DataOps and MLOps

DataOps:

DataOps is a collaborative data management practice focused on improving the communication, integration and automation of data flows between data managers and data consumers across an organization. The goal of **DataOps** is to deliver value faster by creating predictable delivery and change management of data, data models and related artifacts. **DataOps** uses technology to automate the design, deployment and management of data delivery with appropriate levels of governance, and it uses metadata to improve the usability and value of data in a dynamic environment.

DataOps is a collection of technical practices, workflows, cultural norms, and architectural patterns that enable:

1. Rapid innovation and experimentation delivering new insights to customers with increasing velocity
2. Extremely high data quality and very low error rates
3. Collaboration across complex arrays of people, technology, and environments
4. Clear measurement, monitoring, and transparency of results

What is the difference between DataOps and DevOps?

DevOps is the transformation in the delivery capability of development and software teams whereas **DataOps** focuses much on the transforming intelligence systems and analytic models by data analysts and data engineers.

Data and analytics closely deal with integrations, business, and insights whereas **DevOps** practices are mostly about software development, feature upgrades, and deploying fixes. Although they are different by far, when it comes to dealing with the element they work with, the core operational strategy is pretty much the same.

DataOps is not very much different when compared to **DevOps**, for example, the goal setting, developing, building, testing, and deploying are part of the **DevOps** operations whereas, in **DataOps**, goal setting, gathering resources, orchestrating, modeling, monitoring, and studying are the steps involved.

MLOps:

MLOps stands for Machine Learning Operations. **MLOps** is a core function of Machine Learning engineering, focused on streamlining the process of taking machine learning models to production, and then maintaining and monitoring them. **MLOps** is a collaborative function, often comprising data scientists, **devops** engineers, and IT.

What is the use of MLOps?

MLOps is a useful approach for the creation and quality of machine learning and AI solutions. By adopting an **MLOps** approach, data scientists and machine learning engineers can collaborate and increase the pace of model development and production, by implementing continuous integration and deployment **(CI/CD)** practices with proper monitoring, validation, and governance of **ML** models.

What is the difference between MLOps and DevOps?

MLOps is a set of engineering practices specific to machine learning projects that borrow from the more widely-adopted DevOps principles in software engineering. While DevOps brings a rapid, continuously iterative approach to shipping applications, **MLOps** borrows the same principles to take machine learning models to production. In both cases, the outcome is higher software quality, faster patching and releases, and higher customer satisfaction.