

Assignment 1

Tasks To Be Performed:

1. Create a Linux VM and install Apache2 on it
2. Create Recovery Services vault
3. Take backup of the VM deployed

Create the Linux VM – open port 80- install apache2 server – Search for Recovery service vault- create.

[Home](#) > [Recovery Services vaults](#) >

Create Recovery Services vault

***Basics** Redundancy Vault properties Networking Backup encryption (preview) Tags Review + create

Project Details

Select the subscription and the resource group in which you want to create the vault.

Subscription * ⓘ

Resource group * ⓘ
[Create new](#)

Instance Details

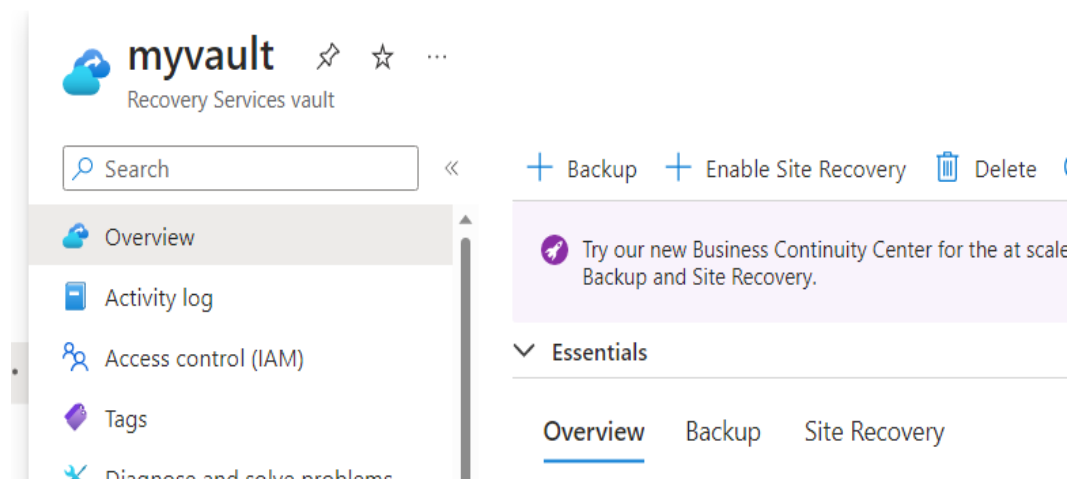
Vault name * ⓘ

Region * ⓘ

i Cross Subscription Restore is enabled by default for all vaults. Visit vault 'Properties' to disable the same. [Learn more.](#)

[Review + create](#)

[Next: Redundancy](#)



[Home](#) > [Recovery Services vaults](#) > [myvault](#) >

Backup Goal

! The storage replication is set to Geo-Redundant. This option cannot be changed later. Before proceeding further, click here. →

Where is your workload running?

What do you want to backup?

Step: Configure Backup

[Backup](#)

If this is showing error while creating the backup , we can also create backup via VM interface .

[Home](#) > [Recovery Services vaults](#) > [myvault](#) > [Backup Goal](#) >

Configure backup

myvault

Policy sub type *



Standard

✓ Once a day backup

✓ 1-5 days operational tier

✓ Vault tier

ZRS resilient snapshot tier

Support for Trusted Azure VM



Enhanced

✓ Multiple backups per day

✓ 1-30 days operational tier

✓ Vault tier

✓ ZRS resilient snapshot tier

✓ Support for Trusted Azure VM

Backup policy * ⓘ

DefaultPolicy

[Create a new policy](#)

ⓘ The list contains the policies pertaining to the selected policy sub type. [Learn more.](#)

Policy details

Full backup

Backup frequency

Daily at 3:00 PM UTC

Instant restore

Retain instant recovery snapshot(s) for 2 day(s)

Retention of daily backup point

Retain backup taken every day at 3:00 PM for 30 Day(s)

Virtual machines

Name

Resource group

[Enable backup](#)

[Download a template for automation](#)

[Home](#) > [Recovery Services vaults](#) > [myvault](#) > [Backup Goal](#) >

Configure backup

myvault

Backup policy * ⓘ

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Retain backup taken every day at 3:00 PM for 30 Day(s)

Virtual machines

Name

Resource group

No virtual machines selected.

[Add](#)

ⓘ **Selective disk backup** option allows you to include or exclude specific data disks based on their LUN number. This feature is not supported. Know more about Selective Disk Backup feature, its limitation and pricing. [Learn more](#)

[Enable backup](#)

[Download a template for automation](#)

Select virtual machines



Discovering virtual machines that can be backed up.

[Filter items by name](#)

Virtual machine name



Recoveryvault-vm

[< Previous](#)

Page

1

of 1

[Next >](#)

[OK](#)

[Cancel](#)



myvault | Backup items



Recovery Services vault

Search



Refresh



Overview



Activity log



Access control (IAM)



Tags



Diagnose and solve problems

Settings



Identity



For backups, try our new Backup Center. It offers Azure Backup customers a unified provides improved sorting and filtering along with new governance capabilities. Click here to learn more.

Primary Region

Secondary Region

BACKUP MANAGEMENT TYPE

BACKUP ITEM COUNT

Azure Virtual Machine

1

Azure Backup Agent

0

[Home](#) > [Recovery Services vaults](#) > [myvault | Backup items](#) >

Backup Items (Azure Virtual Machine)



myvault



Refresh



Add



Filter



With Backup center, you can view all your IaaSVM items across vaults, subscriptions and regions in a single pane of glass. Click here to use the new experience. →



All data fetched from the service.



Filter items ...

Name ↑↓	Resource Group ↑↓	Backup Pre-Check	Last Backup Status
Recoveryvault-vm	26-01-24	✔ Passed	⚠ Warning (Initial backup pending)

< Previous

Page

1

of 1

Next >

Assignment 2

Tasks To Be Performed:

1. Use the previously connected VMs
2. Connect Log Analytics to this virtual machine

Connect to the machine install some packages to get logs- give these commands and change refresh rate to 0.5 – ctrl-c

```
sid@Recoveryvault-vm:~$ sid@Recoveryvault-vm:~$ history
1 sudo apt install python3-pip
2 sudo pip install s-tui
3 sudo apt install stress
4 sudo s-tui
5 history
sid@Recoveryvault-vm:~$
```

Move inside the workspace – virtual machine- connect

myfirst-log | Virtual machines (deprecated) ☆ ...
Log Analytics workspace

Search

Legacy activity log connector

Legacy storage account logs

Legacy computer groups

Legacy solutions

System center

Workspace summary (deprecated)

Service map (deprecated)

Virtual machines (deprecated) ✓

Scope configurations (deprecated)

Refresh

Filter by name... 8 selected 2 selected

Name	Log Analytics Connecti...	OS
Recoveryvault-vm	✓ This workspace	Linux ✓

Home > Log Analytics workspaces >

Create Log Analytics workspace ...

Basics

Tags

Review + Create

Search for log analytics workspace- create



A Log Analytics workspace is the basic management unit of Azure Monitor Logs. There are specific considerations you should take when creating a new Log Analytics workspace. [Learn more](#)

With Azure Monitor Logs you can easily store, retain, and query data collected from your monitored resources in Azure and other environments for valuable insights. A Log Analytics workspace is the logical storage unit where your log data is collected and stored.

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Free Trial

Resource group * ⓘ

26-01-24

[Create new](#)

Instance details

Name * ⓘ

myfirst-log ✓

Region * ⓘ

East US

Review + Create

« Previous

Next : Tags >

We can go inside the logs – select our queries - Run

The screenshot displays the 'myfirst-log | Logs' interface in a Log Analytics workspace. The left sidebar contains navigation options: Activity log, Access control (IAM), Tags, Diagnose and solve problems, and Logs (selected). Below the sidebar is a 'Settings' section with links to Tables, Agents, Usage and estimated costs, Data export, Network isolation, Linked storage accounts, Properties, and Locks.

The main area is titled 'New Query 1*' and shows a search bar, a 'Filter' button, and a 'Group by: Category' dropdown. Below these are 'Favorites' and a list of queries under 'Applications', 'Audit', and 'Azure Monitor'. The 'Azure Monitor' section is expanded, showing two queries: 'Agent latency spikes - by data type' and 'Agent latency spikes - Heartbeat table', with checkmarks next to them.

The query editor on the right shows a script with the following code:

```
50 // Apply a 2-line regression to the time series
51 | extend (RSquare2, SplitIdx, Variance2, RVariance2, LineFit2) =
    series_fit_2lines(RatioSeries)
52 // Find out if our 2-line is trending up or down
53 | extend (Slope, Interception, RSquare, Variance, RVariance,
    LineFit) = series_fit_line(LineFit2)
54 // Check whether the line fit reaches the threshold, and if the
    spike represents an increase (rather than a decrease)
55 | project source_table, PatternMatch = iff(RSquare2 > MinRSquare
    and Slope>0, "Spike detected", "No spike")
```

The 'Results' tab shows a table with two columns: 'source_table' and 'PatternMatch'. The table has two rows of data:

source_table	PatternMatch
Heartbeat	Spike detected
Heartbeat	Spike detected

The 'Columns' section on the right indicates that the table has two columns: 'source_table' and 'PatternMatch'.

Assignment 3

Tasks To Be Performed:

1. Use the previous VM deployment
2. Create an alert for the deletion of the above VM

Recoveryvault-vm | Alerts

Virtual machine

Search

View as timeline (preview) | Create | Set up recommendations | Alert rules | Action groups

Updates

Health monitoring

Configuration management

Policies

Inventory

Change tracking

Monitoring

Insights

Alerts

Metrics

Diagnostic settings

Alert rule

Action group

Alert processing rule

Move inside VM – Alerts- Alert rule

Set up recommended alert rules

Add commonly-used alert rules for resources like this to get notified on important events happening on this resource.

View + set up or Create custom alert rule

Home > Virtual machines > Recoveryvault-vm | Alerts >

Create an alert rule

Scope Condition **Actions** Details Tags Review + create

An action group is a set of actions that can be applied to an alert rule. [Learn more](#)

+ Select action groups + Create action group

Action group name	Contains actions
No action group selected yet	

Basics Notifications Actions Tags Review + create

An action group invokes a defined set of notifications and actions when an alert is triggered. [Learn more](#)

Project details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and

Subscription ⓘ	Free Trial
Resource group * ⓘ	26-01-24
	Create new
Region *	Global

Instance details

Action group name * ⓘ	actiongr1
Display name * ⓘ	acgr1
The display name is limited to 12 characters	

Review + create Previous Next: Notifications >

Choose how to get notified when the action group is triggered. This step is optional.

Notification type ⓘ	Name ⓘ	Selected ⓘ
Email/SMS message/Push/Voice ✓		



Notification type ⓘ	Name ⓘ
Email/SMS message/Push/Voice	VM delete ✓

Create an alert rule ...

Configure when the alert rule should trigger by selecting a signal and defining its logic.

Signal name * ⓘ

Delete Virtual Machine (Virtual Machines) ✓

[See all signals](#)

Chart period

Over the last 6 hours

In signal choose VM delete

No data available

activityLogHistoryBarSeries

5:30 AM

Review + create

Previous

Next: Actions >

☒ Email

Email * ⓘ shuklasiddharth65@gmail.com ✓

☐ SMS (Carrier charges may apply)

Country code 1

Project details

Select the subscription and resource group in which to save the alert rule.

Subscription ⓘ Free Trial

Resource group * ⓘ 26-01-24

[Create new](#)

Alert rule details

Alert rule name * ⓘ newrule

Alert rule description ⓘ

Advanced options

Review + create

Previous

Next: Tags >



You've been added to an Azure Monitor action group

You are now in the acgr1 action group and will receive notifications sent to the group.

[View details on Azure Monitor action groups >](#)

Account information

Subscription ID [REDACTED]

Resource group name: 26-01-24

Action group name: actiongr1