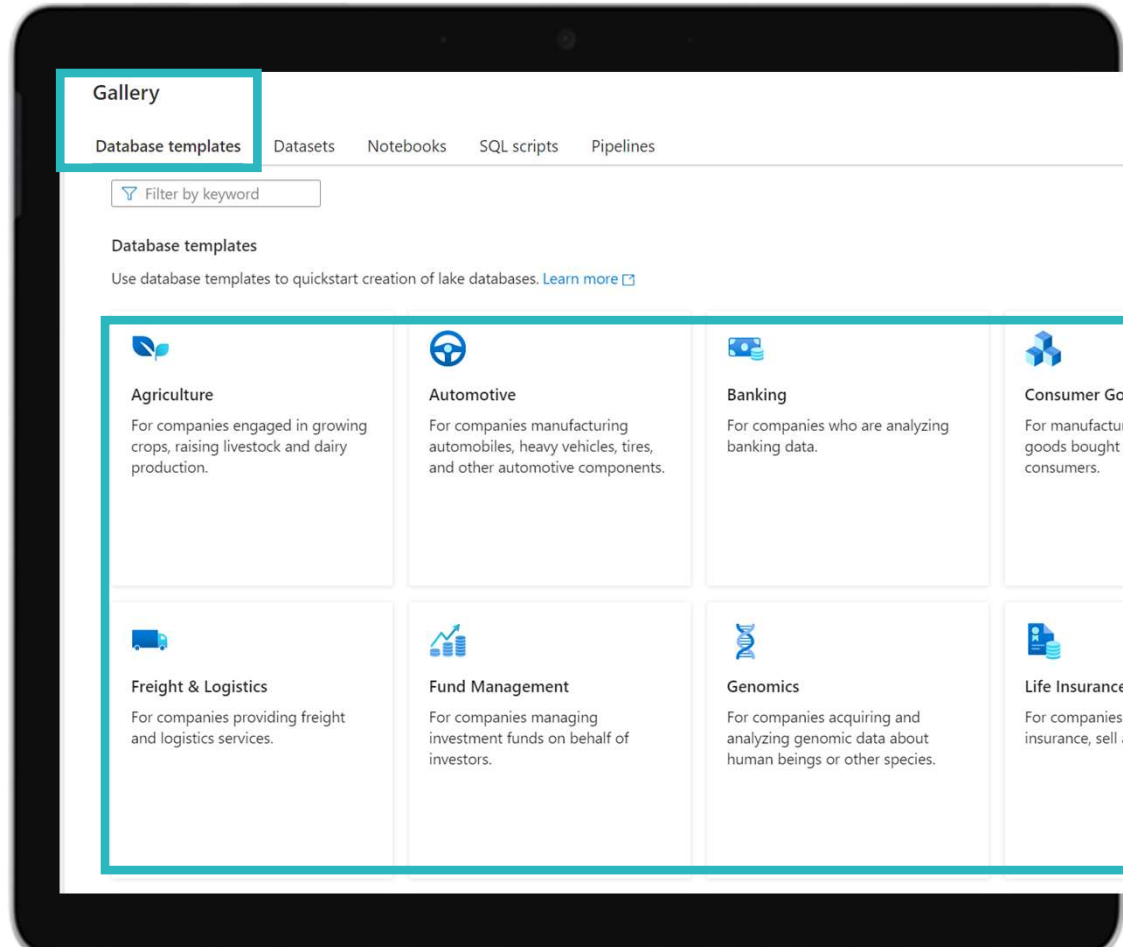
Design Lake Database

❑ Create database

❑ From Database Template

❑ Gallery

❑ Template





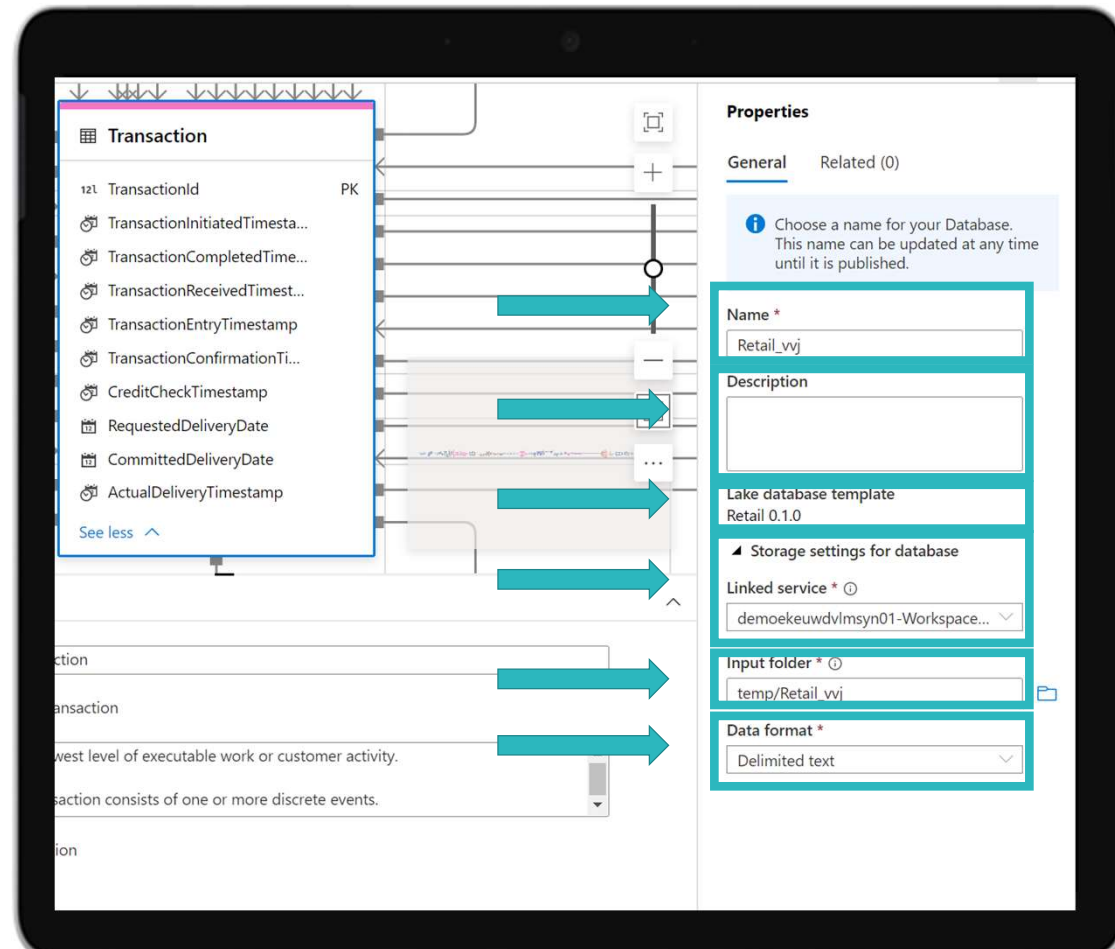
Lake Database

Design Lake Database

❑ Create database

❑ From Database Template

- ❑ Name
- ❑ Description
- ❑ Template version
- ❑ Storage Settings
- ❑ Input Folder
- ❑ Data Format
 - ❑ Delimited text or Parquet



Lake Database

Lake Database

❑ Database Designer

❑ Data Storage

❑ CSV Format

❑ Parquet

❑ Database Compute

❑ Synapse SQL serverless SQL pool

❑ Synapse Apache Spark

❑ Folder Structure

❑ Files

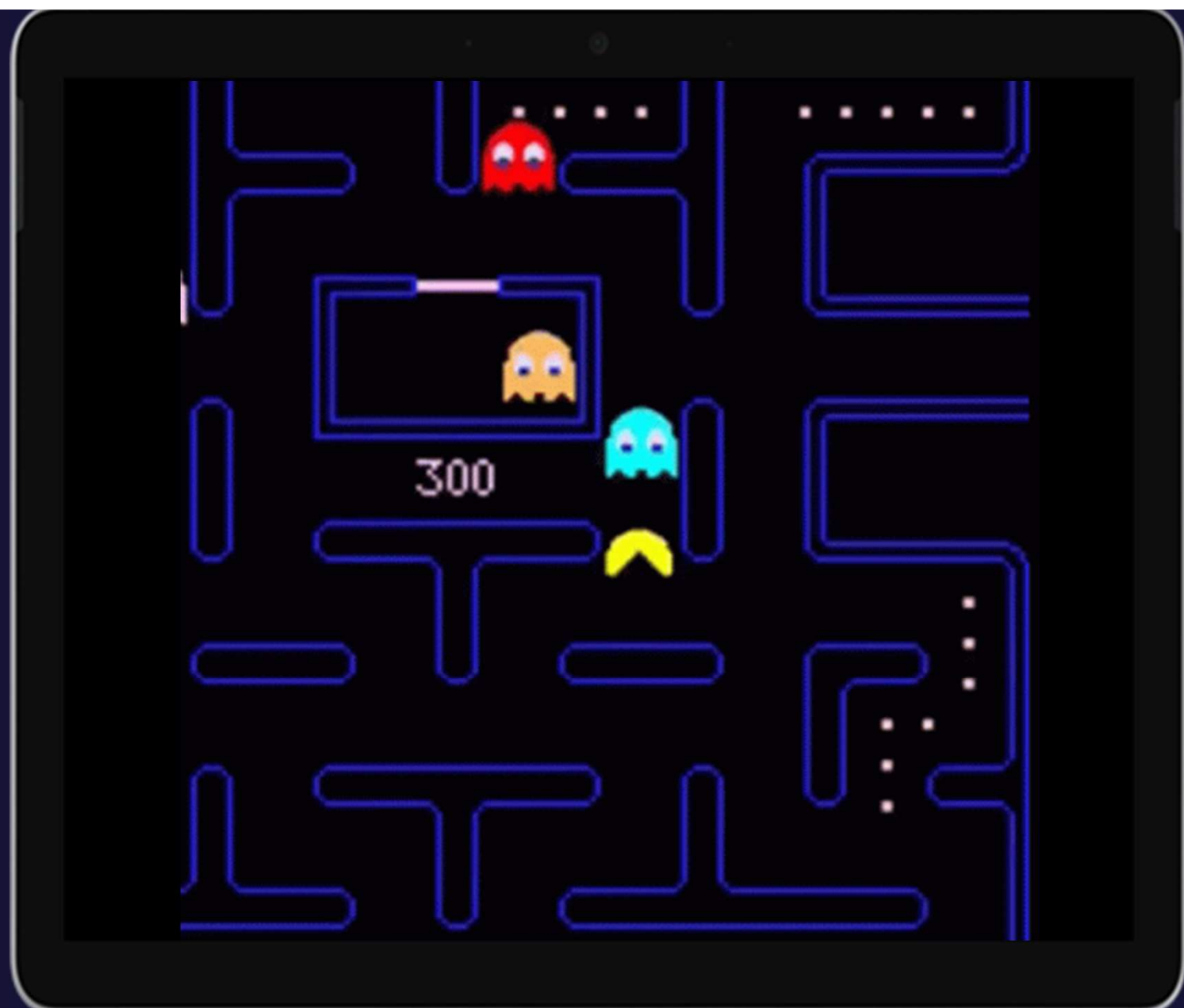


Resource Group Development



Azure Synapse Analytics

Name	Name
<input type="checkbox"/> ChannelType	<input type="checkbox"/> _SUCCESS
<input type="checkbox"/> Country	<input type="checkbox"/> part-00000-7e1d5778-8c97-4ed3-aaf4-f56a48e1f3fc-c000.snappy.parquet
<input type="checkbox"/> Customer	<input type="checkbox"/> part-00000-a4df07be-51b5-4004-93be-a75f8f6ec44b-c000.snappy.parquet
<input type="checkbox"/> IndividualCustomer	<input type="checkbox"/> part-00069-7e1d5778-8c97-4ed3-aaf4-f56a48e1f3fc-c000.snappy.parquet
<input type="checkbox"/> Item	<input type="checkbox"/> part-00069-a4df07be-51b5-4004-93be-a75f8f6ec44b-c000.snappy.parquet
<input type="checkbox"/> Location	<input type="checkbox"/> part-00107-7e1d5778-8c97-4ed3-aaf4-f56a48e1f3fc-c000.snappy.parquet
<input type="checkbox"/> Product	<input type="checkbox"/> part-00107-a4df07be-51b5-4004-93be-a75f8f6ec44b-c000.snappy.parquet
<input type="checkbox"/> ProductCategoryDim	<input type="checkbox"/> part-00128-7e1d5778-8c97-4ed3-aaf4-f56a48e1f3fc-c000.snappy.parquet
<input type="checkbox"/> Territory	<input type="checkbox"/> part-00128-a4df07be-51b5-4004-93be-a75f8f6ec44b-c000.snappy.parquet
<input type="checkbox"/> Transaction	<input type="checkbox"/> part-00140-7e1d5778-8c97-4ed3-aaf4-f56a48e1f3fc-c000.snappy.parquet
<input type="checkbox"/> TransactionLineItem	<input type="checkbox"/> part-00140-a4df07be-51b5-4004-93be-a75f8f6ec44b-c000.snappy.parquet



Lake Database

Map Data

Currently in Preview!

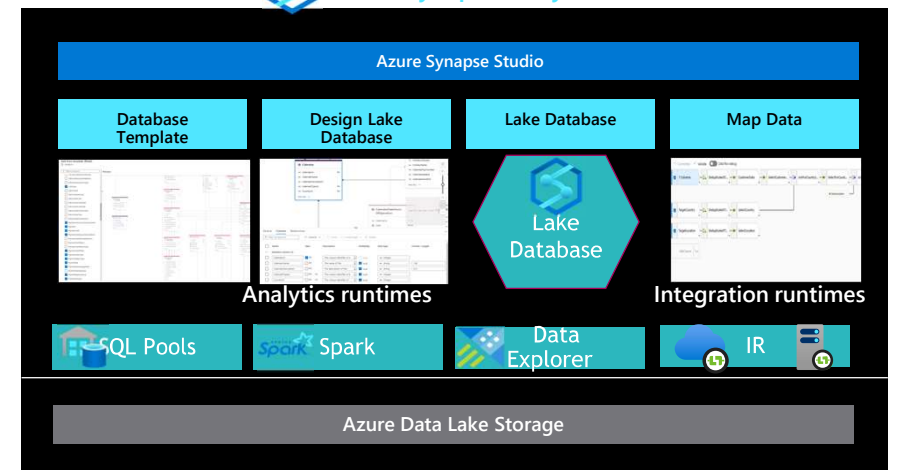
- ❑ Create ETL mapping

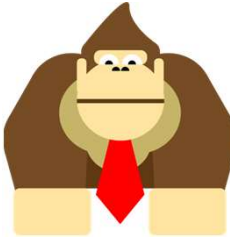


Resource Group Development



Azure Synapse Analytics





Lake Database

Map Data

Currently in Preview!

- ☐ Create ETL mapping
- ☐ Data Flow debug

Turn on data flow debug

The Data Mapping assistant requires an active data flow debug session. Try again when your data flow debug session is active.

Integration runtime
AutoResolveIntegrationRuntime (Managed Virt... ▼

Debug time to live ⓘ
1 hour ▼

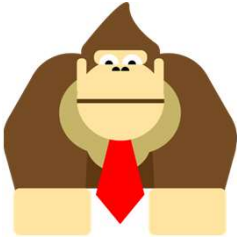
OK Cancel

OrderLines							
OrderLineID	PK						
OrderID							
StockItemID							
Description							
PackageTypeID							
Quantity							
UnitPrice							
TaxRate							

✓ **Map Data**

Data flow debug session is now active, you can open the Data Mapping assistant now.
[Map Data](#)

a minute ago



Lake Database

Map Data

Currently in Preview!

- ❑ Create ETL mapping
- ❑ Data Flow debug
- ❑ Source Type
 - ❑ Lake Database

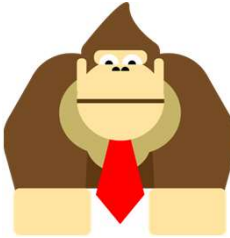
New data mapping

The data mapping assistant allows you to easily map data to any of your Lake Databases. [Learn more](#)

Source type *

Source database *

- LakeDemo
- DemoLake
- DEMO
- Retail_vvj



Lake Database

Map Data

Currently in Preview!

- ☐ Create ETL mapping
- ☐ Data Flow debug
- ☐ Source Type
 - ☐ Lake Database
 - ☐ Data Lake Storage
 - ☐ Common Data Model



New data mapping

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Source type *

 Azure Data Lake Storage Gen2

Source linked service *

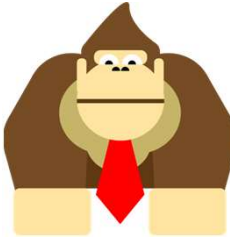
demoeuewdvmsyn01-WorkspaceDefaultStorage

Dataset type *

 Common Data Model

Manifest File * ⓘ





Lake Database

Map Data

Currently in Preview!

- ☐ Create ETL mapping
- ☐ Data Flow debug
- ☐ Source Type
 - ☐ Lake Database
 - ☐ Data Lake Storage
 - ☐ Common Data Model
 - ☐ Delimited Text

New data mapping

The data mapping assistant allows you to easily map data to any of your Lake Databases.
[Learn more](#)

Source type *

Azure Data Lake Storage Gen2

Source linked service *

demoeuewdvImSyn01-WorkspaceDefaultStorage

Dataset type *

DelimitedText

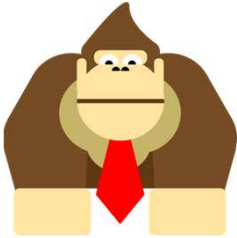
Folder path * ⓘ

☒ First row as header

Column delimiter ⓘ

Comma (,)

☐ Edit



Lake Database

Map Data

Currently in Preview!

- ☐ Create ETL mapping
- ☐ Data Flow debug
- ☐ Source Type
 - ☐ Lake Database
 - ☐ Data Lake Storage
 - ☐ Common Data Model
 - ☐ Delimited Text
 - ☐ Parquet

New data mapping

The data mapping assistant allows you to easily map data to any of your Lake Databases. [Learn more](#)

Source type *

Azure Data Lake Storage Gen2

Source linked service *

demoeuewdvlsyn01-WorkspaceDefaultStorage

Dataset type *

Parquet

Folder path * ⓘ

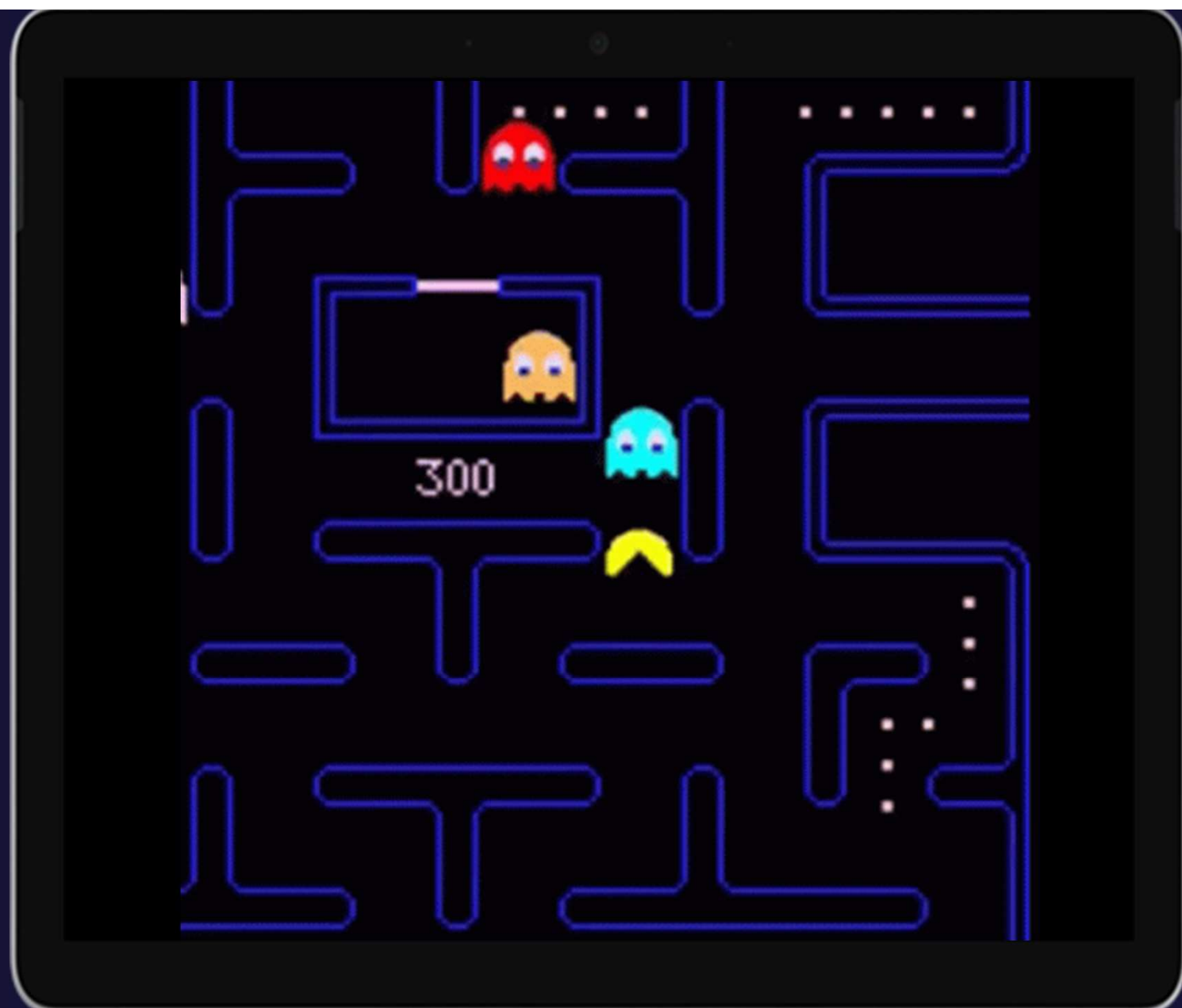
Compression ⓘ

None

None

GZip

Snappy

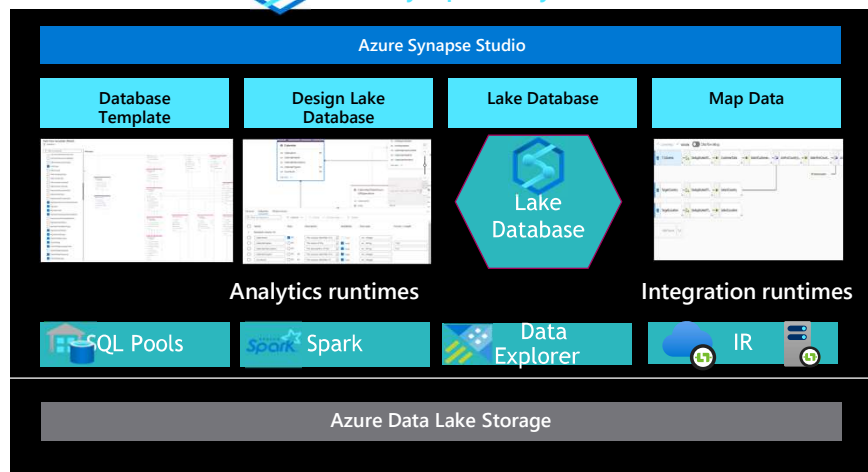




Resource Group Development



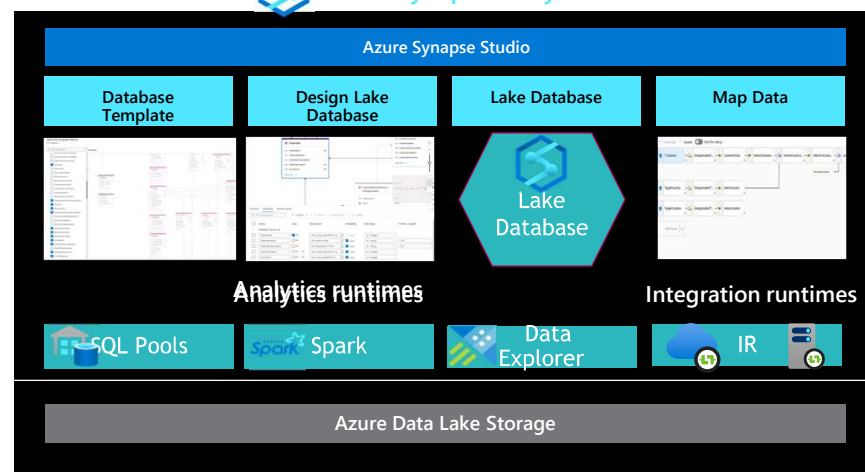
Azure Synapse Analytics



Resource Group Production



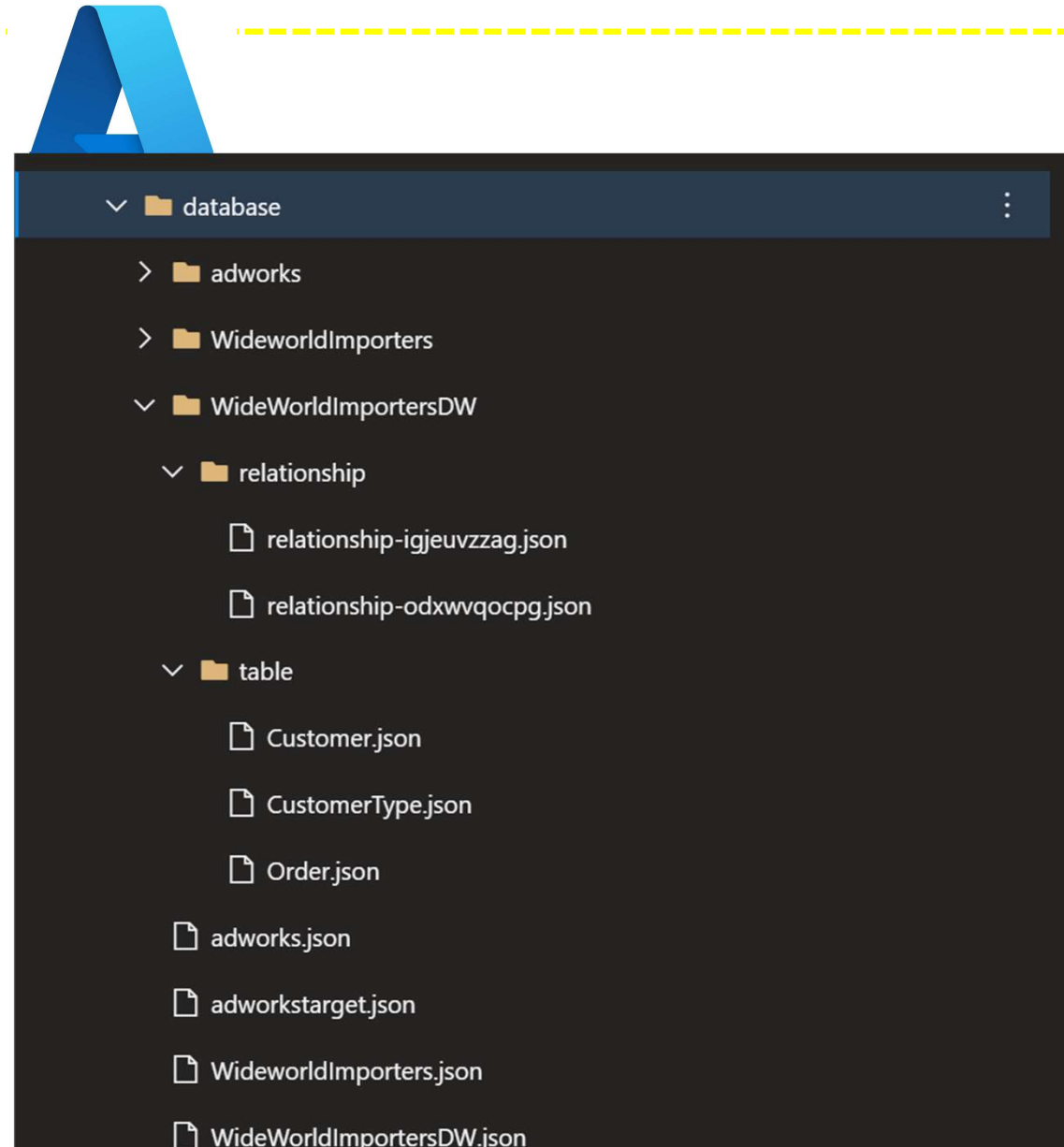
Azure Synapse Analytics



Lake Database

Azure Dev Ops

- ❑ Connect to Dev Ops
- ❑ Lake Database Entity's
- ❑ Linked Service will automatically change



Lake Database

Power BI

- ❑ Connect to Power BI
- ❑ New connector
- ❑ Azure Synapse Analytics Workspace (beta)
- ❑ Relationship from template will be taken over

Get Data

×

All

Azure

All

Azure Synapse Analytics SQL

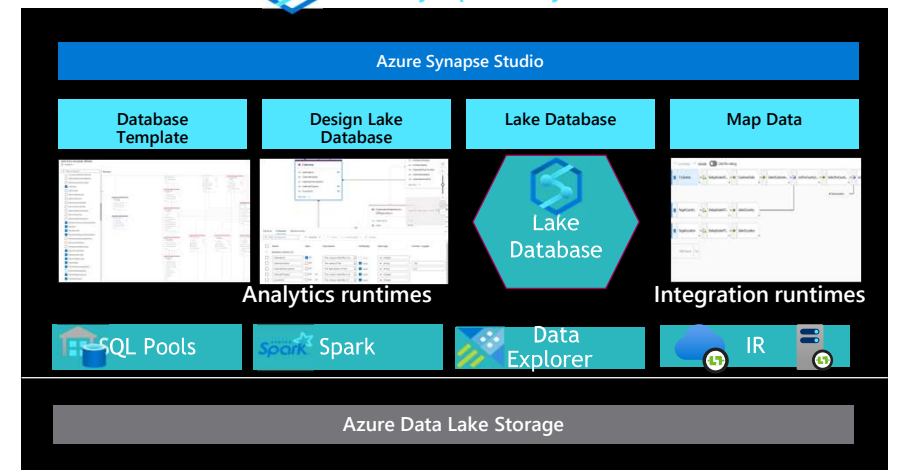
Azure Synapse Analytics workspace (Beta)



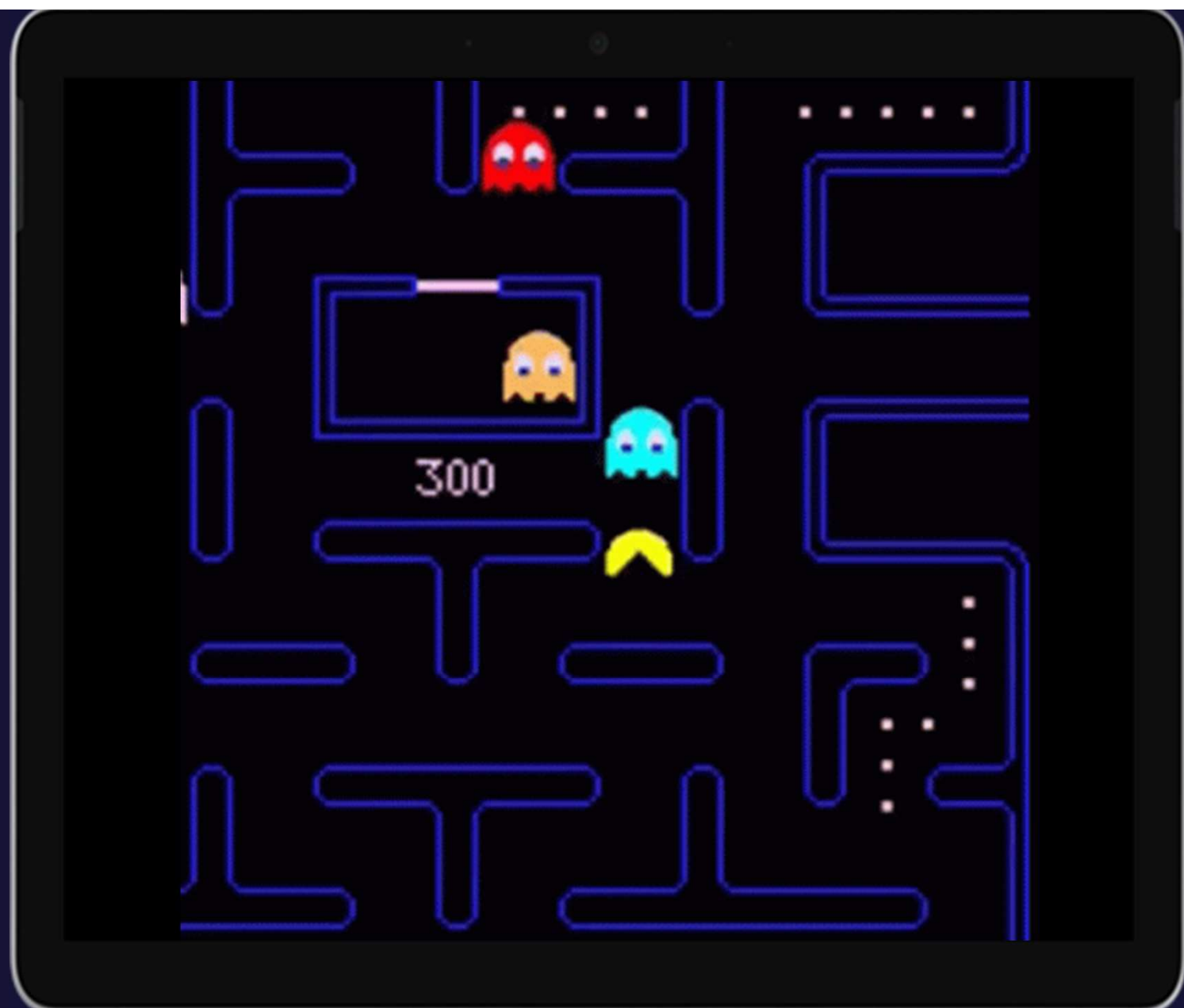
Resource Group Development



Azure Synapse Analytics



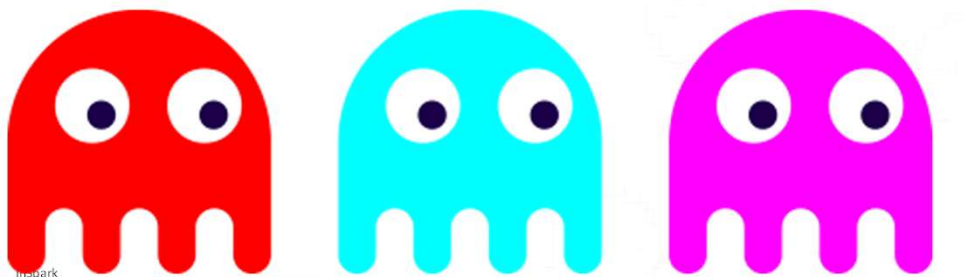
INSARK



Lake Database

Remarks

- ☐ Azure Purview will scan your Lake Database
- ☐ Publish before you connect
- ☐ Lake Database as source is not working (Yet)
- ☐ Map Data is in Preview





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* Nigel Frank Microsoft Azure Salary Survey (June 2020) <https://www.nigelfrank.com/microsoft-azure-salary-survey/>

Lake Database

Feedback

📄 <https://sqlb.it/?7314>



Questions?



<https://erwindekrek.com>



@erwindekrek

<https://sqlb.it/?7314>



<https://www.linkedin.com/in/erwindekrek/>

Slides will be available on my blog and SQLBITS

