Name= Vaibhav Nautiyal
Subject= Cloud Computing
Roll no= 1918787

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Q=1 Why is DevOps a major requirements in today's scenario?

&1E) In a nutshell the DevOps model allows companies to create viable application and programmers within a much shorter time frame, thus accelerating the speed of innovation. It is a major requirements because it's a software development & operational approach that enables faster development of new products and easy maintainance of existing deopbyment.

Some important benefits of DevOps as a major requirement:-

① Faster solution

② Increased efficiency

③ Improved customer experience.

④ Faster ROI

⑤ Improved Performance

⑥ Continuous improvement

⑦ Reduce failures and roll back.

→ Greater stability of IT software application as it brings various departments such as IT, product, engineering, cybersecurity, operations and more and unites them in common objectives of achieving business targets.

→ In this approach the software is seen as a total to improve organizational efficiency and security by automating several key process.

Q.2 Explain all DevOps tools in details?

Ans→ Since no single tool work across all areas of development and delivery. The need is to first understand the process and accordingly map the tool to be successful establish DevOps culture in organization.

① Jenkins :- an excellent DevOps automation tool being adopted by increased number of software development teams it is essentially an open source CI/CD

server that helps in automating the different stages of delivery pipelines.

2) Git: widely used across software industries. Git is an distributed scm(source code management) devops tool. It allows you to easily track the progress your development work. Where you can save different version of source code and return to previous one as when required.

3) Nagios => One of the most popular free and open-source DevOps monitoring tools, Nagios, Nagios allows you to moniter your infrastructure real time so that identifying security threats, detection of outages and error becomes easier.

4) Docker => It is one of the widely used development tool of DevOps and is known to provide platform independent integrated container security and agile operation for cloud native & legacy application.

5⟹ Kubernets ⟹ Ideal for large teams, this DevOps tool is built on what docker started in the field of containization. It is a powerful tool that can group containers by logical categorisation.