

## Assignment 2

Q.1 Why is DevOps a major requirement in Today's Scenario?

Ans DevOps describes culture & set of processes that bring development & operations teams together to complete software development. It allows organizations to create & improve products at a faster pace than they can with traditional software development approaches.

Reasons of DevOps being a major requirement in Today's Scenario

- ① Shorter Development Cycles, faster Innovation
- ② Reduced Deployment Failures, Roll backs & Time to Recover
- ③ Improved Communication & Collaboration
- ④ Increased Efficiencies.
- ⑤ Reduced Costs & IT Head Count

## Q2 Explain all the DevOps tools in Details

Ans

### ① Puppet

- It is most widely used DevOps tool.
- It allows the delivery & release of technology changes quickly & frequently.
- It has features of versioning, automated testing & continuous delivery.
- It enables to manage entire infrastructure as code without expanding the size of team.

### ② Ansible

- It is easy to deploy because it does not use any agents or custom security infrastructure on client side. & by pushing modules to clients.
- These modules are executed locally on the client-side and the output is pushed back to Ansible server.

### ③ Docker

- It is a high-end DevOps tool ~~help~~ that allows building, ship & run distributed applications on multiple systems.
- It also helps to assemble the apps quickly from the components & it is typically suitable for container management.
- It allows saving secrets into swarm itself.

### ④ Nagios

- It is one of the more useful DevOps. It can determine the errors & rectify them with the help of network, infrastructure, server & log monitoring systems.

### ⑤ Git

- It is an open-source distributed version control system that is freely available for everyone. It is designed to handle minor to major projects with speed & efficiency.
- It is developed to co-ordinate the work among programmers.
- The version control allows you to track & work together with your team member at same workspace.
- It is used as a critical distributed version-control for DevOps tool.