<https://charbelnemnom.com/passed-exam-az-400-microsoft-certified-azure-devops-engineer-expert/>

Lead time: total time from creation of work items (like backlog) to completion

Cycle time: total time to complete work once they are marked active

Burndown: provide view on work remaining

Burnup: trend on completed work

Velocity: how much work can complete during a sprint

Cumulative flow diagram: for count of work items (over time) for each column Kanban board

# App insight

Funnels: see if users are completing multiple stages

User Flows: where users churn the most from your site? What do users click on page? How users navigate away from page?

Impact: are page load time affecting user’s decision

Cohorts: a set of users, sessions, events, or operations that have something in common

Retention: how many users return to app

# Load balancer

Standard supports HTTPS probe

Use azure traffic manager for dns load balancing

# Github

Connect github from azure boards need Project Administrator Group and Project’s Contributor Group

# Azure Artifact

To share powershell script, create PAT, create new feed in artifact, create package and send to artifact feed

# Database

Create DACPAC to deploy schema related changes, use azure sql database deployment task

# ARM template

1. Add task to run powershell script or
2. Add tasks to copy and deploy tasks

az **keyvault** create –name “whizlabs-vault” …..

az **keyvault secret** set –vault-name “whizlab-vault” –name “vmpassword” ….

New-AzWebApp -ResourceGroupName $rg-name -Name $webappname….

New-AzWebAppSlot -ResourceGroupName $rg-name -Name $webappname…

Invoke-AzResourceAction ResourceGroupName $rg-name -ResourceType Microsoft.Web/sites/slots …

# IAM

Text, application

Description automatically generated with medium confidence

Only Administrator can add agent machines to agent pool.

# Source Control integration Azure Automation

Configure source control integration in Azure Automation to keep runbooks.

Use black duck to ensure open source libraries comply with company’s licensing standards.

# AKS

To deploy app to cluster using devops, need to 1. Create new SPN, 2. Add Helm package and deploy task to deployment pipeline, 3. Configure RBAC roles in cluster.

If cluster need access SMB file share, in yaml use Kubernetes.io/azure-file

If cluster need access disk, in yaml use Kubernetes.io/azure-disk

If cluster need access X.509 cert, use azurekeyvault-flexvolume

To enable monitoring, use **az aks enable-addons -a monitoring -n ….**

# Docker

FROM mcr.microsoft.com/dotnet/core/**sdk:2.2** AS build-env

WORKDIR /app

COPY \*.csproj ./

RUN dotnet restore

COPY . ./

RUN dotnet public -c Release -o out

FROM mcr.microsoft.com/dotnet/core/**aspnet**:2.2

WORKDIR /app

COPY –from=build-env /app/out .

ENTRYPOINT [“dotnet”, “aspnetapp.dll”]

# CICD

Static code -> unit -> load/performance -> Pen -> Threat -> integration