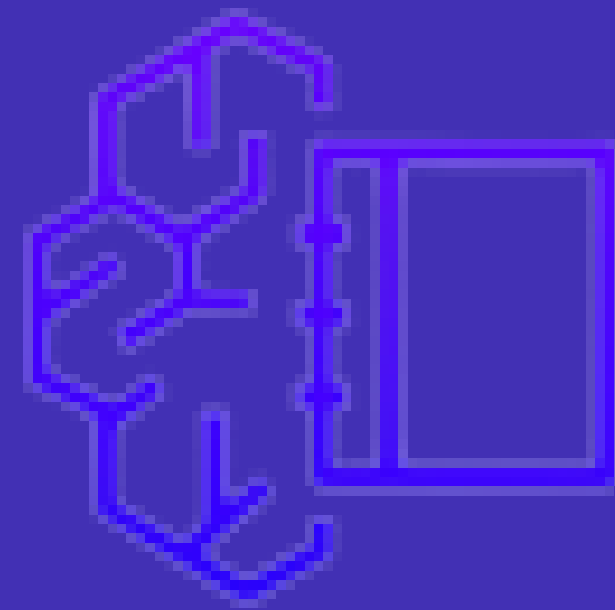# MLOPS WITH AWS SAGEMAKER

Session 4

Agenda

▶ Sagemaker Canvas Overview

▶ Usecase for Sagemaker Canvas

▶ Demo - Perform Binary classification model along with a model card to document model details

Presented by Ayyanar Jeyakrishnan - AWS Data User Group Bangalore Organizer and Cloundloud Tech Community Leader

RECAP

- In previous sessions, We discuss about what is MLOps, MLOps Challenges, MLOps Benefits. and highLevel Overview of AWS Sagemaker.
- Demo -Use the terraform code to Deploy the Sagemaker Studio with User profiles and Spaces.
- Demo - Sagemaker Pipeline
- Demo - Sagemaker Studio - Projects, MLOps Templates
- Datawrangler, Dataflow, Feature store Overview
- Demo - Use DataWrangler transform Data to publish to Feature Store for ML Pipeline, Create a Model using AutoPilot and Deploy.
- Sagemaker Canvas Overview, Demo: How to use NoCode Tool to predict ITC Stock Price.

  * You can find the All Session Presentation and Recordings in GitHub
https://github.com/aws-data-usergroup-bangalore/sagemaker-mlops/tree/main
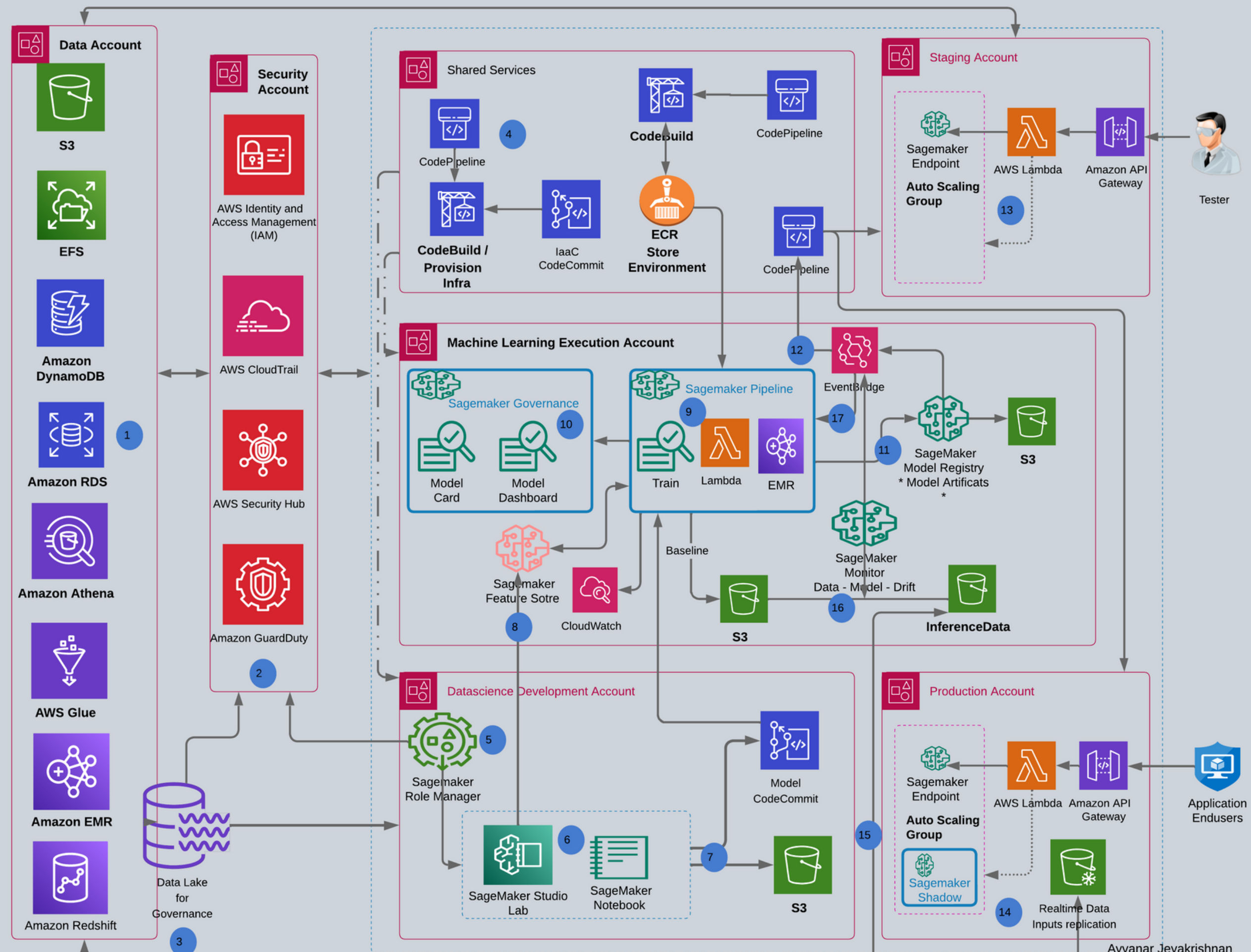
SAGEMAKER CANVAS - WHY

NO CODING REQUIRED

Sagemaker Canvas provides a visual interface that allows users to build and train machine learning models without requiring specialized coding skills. This makes it accessible to a wider range of users, including business analysts and data scientists who may not have a background in software development

STREAMLINED WORKFLOW

Sagemaker Canvas provides a streamlined workflow for building and deploying machine learning models. Users can perform all the necessary tasks in one platform, including data preprocessing, model building, model tuning, deployment, and monitoring.

SCALABILITY

Sagemaker Canvas is designed to work with AWS's scalable infrastructure, which enables businesses to process large amounts of data and handle complex machine learning workloads. This makes it suitable for organizations of any size, from startups to large enterprises.

PRE-BUILD MODELS

Sagemaker Canvas offers a range of pre-built machine learning models, including algorithms for image classification, text analysis, and time series forecasting. This can save time and effort for users who need to build models quickly.

AWS INTEGRATION

Sagemaker Canvas can be integrated with other AWS services, such as Amazon S3 for data storage and Amazon CloudWatch for monitoring. This enables businesses to build end-to-end machine learning solutions that can scale to meet their needs.

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SAGEMAKER CANVAS - HIGH LEVEL OVERVIEW

DATA PREPROCESSING

Sagemaker Canvas provides a user-friendly interface to preprocess data before using it to build models. You can use Sagemaker Canvas to clean data, handle missing values, and perform other necessary data preprocessing tasks.

MODEL BUILDING

Sagemaker Canvas allows you to build and train machine learning models using a visual interface. You can choose from a range of pre-built algorithms or create your own custom models using your own data.

MODEL TUNING

Sagemaker Canvas provides tools to optimize your models. You can use these tools to find the best hyperparameters for your model and improve its accuracy.

MODEL DEPLOY

Once you have trained your model, Sagemaker Canvas allows you to deploy it easily. You can deploy your model on a scalable infrastructure and integrate it with other applications

MODEL MONITOR

Sagemaker Canvas also provides monitoring tools that allow you to track the performance of your deployed model. You can use these tools to identify issues and improve your model's accuracy over time.

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Forecast Stock Prediction

Housing Price Prediction

DEMO