

# Modern serverless deployment in Azure

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# WHOAMI

## Obecnie:

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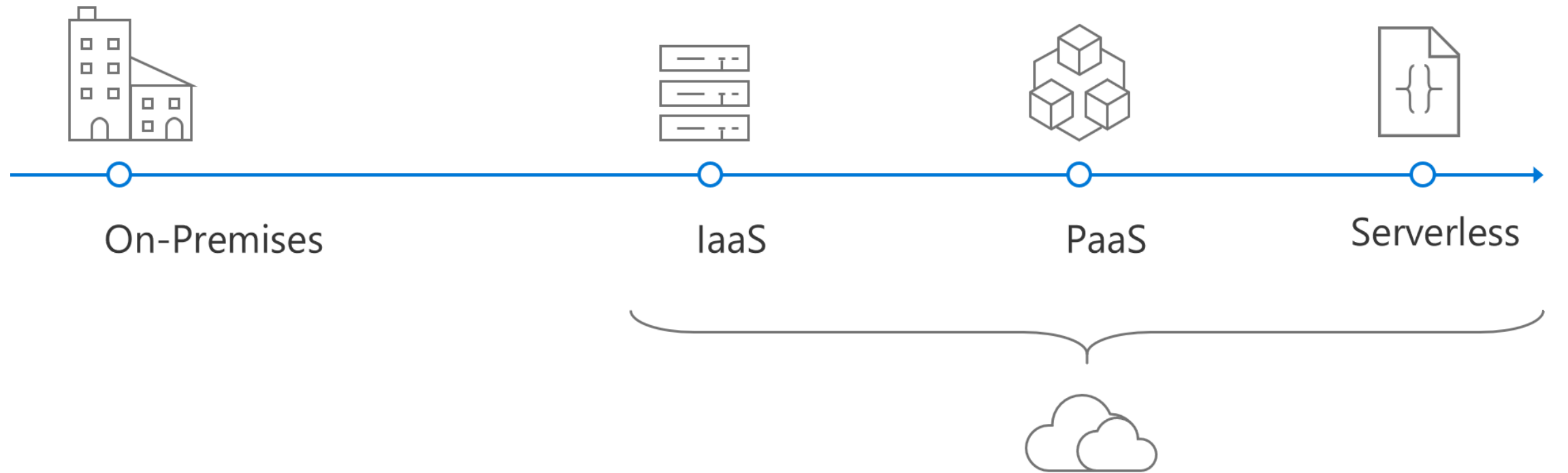
## Po pracy:

Pasjonat lotnictwa,  
Zapalony Azurowiec,



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# Evolution of cloud platforms

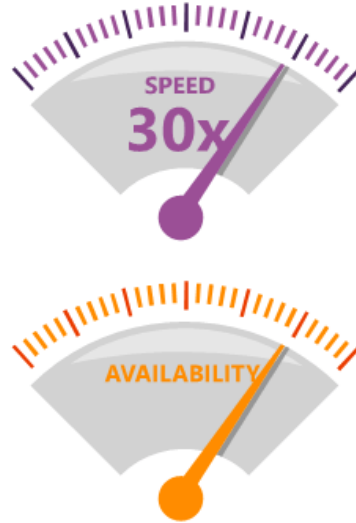


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# What is serverless



Abstraction  
of servers



Event-driven/  
instant scale



Sub-second  
billing

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# Serverless in Azure ?



Storage



Functions



Logic App



Media Services



Cortana  
Management Suite



App Service



Document DB



CDN



Machine Learning



OMS  
Management Suit



Visual Studio  
Services



Traffic  
Manager



Active Directory



Key Vault



App Insights



Cognitive Services



Embedded Power BI



Search



IoT Hub



Service Bus



Notification Hub



Stream Analytics



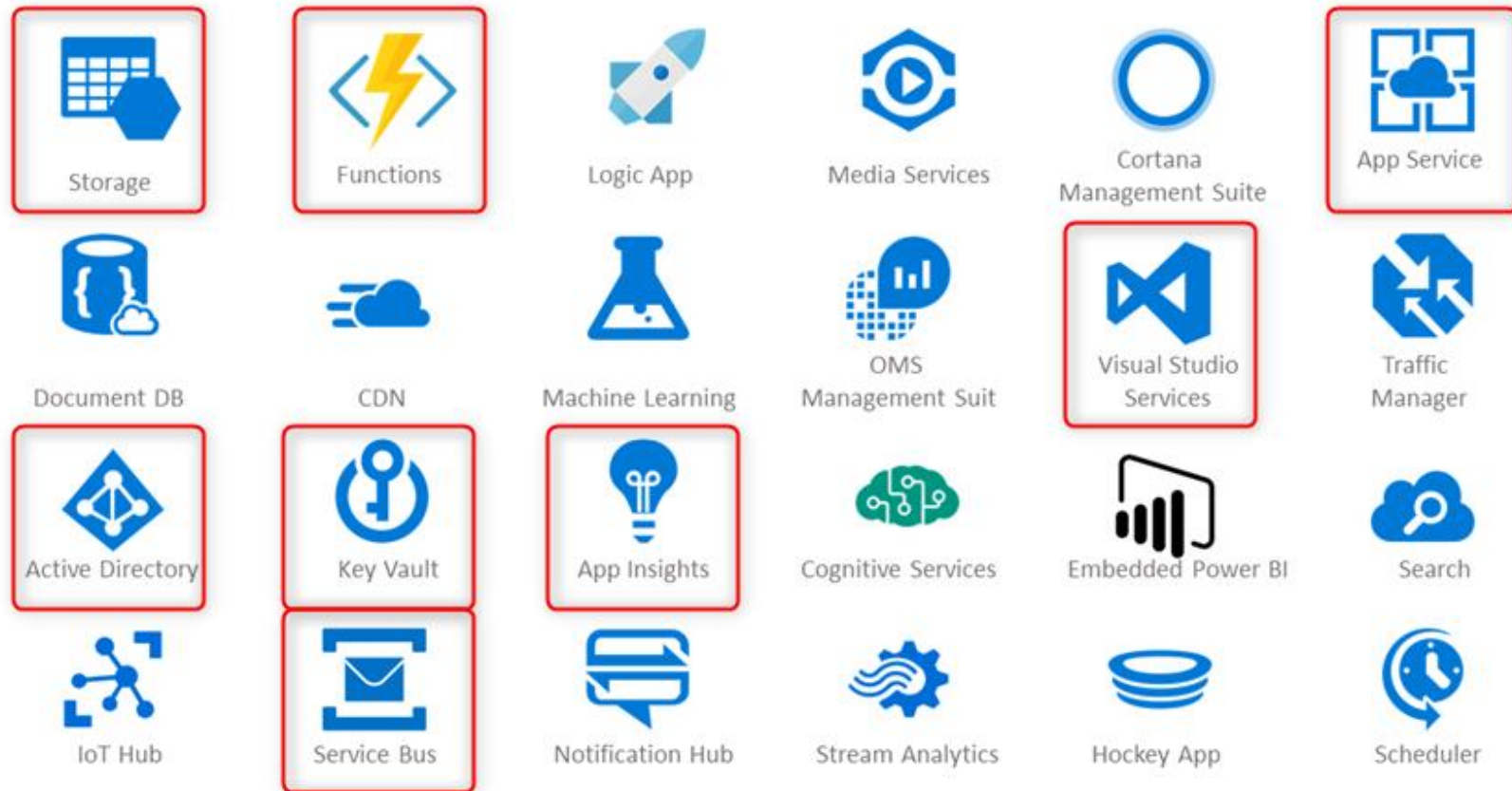
Hockey App



Scheduler

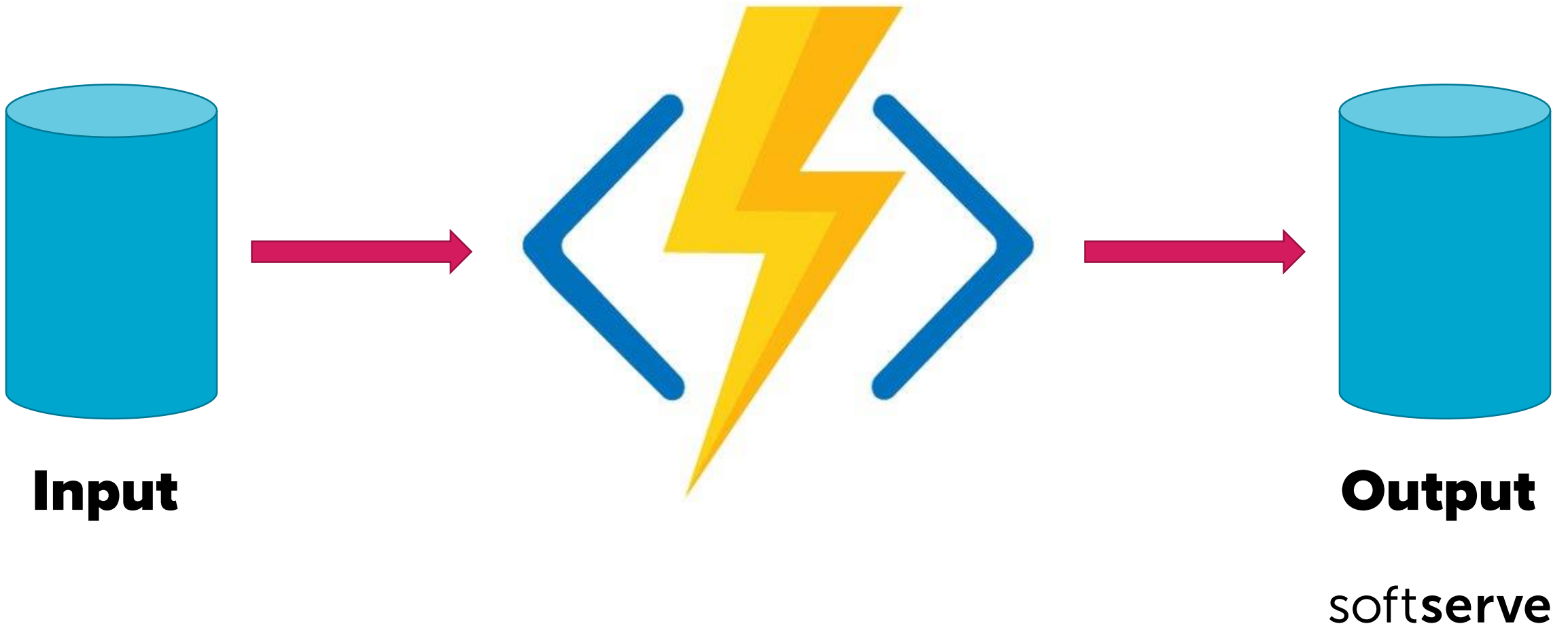
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# Serverless in Azure ?



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# Azure functions



# Hosting plan comparison

Resource	Consumption plan	Premium plan (peview)	App Service plan
Scale out	Event driven	Event driven	Manual/autoscale
Max instances	200	20	10-20
Default time out duration (min)	5	30	302
Max time out duration (min)	10	unbounded	unbounded3
Max outbound connections (per instance)	600 active (1200 total)	unbounded	unbounded
Max request size (MB)4	100	100	100
Max query string length4	4096	4096	4096
Max request URL length4	8192	8192	8192
ACU per instance	100	210-840	100-840
Max memory (GB per instance)	1.5	3.5-14	1.75-14
Function apps per plan	100	100	unbounded5
App Service plans	100 per region	100 per resource group	100 per resource group
Storage6	1 GB	250 GB	50-1000 GB
Custom domains per app	5007	500	500
Custom domain SSL support	unbounded SNI SSL connection included	unbounded SNI SSL and 1 IP SSL connections included	unbounded SNI SSL and 1 IP SSL connections included

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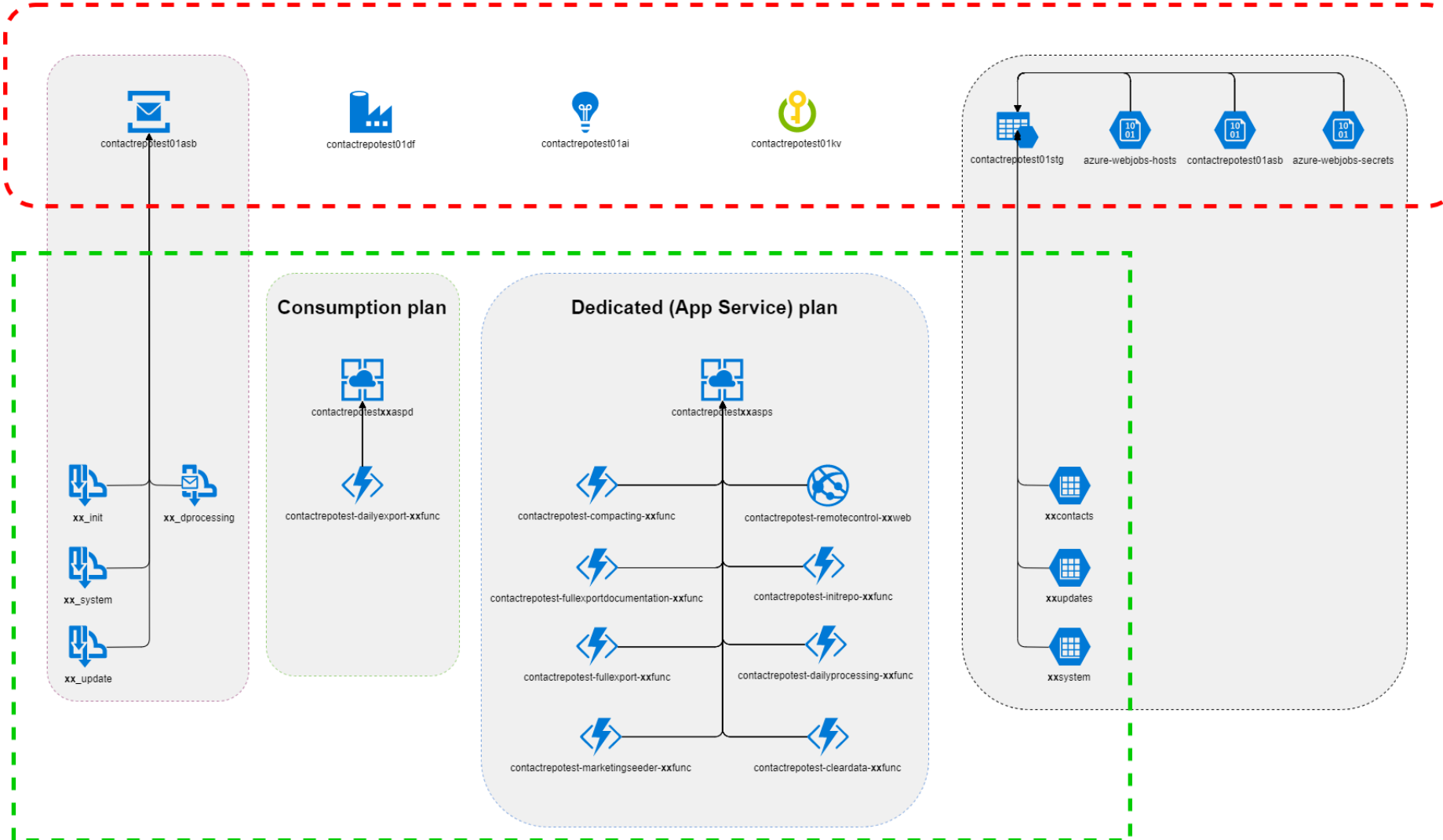
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# Resource Group

Dedicated per Market

Shared per RG

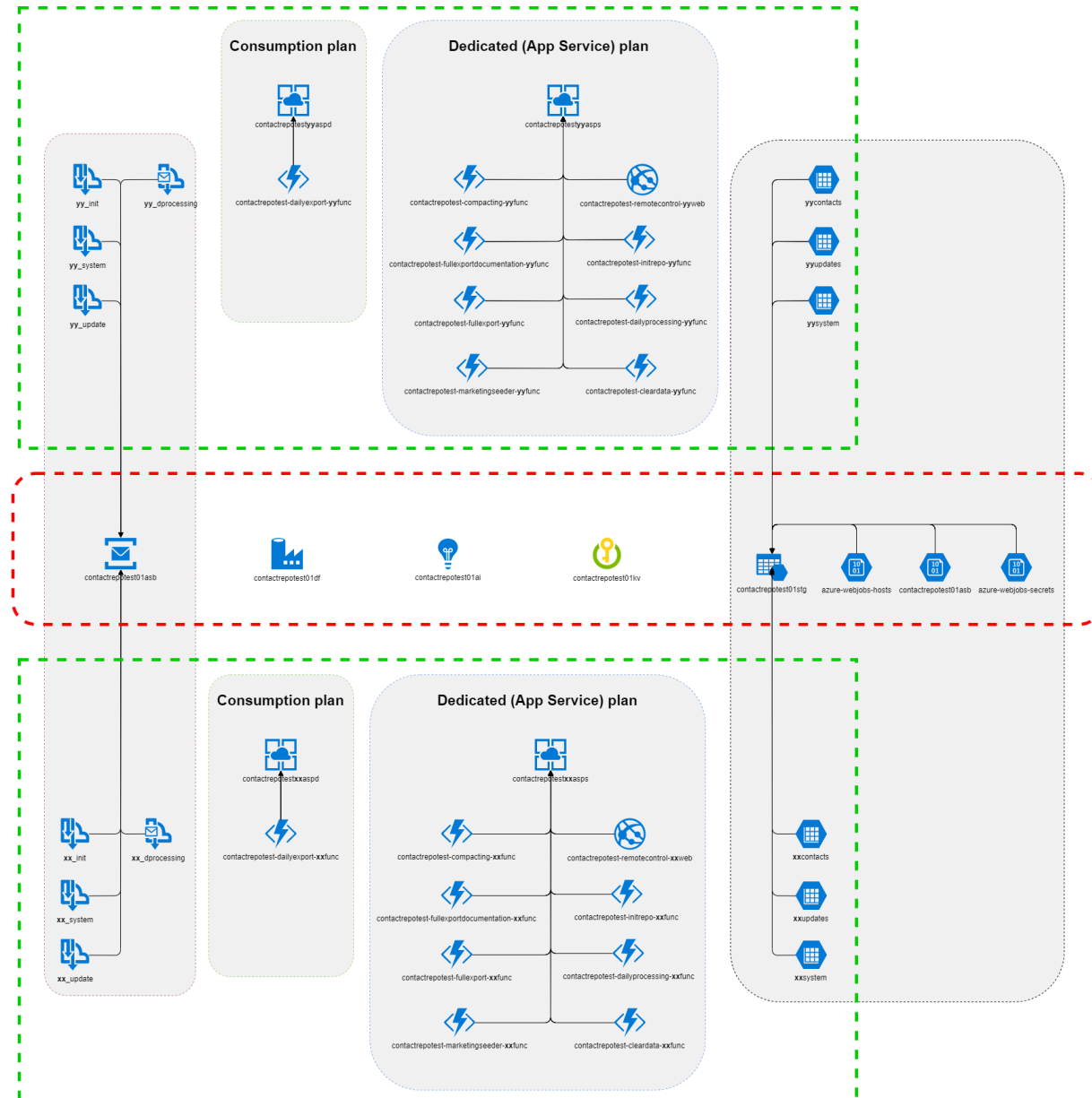


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# Resource Group

- Dedicated per Market
- Shared per RG



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**Is this possible?**



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# Who know the answer?



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**ARM shared resources**

**(IaC)**



**ARM function app**



**ARM datafactory**



**ARM web app**

**Infrastructure as Code**

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# Hello Azure DevOps

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# Azure DevOps



## Azure Boards

Dostarczaj wartość użytkownikom szybciej, korzystając ze sprawdzonych narzędzi Agile do planowania, śledzenia i omawiania postępów prac wszystkich zespołów.

[Dowiedz się więcej >](#)



## Azure Test Plans

Testuj swobodnie i dostarczaj rozwiązania za pomocą zestawu narzędzi do testowania ręcznego i eksploracyjnego.



## Azure Pipelines

Kompiluj, testuj i wdrażaj, korzystając z systemu ciągłej integracji/ciągłego wdrażania, który umożliwia pracę w dowolnym języku, z dowolną platformą lub chmurą. Połącz się z serwisem GitHub lub innym dostawcą usługi Git, aby zapewnić ciągłe wdrażanie.

[Dowiedz się więcej >](#)



## Azure Repos

Uzyskaj nielimitowane, hostowane w chmurze repozytoria Git i wspólnie twórz lepszy kod, korzystając z żądań ściągnięcia i zaawansowanego zarządzania plikami.

[Dowiedz się więcej >](#)



## Azure Artifacts

Twórz i hostuj pakiety, udostępniaj je członkom zespołu i dodawaj artefakty do potoków ciągłej integracji/ciągłego wdrażania za pomocą jednego kliknięcia.

## Rozszerzenia w witrynie Marketplace

Uzyskaj dostęp do rozszerzeń, takich jak Slack, SonarCloud i 1000 innych aplikacji i usług tworzonych przez społeczność.

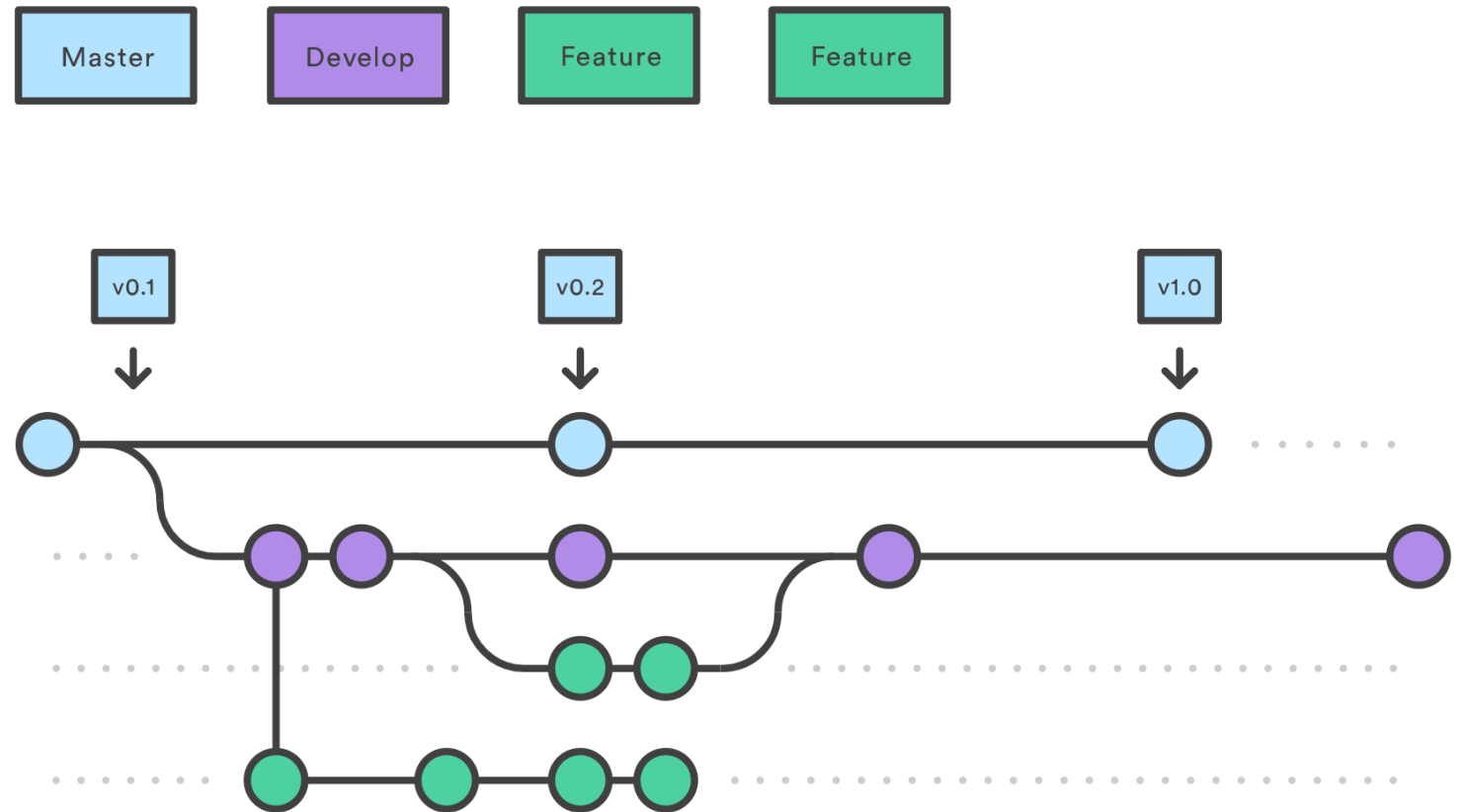
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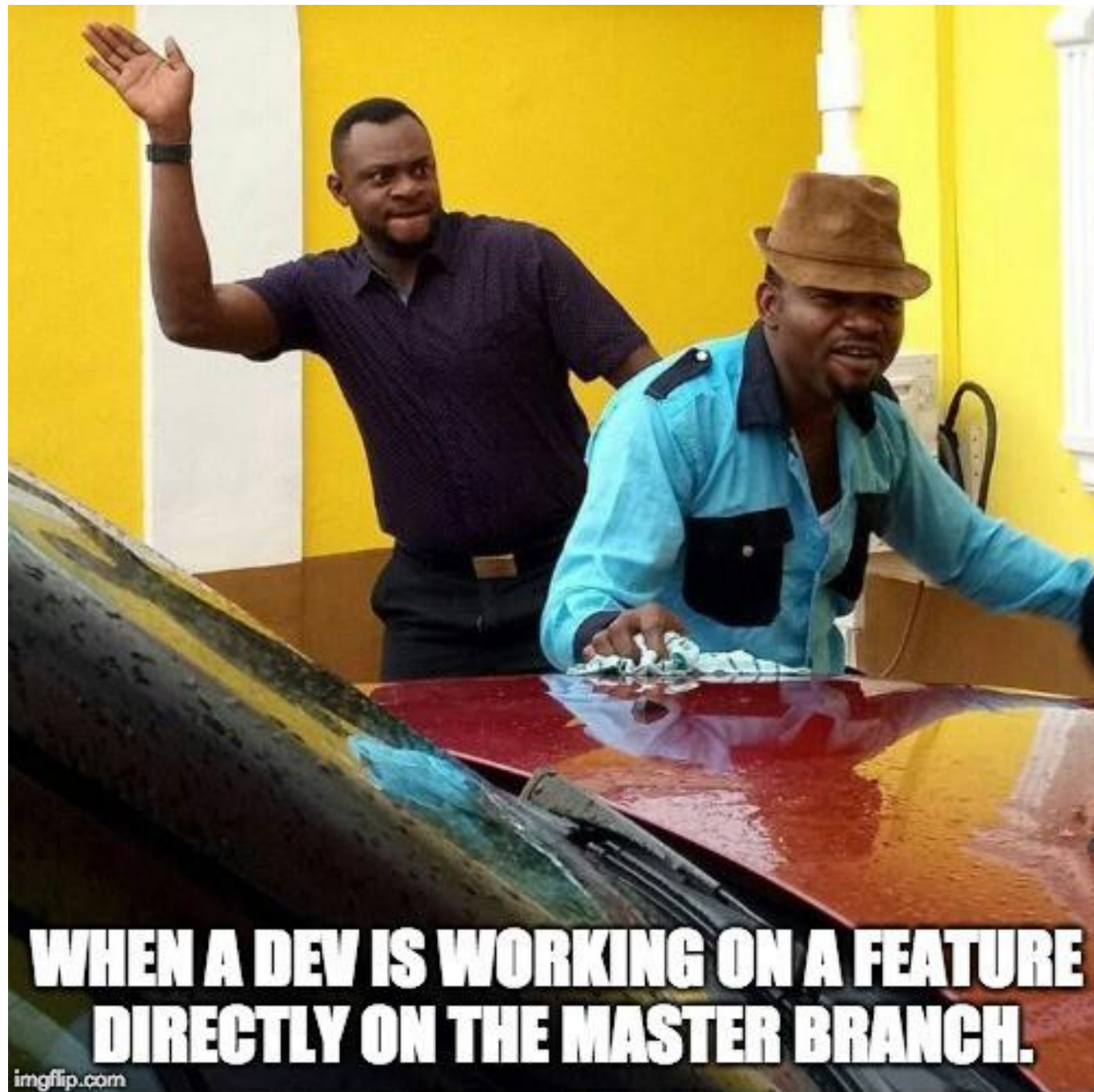
# Azure repos & GIT branching model (gitflow)

Do każdego „task’a” tworzony jest „feature branch” z „master branch”.

Gdy „task” jest zakończony scalany jest z „master branch” przez „pull request”.



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# Branch policies

## Protect this branch

- Setting a Required policy will enforce the use of pull requests when updating the branch
- Setting a Required policy will prevent branch deletion
- Manage permissions for this branch on the [Security page](#)

### ☒ Require a minimum number of reviewers

Require approval from a specified number of reviewers on pull requests.

Minimum number of reviewers

- ☐ Requestors can approve their own changes
- ☐ Allow completion even if some reviewers vote to wait or reject
- ☐ Reset code reviewer votes when there are new changes

### ☒ Check for linked work items

Encourage traceability by checking for linked work items on pull requests.

Policy requirement

- ☒ Required  
Block pull requests from being completed unless they have at least one linked work item.
- ☐ Optional  
Warn if there are no linked work items, but allow pull requests to be completed.

### ☒ Check for comment resolution

Check to see that all comments have been resolved on pull requests.

Policy requirement

- ☒ Required  
Block pull requests from being completed while any comments are active.
- ☐ Optional  
Warn if any comments are active, but allow pull requests to be completed.


### ☐ Limit merge types

Control branch history by limiting the available types of merge when pull requests are completed.

## Build validation

Validate code by pre-merging and building pull request changes

+ Add build policy

Build pipeline	Requirement	Path filter	Expiration
 Build-validation	Required	No filter	Strict expiration

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# What next ?

- Tests,
  - For developed code,
  - ARM templates (pester),
- Moving application settings secrets to keyvault,
- Monitoring and auto scaling,
- Continuous automation,

# Questions ???



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# Usefull url's:

- <https://www.linkedin.com/in/jakubpodoba/>
- <https://docs.microsoft.com/pl-pl/azure/azure-functions/functions-scale>
- <https://www.atlassian.com/git/tutorials/comparing-workflows/gitflow-workflow>
- <https://dzone.com/articles/introduction-to-azure-pipelines>
- <https://docs.microsoft.com/en-us/azure/devops/user-guide/?view=azure-devops>

# Thank you for your attention



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