Azure Machine Learning for everyone

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Your contacts

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Your sites

GitHub:
 https://github.com/alpaBuddhabhatti/Global-AI-Bootcamp-London-Azure-Machine_Learning/new/main

https://www.youtube.com/results?search_query=alpa+buddhabhatti

Microsoft Certified Trainer 2021-2022
Microsoft

Microsoft Certified: Azure Data Engineer Associate
Microsoft

Microsoft Certified: Azure Data Scientist Associate
Microsoft

Microsoft Certified: Azure Developer Associate
Microsoft

global AI bootcamp

Agenda

1. **Machine learning and Azure Machine Learning**

   ✓ **What is Machine Learning (ML)?**
   ✓ **What is Azure Machine Learning (ML)?**
   ✓ **Why we need Azure Machine Learning (ML)**
   ✓ **Steps to create Machine Learning Model**
   ✓ **Azure Machine Learning Designer Tour!!!**

2. **DEMO**

   ✓ **Azure ML Studio – Using a classification models to predict approval of loans**
   ✓ **Test a Machine Learning Model using Postman**
   ✓ **Consume a Machine Learning Model using Azure Data Factory**

1. Machine Learning

What is Machine Learning?

A Computer Program/system that can learn from

"Experience" ⟷ **Data or Examples**

It finds pattern from experience and able to make predictions about the future.

Without being explicitly programmed or told to do

What is Azure Machine Learning ?

It is a cloud-based service for creating and managing Machine Learning solutions

- **Create ML Solution**
- **Manage ML Solution**
- **Train ML Solution**
- **Deploy ML Solution**

- **Analyzed Data**
- **Data Cleansing**
- **Data Transformation**

Why Azure Machine Learning?

✓**Azure PaaS Service**

✓**No Code, Low code, Code First**

✓**In Built – Algorithms**

✓**Speed up Data science process**

✓**Deployment**

Basic Key Terms of Machine Learning

➤ **Features**

➤ **Target**

➤ **Training Data**

➤ **Testing Data**

Features

Target

House Size(Sq Feet)	Location	Age(year)	Prize
500	London	2	70
1500	Bath	3	100
2000	Leeds	4	60
100	London	2	?
3000	Bath	10	?

Training Data

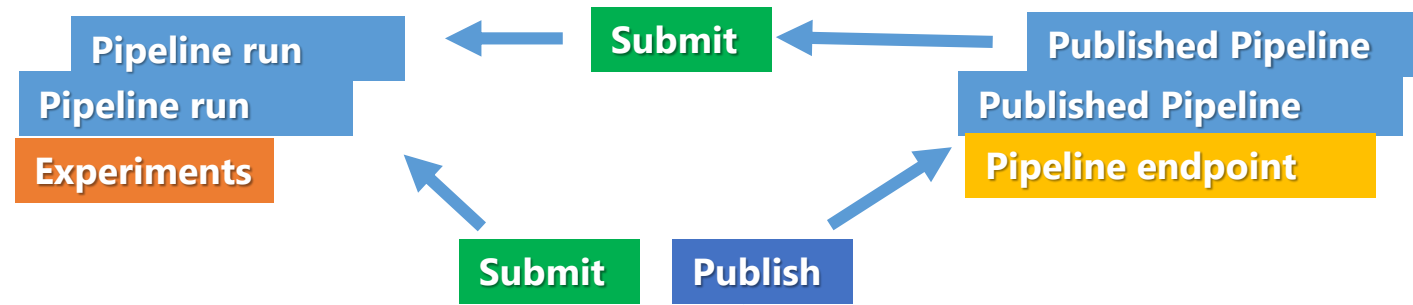**Testing Data**

Steps to create Machine Learning Model

1. Data Processing
2. Feature Selection
3. Split Data
4. Train Model
5. Score Model
6. Evaluate Model

2. DEMO

Model training and deployment

What is the Azure Machine Learning designer? - Azure Machine Learning | Microsoft Docs

DEMO -

Approval for a loan using Machine Learning Designer

Steps to create Machine Learning Model

1. Create a new pipeline
2. Import data
3. Prepare data
4. Train a machine learning model
5. Score a machine learning model
6. Evaluate a machine learning model
7. Create a real-time inference pipeline
8. Create an inferencing cluster
9. Deploy the real-time endpoint
10. Test the real-time endpoint

DEMO -
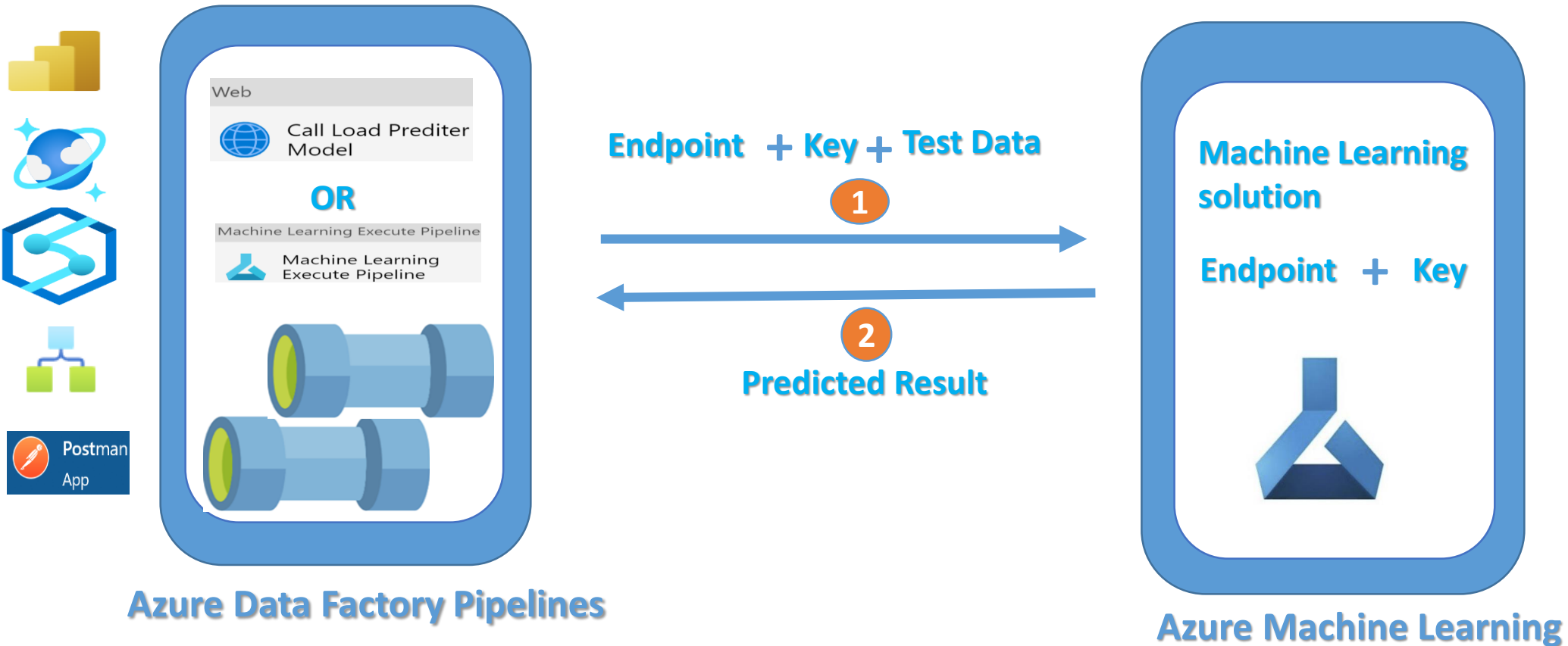
Test a Machine Learning Model Using Postman

DEMO -

Consume a Machine Learning Model

using Azure Data Factory

High level Solution Designs

Consumers

Azure Data Factory Pipelines

Web

Call Load Prediter Model

OR

Machine Learning Execute Pipeline

Machine Learning Execute Pipeline

Endpoint + Key + Test Data

1

2

Predicted Result

Machine Learning solution

Endpoint + Key

Azure Machine Learning

Conclusion

- ✓ **Azure Machine Learning**
- ✓ **Steps to create a Machine Learning model**
- ✓ **Approval for a loan using AML studio**
- ✓ **Test Machine Learning Endpoint using Postman**
- ✓ **Consume Machine Learning Endpoint using Azure Data Factory**

Thank you

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Questions !!!

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