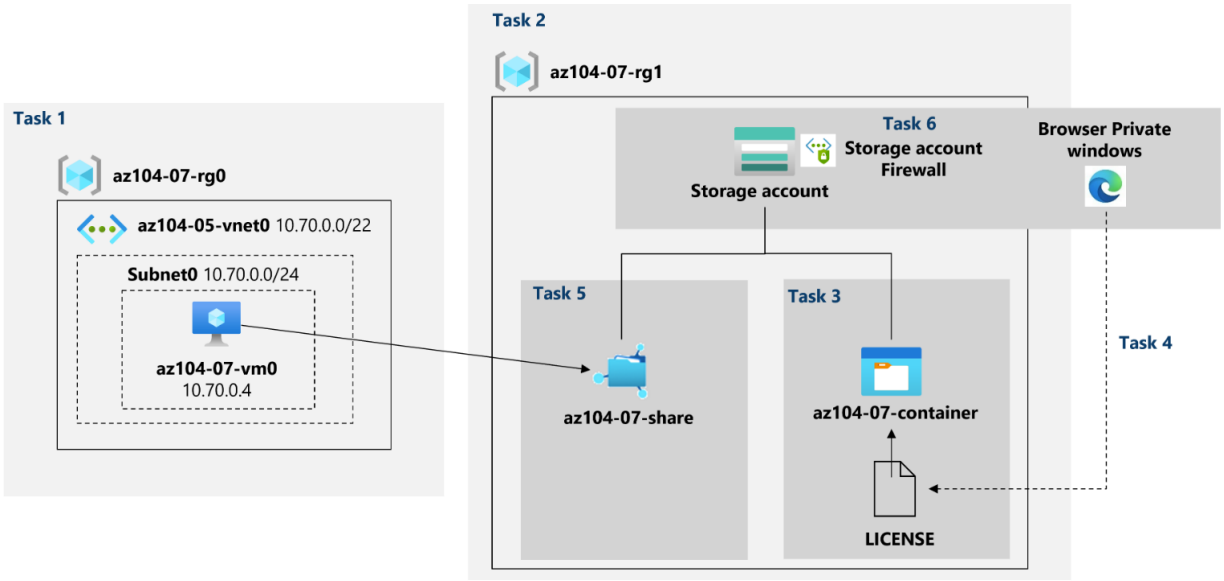
A6- Manage Azure Storage Account Project

I need to evaluate the use of Azure storage for storing files residing currently in on-premises data stores. While majority of these files are not accessed frequently, there are some exceptions. I would like to minimize cost of storage by placing less frequently accessed files in lower-priced storage tiers. I also plan to explore different protection mechanisms that Azure Storage offers, including network access, authentication, authorization, and replication. Finally, I want to determine to what extent Azure Files service might be suitable for hosting my on-premises file shares.

In this project, my tasks:

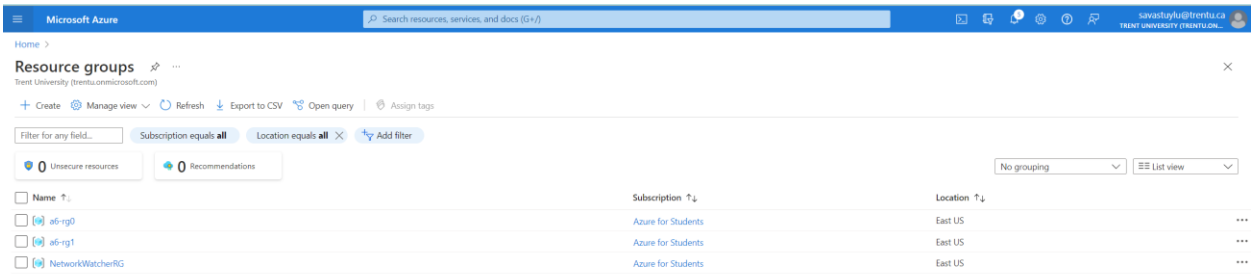
- Task 1: Provision the lab environment
- Task 2: Create and configure Azure Storage accounts
- Task 3: Manage blob storage
- Task 4: Manage authentication and authorization for Azure Storage
- Task 5: Create and configure an Azure Files shares
- Task 6: Manage network access for Azure Storage

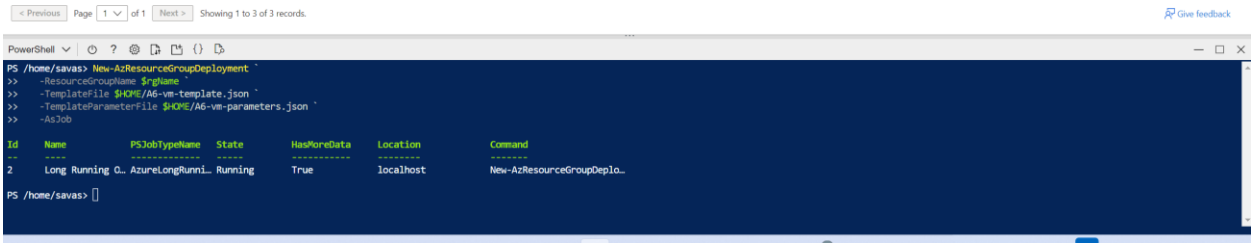
Architecture diagram of the project:

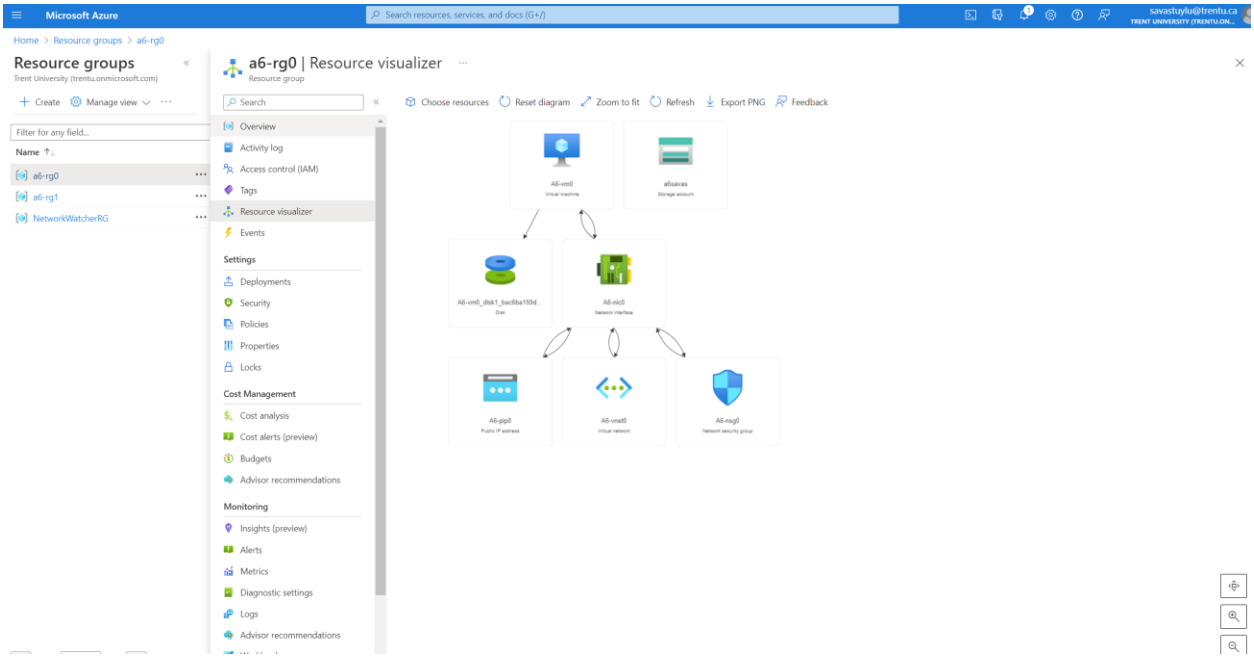


Task 1: Provision the lab environment

In this task, I will deploy an Azure virtual machine that I will use later in this project.

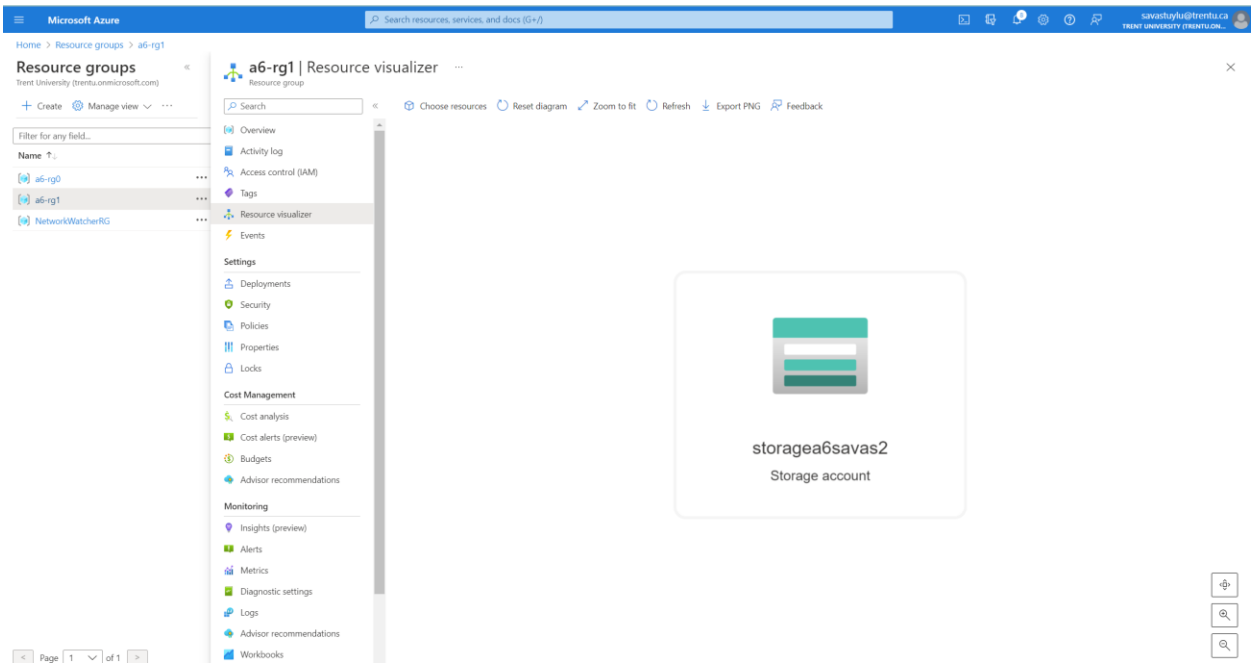


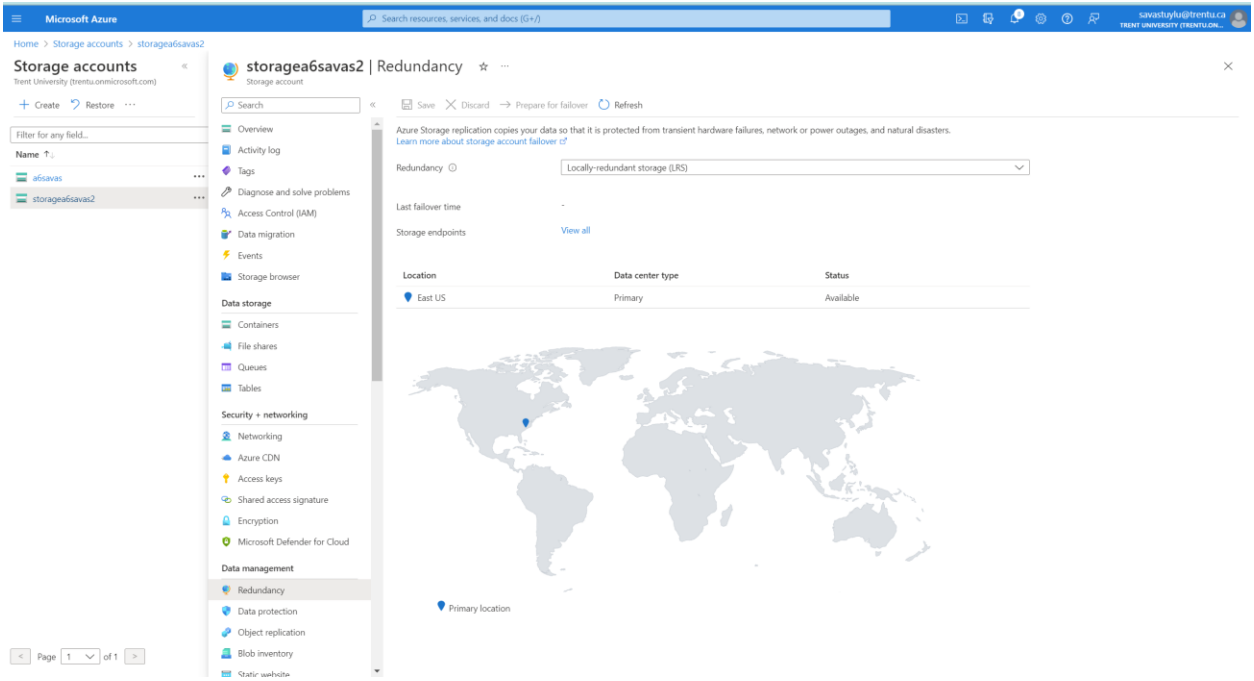




Task 2: Create and configure Azure Storage accounts

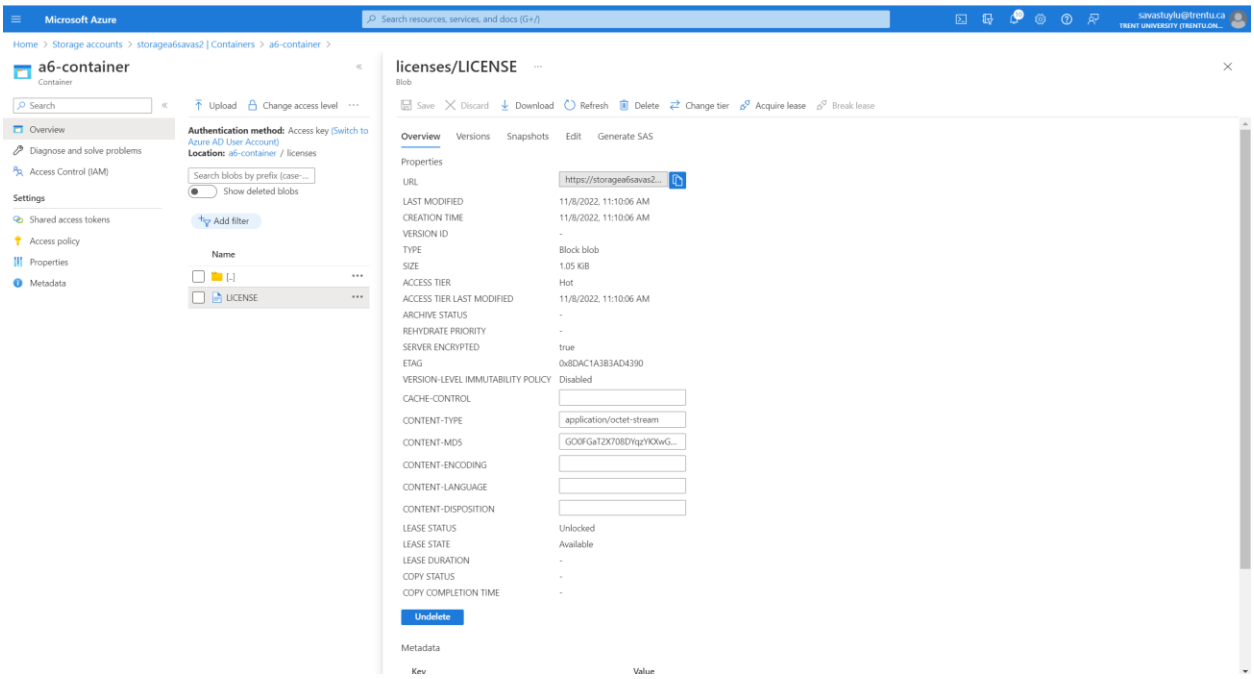
In this task, I will create and configure an Azure Storage account.





Task 3: Manage blob storage

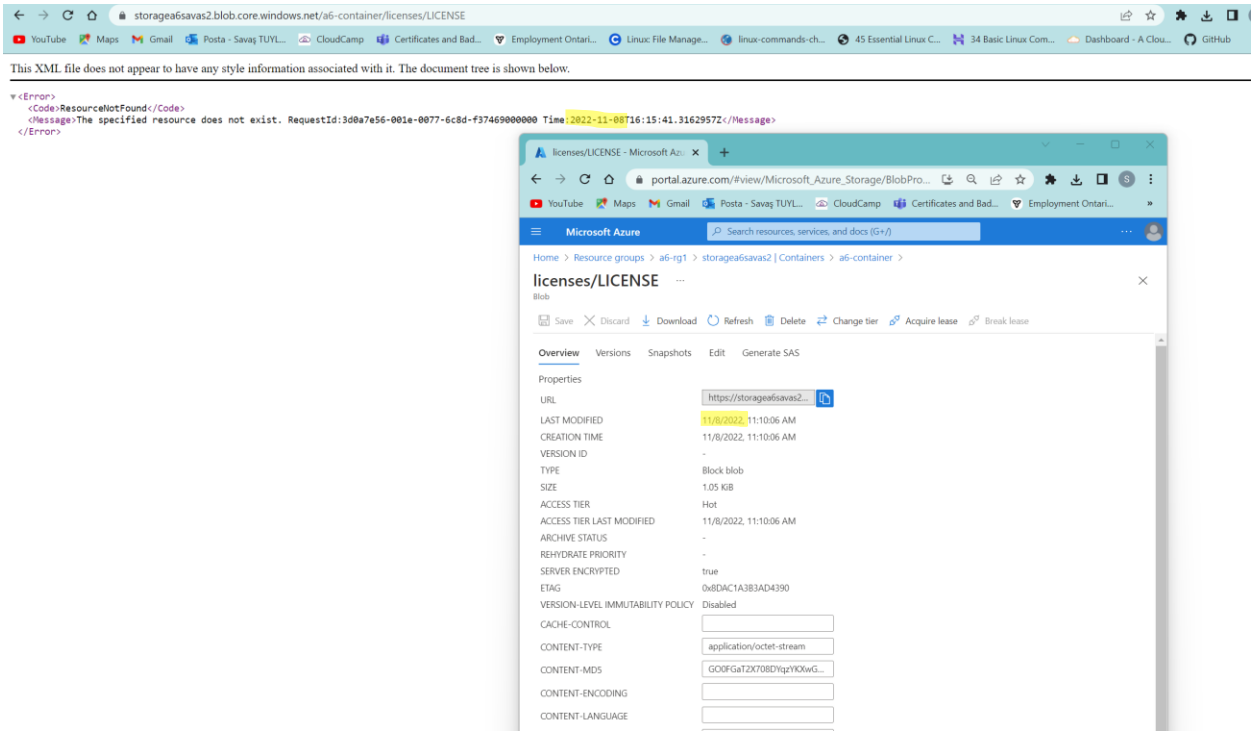
In this task, I will create a blob container and upload a blob into it.



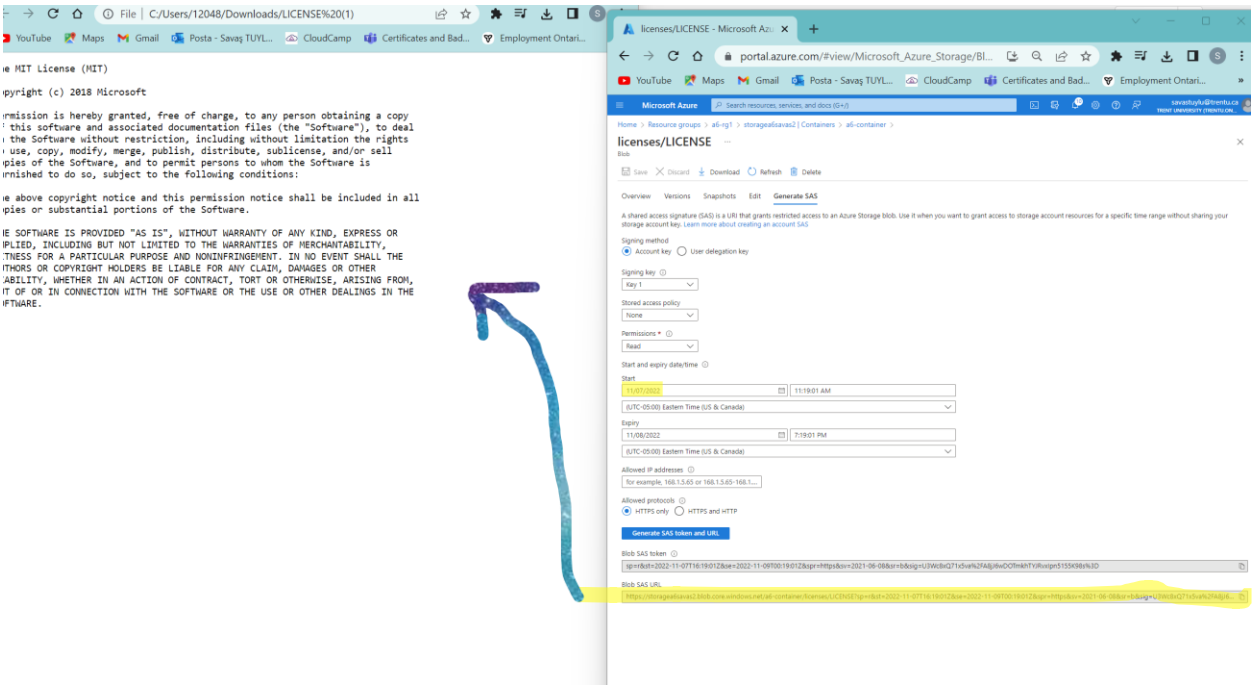
Task 4: Manage authentication and authorization for Azure Storage

In this task, I will configure authentication and authorization for Azure Storage.

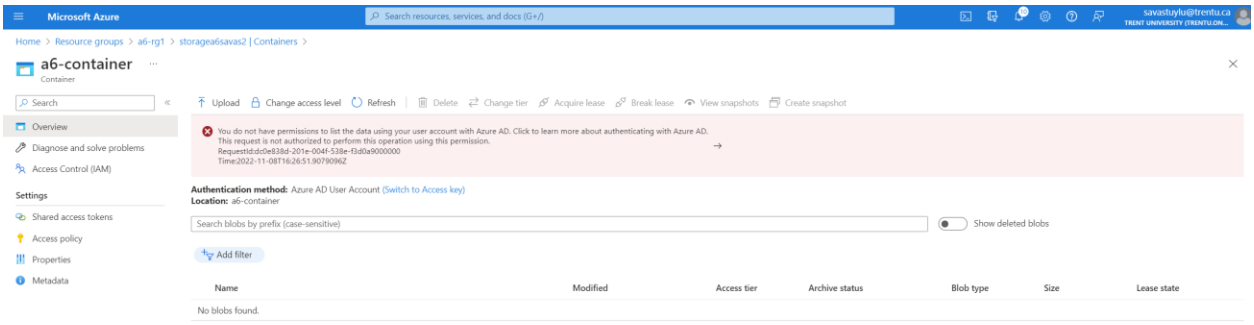
Before authentication to the license



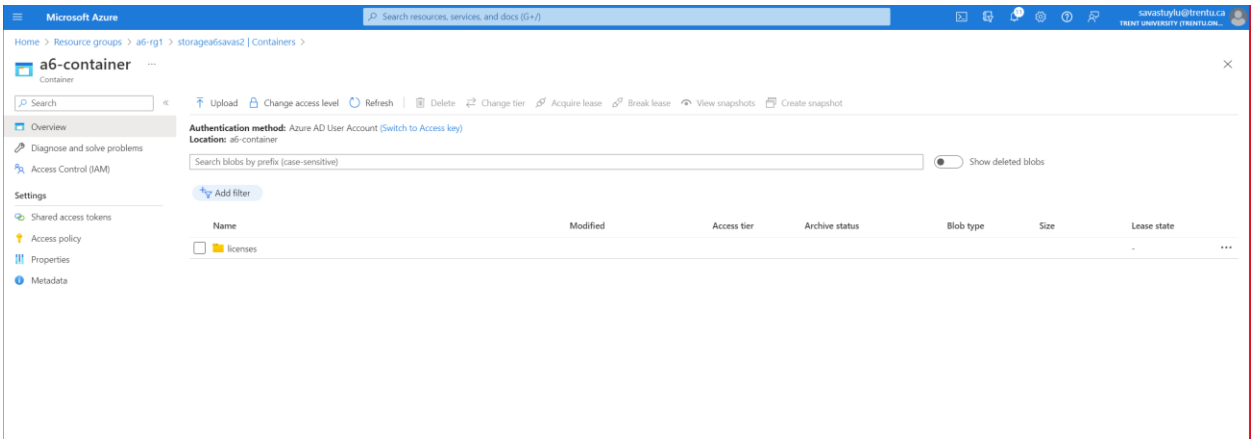
After authentication to the license



Before authorization to the blob storage

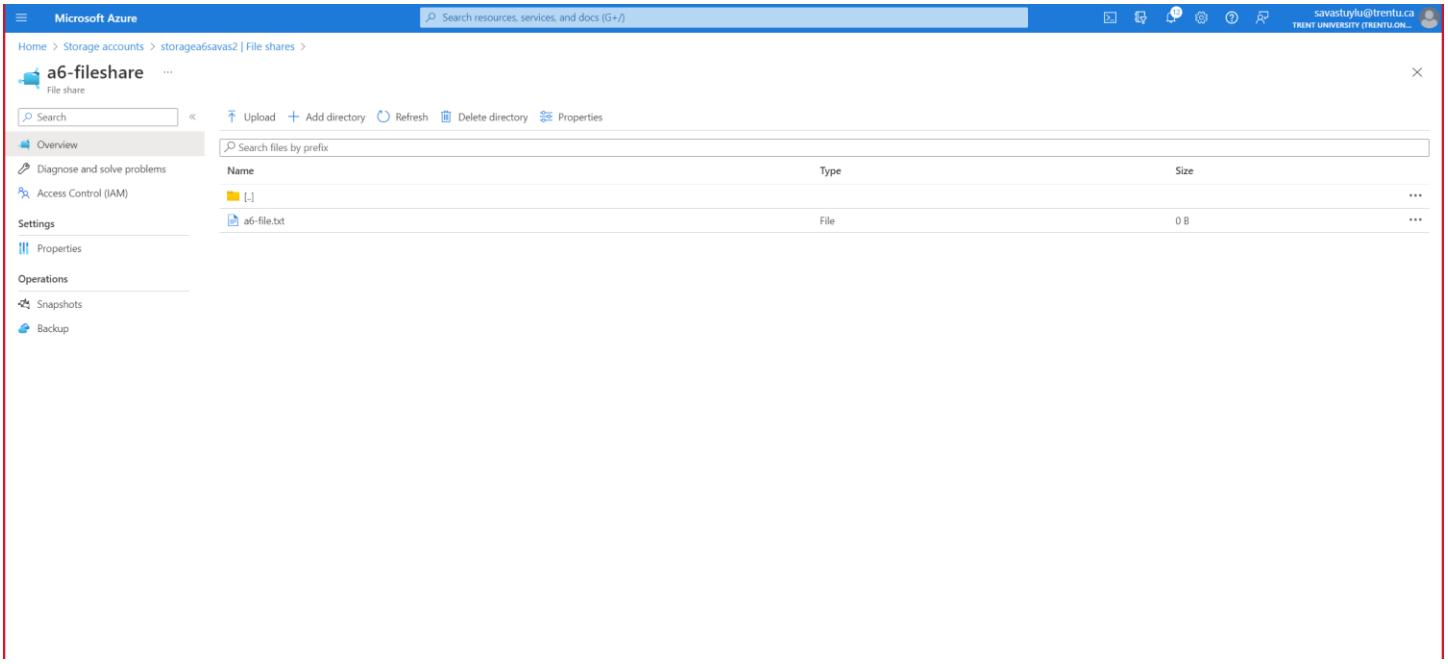


After authorization to the blob storage



Task 5: Create and configure an Azure Files shares

In this task, I will create and configure Azure Files shares.



What is 445 port used for?

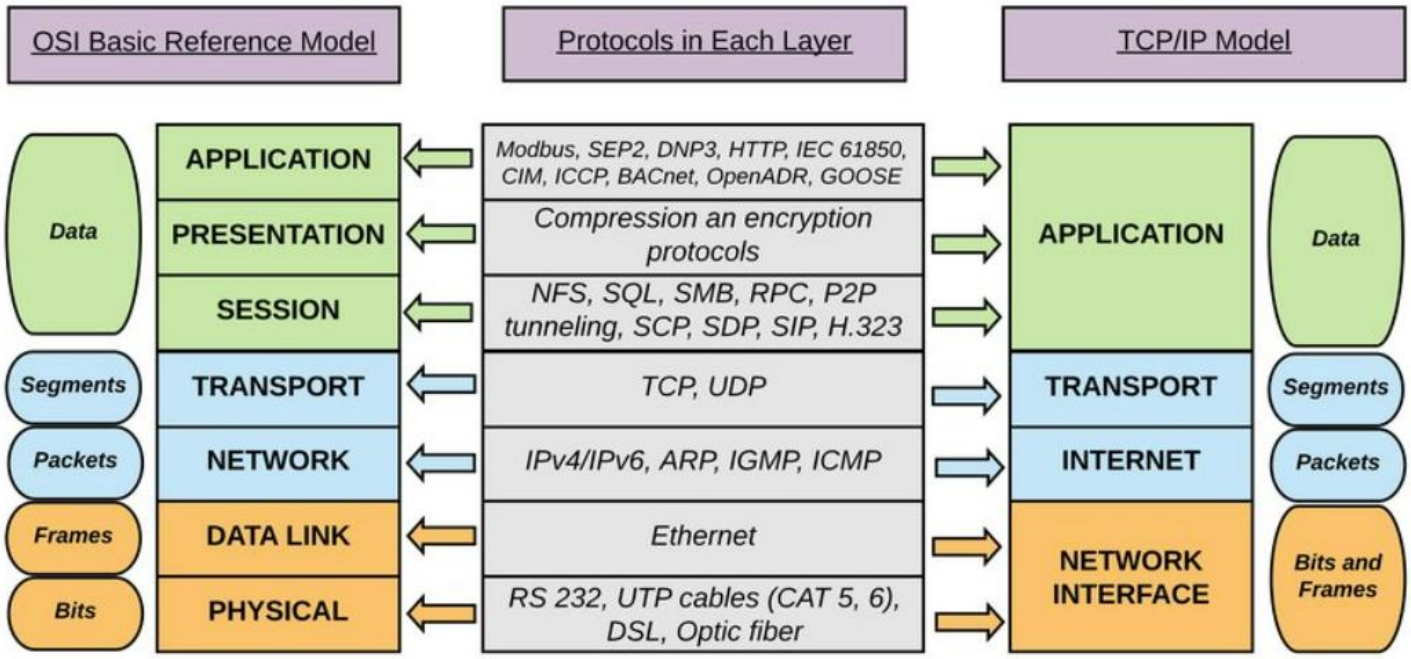
Port 445 is a traditional Microsoft networking port with tie-ins to the original NetBIOS service found in earlier versions of Windows OSes. Today, port 445 is used by **Microsoft Directory Services for Active Directory (AD) and for the Server Message Block (SMB) protocol over TCP/IP**

What are ports 139 and 445 used for?

Port 139: SMB originally ran on top of NetBIOS using port 139. NetBIOS is an older transport layer that allows Windows computers to talk to each other on the same network. Port 445: Later versions of SMB (after Windows 2000) began to use port 445 on top of a TCP stack. Using TCP allows SMB to work over the internet.

What is SMB in firewall?

Summary. Server Message Block (SMB) is **a network file sharing and data fabric protocol**. SMB is used by billions of devices in a diverse set of operating systems, including Windows, MacOS, iOS, Linux, and Android. Clients use SMB to access data on servers



The logical mapping between OSI basic reference model and the TCP/IP stack.

Task 6: Manage network access for Azure Storage

In this task, I will configure network access for Azure Storage.