Starting a Data Science Project

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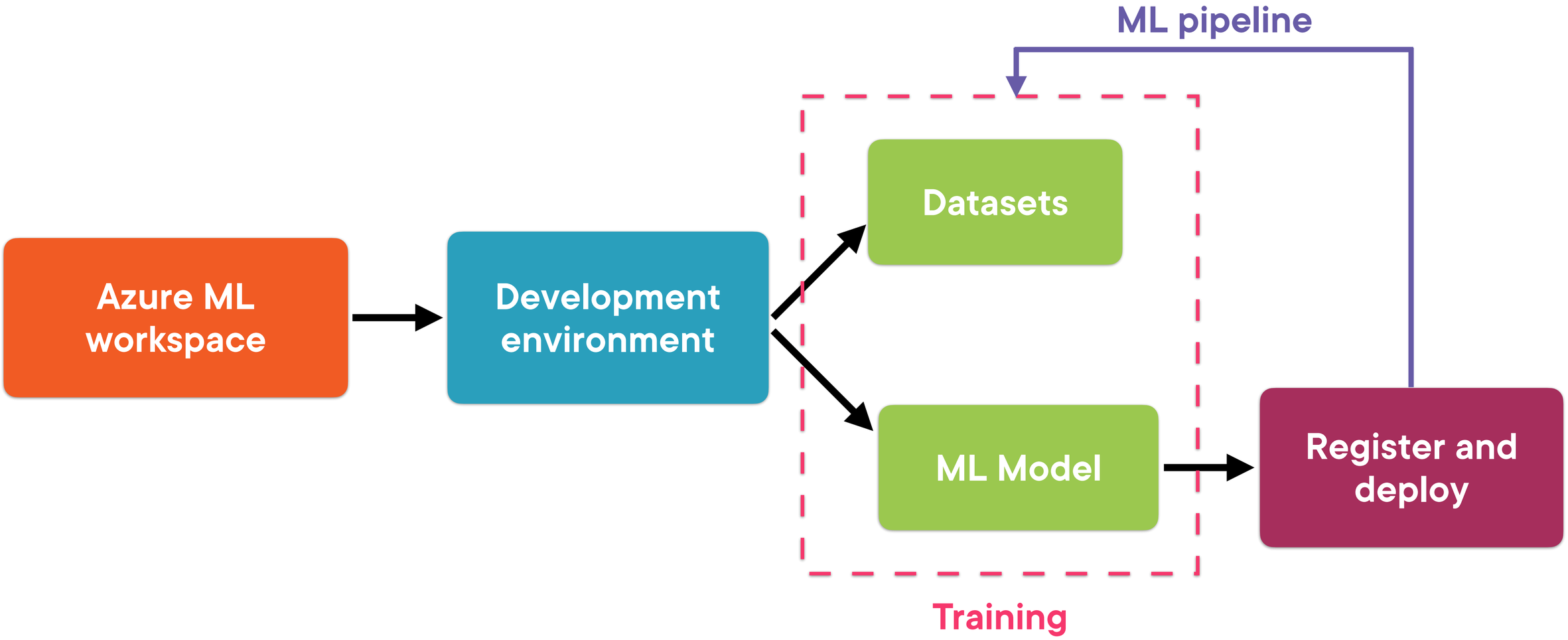
A Walkthrough of Model Development



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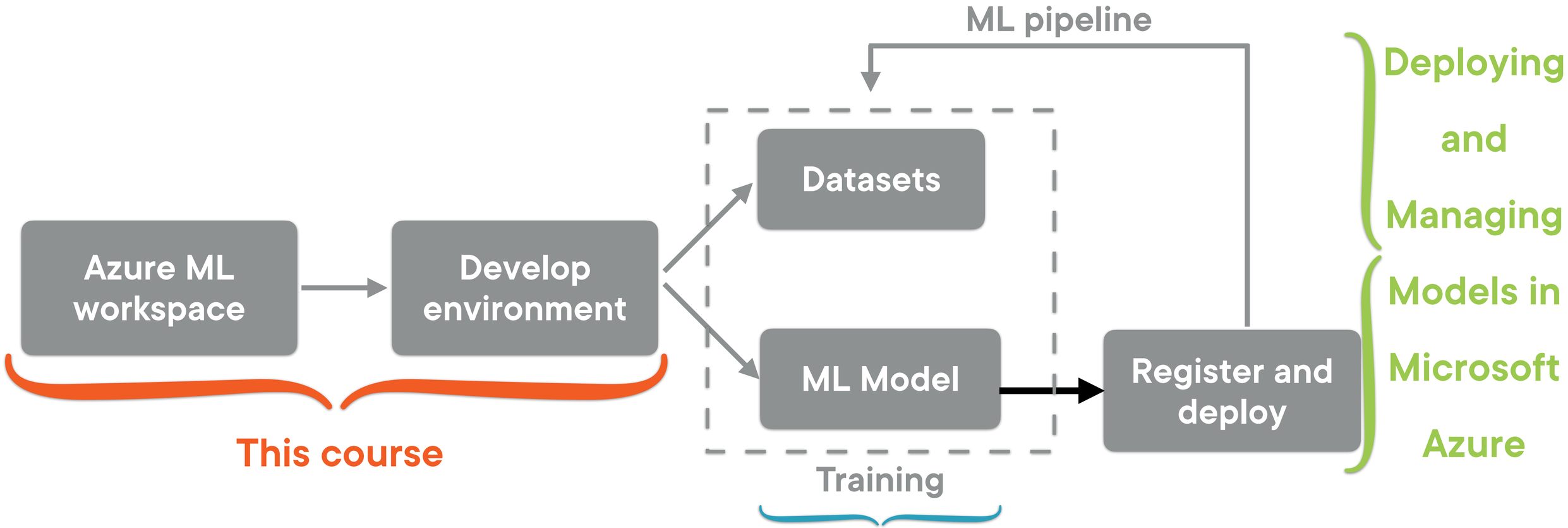


- Experimental Design for Data Analysis

- Build Machine Learning Models with Azure Machine Learning Designer

Sidetrack Courses

Batch processing

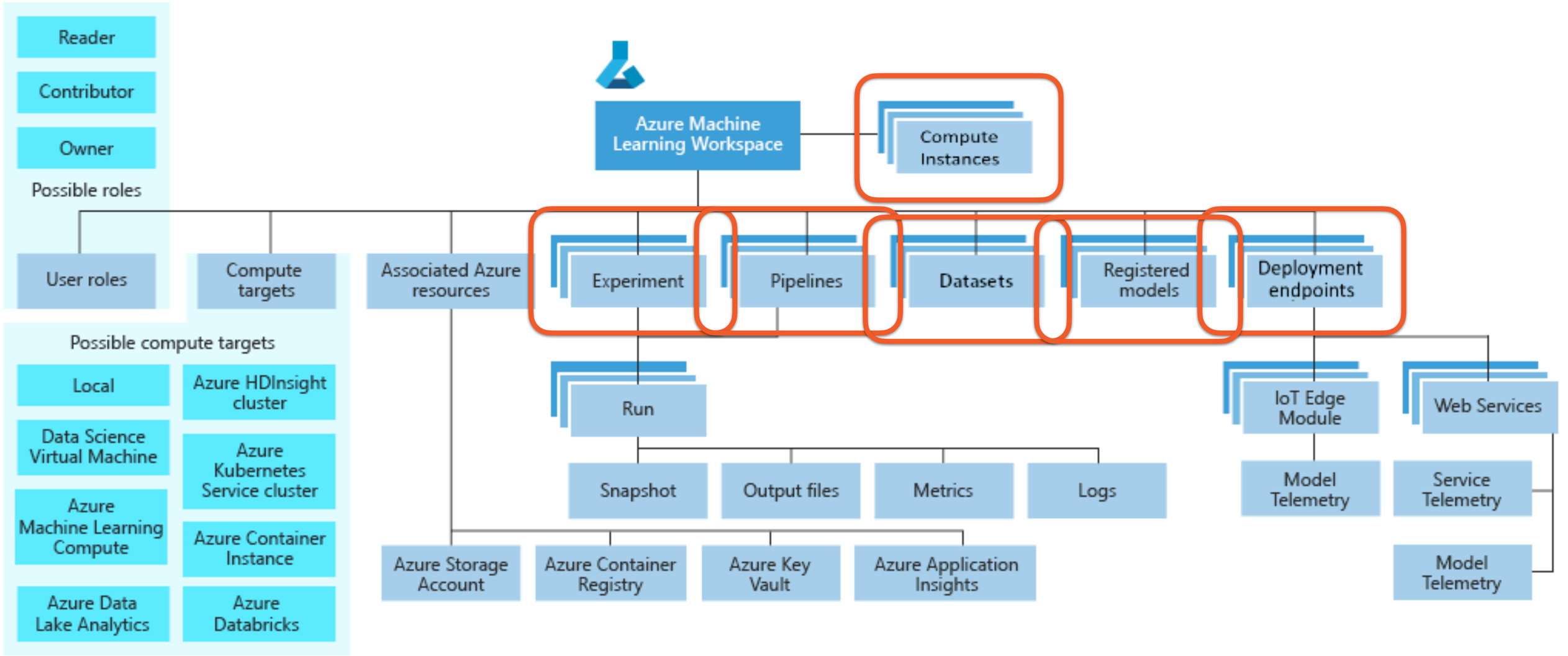
Create and Publish Pipelines for Batch Inferencing with Azure

Get the best Machine Learning model automatically

Build Optimal Models with Azure Automated ML

What is an ML Workspace?

Azure Machine Learning



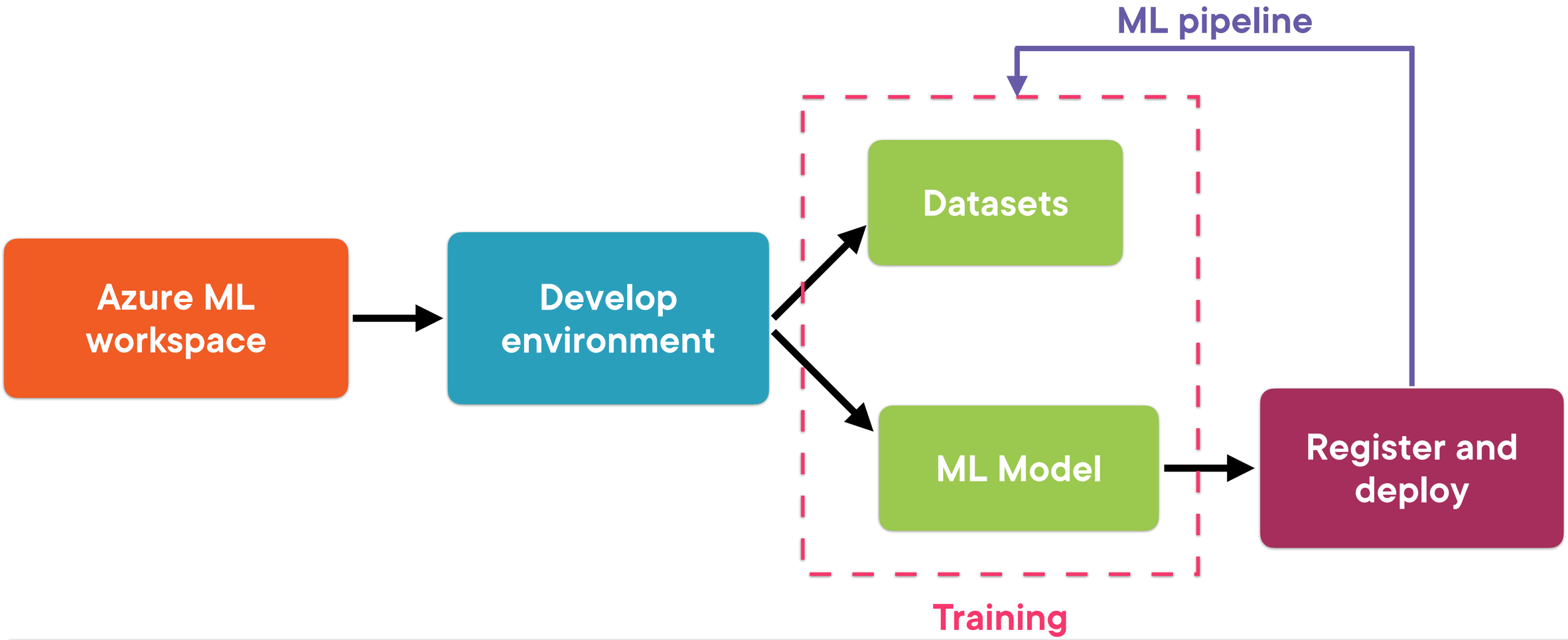
Demo

Configure correctly our workspace

Explore the Machine Learning Studio

A Preview on Development Environments

Setting Up the Environment



A development environment refers to the actual machine that runs the code, and how it integrates with the workspace.

Development Environments

Local environment

- Pro: Full control of the development environment and dependencies
- Con: It takes longer to get started

Data Science Virtual Machine

- Pro: No setup and is easier to scale
- Con: There exists another option that is even faster

Azure Machine Learning Compute Instances

- Pro: Is the fastest way to get up to speed and have a mounted share file system
- Con: You only have the jupyter hub and a terminal

- Testing packages and prototyping -> Local

- Local cannot work -> DSVMs

- Easy to share and scale -> Compute instances

Demo

We will configure our laptops to execute Azure ML python statements against our newly created Azure ML workspace

Demo

Replicate the work on a DSVM

Demo

Let’s see what a compute instance looks like!

Takeaways for the DP-100

A workspace encapsulates all the resources that are needed to create ML models

Within a workspace we need to configure the development environment to integrate with it

We can have local environments for quick prototyping and iterations

If we need more computing power and mimic the local experience, we have DSVMs

We can use compute instances in jupyter notebooks to scale to the cloud seamlessly

Keys for the DP-100

Practice filling the code under exercises in the demos to interact with Azure ML yourself

Recall the different development environments in Azure ML

Try to run a different script from a compute instance into the cluster