



A Case Study – Data Driven Workflow using Azure Data Factory Azure Function and Logic Apps

About Me



Alpa Buddhahatti

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GitHub Repo:

[alpaBuddhabhatti/DataWeekender2022](https://github.com/alpaBuddhabhatti/DataWeekender2022)
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YouTube Resources:

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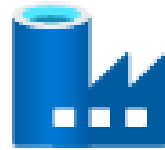


Agenda

1. Azure Data Factory overview
2. Azure Function overview
3. Azure Logic Apps overview
4. Demo -

Case Study – using Azure Data Factory Azure Function and Logic Apps

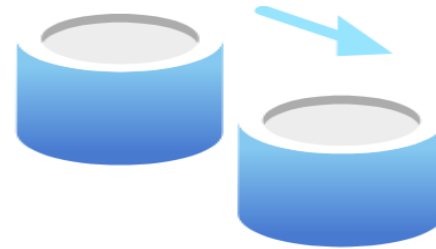




1. Azure Data Factory overview

What is Azure Data Factory(ADF)?

A cloud-based data integration service that orchestrates and automates the movement and transformation of data



What is Azure Data Factory(ADF)?

- ✓ Azure Platform as a Service (PaaS)
- ✓ It is Serverless
- ✓ Only pay for what you have use
- ✓ Low-code and no-code Solutions

<https://azure.microsoft.com/en-gb/services/data-factory/>



What are Key Components of ADF?

1 Linked services

2 Datasets

3 Activities

4 Pipelines

5 Triggers





2. Azure Functions

What is Azure Function?

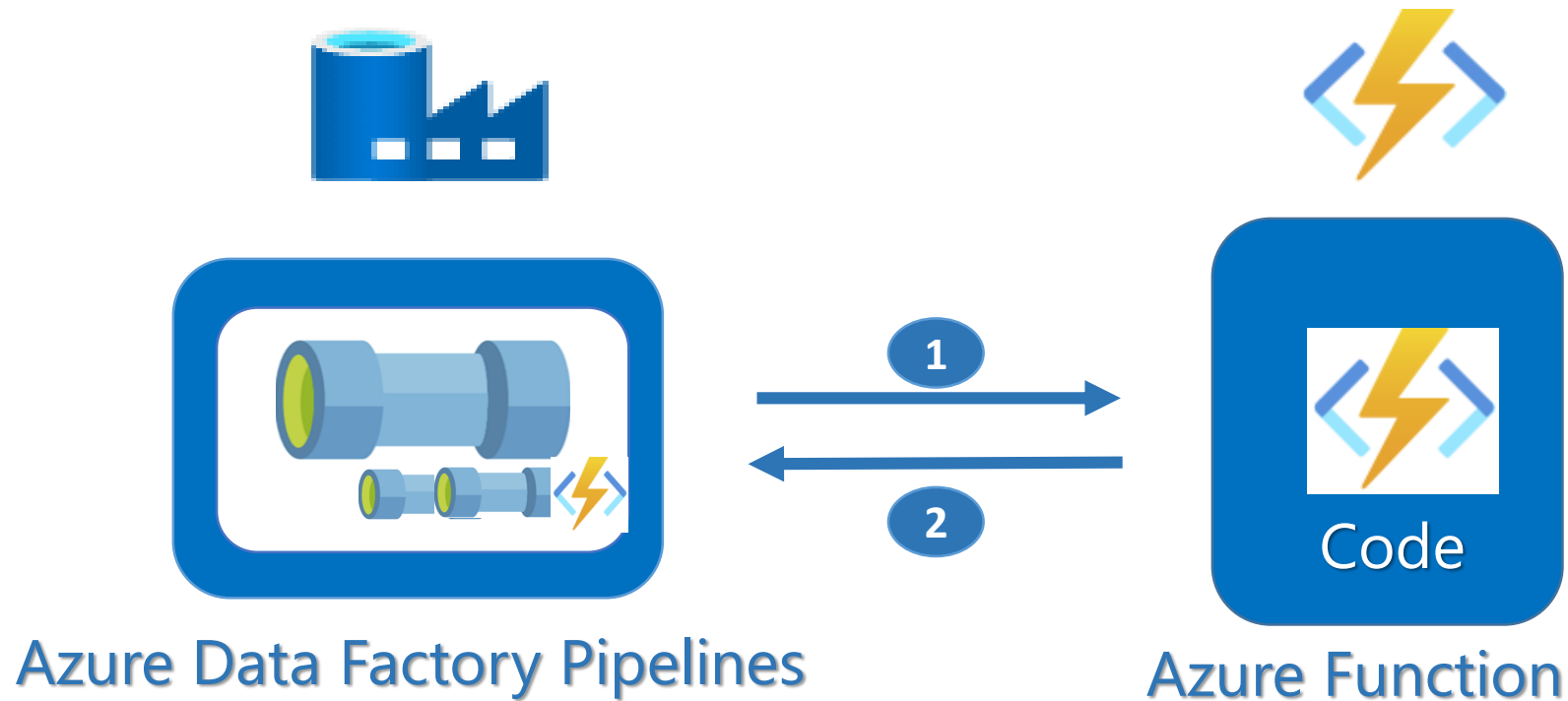
Azure functions is a solution for easily running small pieces of code in the cloud or "functions," in the cloud.

1. Event driven
2. Serverless and PaaS
3. Scalable
4. Lightweight



[Azure Functions serverless compute | Microsoft Azure](#)

How Azure Function integrate with ADF?





3. Azure Logic Apps

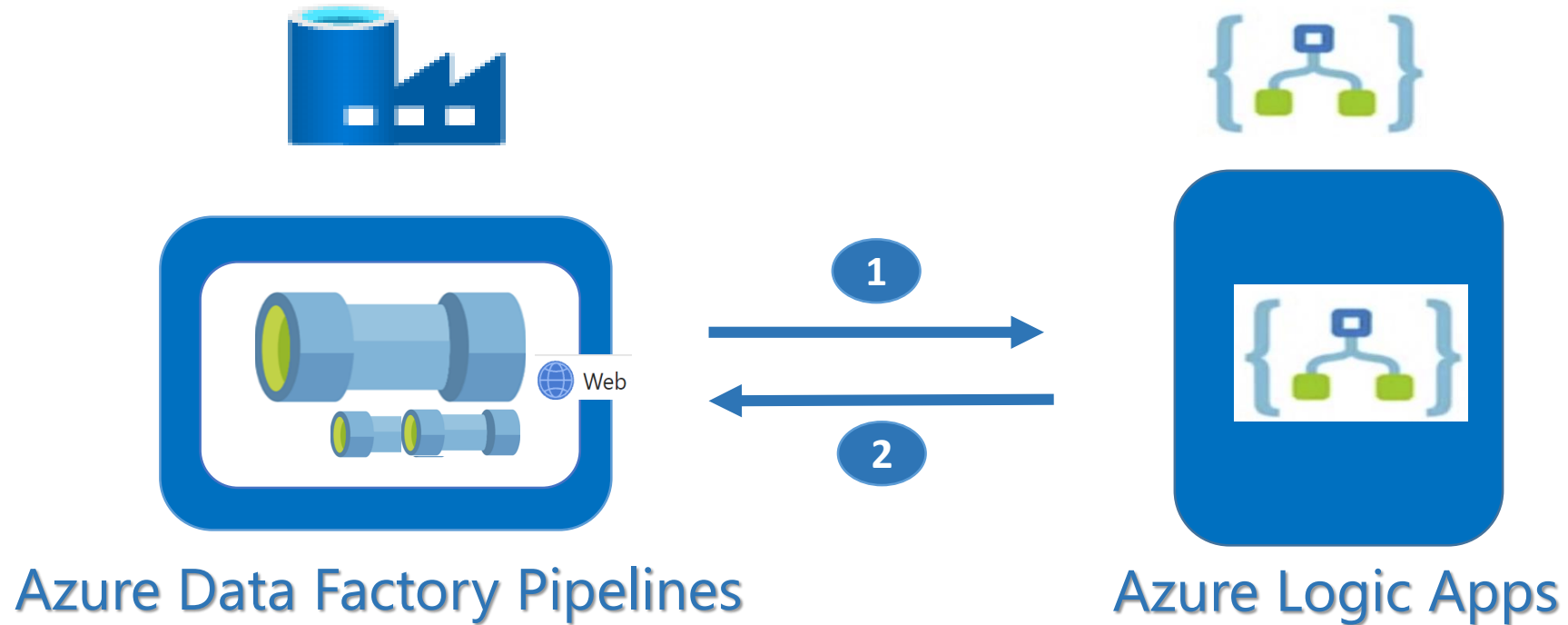
What is Azure Logic Apps?

A cloud-based integration service for creating and running automated workflows that integrate your apps, data, services, and systems.



[Overview for Azure Logic Apps - Azure Logic Apps | Microsoft Docs](#)

How Azure Logic Apps integrate with ADF?





4. Demo

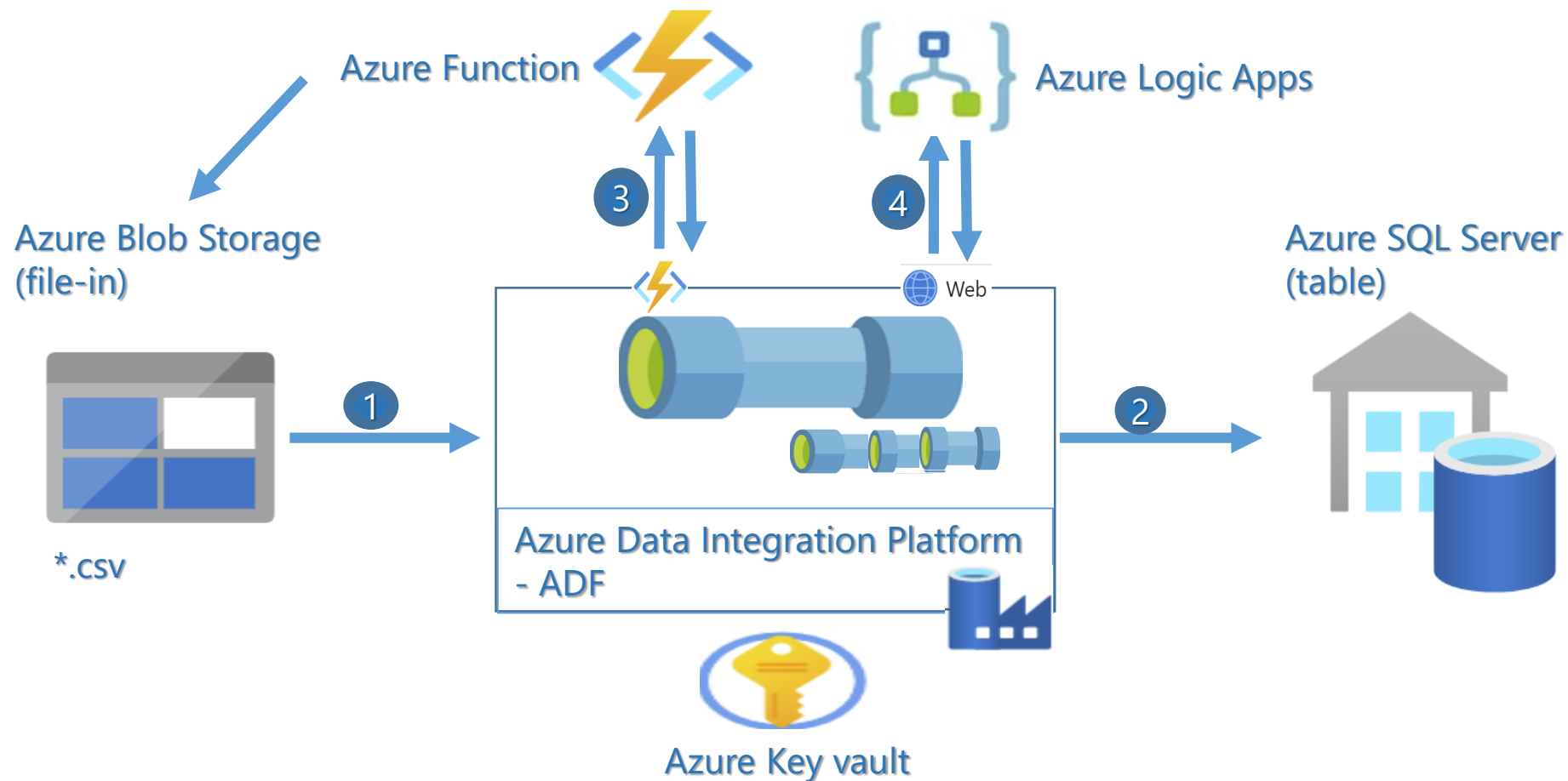
Problem statements

1. Existing on-premise system, have following features
 - Data Movement and Data transformation
 - Image resizing
 - Manifest file creation with Etag, Record Count and File name
 - Customized Email Functionality
2. New Data Integration system on Azure Cloud
 - Data Movement and Data transformation(Azure Data Factory)
 - Image resizing (Azure Function)
 - Manifest file creation with Etag, Record Count and File name(Azure Function)
 - Customized Email Functionality (Azure Logic Apps)



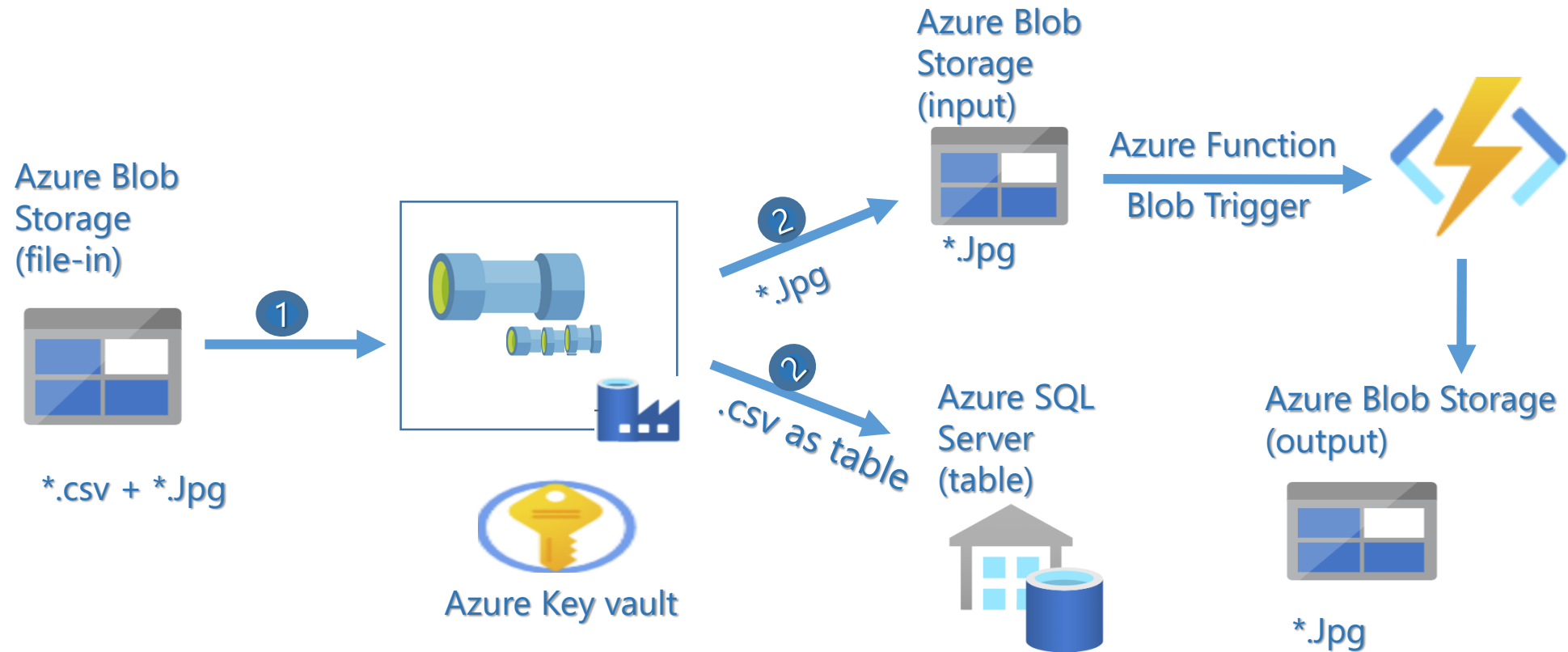
High Level Design – DEMO 1

Solution : ADF + Azure Function + Logic Apps



High Level Design –DEMO 2

Solution : ADF + Azure Function + Logic Apps



DEMO - Resources

Moving Data, Resizing Images, Creating Manifest Files , Sending an Email storing result to SQL Server

Following Azure resources needed per environment

- Azure Resource group
- Azure Data factory
- Azure Blob Storage
- Azure SQL Server
- Azure Key Vault
- Azure Functions
- Azure Logic Apps



Conclusion

1. Azure Data Factory

- Cloud based data integration
- No code Low or code solution
- PaaS
- Serverless

3. Azure Logic Apps

- Event driven
- No code or Low code
- Integration solution
- Serverless

2. Azure Functions

- A small piece of code in cloud
- Integration solution
- Event driven
- Serverless compute service



Thank you



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Questions!!!



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