

## Devops Assignment 2

### 1 Top 5 Reasons why devops is Important in today Scenario

#### 1 Automation of Delivery Process

Devops approaches focus on standardizing the development environment and automating delivery process so that both the development and operation team can deliver high quality software and manage reliable infrastructure in produced with increase speed

#### 2 Increased Visibility of Infrastructure Requirement

Tight coupling between the developer and operation team ensure that developer provide input on redundancy ~~prob~~ projection about failover and storage requirements

#### 3 Improved performance and productivity of team

Increased communication and collaboration lead to better productivity and happy team as it enhances the software development culture as well as saves time



## Business Agility and Business Value

As companies increasingly lead on cloud & infrastructure it became crucial to implement DevOps principles. DevOps helps the organisation to market its services and products more effectively.

### 5 Reduced Overall costs

Implementing DevOps methodology reduces overall operational costs and IT staff requirement due to better productivity from staff and optimal resource utilisation.

### 2 Explain All the DevOps tools in Detail

#### Version Control tools

Git - Git is considered as one of the largest and most advanced development platforms in the world.

- 1 Collaborative Coding
- 2 Automation / CI and CD

## 2 Bitbucket

Bitbucket is a very popular platform with over 10 million registered users. Although it is a platform for hosting code, it goes beyond just code management.

## 3 Gitlab

Gitlab is an all-in-one DevOps tool for rapid software delivery. It enables teams to perform all tasks right from planning to SCM to delivery to monitoring.

## 4 Docker

Docker is a light-weight tool that aims to specify and accelerate various workflows in your SDLC with an integrated approach. A Docker container image is a standalone, executable package that includes everything you need to run.

## 5 Kubernetes

Kubernetes is an open source DevOps tool used to automate deployment and management of containerized applications. It is perhaps one of the most popular.



## Container orchestration tools.

### Mesos

Apache Mesos is a DevOps tool to manage computer clusters. It is distributed systems kernel for resource management and scheduling across entire datacenter and cloud environment.