Azure Blob Storage - how to provision, access and development guide

Azure Blob Storage, a key component of Microsoft Azure's cloud services, is a robust and scalable object storage solution designed for managing vast amounts of unstructured data efficiently. This storage service plays a pivotal role in enabling organisations to store and access diverse types of data securely in the cloud.

Key Features and Uses:

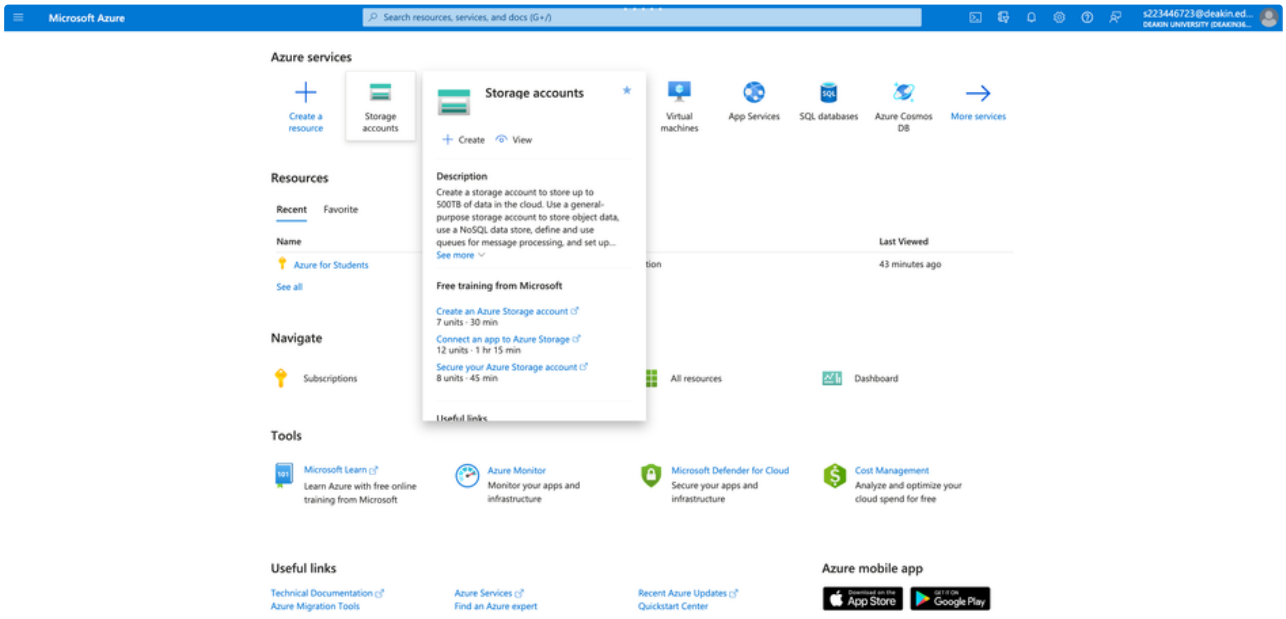
- **Scalability:** Azure Blob Storage provides seamless scalability, allowing organizations to handle massive amounts of data without worrying about infrastructure limitations.
- **Storage Tiers:** With the flexibility of three storage tiers—hot, cool, and archive—users can optimize costs based on the access frequency of their data, ensuring a cost-effective storage solution.
- **Global Accessibility:** The service supports global accessibility, making it ideal for applications with distributed user bases, ensuring reliable and fast data access worldwide.
- **Integration with Azure Services:** Azure Blob Storage integrates seamlessly with various Azure services, including Azure Data Factory, Azure Databricks, and Azure Functions, facilitating the development of comprehensive, data-driven applications.
- **Data Security:** Robust security features, including encryption at rest and in transit, contribute to ensuring the confidentiality and integrity of stored data.

Benefits for Microsoft Azure:

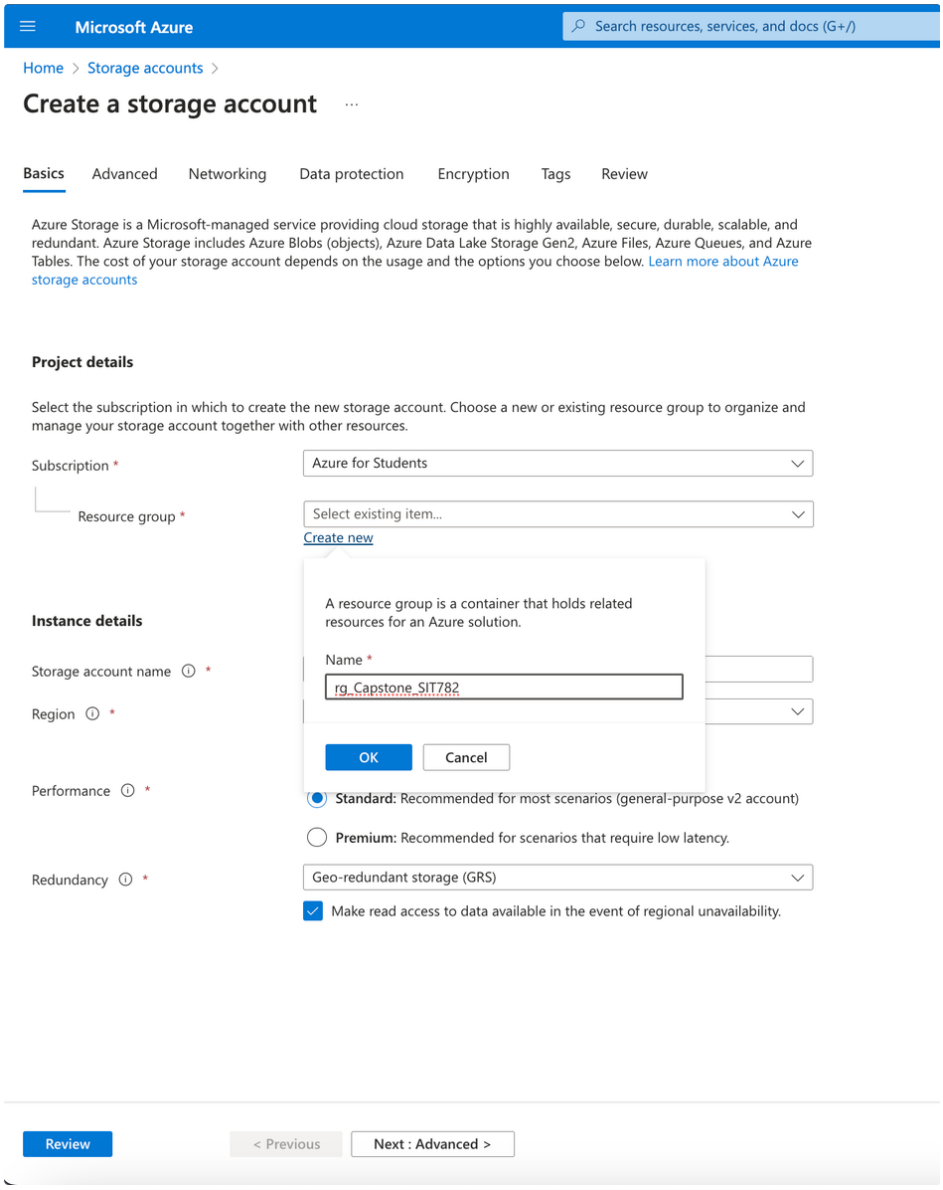
- **Versatility:** Azure Blob Storage enhances the versatility of Microsoft Azure by providing a dedicated solution for managing diverse types of unstructured data, supporting a wide range of applications and workloads.
- **Cost-Effective:** The storage tiers and pay-as-you-go pricing model contribute to cost-effectiveness, allowing organizations to optimize expenses based on their specific data storage and access patterns.
- **Reliability and Durability:** The durability and availability features of Azure Blob Storage enhance the overall reliability of Microsoft Azure, ensuring data persistence and accessibility.

In order to create your own Azure Blob Storage, please follow the steps as mentioned below -

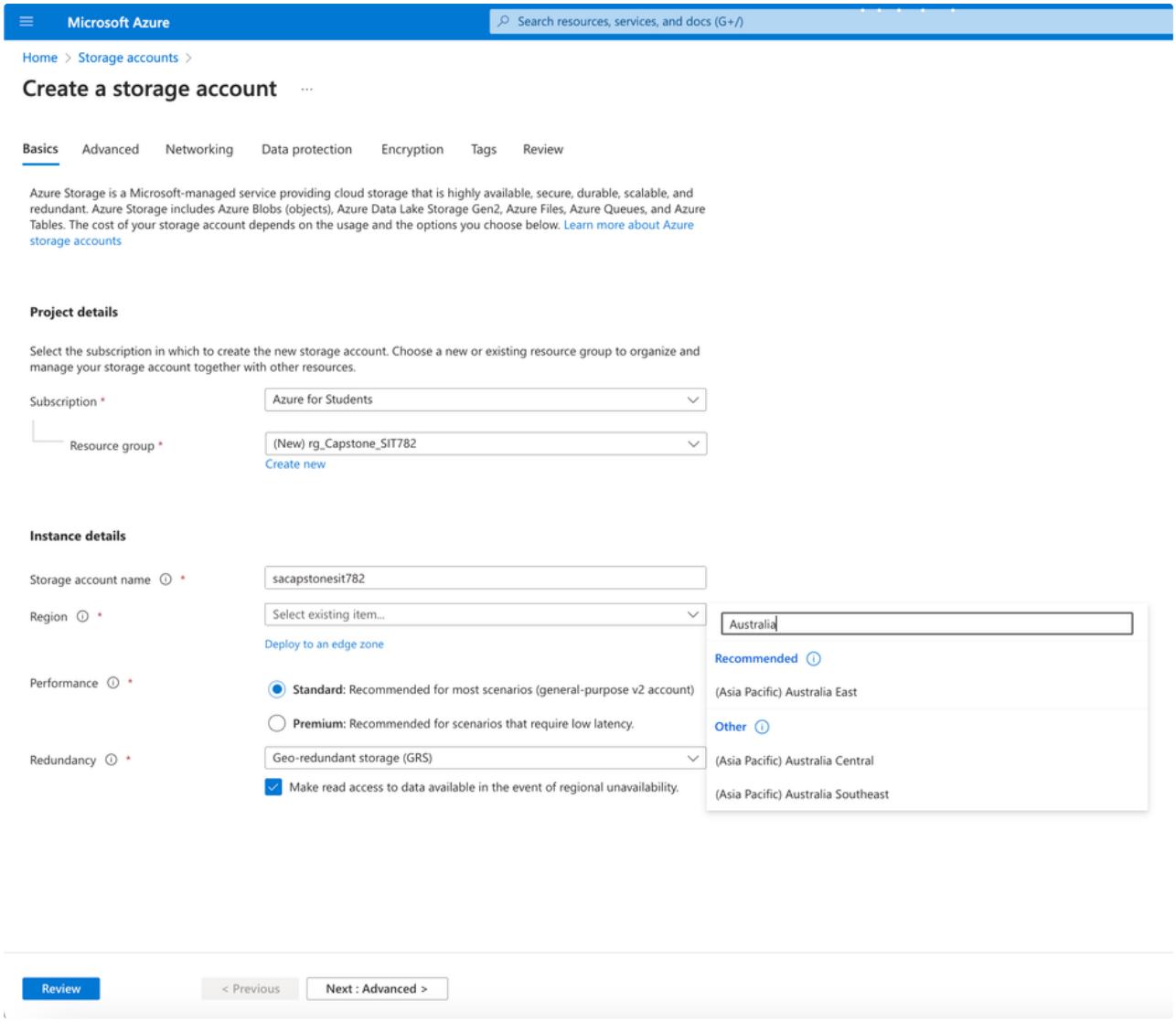
1. Search for “Storage accounts” in the menu bar as shown below -



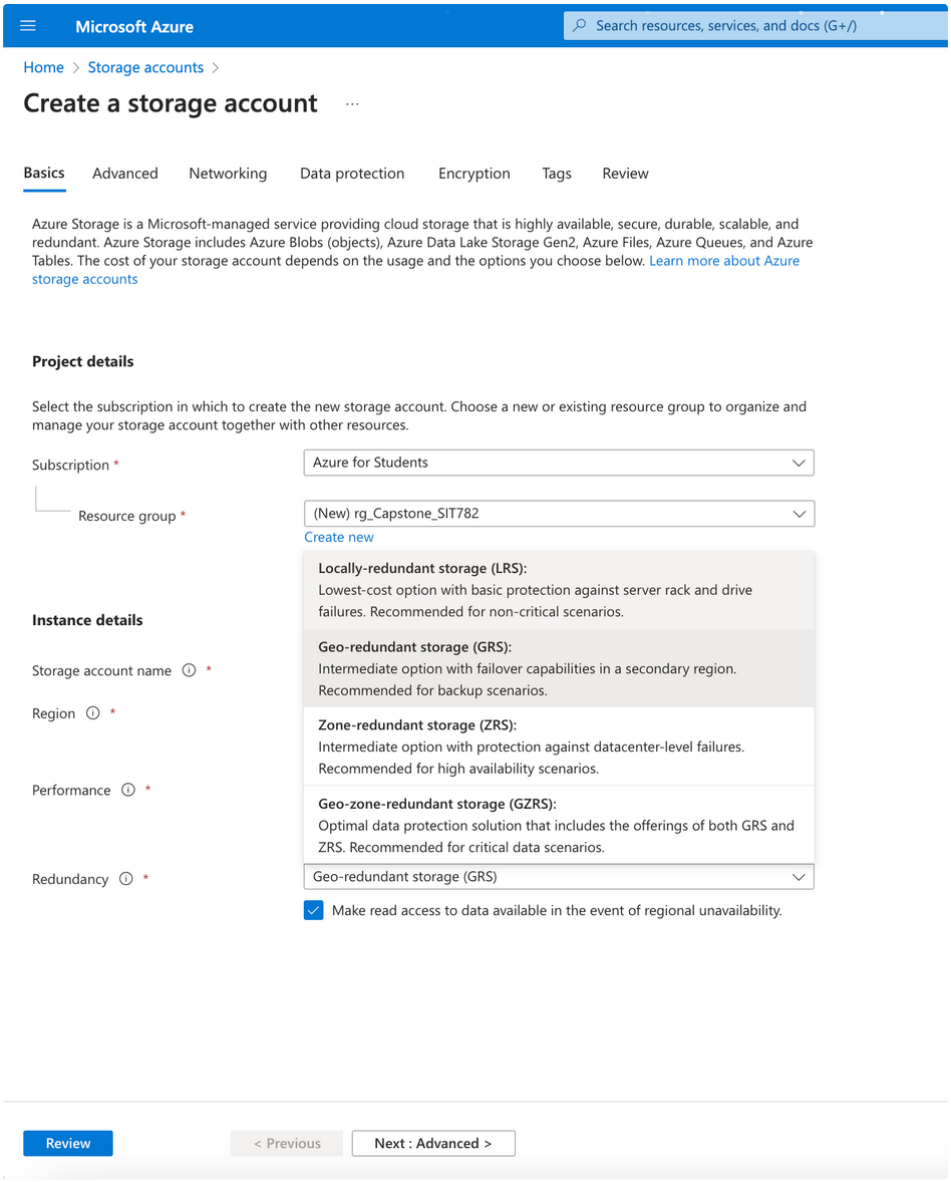
2. Once you click on “Storage Accounts”, you will land in a page similar to this. First, you will need to select the Subscription and then create a Resource Group, if not created already.



3. After specifying a new Resource Group(if required), choose the region as “Australia East”, since that is the closest available region.

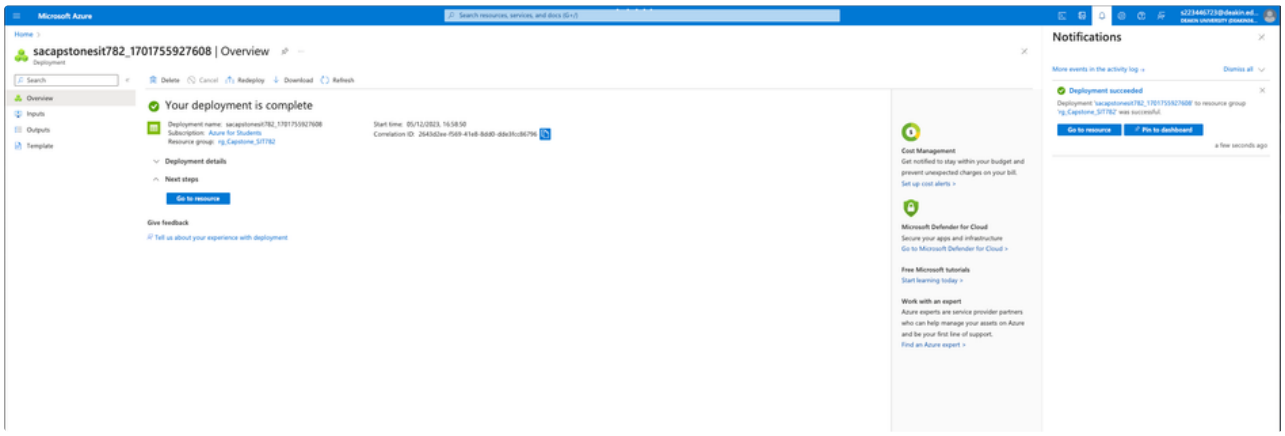


4. We will not need GRS (Geo-redundant storage) since we are not dealing with critical data here. Choose Locally-redundant storage(LRS) to reduce cost of running this resource.

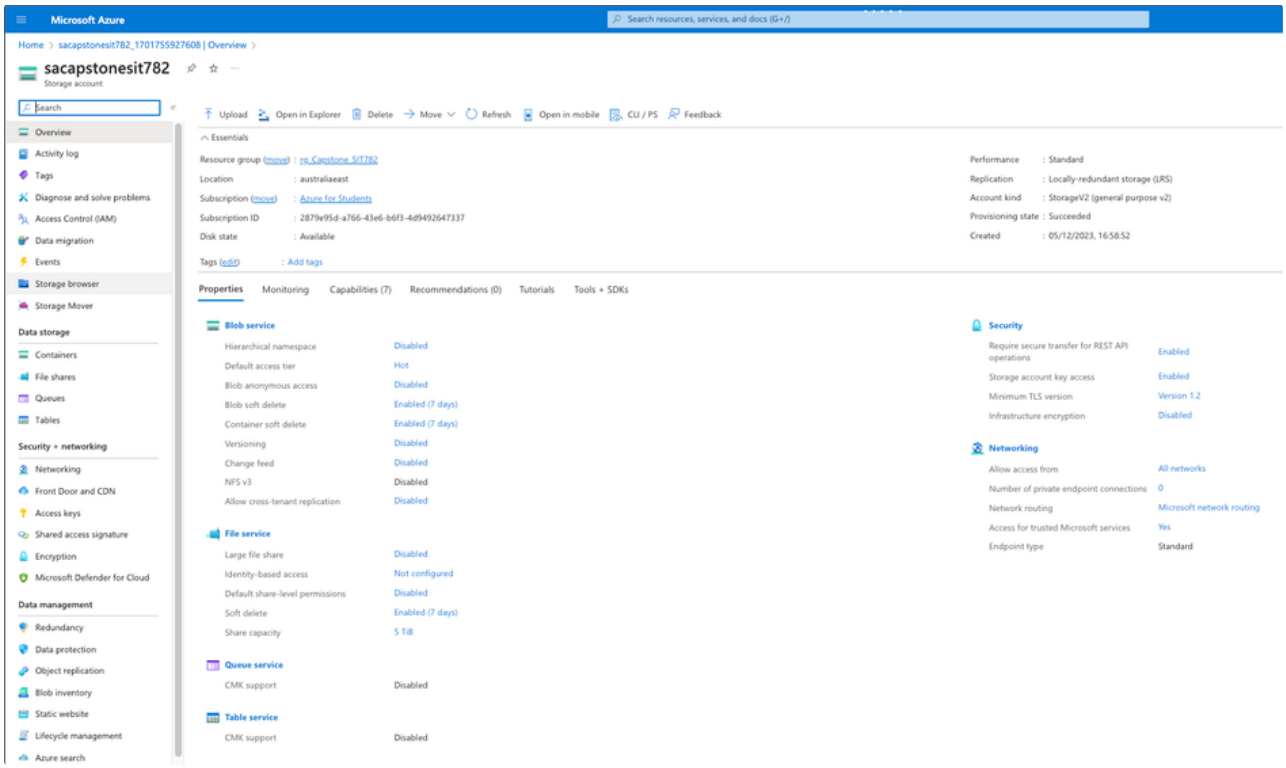


5. The final page for Storage account creation will look like this -

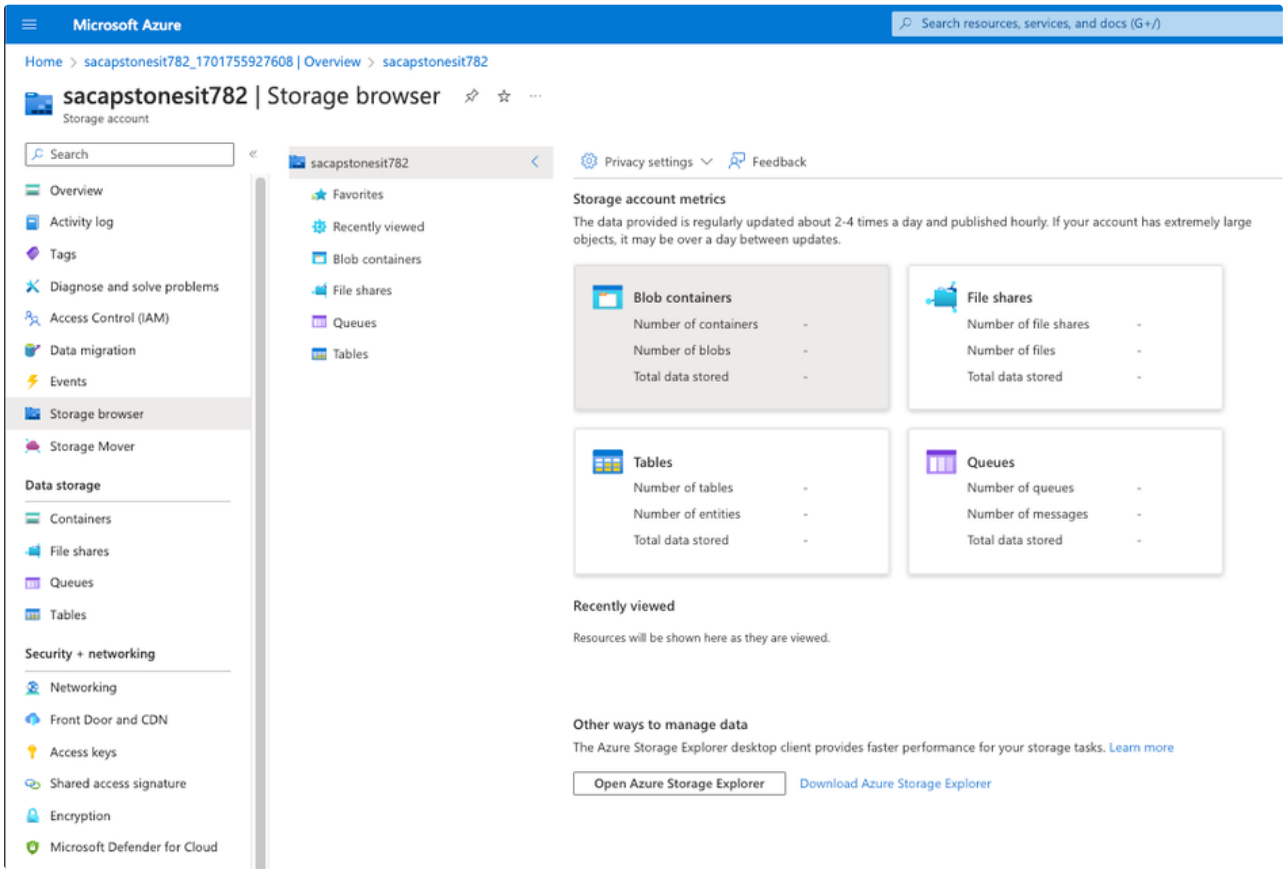
6. Once you click “Create” on the resource creation page, the deployment will start and after it is completed, you will get a page similar to this -



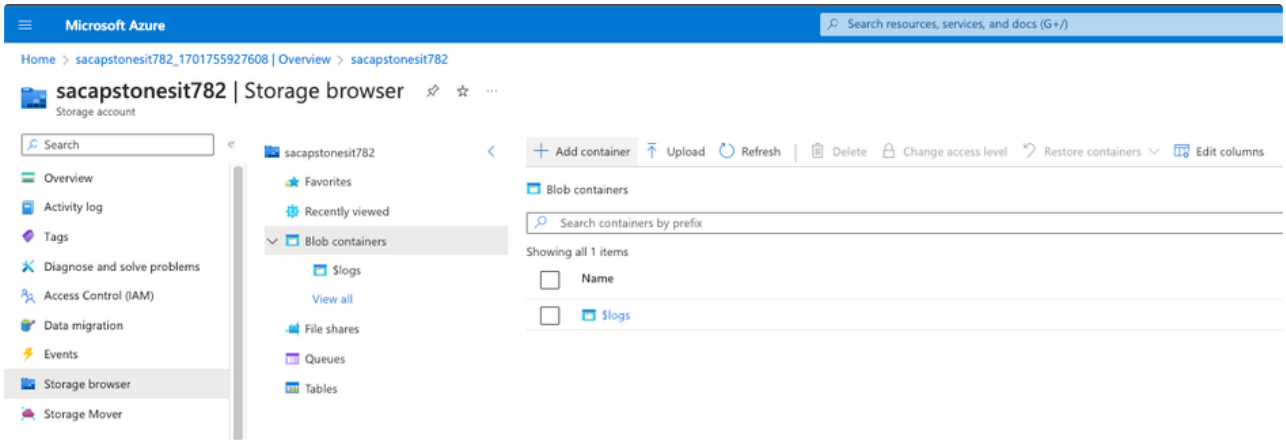
7. Click on “Go to Resource” and you will land in a page similar to this. This page shows all details of the resource which has been deployed.



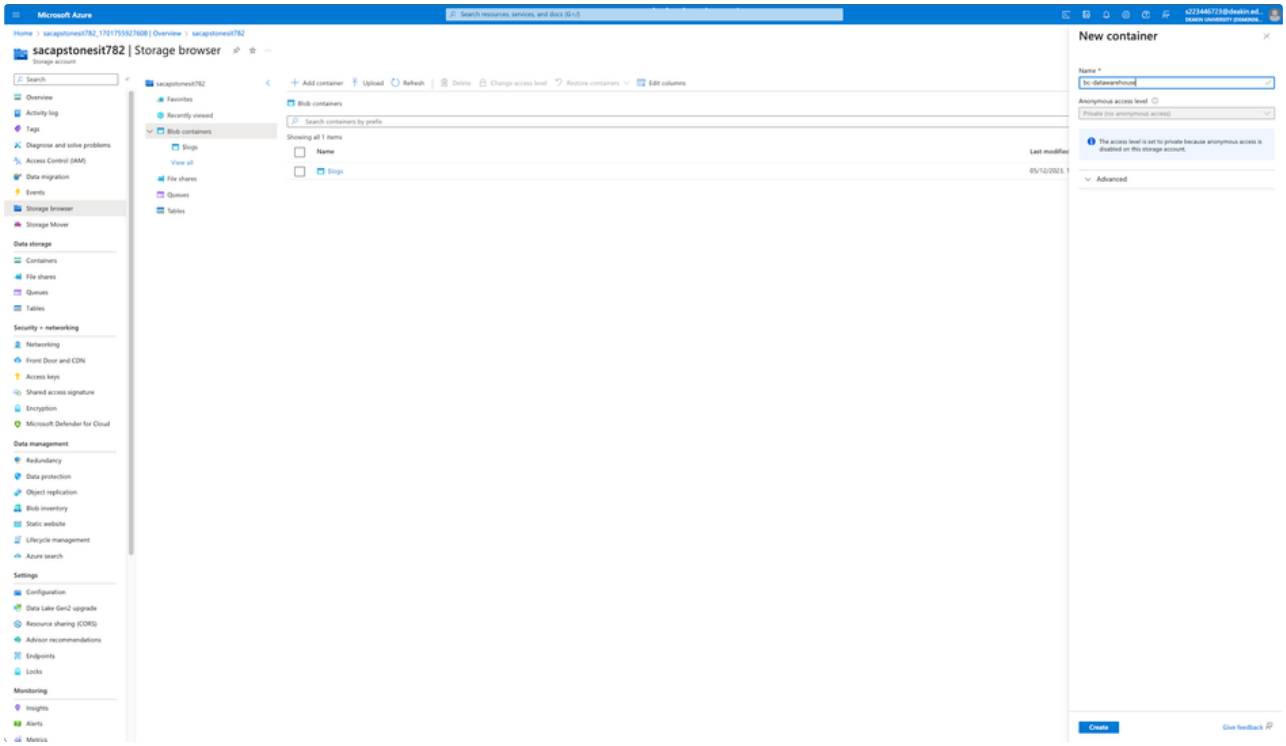
8. Click on “Storage browser” on the left-hand pane. This will open up Blob containers, File shares, Tables and Queues.



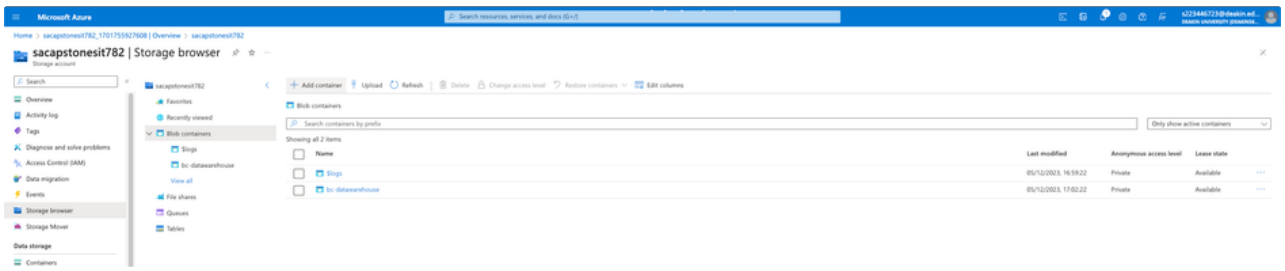
9. Click on “Blob containers”, since we will be adding sample files to the storage as an example of how to use this.



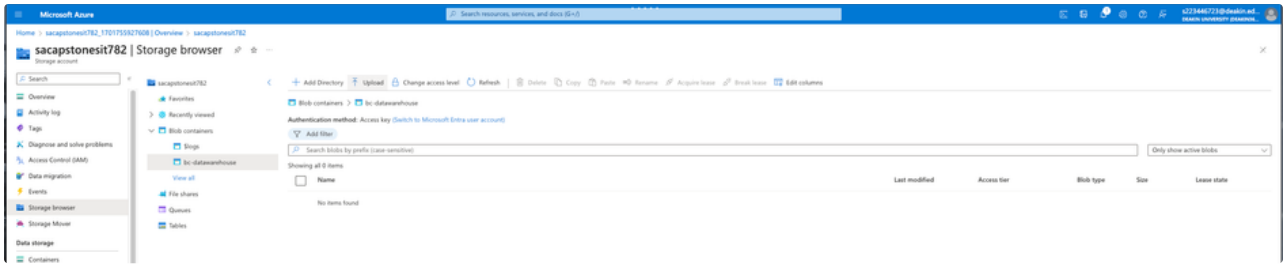
10. Create a new container by clicking on “Add container” and then filling in the details as below -



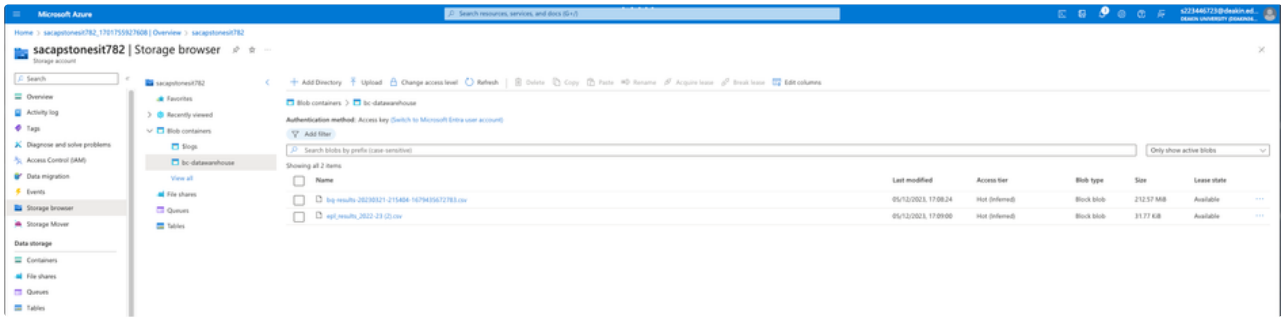
11. Once you click “Create”, you will get a page similar to this. Since this is not a separate resource, you will not get notification.



12. Navigate to the newly created container and we will next upload sample files in it.



13. Once you click on “Upload” and upload sample files, you will get a page similar to this -



Following these steps will help a student to create a new Blob Storage resource and also upload sample files in it.