MLOps Pipeline

MLOPS (Machine Learning Operations) = everything other than the model training code required to put AI systems into production | the platform and user friendliness for the ML models | making it automatic | empowers organisations not just to deploy once, but to deploy over and over again quickly and efficiently by reducing the overhead and increasing automation that usually goes into maintaining machine learning systems in production.

> **Automating the deployment process:** Deploying machine learning models can be a complex and time-consuming process. MLOps helps automate the deployment process, making it faster and more efficient.

> **Ensuring reproducibility:** MLOps provides a framework for versioning, managing and reproducing machine learning models. This ensures that the same results can be obtained in future iterations, even when changes are made to the model.

> **Monitoring and managing models:** MLOps enables real-time monitoring of machine learning models, which can help identify and fix issues as they arise. This helps ensure that models remain accurate and up-to-date over time.

> **Scalability:** MLOps enables the seamless scaling of machine learning models, which is essential for handling larger datasets or increasing the number of users.

> **Collaboration:** MLOps allows for better collaboration between data scientists, engineers, and operations teams, enabling faster

> development cycles and better integration of machine learning models into existing systems.

Projects

PROJECT 1: Build several common components found in MLOps pipelines to illustrate the essential concepts of MLOps