



**Cloud Development, 2021 fall.
Lab3**

Report

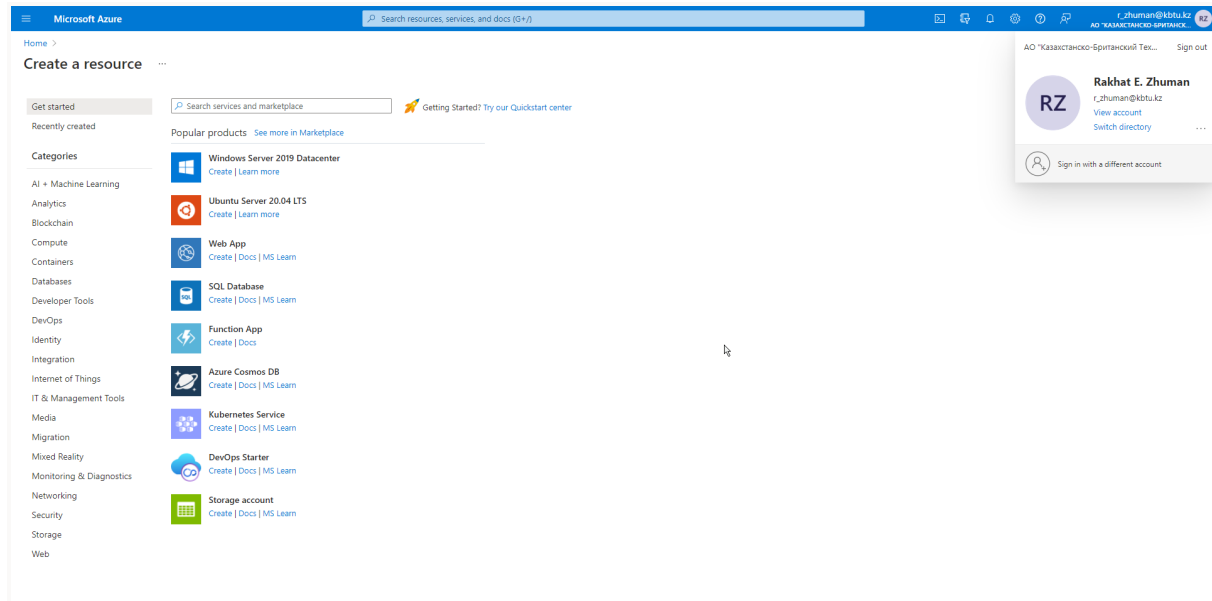
**Retrieving Azure Storage resources and metadata by using
the Azure Storage SDK for .NET**

made by Zhuman Rakhat

Almaty 2021

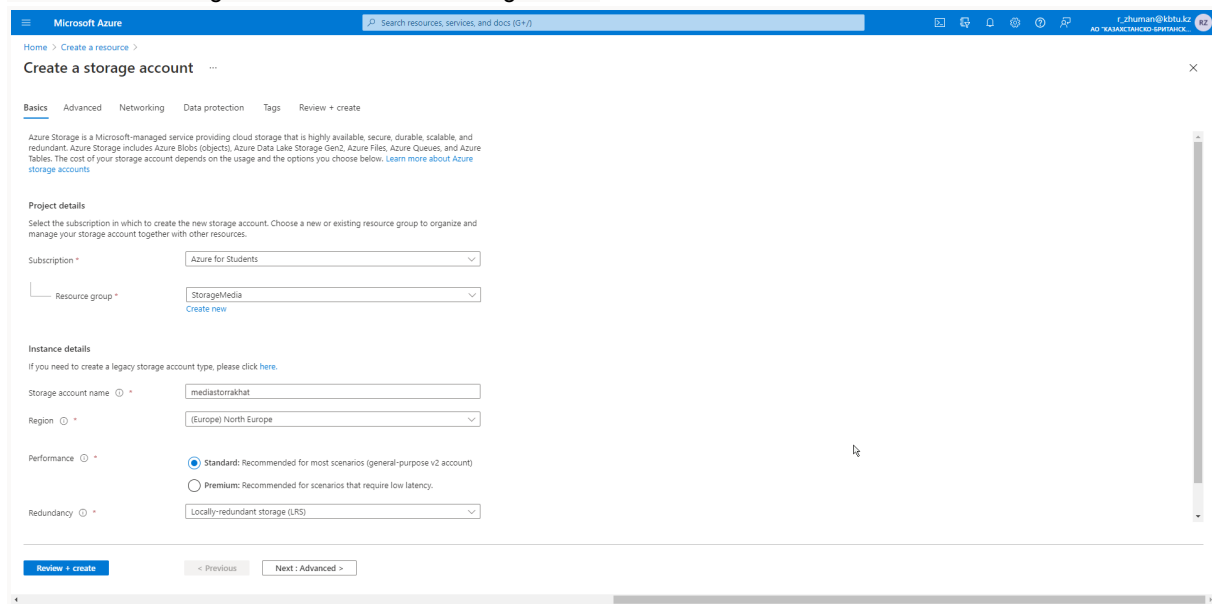
Exercise 1: Create Azure resources

Task 1: Open the Azure portal



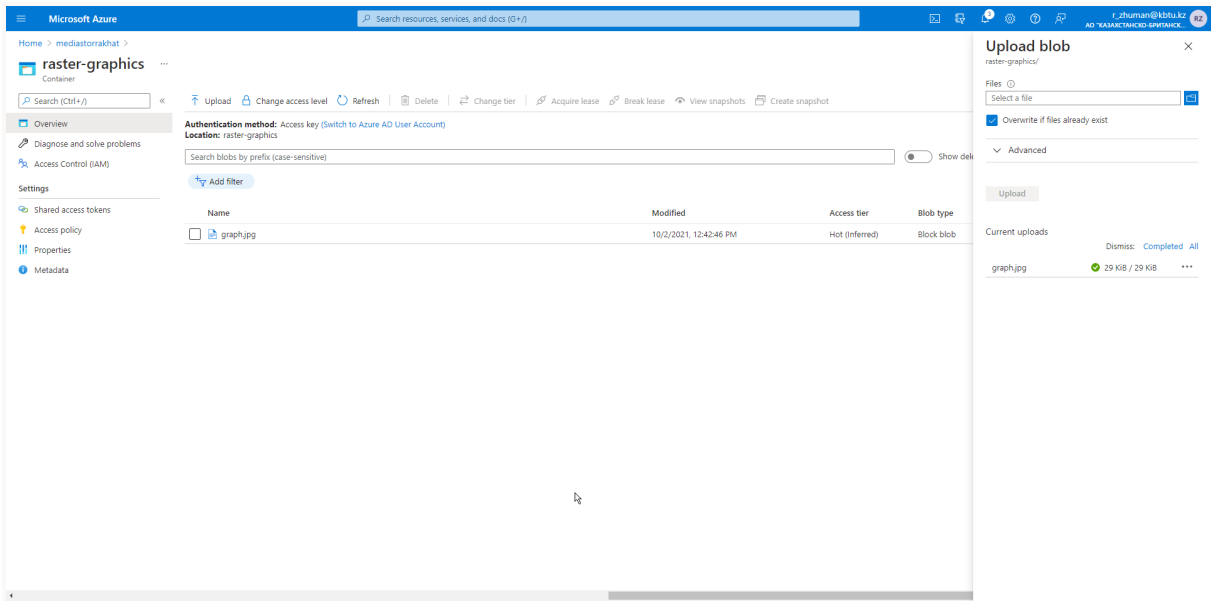
Task 2: Create an Azure Storage account

Create a new storage account with the following details:



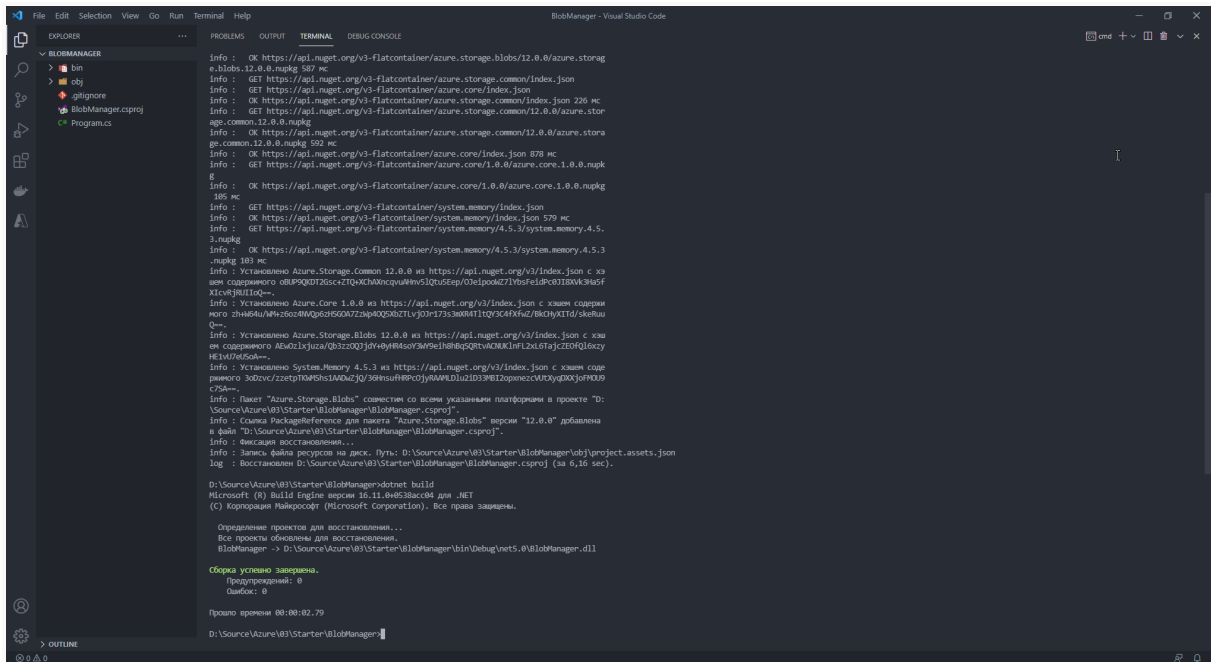
Record the value in the Storage account name text box and any of the Key text boxes. You'll use these values later in this lab.

Task 2: Upload a storage account blob

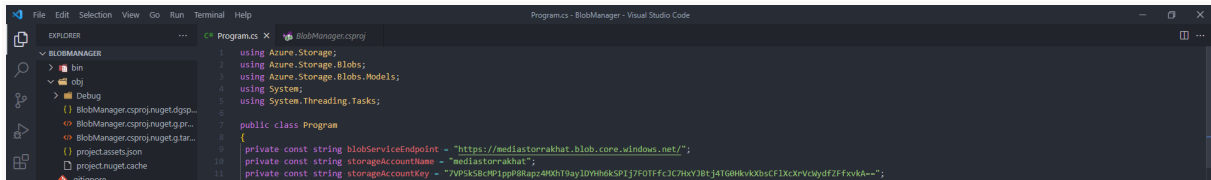


Exercise 3: Access containers by using the .NET SDK

Task 1: Create .NET project



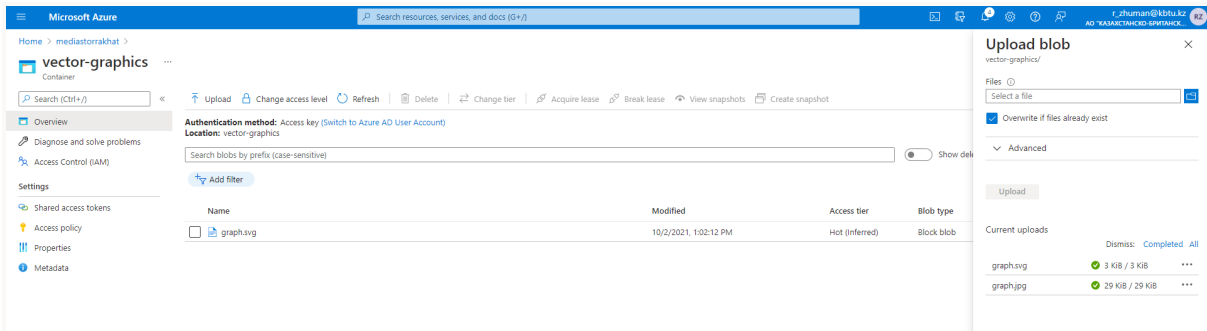
Task 2: Modify the Program class to access Storage



Task 3: Connect to the Azure Storage blob service endpoint


```
12 private static async Task Main(string[] args)
13 {
14     StorageSharedKeyCredential accountCredentials = new StorageSharedKeyCredential(storageAccountName, storageAccountKey);
15     BlobServiceClient serviceClient = new BlobServiceClient(new Uri(blobServiceEndpoint), accountCredentials);
16     AccountInfo info = await serviceClient.GetAccountInfoAsync();
17
18     await Console.Out.WriteLineAsync($"Connected to Azure Storage Account");
19     await Console.Out.WriteLineAsync($"Account name: {info.AccountName}");
20     await Console.Out.WriteLineAsync($"Account kind: {info.AccountKind}");
21     await Console.Out.WriteLineAsync($"Account sku: {info.AccountSku}");
22
23     await EnumerateContainersAsync(serviceClient);
24
25     string existingContainerName = "raster-graphics";
26
27     await EnumerateBlobsAsync(serviceClient, existingContainerName);
28
29     string newContainerName = "vector-graphics";
30     BlobContainerClient containerClient = await GetContainerAsync(serviceClient, newContainerName);
31
32     private static async Task EnumerateContainersAsync(BlobServiceClient client)
33     {
34         await foreach (BlobContainerItem container in client.GetBlobContainersAsync())
35         {
36             await Console.Out.WriteLineAsync($"Container: {container.Name}");
37         }
38     }
39
40     private static async Task EnumerateBlobsAsync(BlobServiceClient client, string containerName)
41     {
42         BlobContainerClient container = client.GetBlobContainerClient(containerName);
43         await Console.Out.WriteLineAsync($"Searching: {container.Name}");
44
45         await foreach (BlobItem blob in container.GetBlobsAsync())
46         {
47             await Console.Out.WriteLineAsync($"Existing Blob: {blob.Name}");
48         }
49     }
50
51     private static async Task<BlobContainerClient> GetContainerAsync(BlobServiceClient client,
52         string containerName)
53     {
54         BlobContainerClient container = client.GetBlobContainerClient(containerName);
55         await container.CreateIfNotExistsAsync(PublicAccessType.Blob);
56         await Console.Out.WriteLineAsync($"New Container: {container.Name}");
57         return container;
58     }
59
60 }
```

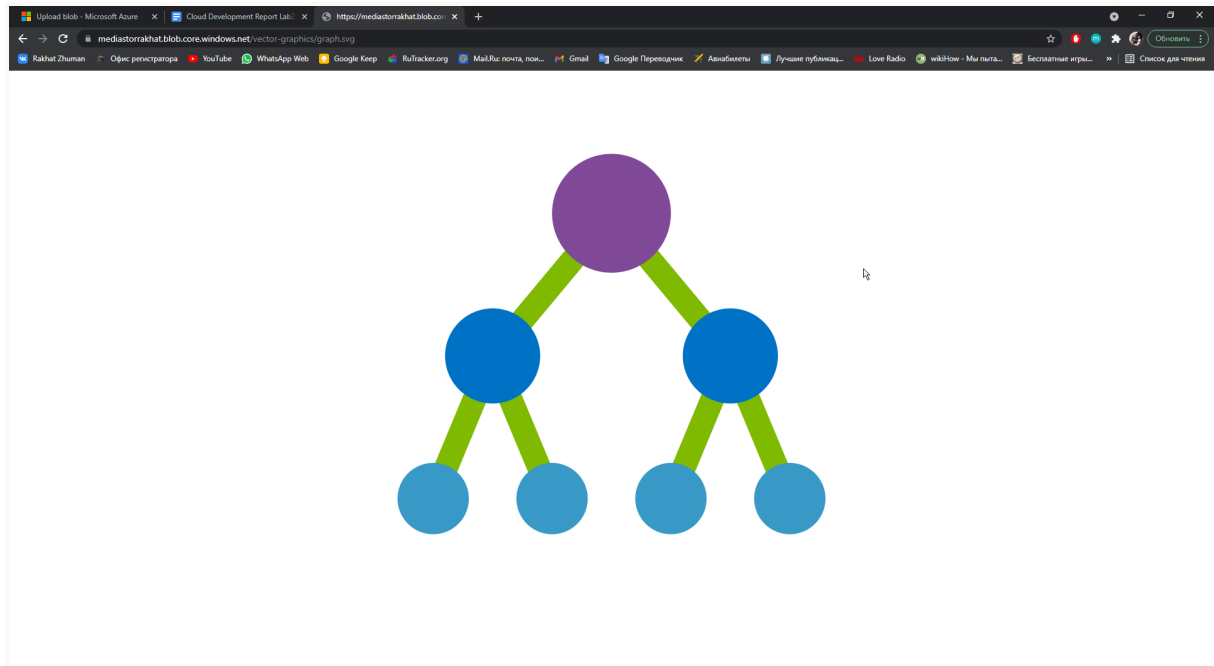
Task 3: Upload a new blob by using the portal



Task 4: Access blob URI by using the SDK

```
14 StorageSharedKeyCredential accountCredentials = new StorageSharedKeyCredential(storageAccountName, storageAccountKey);
15 BlobServiceClient serviceClient = new BlobServiceClient(new Uri(blobServiceEndpoint), accountCredentials);
16 AccountInfo info = await serviceClient.GetAccountInfoAsync();
17
18 await Console.Out.WriteLineAsync($"Connected to Azure Storage Account");
19 await Console.Out.WriteLineAsync($"Account name: {info.AccountName}");
20 await Console.Out.WriteLineAsync($"Account kind: {info.AccountKind}");
21 await Console.Out.WriteLineAsync($"Account sku: {info.AccountSku}");
22
23 await EnumerateContainersAsync(serviceClient);
24
25 string existingContainerName = "raster-graphics";
26
27 await EnumerateBlobsAsync(serviceClient, existingContainerName);
28
29 string newContainerName = "vector-graphics";
30 BlobContainerClient containerClient = await GetContainerAsync(serviceClient, newContainerName);
31
32 string uploadedBlobName = "graph.jpg";
33 BlobClient blobClient = await GetBlobClient(containerClient, uploadedBlobName);
34 await Console.Out.WriteLineAsync($"Blob URI: {blobClient.Uri}");
35
36 private static async Task EnumerateContainersAsync(BlobServiceClient client)
37 {
38     await foreach (BlobContainerItem container in client.GetBlobContainersAsync())
39     {
40         await Console.Out.WriteLineAsync($"Container: {container.Name}");
41     }
42 }
43
44 private static async Task EnumerateBlobsAsync(BlobServiceClient client, string containerName)
45 {
46     BlobContainerClient container = client.GetBlobContainerClient(containerName);
47     await Console.Out.WriteLineAsync($"Searching: {container.Name}");
48
49     await foreach (BlobItem blob in container.GetBlobsAsync())
50     {
51         await Console.Out.WriteLineAsync($"Existing Blob: {blob.Name}");
52     }
53 }
54
55 private static async Task<BlobContainerClient> GetContainerAsync(BlobServiceClient client,
56     string containerName)
57 {
58     BlobContainerClient container = client.GetBlobContainerClient(containerName);
59     await container.CreateIfNotExistsAsync(PublicAccessType.Blob);
60     await Console.Out.WriteLineAsync($"New Container: {container.Name}");
61     return container;
62 }
63
64 private static async Task<BlobClient> GetBlobClient(BlobContainerClient client, string blobName)
65 {
66     BlobClient blob = client.GetBlobClient(blobName);
67     await Console.Out.WriteLineAsync($"Blob Found: {blob.Name}");
68     return blob;
69 }
```

Task 5: Test the URI by using a browser



Exercise 5: Clean up your subscription

Task 2: Delete a resource group

```
Bash
Requesting a Cloud Shell.Succeeded.
Connecting terminal...

Welcome to Azure Cloud Shell

Type "az" to use Azure CLI
Type "help" to learn about Cloud Shell

rakhat@Azure:~$ az group delete --name StorageMedia --no-wait --yes
rakhat@Azure:~$
```