

Microsoft Azure Developer: Securing Data

GETTING STARTED



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Overview



What to expect from this course?

Getting familiar with our sample web application “*MyAddressBook+*”

Demo

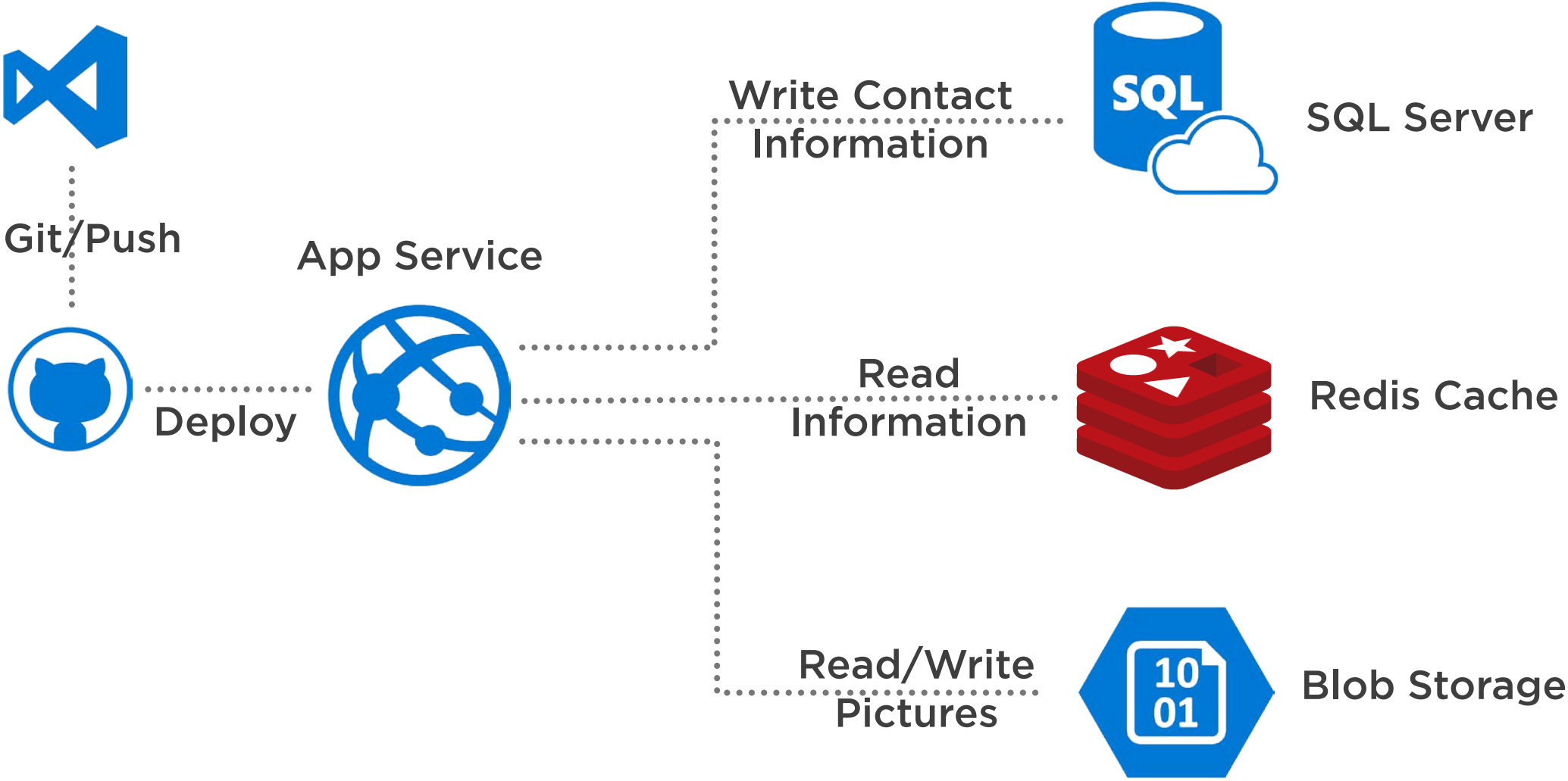
Understanding weak security points in our application

What Microsoft Azure has to offer?

Module summary



MyAddressBook+



Demo



MyAddressBook+ in action

Showing the code

Examining the AppService in
Microsoft Azure

Pointing out the weak security points
in this application



Let's Talk Security



Plain data in Azure SQL Server, plain SQL connection string



Plain Azure Redis Cache connection string



Contact pictures stored in Azure blob storage are encrypted, however, we prefer to bring and manage our own keys



Insecure communication via HTTP for custom domain names



Improving Security

Security Concern

Microsoft Azure Solution



Improving Security

Security Concern

Plain Azure Redis Cache
connection string

Microsoft Azure Solution

Store the connection string in
“Microsoft Azure Key Vault”



Improving Security

Security Concern

Plain Azure Redis Cache connection string

Images stored in Azure blob storage are encrypted at rest using Microsoft managed keys

Microsoft Azure Solution

Store the connection string in “Microsoft Azure Key Vault”

Configure “Encryption at Rest” to use customer managed keys via Azure Key Vault



Improving Security

Security Concern

Plain Azure Redis Cache connection string

Images stored in Azure blob storage are encrypted at rest using Microsoft managed keys

Plain data in Azure SQL Server/Connection string

Microsoft Azure Solution

Store the connection string in “Microsoft Azure Key Vault”

Configure “Encryption at Rest” to use customer managed keys via Azure Key Vault

Protect SQL Server data using “Always Encrypted”/MSI



Improving Security

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Plain Azure Redis Cache connection string

Images stored in Azure blob storage are encrypted at rest using Microsoft managed keys

Plain data in Azure SQL Server/Connection string

Insecure communication via HTTP for custom domain names

Microsoft Azure Solution

Store the connection string in “Microsoft Azure Key Vault”

Configure “Encryption at Rest” to use customer managed keys via Azure Key Vault

Protect SQL Server data using “Always Encrypted”/MSI

Secure Azure App Service communications for custom domain names by configuring HTTPS



Summary



Introduced *MyAddressBook+*

Demo

Security issues within the application

What Microsoft Azure has to offer

