

Lab 3: Blob Storage, Website Hosting & cloud witness.

Akshar Panchani ID- 202101522

IT457 Cloud Computing

2/18/24

1. Complete the following tutorial about pictures and blob storage:


Environment Variables: -

```











{} local.settings.json M X
msdocs-storage-bind-function-service > javascript > {} local.settings.json > {} Values > ComputerVisionEndPoint
1  {
2    "IsEncrypted": false,
3    "Values": {
4      "AzureWebJobsStorage": "",
5      "FUNCTIONS_WORKER_RUNTIME": "node",
6      "StorageConnection": "DefaultEndpointsProtocol=https;AccountName=msdocsstoragefunction150;A
7      "StorageAccountName": "msdocsstoragefunction150",
8      "StorageContainerName": "imageanalysis",
9      "ComputerVisionKey": "15009bdd19474e51992e6923b2074fc8",
10     "ComputerVisionEndPoint": "https://msdocscomputervision150.cognitiveservices.azure.com/"
11   }
12 }
13


```

Function App Published: -



Function App  ...

Default Directory (akshar293@gmail.onmicrosoft.com)

 Create
  Manage view
  Refresh
  Export to CSV
  Open query
 |
  Assign tags
  Start
  Restart
  Stop
  Delete

Subscription equals **all**
 Resource group equals **all** X
 Location equals **all** X
  Add filter

Showing 1 to 1 of 1 records.

<input type="checkbox"/> Name ↑↓	Status ↑↓	Location ↑↓	Pricing Tier ↑↓	App Service Plan ↑↓
<input type="checkbox"/>  msdocsprocessimage150	Running	East US	Dynamic	 EastUSPlan

Container and its contents: -



Lab- Cloud Computing

imageanalysis
Container

«

[Upload](#) [Change access level](#) [Refresh](#) | [Delete](#) [Change tier](#) [Acquire lease](#) [Break lease](#) [View snapshots](#) [Create snapshot](#) ...

Authentication method: Access key ([Switch to Microsoft Entra user account](#))
Location: imageanalysis

☐ Show deleted blobs

[Add filter](#)

Name	Modified	Access tier	Archive status	Blob type	Size	Lease state
<input type="checkbox"/> 20231209.jpg	2/16/2024, 6:00:15 PM	Hot (Inferred)		Block blob	1.04 MiB	Available
<input type="checkbox"/> Invoice2-CycleInvoice6.pdf	2/16/2024, 5:50:25 PM	Hot (Inferred)		Block blob	233.04 KiB	Available
<input type="checkbox"/> Invoice2-FromWingTip.png	2/16/2024, 5:44:23 PM	Hot (Inferred)		Block blob	110.66 KiB	Available

Overview: -

Invoice2-FromWingTip.png ...

Blob

[Save](#) [Discard](#) [Download](#) [Refresh](#) [Delete](#) [Change tier](#)

Overview Versions Snapshots Edit Generate SAS

Properties

URL	https://msdocsstorageef...
LAST MODIFIED	2/16/2024, 5:44:23 PM
CREATION TIME	2/16/2024, 5:44:23 PM
VERSION ID	-
TYPE	Block blob
SIZE	110.66 KiB
ACCESS TIER	Hot (Inferred)
ACCESS TIER LAST MODIFIED	N/A
ARCHIVE STATUS	-
REHYDRATE PRIORITY	-
SERVER ENCRYPTED	true
ETAG	0x8DC2EE8CFD7C71C
VERSION-LEVEL IMMUTABILITY POLICY	Disabled
CACHE-CONTROL	<input type="text"/>

Outputs of contents stored in blob storage: -

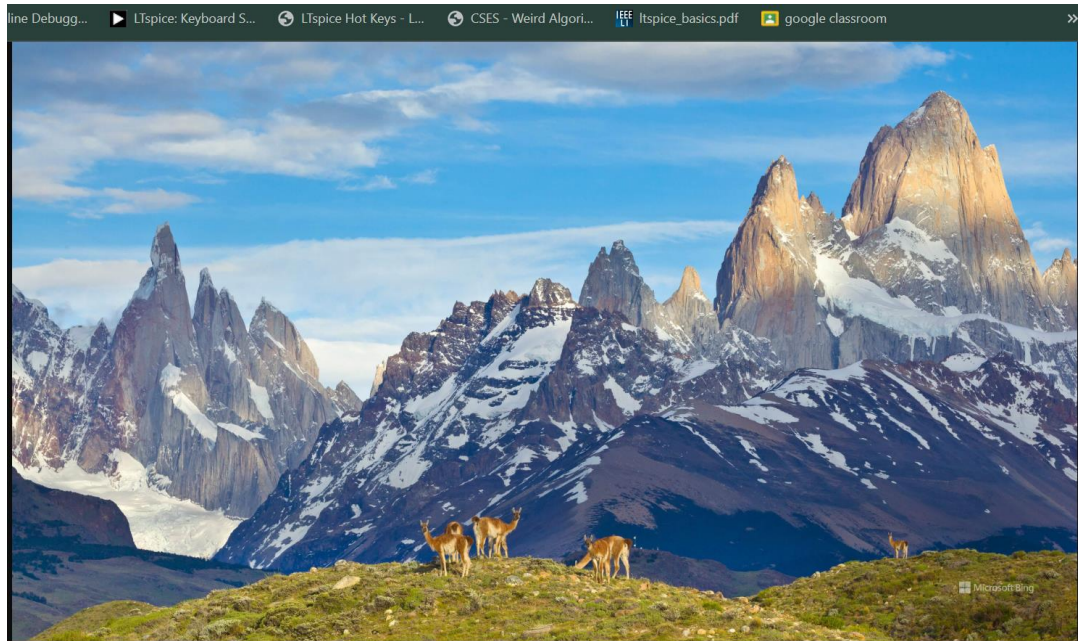


Lab- Cloud Computing

From Wingtip Toys 34 5th St NY 98052 http://wingtip toys.com/ 555-525	INVOICE 085236																
Bill To Proseware, Inc. 654 11st St NY 98052 http://www.proseware.com/ 555-475	Date: Jan 11, 2019 Due Date: May 12, 2019																
Balance due: \$ 1013.50																	
<table><thead><tr><th>Item</th><th>Quantity</th><th>Rate</th><th>Amount</th></tr></thead><tbody><tr><td>Yellow truck DF34</td><td>24</td><td>\$ 17.00</td><td>\$ 408.00</td></tr><tr><td>Space shuttle 3240L</td><td>15</td><td>\$ 21.00</td><td>\$ 315.00</td></tr><tr><td>Puzzle for princess</td><td>15</td><td>\$ 16.80</td><td>\$ 252.00</td></tr></tbody></table>	Item	Quantity	Rate	Amount	Yellow truck DF34	24	\$ 17.00	\$ 408.00	Space shuttle 3240L	15	\$ 21.00	\$ 315.00	Puzzle for princess	15	\$ 16.80	\$ 252.00	
Item	Quantity	Rate	Amount														
Yellow truck DF34	24	\$ 17.00	\$ 408.00														
Space shuttle 3240L	15	\$ 21.00	\$ 315.00														
Puzzle for princess	15	\$ 16.80	\$ 252.00														
Subtotal: \$ 975.00																	
Tax (2%): \$ 19.5																	
Shipping: \$ 19.0																	
Total: \$ 1013.50																	

Adventure Works Cycles National Harbor Marketing and Business division Customer Service Tel: 45 35 15 55 – Fax: 45 85 16 15	
44540710	15/ 06/ 18
Invoice nb	1902201
N B 455 009 98	AS MULTIPLA
Stopover	11/ 08/ 18
Ship	13/ 08/ 18
In	
Out	
Rate	

CUSTOMER: 029 PEUGEOT		SEJ:	3 NB	E/ S:	1
Realization	Unit	Quantity	Unit Price	Amount	
TAX I SPS		1	10000	10000, 00	
Ship monitoring	TJ	18358	0,239	101873, 00	
Cleaning	TJ	18358	0,199	147599, 00	
Stay tax	TJ	18358	0,445	388066, 00	
Light house	TJ	18358	0,222	35021, 00	



2. Complete the following tutorial about static content website hosting:

Container:

Home > Storage > Containers > \$web

\$web
Container

Search << Upload Change access level Refresh Delete Change tier Acquire lease Break lease View snapshots

Overview
Diagnose and solve problems
Access Control (IAM)

Settings
Shared access tokens
Access policy
Properties
Metadata
Editor (preview)

Authentication method: Access key ([Switch to Microsoft Entra user account](#))
Location: \$web

Search blobs by prefix (case-sensitive) Show

+ Add filter

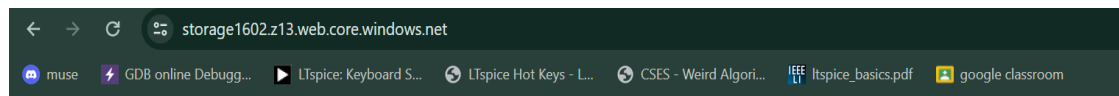
Name	Modified	Access tier	Archive status	Blob type	Size
<input type="checkbox"/> 404.html	2/16/2024, 9:54:58 PM	Hot (Inferred)		Block blob	71 B
<input type="checkbox"/> index.html	2/16/2024, 9:54:58 PM	Hot (Inferred)		Block blob	80 B

Codes:

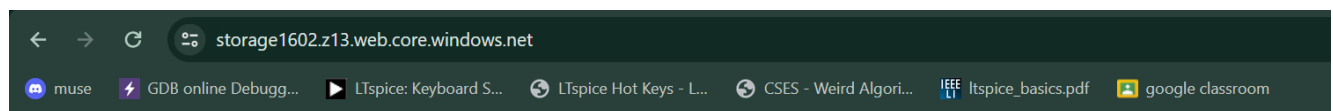
```
<> index.html X
<> index.html > html
1  <!DOCTYPE html>
2  <html>
3  |   <body>
4  |   |   <h1>Hello World!</h1>
5  |   </body>
6  </html>
```

```
<> 404.html X
<> 404.html > html
1  <!DOCTYPE html>
2  <html>
3  |   <body>
4  |   |   <h1>404</h1>
5  |   </body>
6  </html>
```

Output:



Hello World!



404

3. Complete following tutorial for designing application with high availability

Initially: -



Lab- Cloud Computing

mystorageaccount1602 | Containers ✕ ☆ ...

Storage account

Search

« + Container 🔒 Change access level ↶ Restore containers ▼ ↺ Refresh | 🗑 Delete 🗨 Give feedback

Search containers by prefix ☐ Show

Name	Last modified	Anonymous access level
<input type="checkbox"/> \$logs	2/16/2024, 11:15:48 PM	Private

Overview
Activity log
Tags
Diagnose and solve problems
Access Control (IAM)
Data migration
Events
Storage browser
Storage Mover

Result after running code from V-12 in Visual studio: -

```
Azure Storage redundancy sample

Creating container
Request sent to primary region endpoint
Request sent to primary region endpoint
Created container container-bb3ce7e0-ad51-4fb4-bd79-a325901a3a86

Uploading blob: MyTestBlob
Request sent to primary region endpoint
Checking secondary region endpoint to see if the blob has replicated
Attempt 1 to see if the blob has replicated
Blob has replicated to secondary region

Press any key to download the blob - Esc to exit

Downloading blob MyTestBlob:
Request sent to primary region endpoint
Response status: 200 (OK)
Blob data: If at first you don't succeed, hopefully you have a good retry policy.

Press any key to download the blob again - Esc to exit
```

Blob spread to a secondary location, resulting in increased availability.



Lab- Cloud Computing

» **mystorageaccount1602** | Containers ...

Storage account

Search Change access level Restore containers Refresh Delete Give feedback

Search containers by prefix

Name	Last modified	Anonymous access level
<input type="checkbox"/> \$logs	2/16/2024, 11:15:48 PM	Private
<input type="checkbox"/> container-bb3ce7e0-ad51-4fb4-bd79-a325901a3a86	2/17/2024, 2:27:34 AM	Private

Overview

Activity log

Tags

Diagnose and solve problems

Access Control (IAM)

Data migration

Events

Storage browser

Storage Mover

Data storage

Containers

File shares

container-bb3ce7e0-ad51-4fb4-bd79-a...

Container

Search Upload Change access level ...

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Shared access tokens

Access policy

Properties

Metadata

Authentication method: Access key ([Switch to Microsoft Entra user account](#))

Location: container-bb3ce7e0-ad51-4fb4-bd79-a325901a3a86

Search blobs by prefix (case-...

☐ Show deleted blobs

Add filter

Name
<input checked="" type="checkbox"/> MyTestBlob ...

MyTestBlob ...

Blob

Save Discard Download Refresh Delete Change tier

Overview Versions Snapshots Edit Generate SAS

Properties

URL <https://mystorageaccou...>

LAST MODIFIED 2/17/2024, 2:27:34 AM

CREATION TIME 2/17/2024, 2:27:34 AM

VERSION ID -

TYPE Block blob

SIZE 70 B

ACCESS TIER Hot (Inferred)

ACCESS TIER LAST MODIFIED N/A

ARCHIVE STATUS -

REHYDRATE PRIORITY -

SERVER ENCRYPTED true

4. Complete the tutorial to add role assignment to blobs:

Two text files with distinct tags in blob storage: -



Lab- Cloud Computing

container1 ...
Container

Search « Upload Change access level Refresh Delete Change tier Acquire lease Break lease V

Overview
Diagnose and solve problems
Access Control (IAM)

Settings
Shared access tokens
Access policy
Properties
Metadata

Authentication method: Access key ([Switch to Microsoft Entra user account](#))
Location: container1

Search blobs by prefix (case-sensitive)

Add filter

	Name	Modified	Access tier	Archive status	Blob type
<input type="checkbox"/>	Text File 2.txt	2/17/2024, 10:59:20 ...	Hot (Inferred)		Block blob
<input type="checkbox"/>	Text File.txt	2/17/2024, 10:58:37 ...	Hot (Inferred)		Block blob

Assigning Role of storage blob data reader: -

container1 | Access Control (IAM) ...
Container

Search « Add Download role assignments Edit columns Refresh Remove Feedback

Overview
Diagnose and solve problems
Access Control (IAM)

Settings
Shared access tokens
Access policy
Properties
Metadata

Number of role assignments for this subscription 1 4000
Privileged 0
[View assignments](#)

All Job function (1) Privileged (0)

Search by name or email

Type: All Role: All Scope: All scopes Group by: Role

1 items (1 Users)

	Name	Type	Role	Scope	Condition
▼	Storage Blob Data Reader (1)				
<input type="checkbox"/>	Akshar293 Akshar293@aksharsp293g...	User	Storage Blob Data Reader	Resource group (Inherited)	View

Result:

When a user is assigned a storage blob read role, they may access files with that tag; files with other tags cannot be accessed.



Lab- Cloud Computing

Home > Resource groups > myResourceGroup > storage1702 | Containers > container1 >

container1
Container

[Upload](#) [Change access level](#) ...

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Shared access tokens

Access policy

Properties

Metadata

Authentication method: Microsoft Entra user account ([Switch to Access key](#))

Location: container1

☐ Show deleted blobs

[Add filter](#)

Name
<input type="checkbox"/> Text File 2.txt ...
<input type="checkbox"/> Text File.txt ...

Text File.txt ...
Blob

[Save](#) [Discard](#) [Download](#) [Refresh](#) [Delete](#) [Change](#)

Overview

Versions

Snapshots

Edit

Generate SAS

Properties

URL: <https://storage1702.blo...>

LAST MODIFIED: 2/17/2024, 10:58:37 PM

CREATION TIME: 2/17/2024, 10:58:37 PM

VERSION ID: -

TYPE: Block blob

SIZE: 9 B

ACCESS TIER: Hot (Inferred)

ACCESS TIER LAST MODIFIED: N/A

ARCHIVE STATUS: -

REHYDRATE PRIORITY: -

SERVER ENCRYPTED: true

ETAG: 0x8DC2FDDE03B2F3D

VERSION-LEVEL IMMUTABILITY POLICY: Disabled

CACHE-CONTROL:

container1
Container

[Upload](#) [Change access level](#) ...

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Shared access tokens

Access policy

Properties

Metadata

Authentication method: Microsoft Entra user account ([Switch to Access key](#))

Location: container1

☐ Show deleted blobs

[Add filter](#)

Name
<input type="checkbox"/> Text File 2.txt ...
<input type="checkbox"/> Text File.txt ...

You do not have access ...
Blob

AuthorizationFailed

Summary

Session ID: 8b2759aab9264a238f5851256a62292c

Resource ID: /subscriptions/97e43b90-2dab-44c3-a90a-fa73529dce...

Extension: Microsoft_Azure_Storage

Content: BlobPropertiesBladeV2

Error code: 403

Storage Request ID: 56bceca6-2c36-41a4-8aaa-7b4c7536de9e

Details

- The client 'Abhinav2@aabhinav536gmail.onmicrosoft.com' with object id '7f97df66-e3ed-43bf-a73b-...

5. Complete the tutorial to deploy cloud witness: -
Access Keys:



Lab- Cloud Computing

cloudwitnessstorage12 | Access keys ☆ ...

Storage account

acc

Remember to update the keys with any Azure resources and apps that use this storage account. [Learn more about managing storage account access keys](#)

Overview

Access Control (IAM)

Security + networking

Access keys

Shared access signature

Encryption

Data management

Lifecycle management

Settings

Configuration

Storage account name: cloudwitnessstorage12

key1 Rotate key

Last rotated: 2/18/2024 (0 days ago)

Key: [Redacted] [Show](#)

Connection string: [Redacted] [Show](#)

key2 Rotate key

Last rotated: 2/18/2024 (0 days ago)

Key: [Redacted] [Show](#)

Connection string: [Redacted] [Show](#)

VM:

myVM-02 ☆ ...

Virtual machine

Search

Connect Start Restart Stop Capture Delete Refresh Open in mobile CLI / PS

Location: East US 2 (Zone 1)

Subscription (move): [Free Trial](#)

Subscription ID: a4755c01-cd03-49bb-a058-76e19f8da29e

Availability zone: 1

Tags (edit): [Click here to add tags](#)

Public IP address: -

Virtual network/subnet: [myVirtualNetwork-Aditi/myBackendSubnet](#)

DNS name: -

Properties Monitoring Capabilities (8) Recommendations Tutorials

Virtual machine

Computer name	myVM-02
Health state	-
Operating system	Windows (Windows Server 2016 Datacenter)
Publisher	MicrosoftWindowsServer
Offer	WindowsServer
Plan	2016-datacenter-gensecond
VM generation	V2

Networking

Public IP address	-
Public IP address (IPv6)	-
Private IP address	10.1.0.5
Private IP address (IPv6)	-
Virtual network/subnet	myVirtualNetwork-Aditi/myBackendSubnet
DNS name	-

Cloud Witness:

