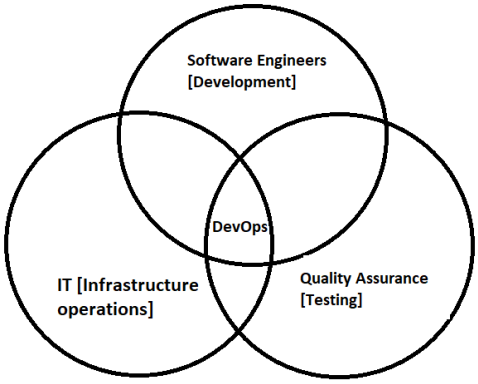
SUMMARY OF DEVOPS

DevOps is a software development methodology which combines both the developers and the infrastructure operations team. It is an offspring of Agile model where continuous Integration, Communication and Collaboration takes place.



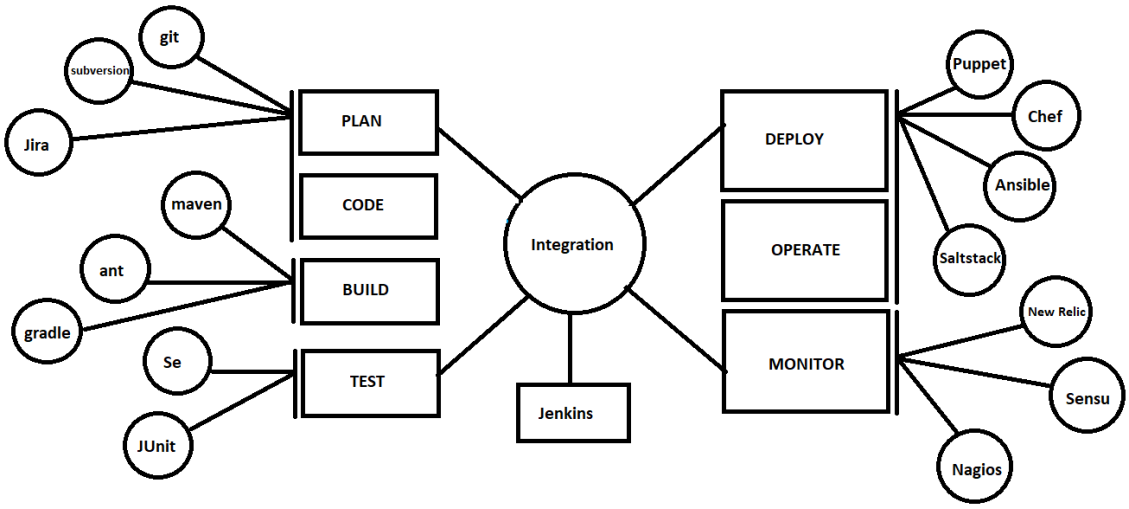
DevOps life Cycle can be broadly broken down into the following DevOps stages:

1. Continuous Development: It is the phase where we split the entire process of developing the product into small parts which includes the continuous Integration, Deployment and Delivery phases making the product error-free.
2. Continuous Integration: In every sprint, a new feature will be released. The code for this feature will be added to the repository which has the code. Each time a new code commit is done by the developer, he will be notified about the build functionality of the code. This makes the developer easy to find out the bugs and fix them (if any).
3. Continuous Delivery: In this phase the code will be taken across various kinds of testing like functional testing, regression testing, pre-generated acceptance testing. If the code works well in these testing phases, then it will be sent to a staging environment for deployment.
4. Continuous Testing: It will test the code so as to reduce the business risks. It will send a feedback to the developer associated to every software release. This phase makes sure that the bugs in our product are reduced to a minimum level.
5. Continuous Deployment: This phases sees to it that at any time if there is any change in our product, they are deployed in the appropriate servers and the product runs in the expected way.

6. Continuous Monitoring: After deploying the product in production server, we need to keep track of the product to check its behaviour. We can also solve errors or upgrade our product in future.

Each phase will be executed using various tools like:

- Git and GitHub
- Jenkins
- Bamboo
- Ansible
- Chef
- Puppet
- Docker
- Nagios



Advantages of using DevOps / Why DevOps:

Improved customer satisfaction:

DevOps implements continuous communication, collaboration and integration which helps the Scrum Team to upgrade the requirement after every sprint. This helps to achieve products with less percentage of errors, satisfying the customer by meeting their requirements.

Agility:

Agility is the key factor for choosing DevOps. The organizations that adopt DevOps will be able to do the following:

- Get ideas out to the production faster
- Gets rapid feedback
- Have clear idea on the roadmap
- Will be able to adopt new changes after every sprint

With the help of this, the organization will be able to improve the applications delivered.

More frequent deployments to production:

DevOps achieves production of application at a faster rate by following continuous communication, collaboration and integration. The complete requirement will be divided into fewer parts, each of which will be done in sprints. After every sprint changes will be done introducing a new feature to the product. So, for every phase there will be a specific time allocated hence making the requirement ready within a short period of time.

Less % of errors:

Each sprint will have all the SDLC phases which includes plan, code, build, test, release, deploy, operate and monitor. The work done in the sprint will be tested in that particular sprint, if there is any error it will be rectified then and there. That sprint (error-free) will be added to the previous ones. By this we can reduce the number of errors till the completion of the product.

Improved software stability and quality:

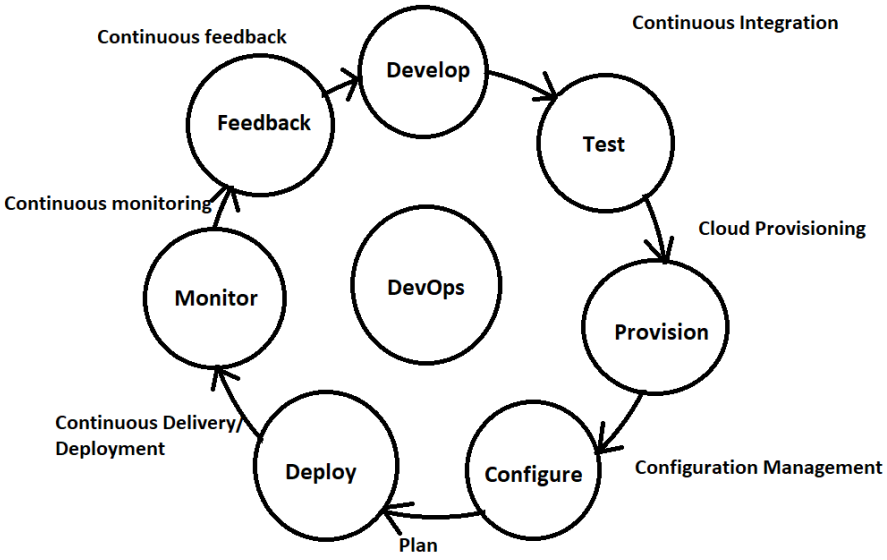
Because of faster and more frequent releases which allows us to check and resolve issues immediately, we can achieve stability and quality in the software we develop by following Agile methodology.

Improved productivity:

In waterfall model, the complete project will be developed at once. This will be difficult to test and rectify the errors. Whereas in Agile, because of continuous feedback we can easily identify and solve the errors making the product more efficient and productive.

Saving time & money:

By following Agile method, time & money will be saved because the complete product development will be scheduled before starting the process. Because of continuous communication, collaboration and integration we can complete our product in the given time span and also we can achieve customer satisfaction hence there will be no need to alter the process which helps in saving our resources.



Removes Communication gap between teams: DevOps is a platform where the Developers and the Infrastructure Operations team work together. Also it has continuous integration, communication and collaboration which helps to achieve clear understanding of what every team is performing. This makes DevOps team to satisfy the customer.

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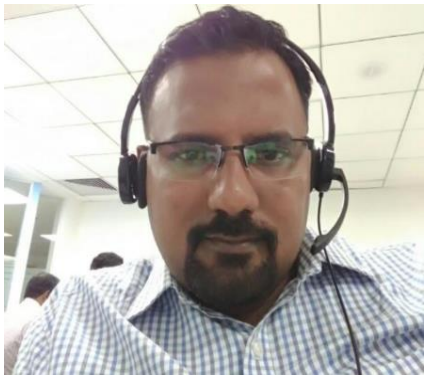
Continuous feedback:

After every phase of SDLC, there will be a feedback sent to the respective team. In case of errors, the developers will be notified which block of code has an error. This helps to implement the phases of SDLC easy and also saves time.

Hence DevOps is a methodology that automates the SDLC phases using various tools, saving time, investments and making the product error-free and efficient which increases customer satisfaction.



CONTACT US FOR MORE DETAILS

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