Microsoft

Best Practices for Machine Learning Operations (MLOps) with Azure Machine Learning Service

Models differ from code because they have an organic shelf life and will deteriorate unless maintained. Once deployed, they can add real business value, and this gets easier when data scientists are given the tools to adopt standard engineering practices.
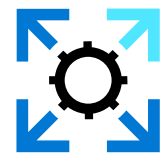
" By unifying our tech stack and bringing our engineers in Big Data and online software together with data scientists, we got our development time down from months to just a few weeks."
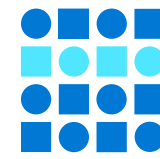
Naeem Khedarun
Principal Software Engineer, ASOS

With MLOps on Azure you can quickly realize the value of your models and retain that value over time.

Create reproducible models and reusable training pipelines.

Simplify model packaging, validation, and deployment for quality control, A/B testing, and more.

Explain & observe model behavior and automate the retraining process.

5 best practices to optimize your MLOps lifecycle on Azure:

Create models with reusable ML pipelines using the Azure Machine Learning extension for Azure DevOps. Store your code in GitHub so it automatically integrates into your MLOps pipeline.

5 Observe data drift and feed back model information to improve future training.

4 Deploy and monitor performance so you can release models with confidence and know when to retrain.
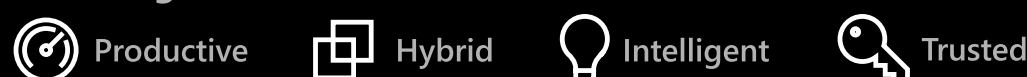
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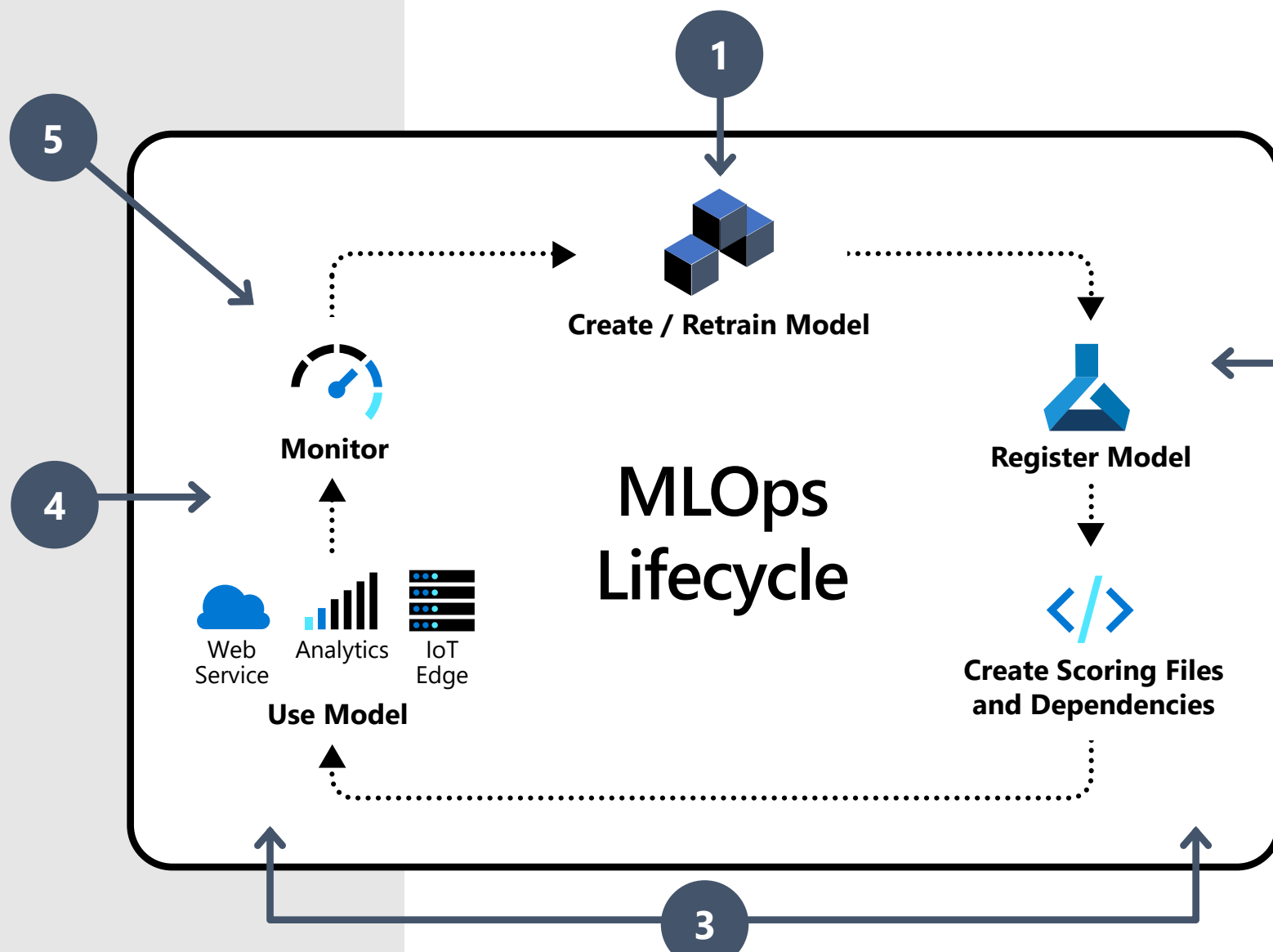
2 Automate your MLOps rollout using Azure DevOps + Azure Machine Learning for version models with rich metadata and event management.

3 Automatically create an audit trail for all artifacts in your MLOPs pipeline to ensure asset integrity and meet regulatory requirements.

Create / Retrain Model

Monitor

MLOps Lifecycle

Register Model

Web Service   Analytics   IoT Edge
Use Model

Create Scoring Files and Dependencies

Get started today
with Azure Machine Learning service

Including all the benefits of Azure:

Productive   Hybrid   Intelligent   Trusted

Get the free trial of Azure Machine Learning service and pair it with the Azure AML extension within DevOps

Learn more