# Lab 3: Configure Azure Active Directory and the Api

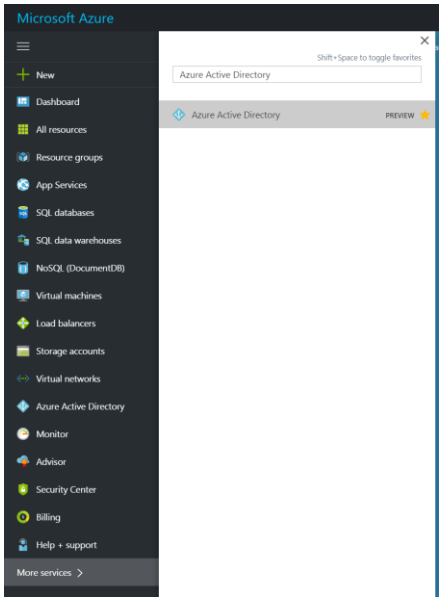
In this Lab, you will learn how to configure your registered application in Active Directory to delegate the permissions of the signed in user to Azure SQL Server.

The following activities are going to be done:

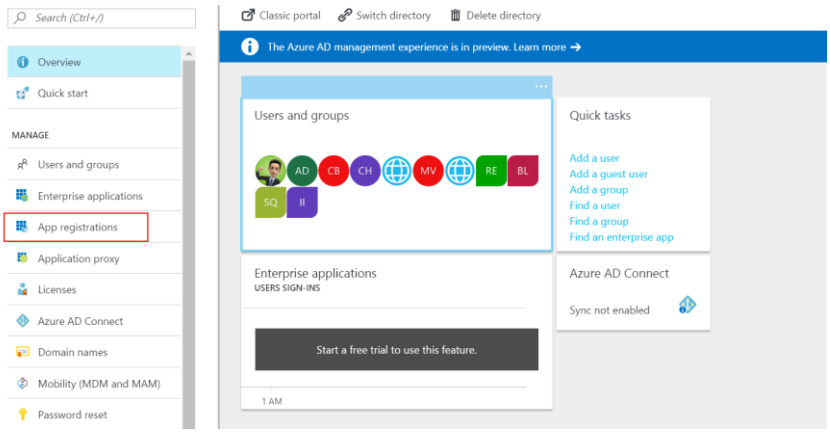
- Configure the Azure Active Directory Application.
- Configure the Azure API Application
- Publish to Azure

## Configure the Azure Active Directory Application.

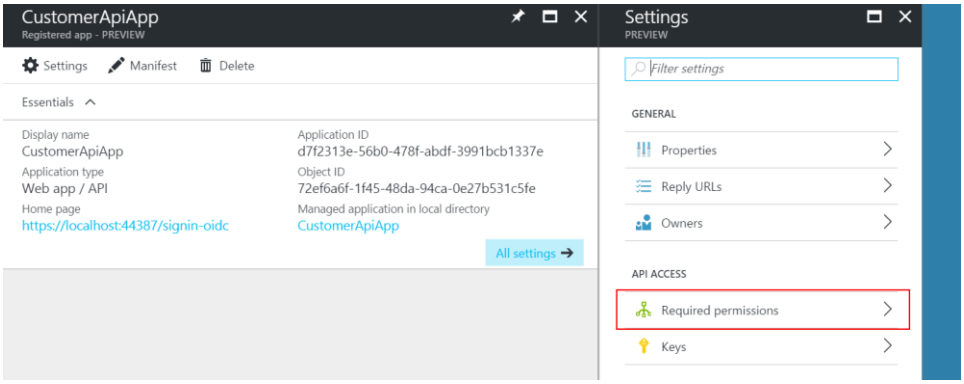
1. Navigate to the Azure Portal (https://portal.azure.com/)
2. Click On: More Services and filter for “Azure Active Directory” and click on the service in the list.



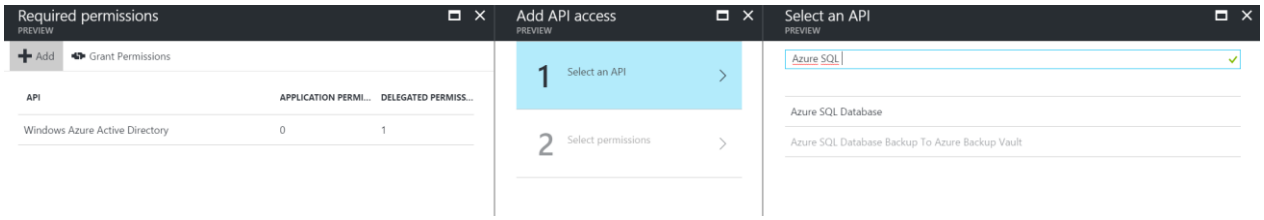

3. Click on your Azure Active Directory, and in the Directory blade in the settings click on “App Registrations”.



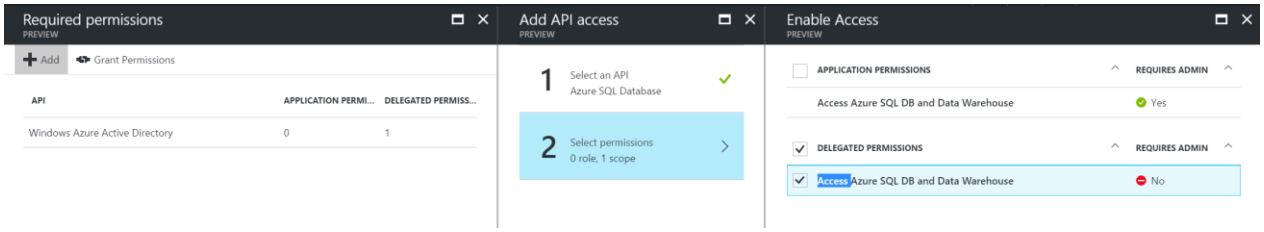
4. In the “App Registrations” blade find the application that was registered by the creation of your project and click on it.
5. In the application blade that opens click on “Required Permissions”.



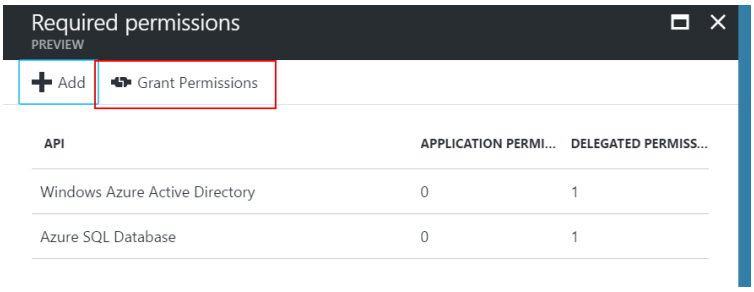

6. In the blade that opens click on “Add” to add a new permission.
7. In the “Select an API” search for Azure SQL Database and select it.




8. The permission step will open, make sure you select “Access Azure SQL DB and Data Warehouse” under “Delegated Permissions” and click “Select”.

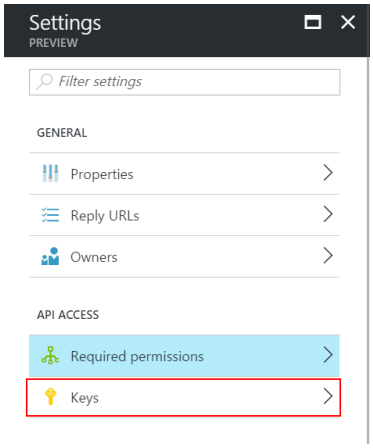



9. In the steps blade click “Done”.
10. In order to make this work without any problems we need to give consent for this application to access Azure SQL Databases as the logged in user.

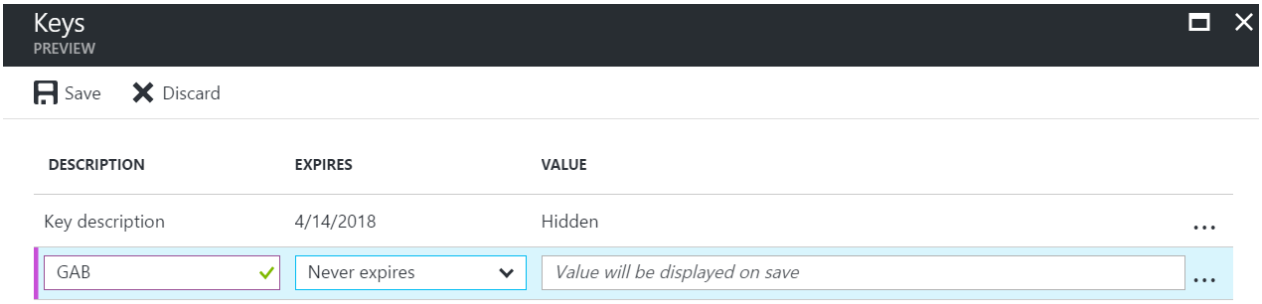



***Note:*** *Normally a user will get a consent window but as this is a Api we will set this consent automatically for every user by clicking “Grant Permissions”.*

11. The last thing we need is a secret for our application. In the settings blade of the application click on “Keys”.




12. In the “Keys” blade fill in a new description and select a duration to keep the key valid and click save to make the secret visible.




13. Copy the “Key” to a file or Notepad window. We will need to use this value within the next steps.

## Configure the Azure API Application

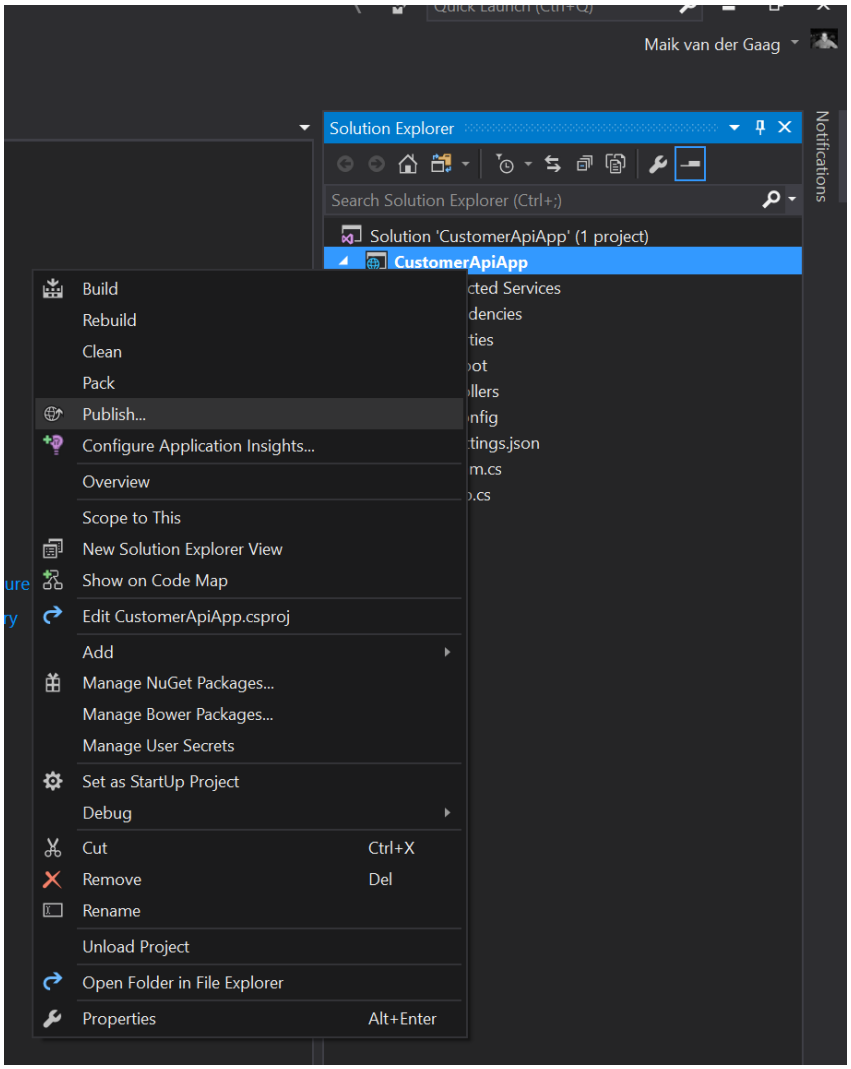
1. Open Visual Studio 2017 as Administrator if not already opened.
2. Open the solution created in Lab 1 and that was extended in Lab 2.
3. Open the “appsettings.json” file.

```
  "AuthenticationSettings": {
    "AadInstance": "https://login.microsoftonline.com/",
    "Audience": "{App ID URL Application}",
    "ClientId": "{ClientId}",
    "ClientSecret": "{ClientSecret}",
    "Domain": "{Azure Active Directory Domain}",
    "TenantId": "{Domain Tenant Id}",
    "ConnectionString": "Data Source={Azure SQL Server};Initial Catalog={Azure SQL
  Database};Pooling=False;MultipleActiveResultSets=False;Encrypt=True;TrustServerCerti
  ficate=False;Connection Timeout=30;",
    "AzureSqlResource": "https://database.windows.net/"
  }
```

4. Update the values that we did not alter in Lab 2. This should be the following properties:
    - ClientSecret: Paste the value that you have copied from the Azure portal.
    - ConnectionString: Fill in the correct database server and database name.

## Publish to Azure

1. Right click on the project name and select “Publish”




2. In the Publish window click “Publish”.

When the project is published, the application is ready and running in Azure.