Devops

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1) Why is Devops a major requirement in today's scenario?

In a nutshell the devops model allows companies to create viable application and programmes within a much shorter time frame, thus accelerating the speed of innovation.

It is a major requirement because its a software development and Operational approach that enables faster developments of new products and easy maintainance of Existing deployments.

Some important benefits of devops as a major requirement.

* faster solution
* Increased efficiency
* Improved customer Experience
* Faster TOT
* Improved Performance.
* Continuous Improvements.
* Reduce failures & Roll Back.

→ Greater stability of IT software applications as it brings various departments such as IT, product, Engineering, Cyber security, Operations more & unites them in common objectives of achieving business targets.

In this approach the software is seen a total to improve organisation efficiency and speed by automating several key process.

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2) Explain all DevOps tools in detail.

- Since no single tool work across all over of development & delivery. The need is to first understand the process and accordingly map the tool to be successfully establish devops culture in Organisation.

1) Jenkins – An Excellent devops automation tool being adopted by increased number of software development teams, its essentially an Open source CI/CD server that helps in automating the different stages of delivery pipeline.

* Allows us to set up and customise CD pipeline as per individual needs.
* Runs on Linux, windows & MacOS.
* Jenkins allows you to iterate & deploy new code with greater speed.

2) Git:

Widely used across software industries, Git is a distributed SCM (source code management) DevOps tool. It allows you to easily track the progress of your development work, where you can save different versions of source code and return to previous one as when required.

A free & open-source tool that supports most of the version control features of check-in

merging, labels, commit, branches, etc.

b) Requires a hosted repository such as github or bit bucket that offers unlimited private repositories.

c) Nagios - One of the most popular free & open-source DevOps monitoring tool, Nagios allows you to monitor your infrastructure real time so that identifying security threats, detection of outages errors becomes easier.

*) facilitates two methods of server monitoring.
→ agent based or agentless.

**) Allows for monitoring of Windows, UNIX, Linux & web apps as well.

*) Free Open-source with various addons available.

4) Docker —

It is one of the widely used development tool of DevOps & is known to provide platform Independent integrated container, security & agile operations for cloud-native & legacy applications.

*) Easily automates app deployment & make distributed development easy.