**DevOps** is a methodology in the software development and IT industry. Used as a set of practices and tools, DevOps integrates and automates the work of [software development](https://en.wikipedia.org/wiki/Software_development) (*Dev*) and [IT operations](https://en.wikipedia.org/wiki/IT_operations) (*Ops*)

DevOps is a set of practices that combines s/w development and IT operations,it aims to shorten the systems development life cycle and provide continuous delivery with high software quality.

Developers gives a piece of code devops engineers has to copy this code on to the servers

A computer screen with text and a diagram

Description automatically generated with medium confidence

A screenshot of a software application

Description automatically generated

A screenshot of a computer program

Description automatically generated

Devops tools:

Continuous development: source code management-🡪git

Continuous integration--🡪jenkins

🡪unit test

🡪build

🡪code analysis

🡪build artifacts

Continuous deployment: ansible

🡪infrastructure-🡪aws/docker/k8s

🡪configuration management tool🡪ansible

Continuous testing

🡪Post deployment testing

Continuous monitoring:

Prometheus

Here's a breakdown of the terms you mentioned:

1. **IaaS (Infrastructure as a Service)**:
   * IaaS provides virtualized computing resources over the internet. It includes services like virtual machines, storage, networks, and other infrastructure components. Users can rent these resources on-demand and pay as they go.
   * **Example**: Amazon Web Services (AWS) EC2, Microsoft Azure, Google Compute Engine.
2. **PaaS (Platform as a Service)**:
   * PaaS offers a platform allowing customers to develop, run, and manage applications without dealing with the underlying infrastructure. It includes development tools, databases, and middleware, all hosted in the cloud.
   * **Example**: Google App Engine, Microsoft Azure App Services, Heroku.
3. **SaaS (Software as a Service)**:
   * SaaS delivers software applications over the internet, typically on a subscription basis. Users can access the software from any device via a web browser, without needing to manage the underlying infrastructure.
   * **Example**: Microsoft 365, Google Workspace, Salesforce.
4. **IaC (Infrastructure as Code)**:
   * IaC is the practice of managing and provisioning computing infrastructure through machine-readable definition files, rather than physical hardware configuration or interactive configuration tools. It enables automated and consistent deployment of infrastructure.
   * **Example**: Terraform, AWS CloudFormation, Ansible.