Why ML Ops?

1. Less chances of error
2. Ease of scalability
3. Collaboration
4. Increased efficiency
5. High reliability
6. Cheap to execute

Key Components:

**AWS**

1. **Amazon SageMaker**

Building, training, and deploying ML models.

1. **AWS Lambda**

Serverless compute service for running code

1. **Amazon CloudWatch:**

For monitoring the performance of ML models in production

1. **AWS Glue:**

ETL service

1. **AWS Step Functions:**

Manages the steps involved in creating ETL pipelines

**GCP**

1. **Vertex AI:**

platform for managing the ML lifecycle

1. **BigQuery:**

Manages data warehouse for large-scale data analytics**Cloud Functions:**

1. **Cloud Storage:**
2. **Kubeflow:**

Managing ML workflows on Kubernetes.

**Azure**

1. **Azure Machine Learning**

Building, training, and deploying machine learning models

1. **Azure DevOps**

Automating build and release pipelines

1. **Azure Kubernetes Service (AKS)**

Managed Kubernetes for deploying and managing ML models

1. **Azure Blob Storage**

Object storage for datasets, models, and versioning of model artifacts.

1. **Azure Functions**

Serverless compute service for automating tasks