Instructor
Jasmine Greenaway

Office Location
Microsoft Teams

Questions? Please submit them in advance of scheduled office hours at:
https://aka.ms/university-azure/questions

Course Overview
This workshop is an introduction to working with data in the cloud on Azure. You will walk through the different data structures and how they can be managed, consumed, and accessed in Azure. This workshop also explores solutions and integrations with common tools used for extract, transform, and load (ETL) processes. You will leave with an improved understanding of Azure’s data ecosystem and where your existing data fits within it.

In this course, we will cover the following topics:

- Benefits of working with data in the cloud and review of terminology
- Relational data with Azure SQL and Azure MySQL Database, and more
- Files and blobs with Azure Storage
- Additional tools and services and strategies for migrating data to Azure and options for computation.

And you will complete the following hands-on exercises:

- How to transform data to another type with Azure Data Factory
- Integration with Jupyter Notebooks in Azure Machine Learning Studio

Course Materials

- Scheduled Live Office Hours with Course Instructor

Course Videos

<table>
<thead>
<tr>
<th>Video Name</th>
<th>Video Title</th>
<th>Video Description</th>
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<tbody>
<tr>
<td>Video 3A</td>
<td>Benefits Working with Data</td>
<td>Benefits of working with data in the cloud and terminology</td>
<td>8:10</td>
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<tr>
<td>Video 3B</td>
<td>Databases</td>
<td>Relational data with Azure SQL and Azure MySQL Database, and more</td>
<td>6:34</td>
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<tr>
<td>Video 3C</td>
<td>Unstructured Data</td>
<td>Files and blobs with Azure Storage</td>
<td>7:37</td>
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<tr>
<td>Video 3D</td>
<td>Exercise – How to Transform Data</td>
<td>Exercise: How to transform data to another type with Azure Data Factory and integration with Jupyter</td>
<td>18:13</td>
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<tr>
<td>Video 3E</td>
<td>Tools and Integrations</td>
<td>Notebooks in Azure Machine Learning Studio</td>
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<td>Additional tools and services and strategies for migrating data to Azure and options for computation 8:34</td>
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### Prerequisites

*This workshop uses Python, but knowledge of the language is not required.*

- Complete the “Getting Started with Azure” course by Alex Vazquez. Video series is available here: [https://aka.ms/university-azure/GettingStartedAzure](https://aka.ms/university-azure/GettingStartedAzure)

### Additional Resources

Supplemental GitHub Repository: [https://aka.ms/university-azure/DataIntro](https://aka.ms/university-azure/DataIntro)

### Databases

- [Azure SQL documentation](https://docs.microsoft.com/azure/azure-sql/)
- [Azure DB for MySQL documentation](https://docs.microsoft.com/azure/mysql/)
- [Azure DB for Postgres documentation](https://docs.microsoft.com/azure/postgresql/)

### Non-Relational/Unstructured/Semi-Structured/NoSQL

- [Storage Account documentation](https://docs.microsoft.com/en-us/azure/storage/)
- [Cosmos DB documentation](https://docs.microsoft.com/en-us/azure/cosmosdb/)

### Migration and ETL + Additional Services

- [Azure Data Factory documentation](https://docs.microsoft.com/en-us/azure/data-factory/)
- [Azure Stream Analytics documentation](https://docs.microsoft.com/en-us/azure/stream-analytics/)
- [Azure Databricks documentation overview](https://docs.microsoft.com/en-us/azure/azure-databricks/)

### MS Learn Modules
Migrate on-premises MySQL databases to Azure:
https://docs.microsoft.com/enus/learn/modules/migrateonpremisesmysql databases/

More Migration Modules (SQL Server, Postgres, Mongo/CosmosDB):

Storage Accounts:
https://docs.microsoft.com/en-us/learn/browse/?term=azure%20storage


Create production workloads on Azure Databricks with Azure Data Factory:

**Course Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Subject</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Watch On-Demand Course Videos (on your own)</td>
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<tr>
<td>Week 2</td>
<td>Live Course Office Hours with Instructor</td>
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