IST 615 - FINAL PROJECT iSlice- The Course Selection App



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Project details

The goal of the project:

To build an easy-to-use application for students and administration of Syracuse University School of Information Studies to select courses for registrations every semester.

Main functionalities:

- Students will be able to select desired subjects for the upcoming term and send requests to the school for approval.
- iSchool faculty administrators can see and approve students' requests.
- The list of approved requests will be automatically stored.



Services and architecture used

Azure Storage Account

An Azure Storage Account is a secure account that provides access for Azure's clients to services in Azure Storage. It contains Azure Storage data objects, including blobs, file shares, queues, tables, and disks. Data from the Azure Storage can be accessed from anywhere owing to HTTP or HTTPS.

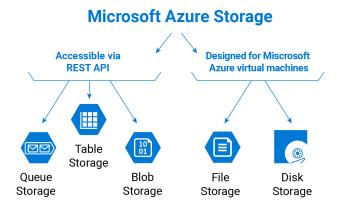
Azure Storage Account resource is used for storing all of our data to ensure redundancy and recovery.



Azure SQL Database

Azure SQL Database is a fully managed platform as a service (PaaS) database offered as part of Microsoft Azure. The scalability, backup, and high availability of the database are handled by managed database services, independently from the client's activities.

The dataset is managed and secured in the cloud using Azure SQL Database.



Services and architecture used

Azure Data Studio

Azure Data Studio is a cross-platform database tool for data professionals using on-premises and cloud data platforms on Windows, macOS, and Linux

The dataset is built within Azure Data Studio.

Microsoft Power Apps

Power Apps is a suite of apps, services, and connectors, as well as a data platform, that provides a rapid development environment to build custom apps for various business needs. Power Apps can connect to data in a variety of online and on-premises data sources (such as SharePoint, Microsoft 365, Dynamics 365, SQL Server, etc).

Power Apps is used to build GUI to make the platform interactive.

Microsoft SharePoint

SharePoint is a web-based collaborative platform that integrates natively with Microsoft Office. We used SharePoint for logging tasks.



Integration of Cloud Services

- Multiuser root access to SQL database server was created. The dataset is managed and secured in the cloud using Azure SQL Database.
- GUI was built on Power Apps.
- SharePoint was used as a backend logging in for students and admins.
- > The dataset was built within Azure Data Studio.
- Azure Storage Account resource was used for storing all of our data to ensure redundancy and recovery.
- A Virtual Machine was created at the Azure portal for the Azure Storage Account.



Challenges during the work

Challenge:

• The first challenge we faced was Multiuser root access to SQL database server.

Solution:

• Assigning roles instead of user privileges. We created a resource group for our team and assigned the owner role access to a resource group.

Lesson Learned:

Azure can be easy to navigate if you follow the correct steps and terminologies.

Challenges during the work

Challenge:

Backing up the SQL Databases to the Storage Blob Account

Solution:

• Using student subscription, we needed special permission. Solved it by waiting for the permission to be granted.

Lesson Learned:

We could've made the process of granting access quicker by building the databases on VSE

Demo of the project

https://www.youtube.com/watch?
v=8UEWaB6lwzQ



Thank You!
Any Questions?