**Software Development Lifecycle (SDLC)**

**What is SDLC?**

The Software Development Lifecycle (SDLC) is an industry-standardized practice of defining, designing, and testing, ensuring delivering high-quality software or products.

The SDLC phases are:

* Planning – This is the phase of requirement gathering
* Defining – Involves defining constraints
* Designing – This process involves the set of tools and software to use.
* Building – The developers building the software or product through the design specification
* Testing – The Quality Assurance Engineer (QA) for ensuring quality code and performance
* Deployment – Involve deploying the products or software to production for end users.

DevOps engineers are more interested in the building, testing, and deployment phases, which is done through automation.

**## Virtualizations**

**What is Virtualizations**?

Virtualization is the process of creating a virtual machine or server on our physical computer, and this helps with isolating our servers from each other

**Why Virtualizations**?

* Virtualization helps in creating isolation between servers
* No Operating System (OS) installation
* It cut down the capital and operation expenditure
* It offers the flexibility of being able to run multiple servers on a single physical machine
* Physical Server to Virtual Machine: Logical isolation of physical server using hypervisor.

**Hypervisor and types of hypervisors**:

* Hypervisor helps us to create a virtual machine, and there are two types of Hypervisor. Which are:
* Type1: Mainly used for production, and it uses the hardware
* Type: This can be installed on the host machine, with a tool such as Oracle VM and Windows Hypervisor