

Working with OAuth 2.0 APIs in Azure Data Factory

by Martin Schoombee



Photo by [tabitha turner](#) on [Unsplash](#)

About Me

“I help people make sense
of their data”

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GitHub Repo:

<https://github.com/mschoombee/Presentations/wiki/Presentations>



Agenda

- What is OAuth
- The Authorization Flow
- Testing APIs (with Postman)
- Azure Data Factory – Linked Services, Datasets & Pipelines

Open Authorization (OAuth)

“A way for Internet users to grant websites or applications access to their information without giving them their passwords”

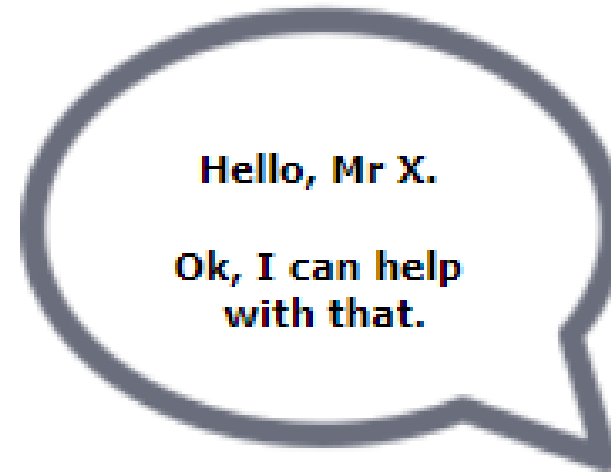
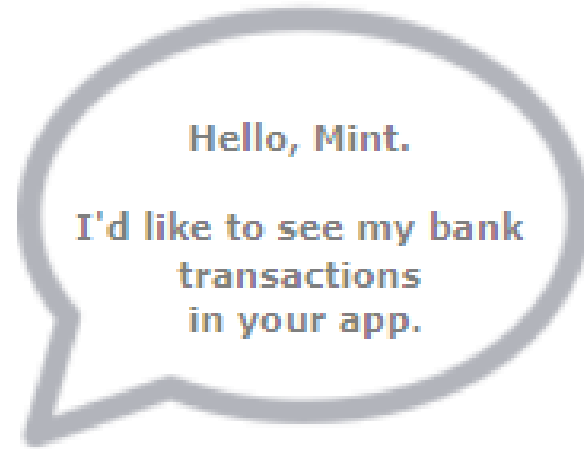
Authorization Flow





Hello, Mint.

I'd like to see my bank
transactions
in your app.





**Hello, Piggy Bank
API.**

**Mr X would like to see
his transactions in
my app.**



Hello, Piggy Bank
API.

Mr X would like to see
his transactions in
my app.

I need to get Mr X's
permission first.

Here's a login
screen...





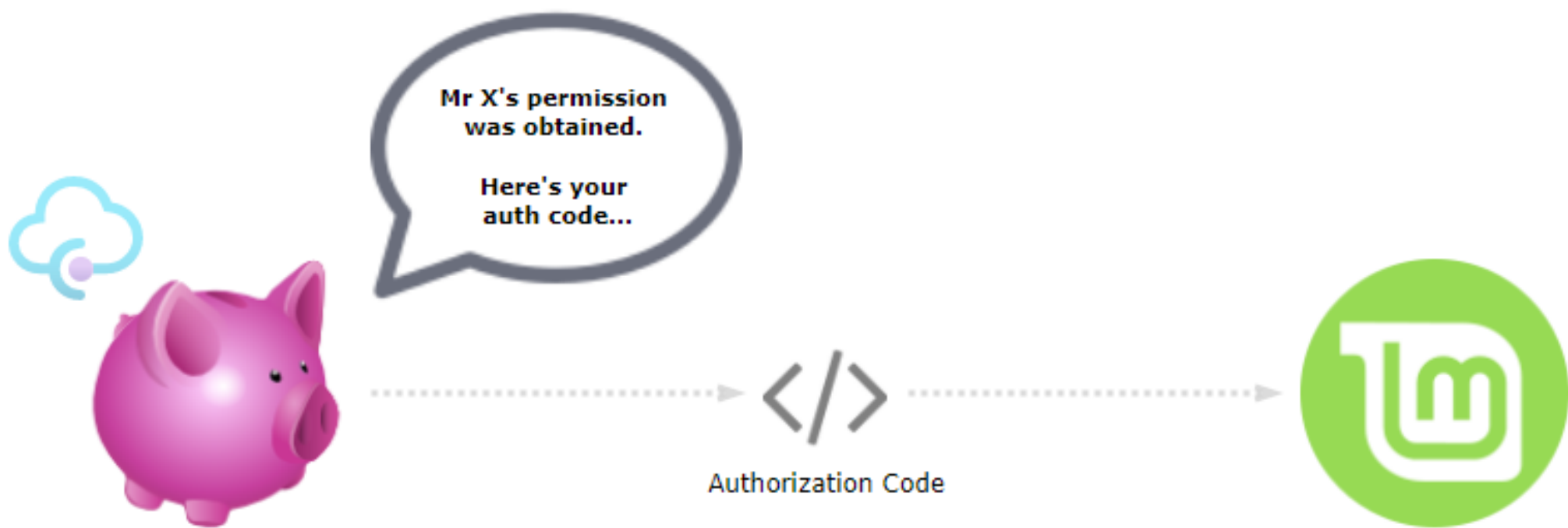
User Name:

Mr X

Password:

SIGN IN







A close-up photograph of a giraffe's head and neck, looking directly at the camera. The giraffe has a light brown and white spotted pattern. The background is a clear, solid blue sky. The text "I don't see the problem" is overlaid in white at the bottom.

I don't see the problem

OAuth 2.0 Challenges

1. Variation



OAuth 2.0 Challenges

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2. User Interaction Required



OAuth 2.0 Challenges

1. Variation
2. User Interaction Required
3. Error Messages

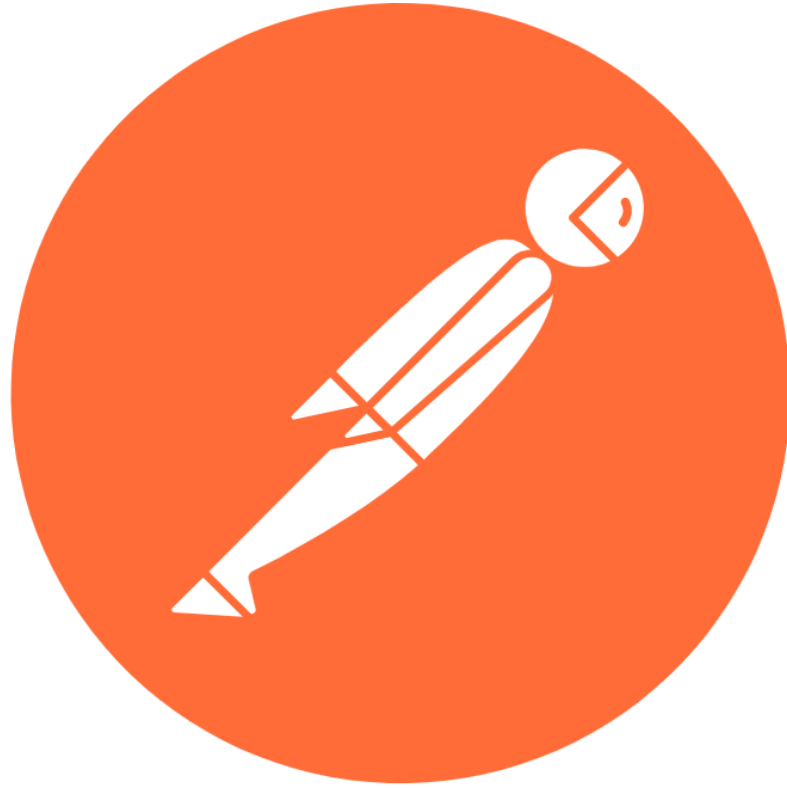


OAuth 2.0 Challenges

1. Variation
2. User Interaction Required
3. Error Messages
4. Add Azure Data Factory







POSTMAN

Lessons Learned

1. API Docs!!



Lessons Learned

1. API Docs!!

2. Start with Postman*



Lessons Learned

1. API Docs!!
2. Start with Postman*
3. *Generic* Linked Service



Lessons Learned

1. API Docs!!
2. Start with Postman*
3. *Generic* Linked Service
4. Use Azure KeyVault



Lessons Learned

1. API Docs!!
2. Start with Postman*
3. *Generic* Linked Service
4. Use Azure KeyVault
5. Separate Token Refresh



Lessons Learned

1. API Docs!!
2. Start with Postman*
3. *Generic* Linked Service
4. Use Azure KeyVault
5. Separate Token Refresh
6. Pagination :-/



Resources

- OAuth
 - <https://www.oauth.com/>
- Xero
 - <https://developer.xero.com/>
- KeyVault Secrets API
 - <https://docs.microsoft.com/en-us/rest/api/keyvault/secrets/get-secret/get-secret>
- My Blog Series
 - <https://martinschoombee.com/2022/02/15/working-with-oauth-2-0-apis-in-azure-data-factory-a-series/>