



Microsoft Azure – SQL Server

Milan Pekardy

pekardy@dcs.uni-pannon.hu



Todo sample application

- Basic to-do management application
- ASP.NET Core – MVC
- Basic CRUD functionality (Create/Read/Update/Delete)

[AzureTodoWebApplication1](#) [Home](#) [About](#) [Contact](#)

Index

[Create New](#)

Name	Description	Created Date	
Todo 1 name	Todo 1 description	2018-02-17	Edit Details Delete
Todo 2 name	Todo 2 description	2018-02-22	Edit Details Delete
Todo 3 name	Todo 3 description	2018-02-26	Edit Details Delete
Todo 4 name	Todo 4 description	2018-02-21	Edit Details Delete
Todo 5 name	Todo 5 description	2018-02-24	Edit Details Delete

© 2018 - AzureTodoWebApplication1



- SQL databases > Add
 - Create a new server
 - Create a new database
 - Pricing tier: Basic

Home > [SQL databases](#) > [SQL Database](#) > [Server](#) > New server

SQL Database

* Database name

todo-db

* Subscription

Ingyenes próba

* Resource group

Create new

Use existing

AzureTestResourceGroup

* Select source

Blank database

* Server

Configure required settings

Want to use SQL elastic pool?

Yes

Not now

* Pricing tier

Configure required settings

* Collation

SQL_Latin1_General_CP1_CI_AS

☐ Pin to dashboard

CreateAutomation options

Server

+ Create a new server

No servers found

New server

* Server name

azure-test-db-server

.database.windows.net

* Server admin login

azuredbadmin

* Password

.....

* Confirm password

.....

* Location






Australia East

☒ Allow azure services to access server

Select



Resources

<input type="checkbox"/>	NAME <small>↑↓</small>	TYPE <small>↑↓</small>	RESOURCE GROUP <small>↑↓</small>	LOCATION <small>↑↓</small>
<input type="checkbox"/>	 azure-test-db-server	SQL server	AzureTestResourceGroup	Australia East
<input type="checkbox"/>	 todo-db	SQL database	AzureTestResourceGroup	Australia East
<input type="checkbox"/>	 AzureTestServicePlan	App Service plan	AzureTestResourceGroup	West Europe
<input type="checkbox"/>	 AzureTestWebApplication	App Service	AzureTestResourceGroup	West Europe
<input type="checkbox"/>	 AzureTodoWebApplication1	App Service	AzureTestResourceGroup	West Europe

- Database connection string:
 - Server=tcp:<**server_name**>.database.windows.net,1433;Initial Catalog=<**db_name**>;Persist Security Info=False;User ID=<**db_username**>;Password=<**db_password**>;MultipleActiveResultSets=False;Encrypt=True;TrustServerCertificate=False;Connection Timeout=30;



Configure environment variables

- App Services > AzureTodoWebApplication > Application settings

Application settings

WEBSITE_NODE_DEFAULT_VERSION	6.9.1
ASPNETCORE_ENVIRONMENT	Production

[+ Add new setting](#)

Connection strings

TodoDbConnection	Server=tcp:azure-test-db-server.database.windows.net,1433;Initial Catalog=	SQLServer
------------------	--	-----------

[+ Add new connection string](#)



Exercise

- If the app is running in Azure use the production SQL Database

```
// Use SQL Database if in Azure, otherwise, use SQLite
if (Environment.GetEnvironmentVariable("ASPNETCORE_ENVIRONMENT") == "Production")
{
    services.AddDbContext<TodoDbContext>(options => options.UseSqlServer(Configuration.GetConnectionString("TodoDbConnection")));
}
else
{
    services.AddDbContext<TodoDbContext>(options => options.UseSqlite("Data Source=MvcTodo.db"));
}
```



Exercise

- SQL databases > todo-db > Query editor

todo-db (azuredbadmin)

Showing limited object explorer here. For full capability please open SSDT.

▼ Tables

- ▶ dbo.__EFMigrationsHistory
- ▶ dbo.TODO
- ▶ Views
- ▶ Stored Procedures

Query 1

Run Cancel query

```
1 select * from Todo
```

Results Messages

ID	CREATEDDATE	DESCRIPTION	NAME
de1df6f8-3b41-4dc3-8fd4-102f0d...	2018-02-20T22:40:45.7702718	Todo 5 Description	Todo 5 Name
97c03524-52cd-4226-bc37-411d9...	2018-02-26T22:40:45.7701737	Todo 1 Description	Todo 1 Name
5f02a5ca-72ad-4741-ab35-7af4f99...	2018-02-24T22:40:45.7702678	Todo 4 Description	Todo 4 Name
fee76b51-ea87-481b-86e4-957ce3...	2018-02-21T22:40:45.7702659	Todo 3 Description	Todo 3 Name
7ab9b788-7b7c-47f8-874c-bd7bb...	2018-02-16T22:40:45.7702634	Todo 2 Description	Todo 2 Name