



Azure User Group Manila

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Virtual Session 2020



# Marilag Dimatulac

SOLUTIONS ARCHITECT

Dewise ApS  
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## Event Driven Microservices



# Session Goals

Understand Event-Driven patterns and build simple serverless microservices on Azure



# Modern Application Landscape

- Microservice vs Monolithic
- Cloud Native
- IaaS, Containers, PaaS, Serverless



# Challenges

- Complexity of Distributed Applications
- Communication
- Data Consistency
- End to End Tracing
- Scaling



# Event Driven Flavors

- Notification
- Event Carried State Transfer
- Event Sourcing

<https://martinfowler.com/articles/201701-event-driven.html>



# Event Messaging Platform

| Service              | Purpose                         | When to Use  |
|----------------------|---------------------------------|--|
| Event Grid           | Reactive programming            | React to status changes, Pub/Sub Notification        |
| Event Hub            | Big data pipeline               | Telemetry and distributed data streaming             |
| Service Bus          | High-value enterprise messaging | Order processing, durable transactions & integration |
| Storage Queue        | Cost-effective messaging        | Simple Inter-service communication, Load balancing   |
| CosmosDB Change Feed | Database event triggered        | Update data, execute logic after a db operations     |



# Demo: Reliefie





# Motivation

- Visualize the number of people who have received relief goods in each city
- Accessible and easy to use
- Anonymized and secured

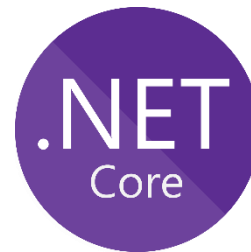
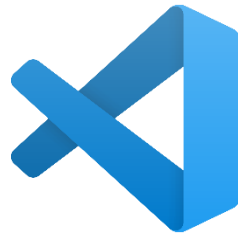


# Feature

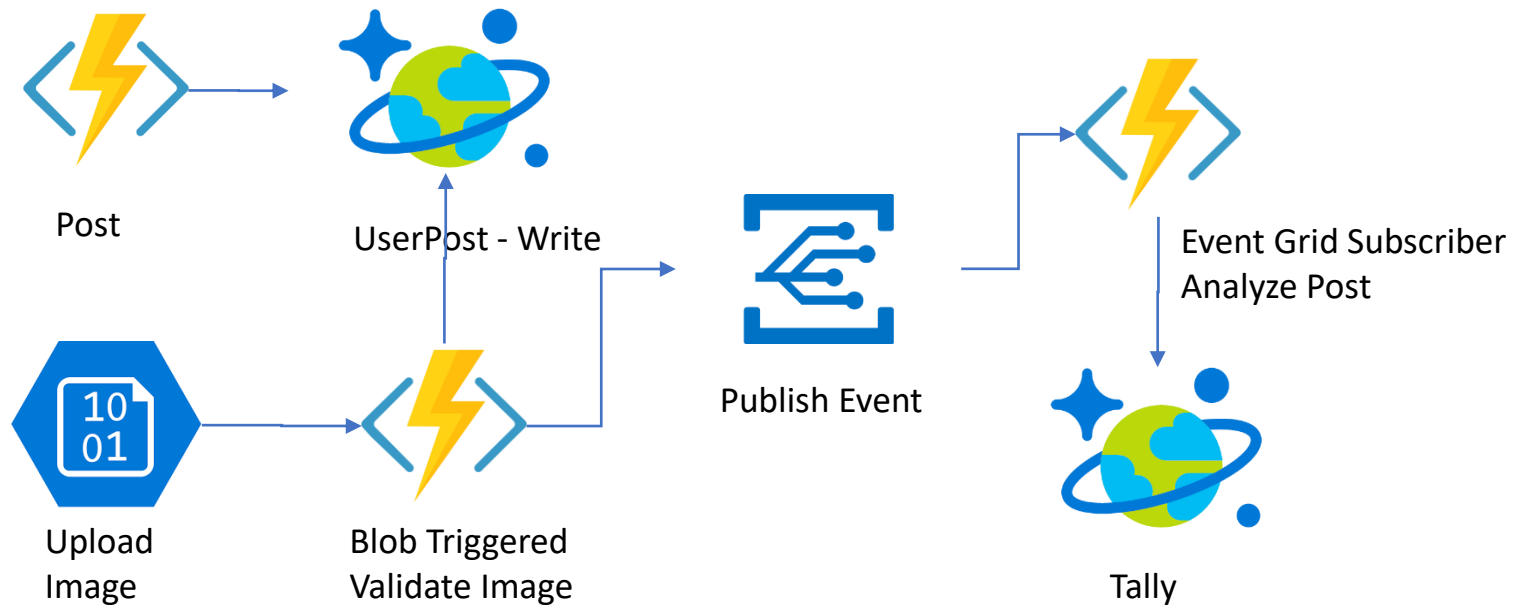
- Upload a selfie when you receive your relief package
- Use browser location to determine the coordinates of the post
- Analyze posts and validate accuracy
- Visualize results on a heatmap



# Building Blocks & Tools



# Building Blocks & Tools



# Summary

- Event Driven Pattern mimicks real world and is easy to understand
- Beware of the challenges with implementing new patterns
- Combine different Azure services to create simple yet resilient applications



# Code with me

<https://github.com/marilag/reliefie>





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## Event Driven Architecture

