**Top 20 activities that need to be performed by a DevOps engineer**

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In this quick post, we are just a few of the many activities that need to be performed by a DevOps engineer. The specific activities that a DevOps engineer performs will vary depending on the organization and the specific role. However, all DevOps engineers need to have a strong understanding of the DevOps principles and practices, as well as the ability to automate and manage the software delivery process.

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| **Number** | **Activity** | **Explanation** |
| 1 | Implement continuous integration and continuous delivery (CI/CD) pipelines | CI/CD pipelines automate the software delivery process, making it faster and easier to release new features and updates. DevOps engineers are responsible for designing, implementing, and maintaining CI/CD pipelines. |
| 2 | Automate infrastructure provisioning | DevOps engineers automate the provisioning of infrastructure, such as servers, networks, and storage. This helps to ensure that infrastructure is always up-to-date and ready for use. |
| 3 | Configure and manage monitoring tools | DevOps engineers configure and manage monitoring tools to track the performance and health of applications and infrastructure. This helps to identify and troubleshoot problems before they impact users. |
| 4 | Deploy and manage cloud-based applications | DevOps engineers deploy and manage cloud-based applications. This includes tasks such as provisioning cloud resources, configuring applications, and monitoring performance. |
| 5 | Work with security teams to implement security best practices | DevOps engineers work with security teams to implement security best practices throughout the software development lifecycle. This includes tasks such as scanning code for vulnerabilities, configuring security controls, and monitoring for security threats. |
| 6 | Build and maintain documentation | DevOps engineers build and maintain documentation for all aspects of the DevOps process. This documentation helps to ensure that everyone on the team understands how the process works and how to contribute. |
| 7 | Collaborate with development and operations teams | DevOps engineers collaborate with development and operations teams to break down silos and improve communication. This helps to ensure that everyone is working towards the same goals and that the software delivery process is as smooth as possible. |
| 8 | Advocate for DevOps best practices | DevOps engineers advocate for DevOps best practices within their organization. This includes educating team members about DevOps, promoting the use of DevOps tools and technologies, and helping to remove obstacles to DevOps adoption. |
| 9 | Continuously learn and improve | DevOps is a rapidly evolving field, so it is important for DevOps engineers to continuously learn and improve their skills. This includes attending conferences, reading books and articles, and taking online courses. |
| 10 | Implement infrastructure as code | Infrastructure as code (IaC) is a practice of managing infrastructure using code. This allows for infrastructure to be easily provisioned, updated, and managed. DevOps engineers are responsible for implementing IaC practices in their organization. |
| 11 | Use containerization technologies | Containerization technologies, such as Docker and Kubernetes, allow for applications to be packaged and deployed in a consistent way. DevOps engineers are responsible for using containerization technologies to deploy applications in their organization. |
| 12 | Automate testing | Automated testing helps to ensure that applications are free of defects before they are released to production. DevOps engineers are responsible for automating testing in their organization. |
| 13 | Monitor and troubleshoot applications | DevOps engineers monitor and troubleshoot applications to ensure that they are performing as expected. This includes tasks such as tracking performance metrics, identifying and resolving errors, and responding to incidents. |
| 14 | Optimize the software delivery process | DevOps engineers optimize the software delivery process to make it as efficient and effective as possible. This includes tasks such as identifying bottlenecks, reducing manual tasks, and automating repetitive tasks. |
| 15 | Work with stakeholders to understand requirements | DevOps engineers work with stakeholders to understand their requirements and ensure that applications meet those requirements. This includes tasks such as gathering requirements, documenting requirements, and validating requirements. |
| 16 | Communicate effectively | DevOps engineers communicate effectively with stakeholders, team members, and other technical teams. This helps to ensure that everyone is on the same page and that the software delivery process is as smooth as possible. |
| 17 | Continuously improve the DevOps process | DevOps engineers continuously improve the DevOps process by identifying and implementing improvements. This includes tasks such as conducting post-mortems, collecting feedback, and implementing new tools and technologies. |
| 18 | Adopt cloud-native technologies | Cloud-native technologies, such as microservices and serverless computing, are becoming increasingly popular. DevOps engineers need to be familiar with these technologies and how to use them to build and deploy applications. |
| 19 | Implement security automation | Security automation helps to ensure that security is built into the software delivery process. DevOps engineers need to be familiar with security automation tools and how to use them to secure applications. |
| 20 | Manage compliance | DevOps engineers need to ensure that applications comply with all relevant compliance regulations. This includes tasks such as conducting risk assessments, implementing security controls, and monitoring for compliance violations. |
| 21 | Develop and maintain DevOps culture | DevOps is not just a set of practices, it is also a culture. DevOps engineers need to be able to develop and maintain a DevOps culture within their organization. This includes tasks such as creating a shared vision, breaking down silos, and promoting collaboration. |
| 22 | Stay up-to-date on the latest trends | The DevOps field is constantly evolving, so it is important for DevOps engineers to stay up-to-date on the latest trends. This includes reading blogs, attending conferences, and following industry experts. |

***Note: These are general activities belongs to DevOps Engineer to perform their assigned work and it’s all depend on situation.***

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