

Velibor Stanisic - Mid-Term Task

Part I

1. Host a static website on Blob Storage: build and deploy a static Hello World website to Azure Storage.
2. Verify that the default web page has the Hello World! page.
3. Provide the steps and results.

Created a storage account.

The screenshot displays the Azure portal interface for a storage account named 'mordorce'. The left sidebar shows the 'Storage accounts' section with a search bar and a list of storage accounts. The main content area is divided into several sections:

- Essentials:** Provides basic information about the storage account, including the resource group ('hello-world'), location ('East US'), and primary/secondary locations ('Primary: East US, Secondary: West US'). It also shows the subscription ID, subscription ID, disk state, and tags.
- Properties:** A tab that lists various services and their status. The 'Blob service' is highlighted, showing settings like 'Hierarchical namespace' (Disabled), 'Default access tier' (Hot), 'Blob public access' (Enabled), 'Blob soft delete' (Enabled (7 days)), 'Container soft delete' (Enabled (7 days)), 'Versioning' (Disabled), 'Change feed' (Disabled), 'NFS v3' (Disabled), and 'Allow cross-tenant replication' (Enabled). The 'File service' is also listed, showing settings like 'Large file share' (Disabled), 'Active Directory' (Not configured), 'Default share-level permissions' (Disabled), 'Soft delete' (Enabled (7 days)), and 'Share capacity' (5 TiB).
- Security:** A tab that shows security-related settings, including 'Require secure transfer for REST API operations' (Enabled), 'Storage account key access' (Enabled), 'Minimum TLS version' (Version 1.2), and 'Infrastructure encryption' (Disabled).
- Networking:** A tab that shows networking-related settings, including 'Allow access from' (All networks), 'Number of private endpoint connections' (0), 'Network routing' (Microsoft network routing), 'Access for trusted Microsoft services' (Yes), and 'Endpoint type' (Standard).

Under Settings, enabled Static Website Option set paths to index.html

Home > Storage accounts > mordorce

Storage accounts

Default Directory

+ Create ↻ Restore ...

Filter for any field...

Name ↑

- mordorce

mordorce | Static website

Storage account

Search Save Discard Give feedback

Tables

Security + networking

- Networking
- Azure CDN
- Access keys
- Shared access signature
- Encryption
- Microsoft Defender for Cloud

Data management

- Redundancy
- Data protection
- Object replication
- Blob inventory
- Static website**
- Lifecycle management
- Azure search

Settings

- Configuration
- Data Lake Gen2 upgrade
- Resource sharing (CORS)
- Advisor recommendations
- Endpoints
- Locks
- Monitoring

Enabling static websites on the blob service allows you to host static content. Webpages may include static content and client-side scripts. Server-side scripting is not supported primary to secondary regions, files at the secondary endpoint may not be immediately available or in sync with files at the primary endpoint. [Learn more](#)

Static website

Disabled **Enabled**

An Azure Storage container has been created to host your static website. [\\$web](#)

Primary endpoint

<https://mordorce.z13.web.core.windows.net/>

Secondary endpoint

<https://mordorce-secondary.z13.web.core.windows.net/>

Index document name

[index.html](#)

Error document path

[404.html](#)

In the settings -> containers \$web I uploaded the index.html file I created locally

Home > Storage accounts > mordorce | Containers >

\$web

Container

Search

Upload Change access level Refresh Delete Change tier Acquire lease Break lease View snapshots Create snapshot Give feedback

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

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

Authentication method: Access key (Switch to Azure AD User Account)

Location: \$web

Search blobs by prefix (case-sensitive)

Add filter

Name	Modified	Access tier	Archive status
index.html	3/31/2023, 5:29:20 PM	Hot (Inferred)	

URL with hello world

← → ↻ mordorce.z13.web.core.windows.net

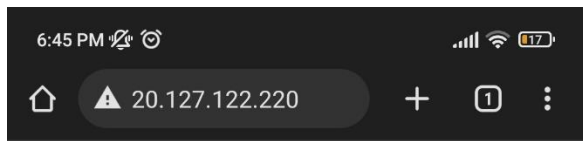
Hello World

Part II

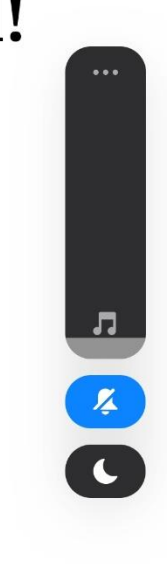
In this exercise we will setup a Linux based web server and will deploy a web page on it.

1. Create a Virtual Network where you will deploy your Linux Based Web Server.
2. Modify the network security group for your virtual machine that will allow you to remotely manage your machine only from your local machine and nowhere else.
3. Create a Linux Virtual Machine that will be your Web Server which is publicly available for web publishing (not SSL) only from your machine and nowhere else.
4. Connect to the VM.
5. Install Apache Web Server.
6. Deploy the "Hello World" web page.

7. Provide Testing from your cellphone.

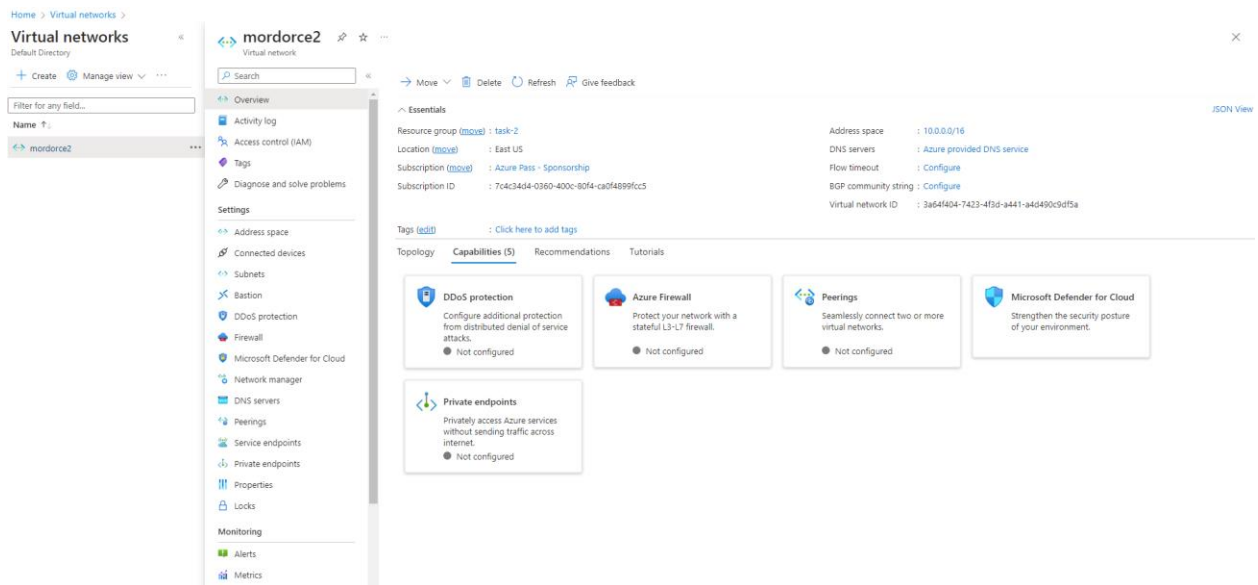


Hello World!



8. Provide the steps and results.

Created a Virtual Network in Azure.



Modified the Network Security Group to allow SSH and HTTP access only from your local machine and phone's IP addresses.

Created a Linux VM within the Virtual Network and associated the modified NSG with it.

The screenshot shows the Azure portal interface for connecting to a Linux virtual machine named 'buntuvvm'. The left sidebar contains a navigation menu with categories like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Networking, Connect (selected), Disks, Size, Microsoft Defender for Cloud, Advisor recommendations, Extensions + applications, Continuous delivery, Availability + scaling, Configuration, Identity, Properties, Locks, Operations, Bastion, Auto-shutdown, Backup, Disaster recovery, and Updates. The main content area is titled 'Connect' and includes a search bar, a warning banner about just-in-time access, and tabs for RDP, SSH (selected), and Bastion. Under the SSH tab, there's a section 'Connect via SSH with client' with a 'Suggested method for connecting' dropdown. A blue box lists prerequisites checked by Azure: network security group access, public IP address, and VM running status. A numbered list provides steps for connecting via SSH, including setting permissions for the private key and providing the path. A terminal snippet shows the command: `ssh -i <private key path> dtw@20.127.122.220`. At the bottom, there are links for 'Can't connect?' (Test your connection, Troubleshoot SSH connectivity issues) and 'Provide feedback' (Tell us about your SSH experience).

Connected to the VM via SSH using your local machine.

```
Windows PowerShell x dtw@buntuvrn: /var/www/ht x + v
drwxr-xr-x 3 dtw dtw 4096 Nov 6 19:14 .yarn
-rw-r--r-- 1 dtw dtw 116 Nov 6 19:04 .yarnrc
dtw@dtw:~$ ssh dtw@20.127.122.220
The authenticity of host '20.127.122.220 (20.127.122.220)' can't be established.
ED25519 key fingerprint is SHA256:c3zUuCJxCqntg2nypP+5dtfAKZ4Hsry+T00KFplapc.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '20.127.122.220' (ED25519) to the list of known hosts
dtw@20.127.122.220's password:
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-1035-azure x86_64)

* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage

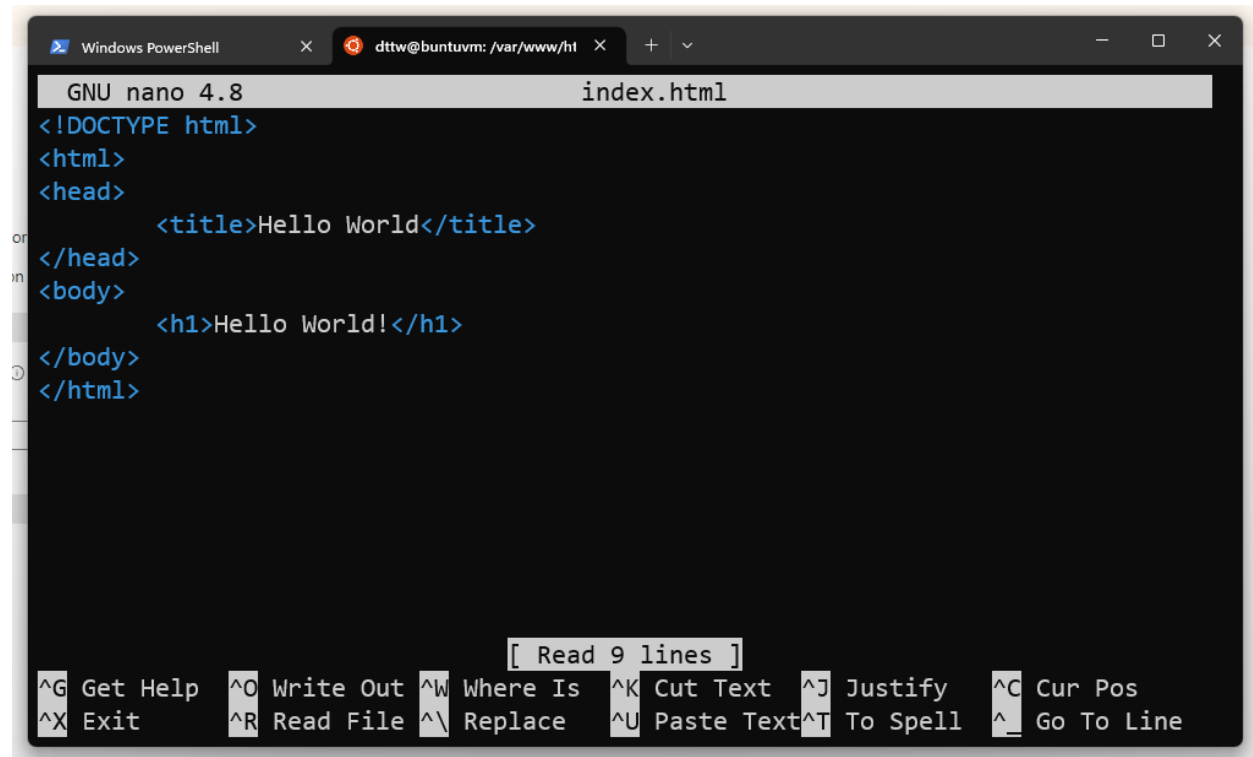
System information as of Fri Mar 31 16:40:06 UTC 2023

System load: 0.17 Processes: 114
```

Installed the Apache Web Server on the VM.

```
Windows PowerShell x dtw@buntuvrn: /var/www/ht x + v
n-f Metadata [516 B]
Fetched 24.2 MB in 5s (4810 kB/s)
Reading package lists... Done
dtw@buntuvrn:~$ sudo apt-get install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sql
  ite3 libaprutil1-ldap libjansson4 liblua5.2-0 ssl-cert
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser opens
  sl-blacklist
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1
  -dbd-sqlite3 libaprutil1-ldap libjansson4 liblua5.2-0 ssl-cert
0 upgraded, 11 newly installed, 0 to remove and 3 not upgraded.
Need to get 1867 kB of archives.
```


Edit the index.html to display Hello World in /var/www/html.



```
GNU nano 4.8 index.html
<!DOCTYPE html>
<html>
<head>
  <title>Hello World</title>
</head>
<body>
  <h1>Hello World!</h1>
</body>
</html>
```

[Read 9 lines]

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Paste Text ^T To Spell ^_ Go To Line

Tested the web page from your phone's browser, successfully viewing the "Hello World" web page.

