**DEVOPS DOCUMENT 2**

**PHASES OF DEVOPS:**

* Continuous Development.
* Continuous Integration.
* Continuous Testing.
* Continuous Monitoring.
* Continuous Feedback.
* Continuous Deployment.
* Continuous Operations.

**1) Continuous Development:**

This practice spans the planning and coding phases of the DevOps lifecycle. Version-control mechanisms might be involved.

**Tools used:**

GitLab, GIT, TFS, SVN, Mercurial, Jira, BitBucket, Confluence, and Subversion

**2) Continuous Integration:**

This software engineering practice develops software by frequently integrating its components. It helps to ensure that changes in the source code do not break the build or cause other problems.

**Tools Used:**

Jenkin, Bamboo, GitLab CI, Buddy, TeamCity, Travis, and CircleC

**3) Continuous Testing:**

This DevOps lifecycle stage incorporates automated, prescheduled, continued code tests as application code is written or updated. Such testscan be written manually or in conjunction with [continuous integration tools](https://www.guru99.com/top-20-continuous-integration-tools.html).

**Tools Used:**

JUnit, Selenium, TestNG, and TestSigma

### 4) Continuous Deployment:

The deployment process takes place continuously in this DevOps lifecycle phase. It is performed so that any changes made in the code should not affect the functioning of a high traffic website.

**Tools Used:**

[Ansible](https://www.ansible.com/), [Puppet](https://puppet.com/), and [Chef](https://www.chef.io/chef/)

### 5) Continuous Monitoring:

During this phase, developers collect data, monitor each function, and spot errors like low memory or server connection are broken. For example, when users log in, they should access their account, and a failure to do so means there’s a problem with your application.

**Tools Used:**

Nagios, Kibana, Splunk, PagerDuty, ELK Stack, New Relic, and Sensu

### 6) Continuous Feedback:

Continuous feedback is like a progress report. In this DevOps stage, the software automatically sends out information about performance and issues experienced by the end-user. It’s also an opportunity for customers to share their experiences and provide feedback.

**Tools Used:**

Pendo, [Qentelli’s TED](https://www.qentelli.com/platforms/ted)

7) **Continuous Operations:**

It is the last, shortest, and most straightforward phase of [DevOps](https://www.guru99.com/what-is-devops.html). It also involves automating the application’s release and all these updates that help you keep cycles short and give developers and provide more time to focus on developing.

**Tools Used:**

 Kubernetes and Docker Swarm

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