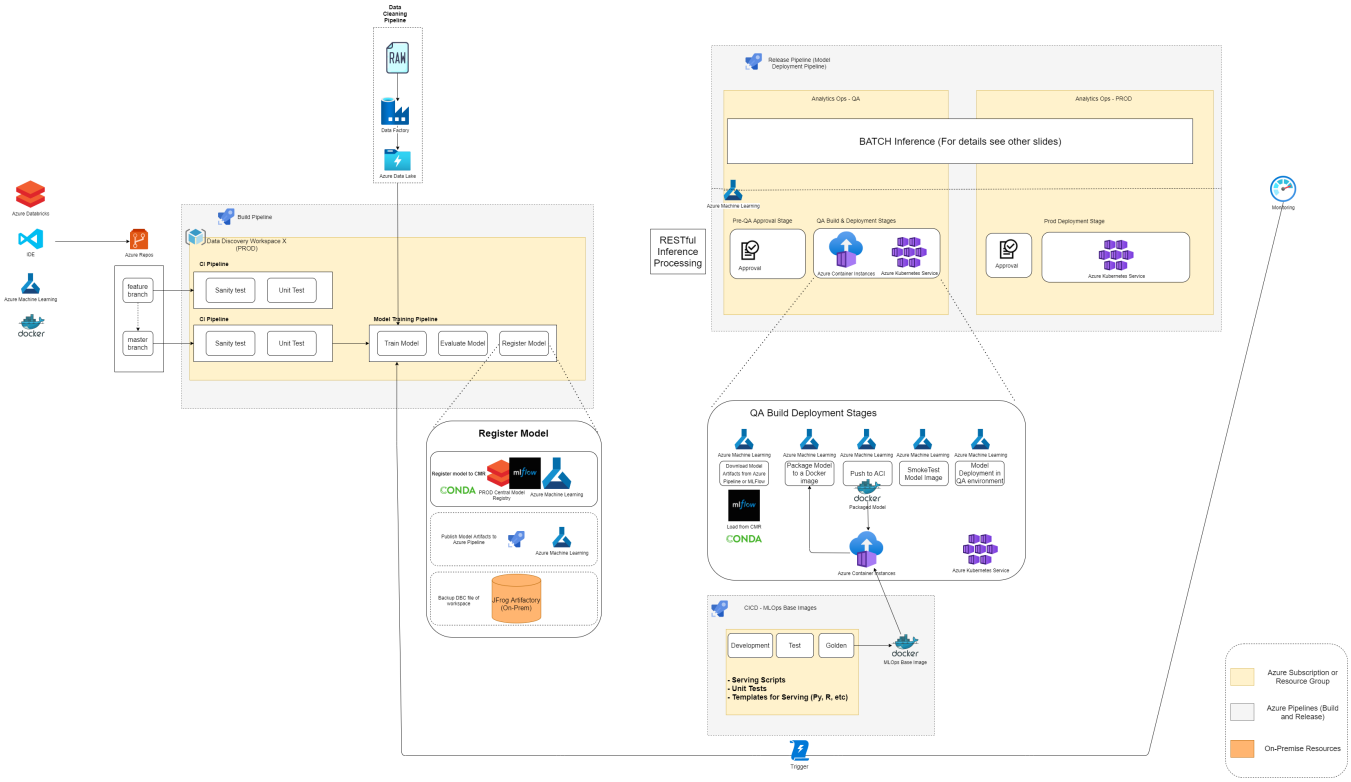
# AzureML Explorations

**This page houses drafts which give further design details to certain pieces of the MLOps system in EAC.  Especially focusing on how AzureML and Docker will be utilized**

## ML Model CICD Workflow (Draft Proposal)




## MLOps Workflow (Differences from Current Design only)

### CI Pipeline

- No Changes Yet

### Model Training

- Register the Model with MLFlow while AzureML is connected to the Databricks workspace - https://docs.microsoft.com/en-us/azure/machine-learning/how-to-use-mlflow-azure-databricks
- Register the Model with the AzureCLI - See call of template in AzureML Example demo_bootstrap-ci.yml  https://dev.azure.com/GBI-ODL/AnalyticsOps/_git/eac-demomodels-azureml?path=%2F.pipelines%2Fdemo_bootstrap-ci.yml&version=GBadapt_with_databricks&line=97&lineEnd=98&lineStartColumn=1&lineEndColumn=1&lineStyle=plain&_a=contents
    - demo_boostrap-publish-model-artifact-template.yml - https://dev.azure.com/GBI-ODL/AnalyticsOps/_git/eac-demomodels-azureml?path=%2F.pipelines%2Fdemo_bootstrap-publish-model-artifact-template.yml

### Model Deployment

- Entire new split based on batch or RESTful inference.  Batch processing does not require Dockerization at this moment, only for RESTful based models.
- Entirely new REST Interence flow involves learnings from AzureML explorations and testings - https://dev.azure.com/GBI-ODL/AnalyticsOps/_git/eac-demomodels-azureml?version=GBadapt_with_databricks&path=%2F.pipelines%2Fdemo_bootstrap-cd.yml

### Model Re-Training

### Model Monitoring

# Rule-Based Model CICD Workflow (Draft Proposal)

No Changes to Supervised Learning Example Draft except Train/Evaluate is replaced with Score.. and Registration is optional thereafter

You can read more about centralized ML Flow workspace here.

**References**

**MSFT provided example of AzureML - https://github.com/microsoft/MLOpsPython**