Windows PowerShell Get-Help on Cmdlet 'New-AzAksNodePool'

PS:\>Get-HELP New-AzAksNodePool -Full

NAME

New-AzAksNodePool

SYNOPSIS

Create a new node pool in specified cluster.

SYNTAX

New-AzAksNodePool [-AksCustomHeader <System.Collections.Hashtable>] [-AvailabilityZone <System.String[]>] -ClusterName <System.String> [-Count <System.Int32>] [-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-EnableAutoScaling] [-EnableEncryptionAtHost] [-EnableFIPS] [-EnableNodePublicIp] [-EnableUltraSSD] [-Force] [-GpuInstanceProfile <System.String>] [-HostGroupID <System.String>] [-KubeletConfig <Microsoft.Azure.Management.ContainerService.Models.KubeletConfig>] [-KubernetesVersion <System.String>] [-LinuxOSConfig <Microsoft.Azure.Management.ContainerService.Models.LinuxOSConfig>] [-MaxCount <System.Int32>] [-MaxPodCount <System.Int32>] [-MaxSurge <System.String>] [-MinCount <System.Int32>] [-Mode <System.String>] -Name <System.String> [-NodeLabel <System.Collections.Hashtable>] [-NodePublicIPPrefixID <System.String>] [-NodeTaint

<System.String[]>] [-OsDiskSize <System.Int32>] [-OsSKU <System.String>] [-OsType <System.String>] [-PodSubnetID <System.String>] [-PPG <System.String>]

-ResourceGroupName <System.String> [-ScaleSetEvictionPolicy <System.String>] [-ScaleSetPriority <System.String>] [-SpotMaxPrice <System.Nullable`1[System.Double]>]

[-SubscriptionId <System.String>] [-Tag <System.Collections.Hashtable>] [-VmSetType <System.String>] [-VmSize <System.String>] [-VnetSubnetID <System.String>]

[-Confirm] [-WhatIf] [<CommonParameters>]

New-AzAksNodePool [-AksCustomHeader <System.Collections.Hashtable>] [-AvailabilityZone <System.String[]>] -ClusterObject

<Microsoft.Azure.Commands.Aks.Models.PSKubernetesCluster> [-Count <System.Int32>] [-DefaultProfile

<Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-EnableAutoScaling] [-EnableEncryptionAtHost] [-EnableFIPS]

[-EnableNodePublicIp] [-EnableUltraSSD] [-Force] [-GpuInstanceProfile <System.String>] [-HostGroupID <System.String>] [-KubeletConfig

<Microsoft.Azure.Management.ContainerService.Models.KubeletConfig>] [-KubernetesVersion <System.String>] [-LinuxOSConfig

<Microsoft.Azure.Management.ContainerService.Models.LinuxOSConfig>] [-MaxCount <System.Int32>] [-MaxPodCount <System.Int32>] [-MaxSurge <System.String>] [-MinCount

<System.Int32>] [-Mode <System.String>] -Name <System.String> [-NodeLabel <System.Collections.Hashtable>] [-NodePublicIPPrefixID <System.String>] [-NodeTaint

<System.String[]>] [-OsDiskSize <System.Int32>] [-OsSKU <System.String>] [-OsType <System.String>] [-PodSubnetID <System.String>] [-PPG <System.String>]

[-ScaleSetEvictionPolicy <System.String>] [-ScaleSetPriority <System.String>] [-SpotMaxPrice <System.Nullable`1[System.Double]>] [-SubscriptionId <System.String>]

[-Tag <System.Collections.Hashtable>] [-VmSetType <System.String>] [-VmSize <System.String>] [-VnetSubnetID <System.String>] [-Confirm] [-WhatIf] [<CommonParameters>]

DESCRIPTION

Create a new node pool in specified cluster.

PARAMETERS

-AksCustomHeader <System.Collections.Hashtable>

Aks custom headers

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-AvailabilityZone <System.String[]>

Availability zones for nodes. Must use VirtualMachineScaleSets AgentPoolType.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-ClusterName <System.String>

The name of the managed cluster resource.

Required? true

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-ClusterObject <Microsoft.Azure.Commands.Aks.Models.PSKubernetesCluster>

Specify cluster object in which to create node pool.

Required? true

Position? named

Default value None

Accept pipeline input? True (ByValue)

Accept wildcard characters? false

-Count <System.Int32>

The default number of nodes for the node pools.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>

The credentials, account, tenant, and subscription used for communication with Azure.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-EnableAutoScaling <System.Management.Automation.SwitchParameter>

Whether to enable auto-scaler

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-EnableEncryptionAtHost <System.Management.Automation.SwitchParameter>

Whether to enable host based OS and data drive

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-EnableFIPS <System.Management.Automation.SwitchParameter>

Whether to use a FIPS-enabled OS

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-EnableNodePublicIp <System.Management.Automation.SwitchParameter>

Whether to enable public IP for nodes.

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-EnableUltraSSD <System.Management.Automation.SwitchParameter>

whether to enable UltraSSD

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-Force <System.Management.Automation.SwitchParameter>

Create node pool even if it already exists

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-GpuInstanceProfile <System.String>

The GpuInstanceProfile to be used to specify GPU MIG instance profile for supported GPU VM SKU.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-HostGroupID <System.String>

The fully qualified resource ID of the Dedicated Host Group to provision virtual machines from, used only in creation scenario and not allowed to changed once set.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-KubeletConfig <Microsoft.Azure.Management.ContainerService.Models.KubeletConfig>

The Kubelet configuration on the agent pool nodes.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-KubernetesVersion <System.String>

The version of Kubernetes to use for creating the cluster.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-LinuxOSConfig <Microsoft.Azure.Management.ContainerService.Models.LinuxOSConfig>

The OS configuration of Linux agent nodes.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-MaxCount <System.Int32>

Maximum number of nodes for auto-scaling

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-MaxPodCount <System.Int32>

Maximum number of pods that can run on node.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-MaxSurge <System.String>

The maximum number or percentage of nodes that ar surged during upgrade.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-MinCount <System.Int32>

Minimum number of nodes for auto-scaling.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-Mode <System.String>

The pool mode

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-Name <System.String>

The name of the node pool.

Required? true

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-NodeLabel <System.Collections.Hashtable>

Node pool labels used for building Kubernetes network.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-NodePublicIPPrefixID <System.String>

The resource Id of public IP prefix for node pool.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-NodeTaint <System.String[]>

The node taints added to new nodes during node pool create and scale

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-OsDiskSize <System.Int32>

The default number of nodes for the node pools.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-OsSKU <System.String>

OsSKU to be used to specify OS SKU. The default is Ubuntu if OSType is Linux. The default is Windows2019 when Kubernetes <= 1.24 or Windows2022 when Kubernetes >=

1.25 if OSType is Windows.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-OsType <System.String>

OsType to be used to specify os type. Choose from Linux and Windows. Default to Linux.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-PodSubnetID <System.String>

The ID of the subnet which pods will join when launched.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-PPG <System.String>

The ID for Proximity Placement Group.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-ResourceGroupName <System.String>

The name of the resource group.

Required? true

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-ScaleSetEvictionPolicy <System.String>

ScaleSetEvictionPolicy to be used to specify eviction policy for low priority virtual machine scale set. Default to Delete.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-ScaleSetPriority <System.String>

ScaleSetPriority to be used to specify virtual machine scale set priority. Default to regular.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-SpotMaxPrice <System.Nullable`1[System.Double]>

The max price (in US Dollars) you are willing to pay for spot instances. Possible values are any decimal value greater than zero or -1 which indicates default

price to be up-to on-demand.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-SubscriptionId <System.String>

The ID of the subscription. By default, cmdlets are executed in the subscription that is set in the current context. If the user specifies another subscription,

the current cmdlet is executed in the subscription specified by the user. Overriding subscriptions only take effect during the lifecycle of the current cmdlet. It

does not change the subscription in the context, and does not affect subsequent cmdlets.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Tag <System.Collections.Hashtable>

The tags to be persisted on the agent pool virtual machine scale set.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-VmSetType <System.String>

Represents types of an node pool. Possible values include: 'VirtualMachineScaleSets', 'AvailabilitySet'

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-VmSize <System.String>

The size of the Virtual Machine. Default value is Standard_D2_v2.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-VnetSubnetID <System.String>

VNet SubnetID specifies the VNet's subnet identifier.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-Confirm <System.Management.Automation.SwitchParameter>

Prompts you for confirmation before running the cmdlet.

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-WhatIf <System.Management.Automation.SwitchParameter>

Shows what would happen if the cmdlet runs. The cmdlet is not run.

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

<CommonParameters>

This cmdlet supports the common parameters: Verbose, Debug,

ErrorAction, ErrorVariable, WarningAction, WarningVariable,

OutBuffer, PipelineVariable, and OutVariable. For more information, see

about_CommonParameters (https:/go.microsoft.com/fwlink/?LinkID=113216).

INPUTS

Microsoft.Azure.Commands.Aks.Models.PSKubernetesCluster

OUTPUTS

Microsoft.Azure.Commands.Aks.Models.PSNodePool

NOTES

---------- Create a node pool with default parameters ----------

New-AzAksNodePool -ResourceGroupName myResouceGroup -ClusterName myCluster -Name mydefault

---------- Create Windows Server container on an AKS ----------

$cred = ConvertTo-SecureString -AsPlainText "Password!!123" -Force

New-AzAksCluster -ResourceGroupName myResourceGroup -Name myCluster -WindowsProfileAdminUserName azureuser -WindowsProfileAdminUserPassword $cred -NetworkPlugin azure

-NodeVmSetType VirtualMachineScaleSets

New-AzAksNodePool -ResourceGroupName myResourceGroup -ClusterName myCluster -Name win1 -OsType Windows -VmSetType VirtualMachineScaleSets

--- Create a node pool with LinuxOSConfig and KubeletConfig. ---

```
$linuxOsConfigJsonStr = @'
            {
             "transparentHugePageEnabled": "madvise",
             "transparentHugePageDefrag": "defer+madvise",
             "swapFileSizeMB": 1500,
             "sysctls": {
              "netCoreSomaxconn": 163849,
              "netIpv4TcpTwReuse": true,
              "netIpv4IpLocalPortRange": "32000 60000"
             }
            }
'@
    $linuxOsConfig = [Microsoft.Azure.Management.ContainerService.Models.LinuxOSConfig] ($linuxOsConfigJsonStr | ConvertFrom-Json)
$kubeletConfigStr = @'
            {
             "failSwapOn": false
            }
'@
    $kubeletConfig = [Microsoft.Azure.Management.ContainerService.Models.KubeletConfig] ($kubeletConfigStr | ConvertFrom-Json)

    New-AzAksNodePool -ResourceGroupName myResourceGroup -ClusterName myAKSCluster -Name mypool -LinuxOSConfig $linuxOsConfig -KubeletConfig $kubeletConfig
```

RELATED LINKS

Online Version: https://learn.microsoft.com/powershell/module/az.aks/new-azaksnodepool