

Cloud Development, 2021 fall. Lab 6

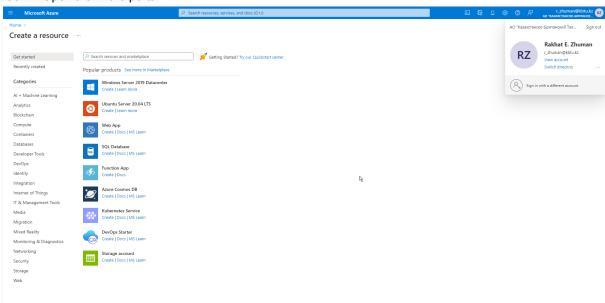
Report

Authenticating to and querying Microsoft Graph by using MSAL and .NET SDKs Student lab manual

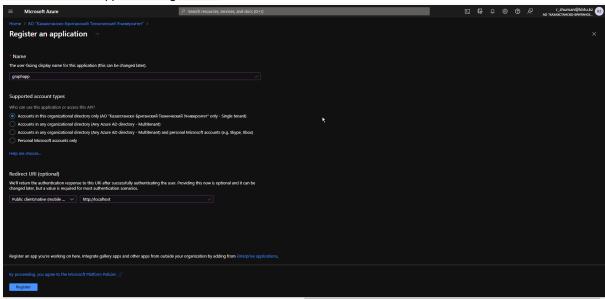
made by Zhuman Rakhat

Exercise 1: Create an Azure AD application registration

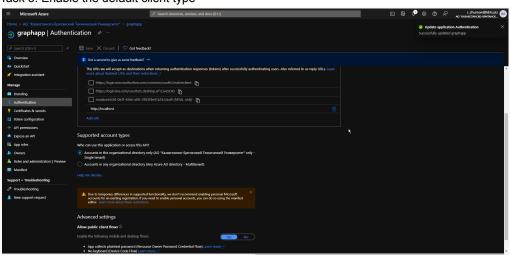
Task 1: Open the Azure portal



Task 2: Create an application registration



Task 3: Enable the default client type

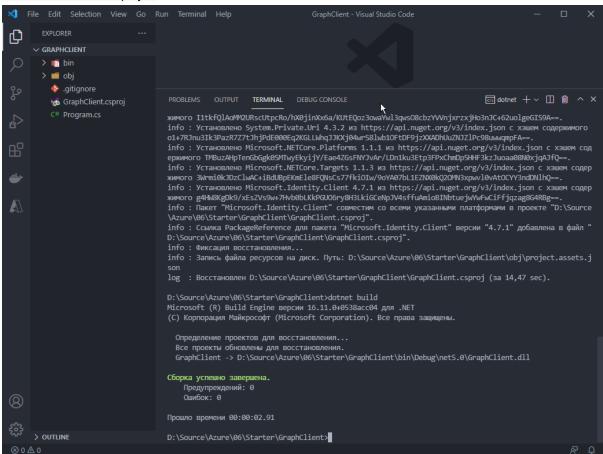


Task 4: Record unique identifiers acee3cfd-0e3f-4566-a8fc-3953f4e47a24 57081b5e-e66a-4993-8eaf-15b0b309293f



Exercise 2: Obtain a token by using the MSAL.NET library

Task 1: Create a .NET project



Task 2: Modify the Program class

Task 3: Obtain an MSAL token

```
| No. | Selection | New | So | No. |
```

Task 4: Test the updated application

Authentication complete. You can return to the application. Feel free to close this browser tab

Exercise 3: Query Microsoft Graph by using the .NET SDK

Task 1: Import the Microsoft Graph SDK from NuGet

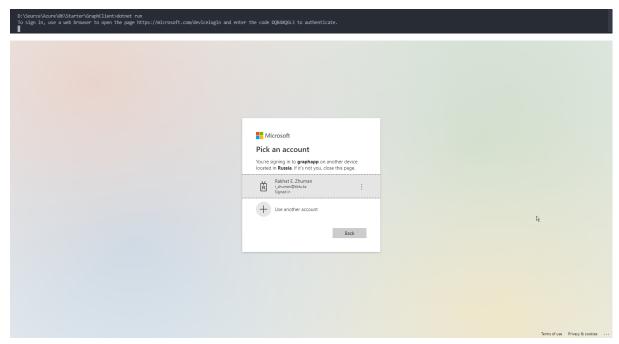
```
D:\Source\Azure\Bo\Starter\GraphClient\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newportEint\draw\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport\newport
```

Task 2: Modify the Program class

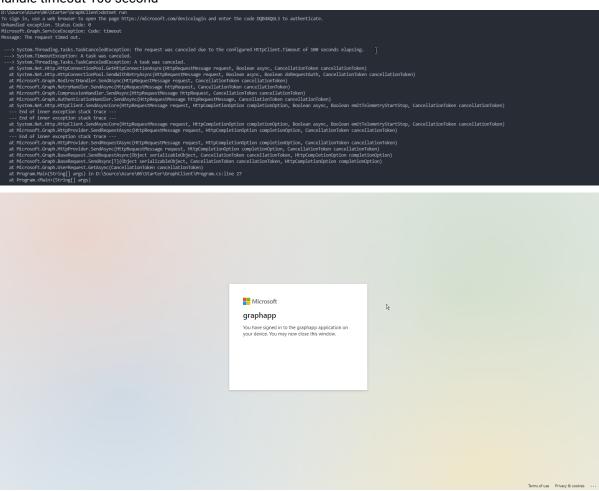
Task 3: Use the Microsoft Graph SDK to query user profile information

```
uning Nicrosoft. Identity. Client;
uning System.
uning System. Collections. Generic;
uning System. Collections. Generic;
uning Nicrosoft. Graph. Auth;
Uning Nicrosoft. Graph.
Uning Nicrosoft. Graph.
Uning Nicrosoft.
```

Task 4: Test the updated application



Handle timeout 100 second

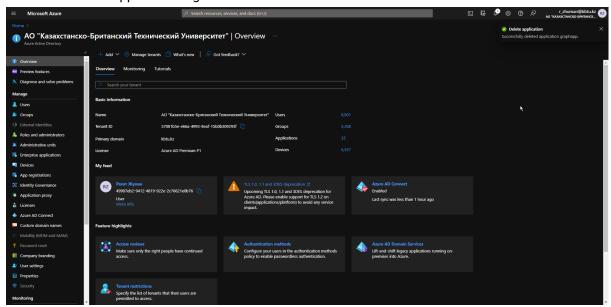


Repeat and success

```
D:\Source\Azure\86\Starter\GraphClient>dotnet run
To sign in, use a web browser to open the page https://microsoft.com/devicelogin and enter the code DDATZPRSZC to authenticate.
Name: Rakhat E. Zhuman
AMO Id: 49987eb2-9412-4819-922e-2c76621e8b76
D:\Source\Azure\86\Starter\GraphClient>
```

Exercise 4: Clean up your subscription

Task 1: Delete the application registration in Azure AD



Task 2: Close the active applications Ok.