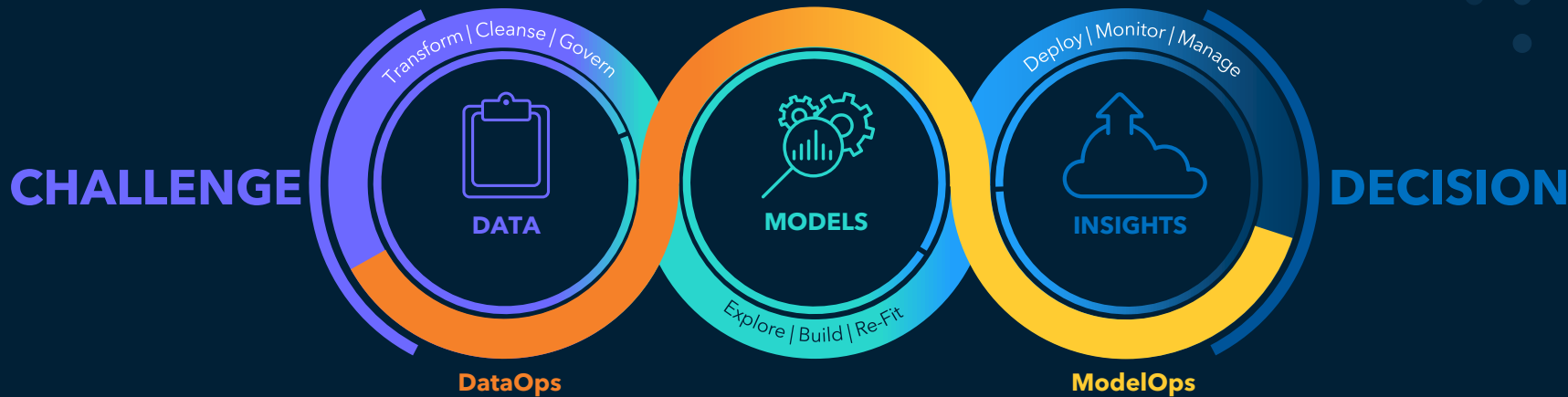


SAS und Microsoft Partnerschaft



Kombinierte Fähigkeiten von SAS und Microsoft



Zugriff, Integration und Anreicherung von Daten aus verschiedenen Quellen mit **SAS & Microsoft Synapse**.

Erstellen Sie Analytics-Pipelines mit SAS, ML und Open-Source-Sprachen mit integrierter Automatisierung & Erklärung.

Demokratisierung und Einbettung von Erkenntnissen in die gesamte **Microsoft Teams und Power-Plattform**.

SAS Viya on Microsoft Azure

SAS im Azure Marketplace

Übersicht

SAS Viya on Microsoft Azure

- Marketplace-Angebot von SAS in Microsoft Azure
- Pay-as-you-go-Abonnement, verfügbar über den Azure-Marktplatz
- Automatisierte Bereitstellung im eigenen Azure-Tenant
- Umfasst SAS Visual Machine Learning
- Kommt mit Python-Integration und Jupyter Notebooks

DATA SCIENCE OFFERINGS

Capability Comparison

More than just powerful algorithms, our data science offerings include critical data preparation, data visualization and model management capabilities. Choose the offering that meets your requirements today, with the knowledge that you have a path to the future in a single, expandable environment.

Capabilities	SAS Visual Machine Learning	SAS Visual Data Science	SAS Data Science Programming*	SAS Visual Data Science Decisioning
Data access, data preparation, data quality & information cataloging	✓	✓	✓	✓
Advanced flow steps & information governance	✓	✓		✓
Visualization & reporting	✓	✓	✓	✓
Conversational AI & chatbots	✓	✓	✓	✓
Statistics	✓	✓	✓	✓
Matrix programming		✓	✓	✓
Machine learning & deep learning	✓	✓	✓	✓
Model deployment & management	✓	✓		✓
Forecasting	△	✓	✓	✓
Text analytics	△	✓	✓	✓
Optimization	△	✓	✓	✓
Econometrics	△	✓	✓	✓
Digital decisioning	△	△	△	✓
Event streaming analytics	△	△	△	✓
Advanced workload management	△	△	△	△

* Programmatic interface only; no visual interface.
△ Optional.



Marketplace

Get Started

Service Providers

Management

Private Marketplace

Private Offer Management

My Marketplace

Favorites

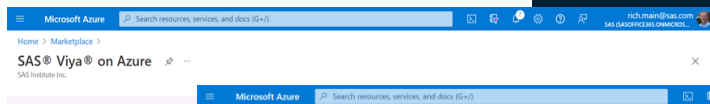
Recently created

Private products

Categories

Compute (2570)

IT & Management Tools
(1891)



Create SAS® Viya® on Azure

Home > Marketplace > SAS® Viya® on Azure >

Plan: Private Metered Internal Only

Overview Plans Pricing Usage Information

Conquer your analytics challenges, from experimental solution running on a scalable, cloud-native architecture collaborate and realize innovative results faster. Using data into actions.

Confident decisions at every moment

SAS Viya on Azure provide a comprehensive, scalable, travel to faster, trusted decisions in the cloud

Travel to faster, trusted decisions in the cloud

SAS Viya on Azure exas transitions across the analytic need to worry about how or where to deploy.

SAS Viya integrates with Azure services at every level c from Azure security and management tools.

Learn more about our integrations at sas.com/microso

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription: crush

Resource group: [new] rg-sascam-demo

Instance details

Region: East US

Deployment Name: vjyademo

Public IP address: [new] myvjyapp

Deployment DNS Prefix: vjyademo

SSH Public Key: ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQGCiMhW-EDUM70bUt...

Viya administrator password: *****

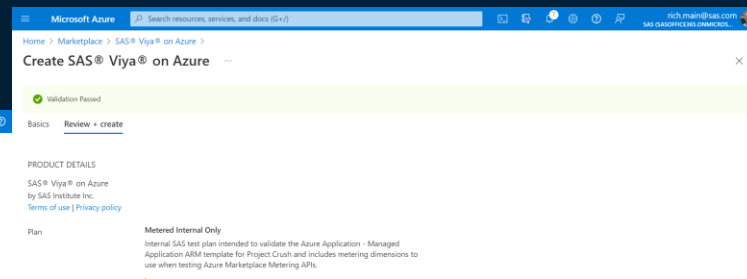
Confirm password: *****

Managed Application Details

Provide a name for your managed application, and its managed resource group. Your application's managed resource group holds all the resources that are required by the managed application which the consumer has limited access to.

Application Name: vjyademo

Managed Resource Group: mrg-sas-viya-azure-20220817090742



Deployment

Home >

Search (Ctrl+/)

Overview Inputs Outputs Template

We'd love your feedback! →

Deployment is in progress

SAS Deployment name: sas-institute-560503.sas-viya-azure-20220817090742 | Overview

Subscription: crush

Resource group: rg-sascam-demo


Start time: 8/17/2022, 9:14:00 AM

Correlation ID: c6ed8db9-ea90-4b97-a01c-f386x





Deployment details

Resource	Type	Status	Operation details
No results.			

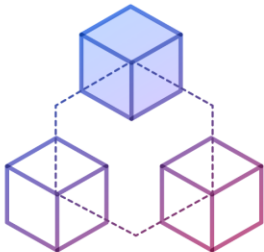
"Welcome Experience" für neue Benutzer von SAS Viya



Jump right in!
Go straight to any application using the navigation menu at any time.



Hi Jessie Doe,
Welcome to SAS Viya!



Learn more about the
► **Analytics Lifecycle**

SAS STUDIO
Develop Code
View sample code
View sample Jupyter notebook

SAS VISUAL ANALYTICS
Explore and Visualize
Learn how to create a report

SAS STUDIO
Prepare Data
Learn how to load your data

SAS MODEL STUDIO
Build Models
View a sample model pipeline

SAS MODEL MANAGER
Manage Models
Learn how to manage models
Learn how to import Python models

"Welcome Experience" für neue Benutzer von SAS Viya

The screenshot displays the SAS Model Manager - Manage Models interface. A central modal window titled "Let's get started!" is overlaid on the dashboard. The modal contains a video player showing a person interacting with a laptop displaying a bar chart. Below the video, there is a link to "Begin Course on Managing Models" and an "Okay, let's go!" button. The background interface includes a left sidebar with navigation options: Home, Models, Projects, Deployments (selected), and Tasks. The main area shows a "Deployments" section with a "Variable Distribution" chart (YOJ) and a "Stability" chart (Deviation Index). The top right of the interface has search, notification, and user icons, and a toolbar with buttons for Definition, Run, Clear All, and View Job History.

SAS® Model Manager - Manage Models

Home
Models
Projects
Deployments
Tasks

Deployments

Variable Distribution

YOJ

Percent

Stability

Deviation Index

Let's get started!

Watch the video for a quick overview of the product.

We've loaded a sample model deployment for you. Watch the quick video below and explore on your own or launch the full course and follow along.

Begin Course on Managing Models

Okay, let's go!

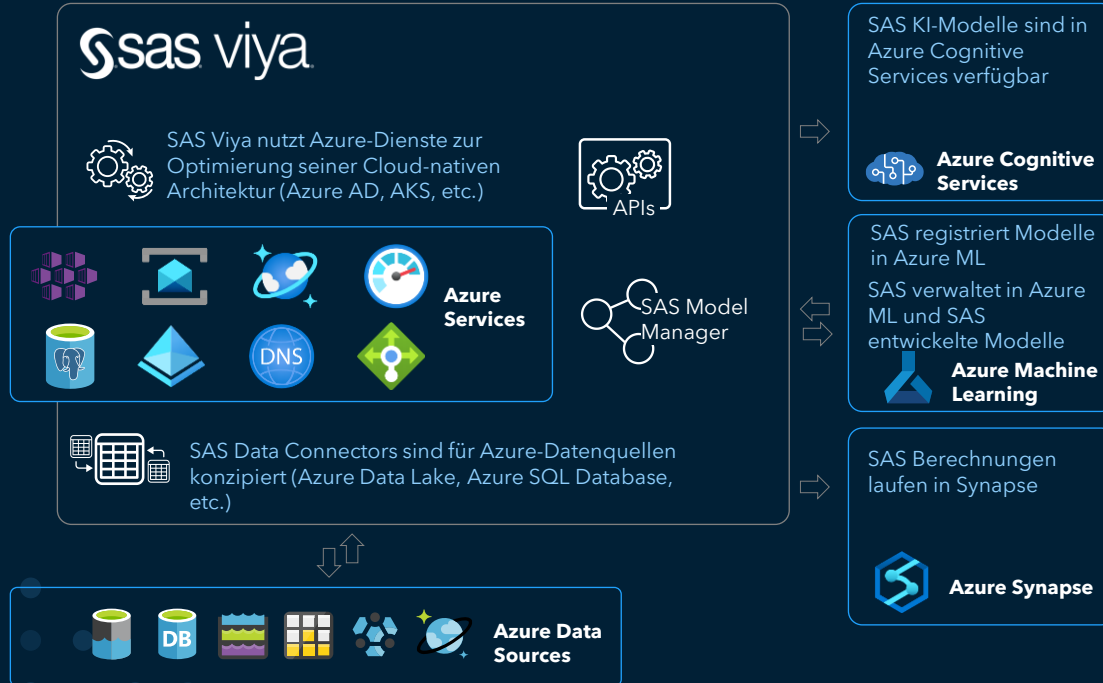
Definition Run Clear All View Job History

Q3 Q4

Job Label

JOB YOJ NINO

Vision der Technologie-Integration

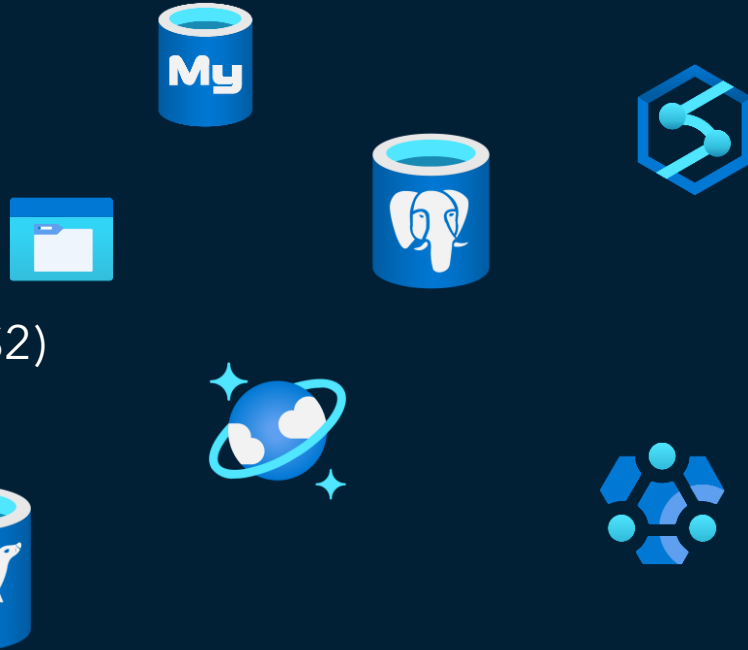


Vorteile

- Optimierte Ressourcen für die **Cloud-Integration**
- Einfacher Zugriff auf **alle Daten**
- Entwicklung **fortgeschrittener Modelle** mit jeder Sprache
- **Beschleunigte** Entwicklung und Verwaltung von KI-Modellen

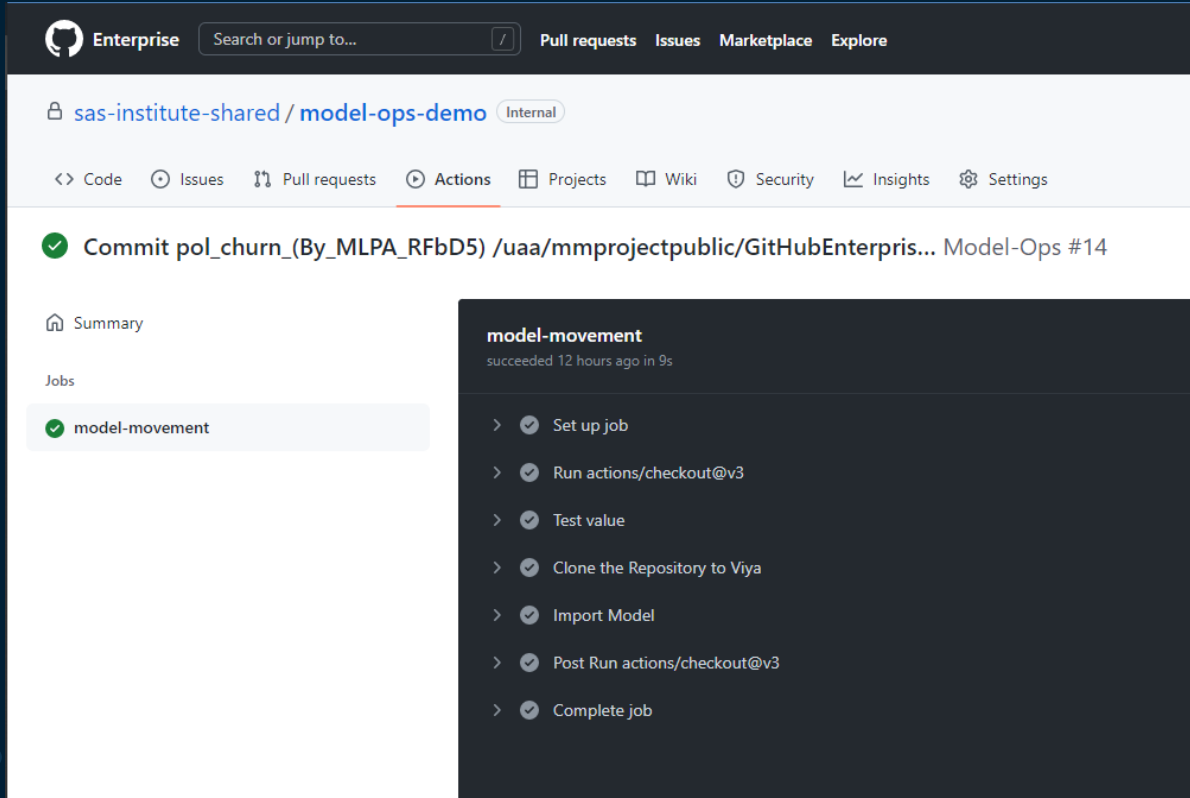
Azure Datenspeicher mit Verbindung zu SAS

- Azure Database for MySQL
- Azure Database for PostgreSQL
- Azure Database for MariaDB
- Azure Cosmos DB
- Azure Redis Cache
- Azure Data Lake Storage 2 (ADLS2)
- Azure Synapse Analytics
- Azure HDInsight
- Azure Databricks
- Microsoft OneDrive



Integration mit GitHub Enterprise

GitHub Actions für GitOps mit SAS



The screenshot displays the GitHub Enterprise web interface. At the top, the navigation bar includes the GitHub logo, the word 'Enterprise', a search bar, and links for 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. Below this, the repository path 'sas-institute-shared / model-ops-demo' is shown with an 'Internal' label. A secondary navigation bar contains links for 'Code', 'Issues', 'Pull requests', 'Actions' (which is highlighted with a red underline), 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'.

The main content area shows a workflow run titled 'Commit pol_churn_(By_MLPA_RfBD5) /uaa/mmprojectpublic/GitHubEnterpris... Model-Ops #14' with a green checkmark icon indicating success. On the left sidebar, under the 'Summary' section, there is a 'Jobs' list with one item, 'model-movement', also marked with a green checkmark.

The right sidebar provides a detailed view of the 'model-movement' job, showing it 'succeeded 12 hours ago in 9s'. A list of steps follows, each with a green checkmark and a right-pointing chevron:

- > Set up job
- > Run actions/checkout@v3
- > Test value
- > Clone the Repository to Viya
- > Import Model
- > Post Run actions/checkout@v3
- > Complete job

Integration mit VSCode

The screenshot displays the Visual Studio Code interface with the SAS extension installed. The left sidebar shows the 'EXTENSIONS' view with a search bar and a list of installed and recommended extensions. The main editor area shows the 'SAS' extension details page, which includes the extension's logo, version (v0.0.7), publisher (SAS Institute Inc.), and a 4.552 rating with 6 reviews. The page also features tabs for 'Details', 'Feature Contributions', 'Changelog', and 'Runtime Status'. The 'Details' tab is active, showing a welcome message and a list of features supported by the extension, such as SAS Syntax Highlighting, Color Themes, Code Completion, and Code Folding. The 'Installation' section provides instructions on how to install the extension, and the 'Features' section lists the syntax elements highlighted by the extension.

EXTENSIONS

Search Extensions in Marketplace

INSTALLED (22)

- Renderers for Jupyter Notebooks (with p...
Microsoft
- ngrok for VSCode**
A VSCode extension to control ngrok fro...
phlfnsh
- PowerShell**
Develop PowerShell modules, command...
Microsoft
- Prettier - Code formatter** 1266ms
Code formatter using prettier
Prettier
- Prettify JSON**
Visual Studio Code Prettify JSON Extensi...
Mohsen Azimi
- Pylance**
A performant, feature-rich language serv...
Microsoft
- Python** 1084ms
IntelliSense (Pylance), Linting, Debuggin...
Microsoft
- SAS**
Official SAS Language Extension for VS ...
SAS Institute Inc.
- Teams Toolkit** 2236ms
Create, debug, and deploy Teams apps ...
Microsoft
- WSL** 396ms
Open any folder in the Windows Subst...
Microsoft
- XML**
XML Language Support by Red Hat
Red Hat

RECOMMENDED (8)

- markdownlint** 4.1M ★ 4.5
Markdown linting and style checking for...
David Anson [Install](#)
- Git History** 6.8M ★ 4.5
View git log, file history, compare branc...
Don Jayamane [Install](#)
- Git Project Manager** 852K ★ 4.5
Allows you to change easily between git...
Felipe Caputo [Install](#)
- npm Intellisense** 4.9M ★ 4.5
Visual Studio Code plugin that autom...
Christian Kohler [Install](#)

SAS v0.0.7
SAS Institute Inc. | 4.552 | ★★★★★ (6)
Official SAS Language Extension for VS Code
[Set Color Theme](#) [Disable](#) [Uninstall](#) [...](#)
This extension is enabled globally.

SAS Extension for Visual Studio Code

Welcome to the SAS Extension for Visual Studio Code! This extension provides support for the [SAS language](#), including the following features:

- SAS Extension for Visual Studio Code
 - Installation
 - Features
 - SAS Syntax Highlighting
 - Color Themes
 - Code Completion
 - Pop-up Syntax Help
 - Snippets
 - Code Folding and Code Outline
 - Configuring the SAS Extension
 - Running SAS Code
 - Support
 - SAS Communities
 - SAS Programming Documentation
 - FAQs
 - GitHub Issues
 - Contributing to the SAS Extension
 - License

Categories

Programming Languages Data Science

Machine Learning

Extension Resources

[Marketplace](#)
[Repository](#)
[License](#)
[SAS Institute Inc.](#)

More Info

Released on 5/16/2022, 17:44:35
Last updated 7/27/2022, 03:41:59
Identifier sas.sas-lsp

Installation

To install the SAS extension, open the Extensions view by clicking the Extensions icon in the Activity Bar on the left side of the Visual Studio Code window. Search for the 'Official' SAS extension, and click the Install button. Once the installation is complete, the Install button changes to the Manage button.

Features

SAS Syntax Highlighting

The SAS extension highlights these syntax elements in your program, just as they would appear in a SAS editor:

- Global statements
- SAS procedures

Copyright © 2022 SAS Institute Inc. All rights reserved.

Veröffentlichen von Modellen

nach Azure



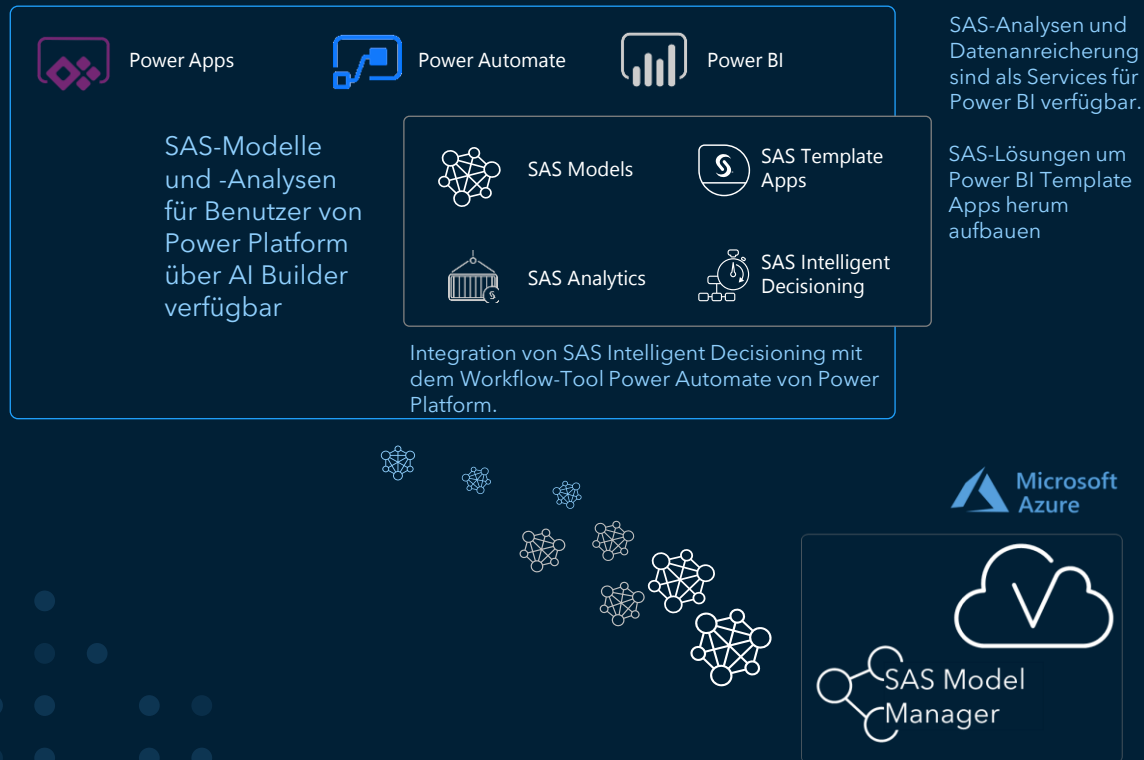
Azure
Machine
Learning
(AML)



Azure
Container
Registry



Vision der Technologie-Integration



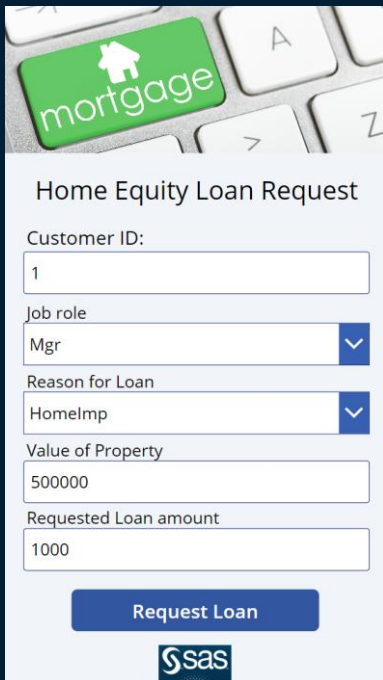
SAS-Analysen und Datenanreicherung sind als Services für Power BI verfügbar.

SAS-Lösungen um Power BI Template Apps herum aufbauen

Vorteile

- **Einbettung von SAS-Modellen in Power Apps** für die Analytik hinter den Kulissen
- **SAS Intelligent Decisioning** in Geschäftsabläufe **einbetten**
- Treffen Sie KI-gesteuerte Entscheidungen mit **SAS KI** und Analytik hinter **Power BI-Visualisierungen**
- **Jeder**, unabhängig von seinem Kenntnisstand, nutzt die Analytik, **um Entscheidungen zu treffen**

Anwendungsfall Kreditgenehmigung



Home Equity Loan Request

Customer ID:
1

Job role
Mgr

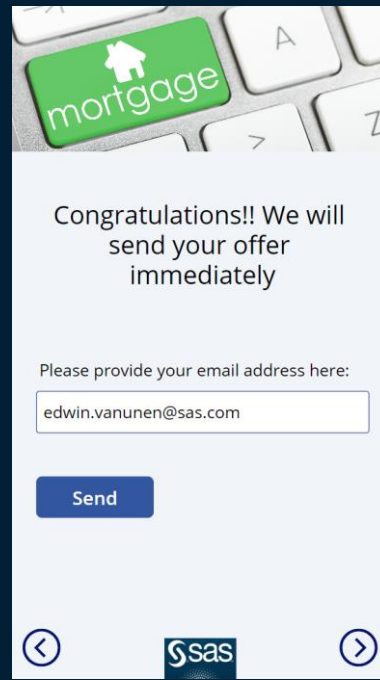
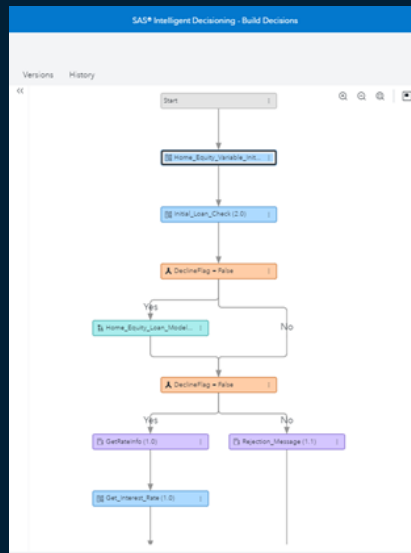
Reason for Loan
Homelmp

Value of Property
500000

Requested Loan amount
1000

Request Loan

SAS



Congratulations!! We will send your offer immediately

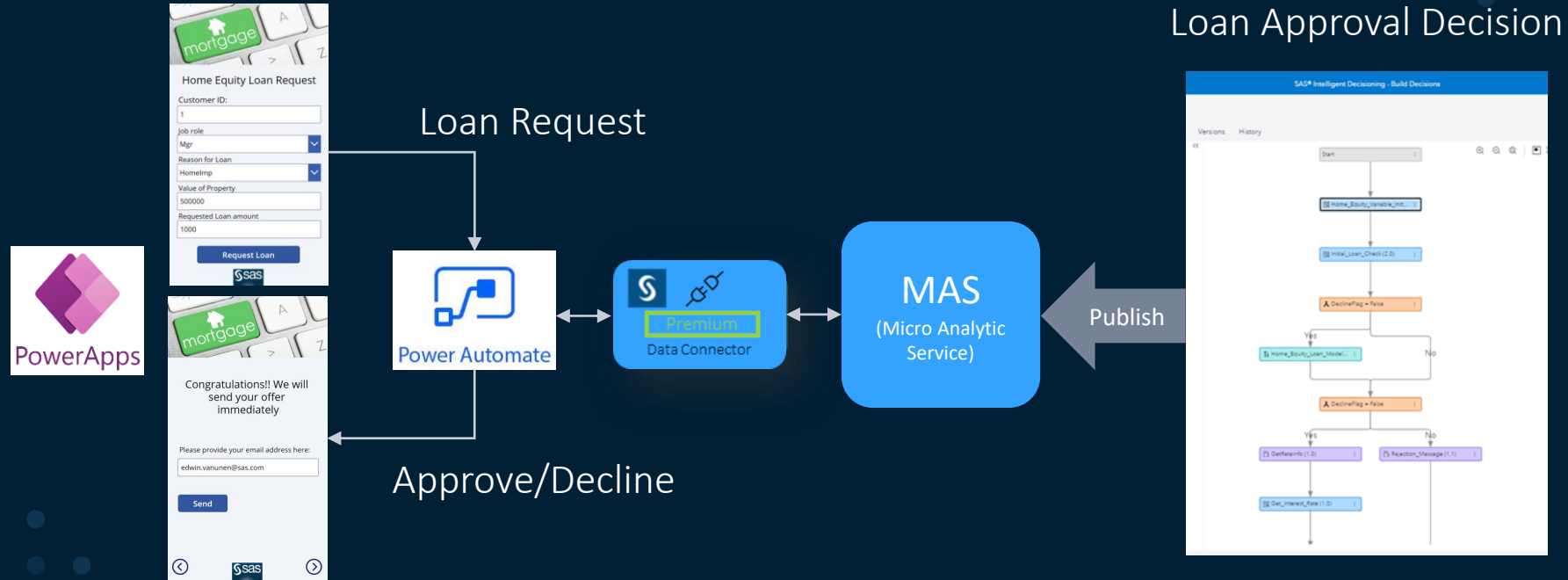
Please provide your email address here:
edwin.vanunen@sas.com

Send

SAS

Integration SAS Viya & MS Power Apps

SAS Decisioning Connector



Microsoft Power Platform

SAS Intelligent Decisioning



SAS Container Runtime in Azure (SCR Azure)

The screenshot displays the 'Build Decisions' interface in SAP Intelligent Decisioning. The top navigation bar includes 'Versions' and 'History'. The main workspace shows a decision flowchart with the following steps:

- Start** (Grey box)
- Home_Equity_Variable_Init** (Blue box)
- Initial_Loan_Check (2.0)** (Blue box)
- DecliningTag = False** (Orange box)
 - Yes**: Leads to **Home_Equity_Loan_Model** (Green box)
 - No**: Leads to **DecliningTag = False** (Orange box)
- DecliningTag = False** (Orange box)
 - Yes**: Leads to **GetInterestRate (1.0)** (Purple box)
 - No**: Leads to **Rejector_Message (1.1)** (Purple box)
- GetInterestRate (1.0)** (Purple box) leads to **GetInterestRate (1.0)** (Blue box)

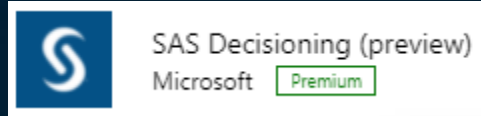
The flowchart ends with two exit paths from the final blue box.



SAS Decisioning Data Connector

Establish HTTP connection between MAS and a MS Power Flow

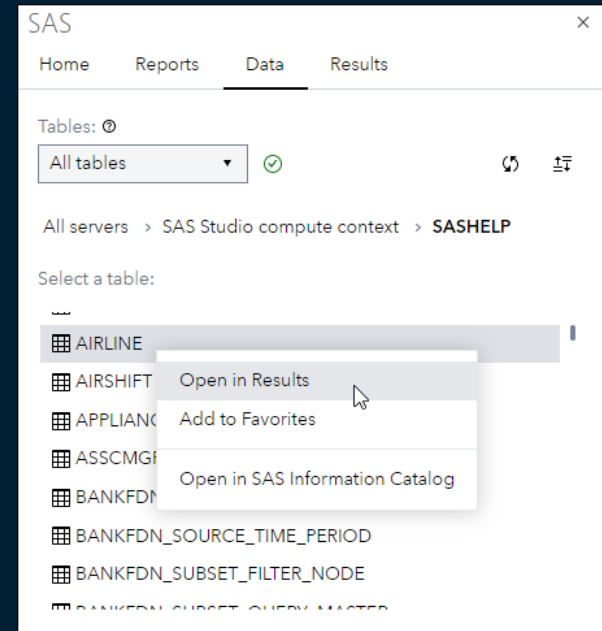
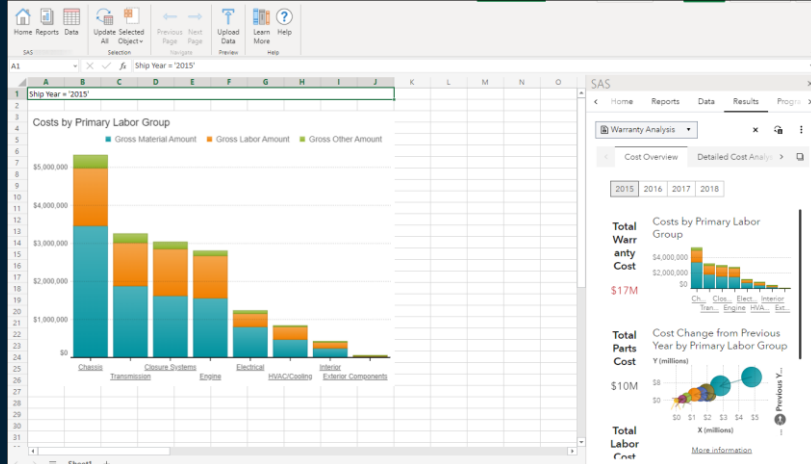
- Prerequisites
 - SAS Intelligent Decisioning license
 - PowerApps with Premium License
 - Allow calls coming from the Power Platform IP Addresses Range
- Register Client (SAS Admin)
- Obtain access token (SAS Admin)
- Setup Decisioning Data Connector

The image shows a configuration window for the SAS Decisioning Data Connector. The window has a title bar with a close button (X). The header section contains the SAS logo, the text 'SAS Decisioning', and the words 'Microsoft', 'Preview', and 'Premium' in smaller text. Below the header, there is a descriptive paragraph: 'SAS Decisioning combines AI and business rules to automate operational decisions at scale. Use this connector to run decision models that are deployed on the SAS Viya platform.' Below this, there are two input fields. The first is labeled 'SAS Viya Environment URL *' and contains the text 'https://Viya-Server.sas.com'. The second is labeled 'Authorization Token *' and contains a series of dots. At the bottom right, there are two buttons: 'Cancel' (light gray) and 'Create' (purple).

Integration mit Office365

Aktuell Excel & Outlook

- Suchen und Einfügen von VA Reports (beide)
- Daten filtern, sortieren und einfügen (Excel)
- CAS Tabellen aus Excel heraus generieren (Excel)



SAS und der moderne Arbeitsplatz

Integration mit Microsoft Teams

Unsere gemeinsame Vision als SAS und Microsoft ist es, zu zeigen, wie wir die Analytik demokratisieren, indem wir Geschäftsanwendern die Möglichkeit geben, über die vertraute Microsoft Teams-Oberfläche an Prozessen wie ModelOps teilzunehmen.



- SAS Conversation Designer integriert Chatbots mit Teams.
- Der Modell-Governance-Prozess von SAS Model Manager wird über Teams abgewickelt.
- Berichte und Dashboards aus SAS Visual Analytics und Power BI können auf einer Registerkarte für Teams angezeigt werden.

Teams Nachrichten am Ende eines ETL Prozess

