

Introduction to Cloud Computing

LAB 10

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BS-SE 7B

Task 1: Create a Policy assignment

- From the All services blade, search for and select Policy.

The screenshot shows the Microsoft Azure Policy Definitions blade. The left sidebar has 'Definitions' selected under 'Authoring'. The main area displays a table of policy definitions:

Name	Latest version	Definition location	Policy type	Definition type	Category
Audit virtual machines without disaster recovery config	1.0.0	Builtin	Policy	Compute	...
Audit VMs that do not use managed disks	1.0.0	Builtin	Policy	Compute	...
Virtual machines should be migrated to new Azure Reso	1.0.0	Builtin	Policy	Compute	...
Deploy default Microsoft IaaSAntimalware extension for	1.1.0	Builtin	Policy	Compute	...
Require automatic OS image patching on Virtual Machin	1.0.0	Builtin	Policy	Compute	...
Configure disk access resources with private endpoints	1.0.0	Builtin	Policy	Compute	...
OS and data disks should be encrypted with a customer	3.0.0	Builtin	Policy	Compute	...
Managed disks should disable public network access	2.1.0	Builtin	Policy	Compute	...
Configure managed disks to disable public network acce	2.0.0	Builtin	Policy	Compute	...
Microsoft IaaSAntimalware extension should be deploy	1.1.0	Builtin	Policy	Compute	...
Configure disaster recovery on virtual machines by enab	2.1.1	Builtin	Policy	Compute	...

At the bottom left, there is a note: "Add or remove favorites by pressing Ctrl+Shift+F". At the bottom right, there is a "Give feedback" link.

- Notice the **Allowed virtual machine size SKUs** definition.

Allowed virtual machine size SKUs

Policy definition

Essentials

Name	: Allowed virtual machine size SKUs	Definition location	: --
Version (preview)	: 1.0.1	Definition ID	: /providers/Microsoft.Authorization/policyDefinitions/cccc23c7-8427-4f53-ad12-b...
Description	: This policy enables you to specify a set of virtual machine size SKUs that your orga...	Type	: Built-in
Available Effects	: Deny	Mode	: Indexed
Category	: Compute		

Definition Assignments (0) Parameters (1)

```

1  {
2    "properties": {
3      "displayName": "Allowed virtual machine size SKUs",
4      "policyType": "BuiltIn",
5      "mode": "Indexed",
6      "description": "This policy enables you to specify a set of virtual machine size SKUs that your organization can deploy.",
7      "metadata": {
8        "version": "1.0.1",
9        "category": "Compute"
10      },
11      "version": "1.0.1",
12      "parameters": {
13        "listOfAllowedSKUs": {
14          "type": "Array"
15        }
16      }
17    }
18  }
  
```

[Give feedback](#)

- Click **Assign Policy** at the top of the **Policy - Assignments** page.
- Click **Review + create**, and then **Create**.

Assign policy

Basics Parameters Remediation Non-compliance messages Review + create

Scope
Scope * Azure for Students

Exclusions Optionally select resources to exclude from the policy assignment.

Resource selectors (Expand) Using resource selectors, you can further refine this assignment's application specific subsets of resources. Expand to learn more.

Basics
Policy definition *

Overrides (Expand) Using overrides, you can change the effects or referenced versions of a subset of resources evaluated by this assignment. Expand to learn more.

Assignment name *

Description

Policy enforcement Enabled

Available Definitions

Policy name	Latest version (pr...)	Category	Type
Azure Cosmos DB allowed locations	1.1.0	Cosmos DB	Builtin
<input checked="" type="checkbox"/> Allowed locations	1.0.0	General	Builtin
Allowed locations for resource groups	1.0.0	General	Builtin

1 out of 1 policies selected

Add Cancel [Give feedback](#)

- The **Allowed locations** policy assignment is now listed on the **Policy - Assignments** pane.

The screenshot shows the Microsoft Azure Policy - Assignments pane. The left sidebar includes links for Overview, Compliance, Remediation, Events, Authoring, Definitions, and Assignments (which is selected). The main area displays the following statistics:

- Total Assignments: 3
- Initiative Assignments: 1
- Policy Assignments: 2

The table lists the assignments:

Assignment name	Scope ↑	Type ↑
Allowed resource deployment regions	Azure for Students	Policy
Allowed locations	Azure for Students	Policy
ASC Default (subscription: db878fcc-8781-42d0-a61d-55de3d976446)	Azure for Students	Initiative

Task 2: Test Allowed location policy

- Create a storage Account.

The screenshot shows the 'Create a storage account' wizard in the Microsoft Azure portal. The 'Basics' tab is selected. In the 'Project details' section, the subscription is set to 'Azure for Students' and the resource group is '(New) myRGPolicy'. In the 'Instance details' section, the storage account name is 'sorageaccount909', the region is '(Asia Pacific) Central India', and the preferred storage type is 'Choose preferred storage type'. A note at the bottom of the instance details section states: 'Deploy to an Azure Extended Zone' and 'Allowed locations (Policy details)'. At the bottom of the page are 'Previous', 'Next', and 'Review + create' buttons.

- You will receive the deployment failed error stating that resource was disallowed by policy.

The screenshot shows the 'Create a storage account' wizard in the Microsoft Azure portal, with the 'Review + create' tab selected. A red validation error bar at the top indicates 'Validation failed. Required information is missing or not valid.' Below the bar, the 'Basics' section is shown with the following details:

- Subscription: Azure for Students
- Resource group: myRGPolicy
- Location: Central India
- Storage account name: sorageaccount909
- Preferred storage type: Choose preferred storage type

At the bottom of the page are 'Previous', 'Review + create', and 'Create' buttons.

Task 3: Delete the policy assignment

- From the **All services** blade, search for and select **Policy**, and then click your **Allowed locations** policy.
- Click **Allowed Locations** It will open an Allowed locations Policy Compliance window.

The screenshot shows the Microsoft Azure portal interface. At the top, there's a navigation bar with 'Microsoft Azure', a search bar, and various icons. On the right, it shows the user's name 'bsse2280155@szabist.pk' and 'DEFAULT DIRECTORY (bsse2280...)'.

The main content area is titled 'Allowed locations' under 'Policy Assignment'. It displays the following details:

Name	:	Allowed locations	Scope	:	Azure for Students
Definition version (preview)	:	1.**	Excluded scopes	:	--
Description	:	--	Definition type	:	Policy
Assignment ID	:	/subscriptions/db878fcc-8781-42d0-a61d-55de3d976446/providers/microsoft.aut...	Policy enforcement	:	Default
Assigned by	:	--			

Below this, there's a section for 'Parameters (1)'. It shows one parameter:

Parameter ID	Parameter name	Parameter value	Policy assignment parameter reference type
listOfAllowedLocations	Allowed locations	["japanwest"]	User defined parameter

At the bottom right of the window, there are 'Edit columns' and 'Give feedback' buttons.

- Click **Delete Assignment** in the top menu. Confirm you wish to delete the policy assignment by clicking **Yes**.

The screenshot shows the Microsoft Azure Policy Assignments blade. A specific policy assignment named 'Allowed locations' is selected. A modal dialog box titled 'Delete assignment' is displayed in the center, asking 'Do you want to delete the policy assignment 'Allowed locations'?'. There are 'Yes' and 'No' buttons at the bottom of the dialog.

- Try to create another storage account to ensure the policy is no longer in effect.

The screenshot shows the Microsoft Azure Storage Account blade for a storage account named 'storageaccount497'. The 'Properties' tab is active. Key details shown include:

- Essentials:** Resource group: rg3, Location: centralindia, Subscription: Azure for Students, Disk state: Primary: Available, Secondary: Available.
- Properties:** Tags: Company: Contoso.
- Blob service:** Hierarchical namespace: Disabled, Default access tier: Hot, Blob anonymous access: Disabled, Blob soft delete: Enabled (7 days), Container soft delete: Enabled (7 days), Versioning: Disabled, Change feed: Disabled, NFS v3: Disabled.
- Security:** Require secure transfer for REST API operations: Enabled, Storage account key access: Enabled, Minimum TLS version: Version 1.2, Infrastructure encryption: Disabled.
- Networking:** Public network access: Enabled.