### **DevOps Tools**

# 1. Version Control Tool: Git (GitLab, GitHub, Bitbucket)

<u>Git</u> is perhaps the best and most widely used <u>version control</u> tool in a development era characterized by dynamism and collaboration. Version control provides developers with a means by which they can keep track of all the changes and updates in their codes such that in the event of a mishap, it is quite easy to return to and use the previous versions of the code and Git happens to be the best for many reasons.

Git DevOps tool is easy to implement as it is compatible with most protocols including HTTP, SSH, and FTP. It offers the best advantage for non-linear shared-repository development projects, unlike most other centralized version control tools. This makes it a good deal for mission-critical software.

Git features three storage tools including, GitHub and GitLab cloud-hosted code repository services as well as BitBucket the source code hosting service. Of the three, GitLab and BitBucket are specifically designed for enterprise-range version control.

### 2. Build Tool: Maven

<u>Maven</u> is one of the important DevOps tools for building projects. Unlike the ANT build system, Apache Maven is more than just an automation build framework. It is also designed to manage reporting, documentation, distribution, releases, and dependencies processes. Written in Java language, Maven can build and manage projects written in <u>Java</u> or <u>C#</u>, <u>Ruby</u>, <u>Scala</u>, and other languages using project object model (POM) plugins.

Maven offers a host of benefits to its users. It eases the build and monitoring process through automation and maintains a uniform build process allowing for consistency and efficiency. This tool also offers comprehensive project information through quality documentation, a valuable resource for the development of best practices hence the name Maven, translated from the Yiddish language to mean accumulator of knowledge. Finally, Maven provides a very simplified feature migration process.

It has a rich repository of plugins to enhance the build process and wide compatibility with IDEs like Eclipse, JBuilder, MyEclipse, NetBeans, IntelliJ IDEA, and others.

# 3. Continuous Integration Tool: Jenkins

<u>Jenkins</u> is an integration DevOps tool. For continuous integration (CI), Jenkins stands out as it is designed for both internal and plugin extensions. Jenkins is an open-source Java-based automation CI server that is supported by multiple operating systems including Windows, macOS, and other Unix OSs. Jenkins can also be deployed on cloud-based platforms.

Continuous Integration and Continuous Delivery are two core practices of the DevOps methodology which makes Jenkins an indispensable DevOps tool. Jenkins is compatible with most <u>CI/CD integration tools</u> and services thanks to the over 1,500 plugins available to provide integration points for delivering customized functionality during software development.

A valuable automation CI tool, Jenkins is pretty easy to install and configure. It is designed to support distributed workflows for accelerated and transparent builds, tests, and deployments across platforms.

## 4. Configuration Management Tool: Chef

Configuration management (CM) refers to the maintenance and control of the components of large complex systems in a known, consistent, and determined state throughout the DevOps life cycle. Components of an IT system may include servers, networks, storage, and applications.

For this reason, configuration management is critical to any system as it is the process by which changes in the system are tracked, properly implemented, and controlled. Further, if not automated, CM can be laborious, resource-draining, and prone to costly errors. It implements configuration tools for such repetitive administrative tasks as version management, regulatory compliance, feature releases, and processes automation, among others.

Chef, Puppet, and Ansible are handy CM automation frameworks. While Chef and Puppet are Ruby-based frameworks, Ansible is a Python-based framework.

<u>Chef</u>, an open-source framework, uses a master-agent model and has infrastructure as code (IAC) capabilities to automate the configuration of infrastructure. Together with its multi-platform support that includes the cloud platform, Chef remains one of the most popular DevOps tools after Puppet.

# 5. Configuration Management Tool: Puppet

<u>Puppet</u> is also open-source and uses declarative programming for system configuration, deployments, and server management DevOps tools. It is organized into reusable modules for the speedy setup of pre-configured servers and is compatible with most platforms. Like Chef, it also uses IAC, adopts a master-slave architecture, and features an intuitive user interface for ease of real-time reporting, node management, and several other tasks.

# 6. Configuration Management Tool: Ansible

<u>Ansible</u> is an open-source CM DevOps tool that is also used for deployment, automation, and orchestration. While Ansible leverages infrastructure as a code architecture, it uses SSH connection for its push nodes thus agentless. Of the three, Ansible is considered easy to learn and use as its Playbooks are written in YAML with minimal commands and are readable by humans.

Next comes, **Docker and Kubernetes** DevOps tools

## 7. Container Platforms: Docker

Container platforms are application solutions that allow developers to build, test, and ship applications in resource-independent environments. Each container comprises a complete runtime environment including the specific application, its libraries, source

code, configurations, and all its dependencies. Container platforms offer orchestration, automation, security, governance, and other capabilities.

DevOps heavily relies on containerization and microservices for efficient application development and deployment with <u>Docker</u> and Kubernetes as the most widely used container technologies.

#### Docker

The Docker engine is designed to automate the development, deployment, and management of containerized applications on single nodes. Docker is open-source and compatible with cloud services like AWS, GCP, and Azure Cloud. Docker also runs on Windows and Linux operating systems.

### 8. Container Platforms: Kubernetes

<u>Kubernetes</u>, on the other hand, is an automation orchestration platform that enables developers to run containerized applications across Kubernetes clusters referring to a group of nodes. Developers harness Kubernetes to automate such processes as container configuration, scaling, networking, security, and more to achieve speed and efficiency in production.

## 9. Communication and Collaboration: Slack

Workplace communication and collaboration technologies are as numerous and as diverse as can be imagined. And when it comes to deciding which tools best suit specific business requirements, several factors go into consideration such as integration and automation capabilities, security, user experience, as well as whether to develop, buy or rent.

One of the most popular communication and collaboration tools and for all the good reasons is Slack. First things first, Slack offers free, standard and enterprise paid versions to cater to a wide range of clients with varying needs. Slack is a standalone tool that flaunts:

- Powerful search capabilities with well-designed search modifiers to ease document tracking, management, and file sharing.
- A friendly project management architecture integrates with project management tools like Twitter, Google Hangouts, Trello, and more.
- Powerful collaboration and communication capabilities via shared channels, direct chat, voice, and video conferencing.
- Added features like workflow builder, notification, and note-taking features.

Slack is a simplistic application with an intuitive user interface and a host of pre-built integration points that make it a brilliant solution for supplementing more than 900 other business tools. It is operable from a web browser, synchronizable with your desktop, and usable on mobile devices like tablets and smartphones. Slack also offers extensive storage space and a wide range of integrations (paid versions).

# **Cloud Computing and Storage**

In an era of <u>digital transformation</u>, enterprises are scaling their infrastructure and operations. By doing this conveniently on demand without incurring hefty costs, they are leveraging DevOps to achieve efficiency in developing systems and applications for their operations and cloud computing to host their operations and DevOps as a platform to host DevOps production processes and other operations.

By far the greatest benefit offered by the cloud is the transference of operations and systems to the cloud hence the elimination of costs associated with data centers, hardware, and operating systems and their management thereof. Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Services (GCS) are three top cloud services offering server, storage, computing, networking, and other services on demand on a payas-you-use model.

# 10. AWS Cloud Computing and Storage in DevOps

<u>AWS</u> features the widest range of service offerings under PaaS, SaaS, and IaaS categories including compute, identity and access management (ACM), networking, and storage. While AWS offers public, private, and hybrid clouds, its focus is more on the public cloud.

## 11. Azure Cloud Computing and Storage in DevOps

<u>Microsoft Azure</u>, on the other hand, is a preferred choice for enterprises particularly those that rely on Microsoft applications like Office, Outlook, and Windows thanks to an easier transition.

Azure offers Azure DevOps, a service packaged with a suite of tools to manage software development projects end to end. This service comprises the Azure DevOps Server and the Azure DevOps cloud service.

The server provides a run-time environment with cloud-based tools to facilitate onpremise deployments.

Cloud service, on the other hand, features tools such as Azure boards, Azure Pipeline, Azure reports, Azure test plans, and Azure artifacts for software development, testing, and deployment on the cloud.

# 12. Google Cloud Platform Cloud Computing and Storage in DevOps

GCP supports DevOps by providing the services required to develop, store, and deploy high-quality software in shorter cycles. The <u>Google Cloud platform</u> features instances of up to 96 vCPUs and 624 GB RAM alongside services like the cloud console, Google compute engine, and the GCP deployment manager that supports the implementation of DevOps on the Google Cloud Platform.

In addition, Google Cloud features impressive technical expertise as well as artificial intelligence, machine learning, and data analytics capabilities.

# 13. Monitoring, Alerting, and Incident Response Tools: SignalFx

Business environments are more complex today having been built on multiple infrastructures and services and adopting a wide range of tools to keep operations

running at their optimal level and the end-user satisfied. This calls for effective application management monitoring (APM) to detect complex application performance issues using monitoring, alert, and incident response tools and ultimately maintaining the defined level of service.

The topmost factor to consider when selecting application performance monitoring tools besides their capabilities is their ability to integrate seamlessly with each other and with the existing systems.

SignalFx is an elastic architecture performance monitoring tool designed to provide operational intelligence specifically for microservices and containerized applications. It features SignalFlow, a fast proactive alert function, streaming data visualization, and aggregation with up to 62 other tools including Python, AWS services, Java, Slack, Docker and Kubernetes, Node.js, MySQL, Cassandra, Kafka, and more.

# 14. Appdynamics: Monitoring, Alerting, and Incident Response Tools

AppDynamics is an APM tool hailed for its powerful real-time performance visibility and code performance visibility. It delivers deep diagnostics, transaction flow monitoring, and end-user monitoring for complex distributed applications. AppDynamics integrates well with languages like Python, .NET, Java, PHP, C++, and Node.js, as well as AWS EC2, Microsoft Azure, Rackspace Cloud Servers, and more.

# 15. Raygun: Monitoring, Alerting, and Incident Response Tools

Raygun is an end-user monitoring solution that provides developers with a view of the end-user experience operating software applications. It is designed to promptly detect, diagnose, and resolve application issues such as errors, performance issues, and crashes at the front end. It is easy to set up and integrates up to 43 tools including a range of languages like JavaScript, PHP, Node.js, Python, as well as platforms like GitHub, HipChat, Slack, Jira, and more.

# 16. Splunk Cloud: Monitoring, Alerting, and Incident Response Tools

Built for the cloud, Splunk Cloud delivers real-time visibility into cloud, hybrid, and onprem environments to offer the best cloud monitoring solution for DevOps teams. Splunk Cloud will monitor performance for cloud infrastructure, applications, and services. It comes with powerful dashboards and integrations with most CI/CD tools, operation support systems (OSS), Kafka, AWS, Azure, Google Cloud Platform (GCP), Pivotal Cloud Foundry (PCF), and others.

# 17. Testing Tool: Selenium

The rationale behind automation is to eliminate human involvement in certain tasks making use of technology to automatically execute those tasks. Automation testing or test automation employs software applications, apart from the software being developed, to execute test cases automatically, compare outcomes, and report defects. This process is performed over and over to deliver high-quality software to end-users. Testing is an integral part of software development and is less prone to error.

<u>Selenium</u> is a top open-source testing framework for web applications that supports all major browsers and platforms like Linux, Windows, and macOS. The beauty of Selenium is that it integrates with a wide range of programming languages including Python, C#, Ruby, Java, JavaScript, PHP, and PERL, and several other automation test frameworks.

Selenium test suite comprises the following:

- Selenium IDE (Integrated Development Environment) for creating and running test cases for exploratory testing and recording test playbacks
- Selenium client API allows developers to write test scripts directly in various <u>programming languages</u> instead of having to first write them in Selenese programming language.
- Selenium WebDriver features language-specific bindings for writing test scripts.
- Selenium Grid is a smart proxy server that allows tests to be executed on multiple browsers and operating systems in parallel.

 Selenium Remote Control server written in Java communicates Selenium commands to browsers for execution.

# 18. Testing Tool: Gremlin

Gremlin is a cloud-native framework for testing applications on a wide range of cloud platforms including AWS, GCP, Azure, microservice platforms like Kubernetes, CI/CD pipelines, as well as operating systems like Windows and Linux. Engineers use Gremlin to run chaos experiments aimed at checking the reliability of cloud infrastructure, ultimately building failure-resilient systems.

# 19. IT Ticketing: Servicenow

It is almost impossible to separate incident management from ticket management in IT. This is because it takes effective ticket management systems and procedures to manage incidents appropriately throughout their life cycle which in turn affects the productivity and efficiency of any IT department. Most of the items in the incident life cycle are features you will find in an IT ticketing management software. It is important to note that speed of detection, management, and resolution of incidents count a great deal and this is what the best suitable IT ticketing tool should offer through automation.

A good IT ticketing system should come with omnichannel support, tickets categorization and prioritization, workflow automation, analytics, and reporting capabilities.

ServiceNow is a workflow automation ticketing tool that helps enterprises to organize and manage their ticket resolution processes based on a self-service model within IT service management (ITSM). ServiceNow consolidates both internal business functions (systems, networks, servers, and applications) on one dashboard allowing the team to track both internal and external incidents through to resolution. The best is that it helps the team manage workflows efficiently and cost-effectively. It features process automation, asset configuration management, incident management, workflow prioritization, and assignment capabilities, request management, and change management capabilities.

# 20. Status Service Updates: The Status Page

Part of effective incident management is communicating incidents, scheduled maintenance, downtimes, and other status updates in real-time to users. This is done through a status page. Status pages offer immense benefits. They build user trust, reduce the number of support queries logged during an incident, demonstrate reliability on the side of the IT team and keep the team in control of the page and of incidents when they occur.

The status page developed by Atlassian is a leading service status update solution used not only as a status communication tool but also as a collaboration and analytics tool. It is packaged with impressive features such as pre-defined incident templates, text or email-based notification, sync with chat, as well as integration with website, helpdesk, and other applications. It also provides historical data for analytics to help the IT team better understand the system and application's performance.

# 21. ELK (Elasticsearch, Logstash and Kibana)

ELK is a powerful tool for managing and analyzing log data. It can help you troubleshoot issues, identify trends, and gain insights into your system. ELK is made up of three main components: Elasticsearch, Logstash, and Kibana. Elasticsearch is a search engine and database that stores log data. Logstash is a data processing pipeline that ingests data from various sources, transforms it, and then sends it to Elasticsearch. Kibana is a visual interface for exploring and analyzing data in Elasticsearch. ELK can be used to monitor a variety of systems and applications, including web servers, application servers, databases, and more. It is also highly scalable, so it can be used to manage log data from a small number of servers to a large, distributed system.

### 22. Gitlab CI/CD

Gitlab <u>CI/CD</u> is a powerful tool that can help you automate your software development process. With Gitlab CI/CD, you can manage your code repositories, build and test your code, and deploy your applications with ease. Gitlab CI/CD is also highly scalable, so you can easily add more users and increase your productivity.

## 23. Scripting

One of the most important aspects of DevOps is scripting. There are a number of reasons why scripting is important in DevOps. Firstly, it can help to automate tasks. This can save time and ensure that tasks are carried out consistently. Secondly, scripts can be used to monitor systems and collect data. This data can then be used to improve the efficiency of DevOps processes. Finally, scripts can be used to manage and provision resources.

The best place to start is with a scripting language like PowerShell or Python. These languages are easy to learn and have a wide range of applications in DevOps. Once you've learned the basics of one of these languages, you can start writing scripts to automate tasks.

## 24. Terraform

<u>Terraform</u> is an Infrastructure as Code tool that gives users the opportunity to create, modify, and improve your infrastructure without having to manually provision or manage it. With Terraform, you can manage AWS, Azure, Google Cloud, <u>Kubernetes</u>, OpenStack, and more. You can even use Terraform to manage DNS records, monitoring systems, and custom providers. Terraform is easy to get started with, and easy to use. It is also very powerful, enabling you to manage complex infrastructure with ease.

## 25. Phantom

In DevOps, Phantom is a term used to describe the process of automating the provisioning and management of IT infrastructure using tools and processes that are typically associated with DevOps. In many cases, Phantom can be used to provide a self-service interface for users to provision and manage their own infrastructure, without the need for manual intervention from IT staff. This can lead to faster and more efficient infrastructure provisioning, as well as reduced operational costs.

Phantom can also be used to automate the management of IT infrastructure, including the deployment and updating of software, configurations, and security settings. This can help to improve the quality and stability of IT systems, as well as reducing the time and effort required to manage them.

Phantom in DevOps is a relatively new concept, and as such, there is still some debate around its definition and scope. However, it is generally agreed that Phantom represents a new way of thinking about IT infrastructure management, and has the potential to transform the way that businesses operate.

## 26. Nagios

Nagios is a powerful monitoring system that can be used to monitor systems, networks, and infrastructure. It is open source software and can be freely downloaded and used. Nagios is very scalable and can be used to monitor small networks or large enterprise networks. It has a rich set of features that enable you to monitor all aspects of your IT infrastructure. Nagios is also very extensible and can be integrated with other tools and systems.

# 27. Vagrant

Vagrant software is a free and open-source tool that can be used to create and manage virtual development environments. It is popular among developers because it is easy to use and it can be used to create and manage multiple development environments. Vagrant software is available for all major operating systems, including Windows, Mac OS X, and Linux. It is also available in a variety of languages, including English, Spanish, French, and Chinese.

# 28. Sentry

Sentry is a tool that developers use to monitor and debug their applications in real time. It provides an easy way to keep track of errors and logs, and makes it easier to fix problems quickly. Sentry can be used in any type of application, including web, mobile, and desktop apps. It also integrates with many popular frameworks, such as Django, Rails, and Node.js. In a DevOps environment, Sentry can be used to monitor the health of applications and services. It can also be used to track changes in codebase over time, and to identify performance bottlenecks. Sentry is open source and free to use.

### 29. Gradle

One of the most important aspects of DevOps is automation. Automating tasks can help to speed up workflows and reduce errors. Gradle can be used to automate a variety of tasks, such as building and testing code, managing dependencies, and deploying applications. By automating these tasks, Gradle can help to improve the efficiency of DevOps workflows.

Gradle can also be used to manage dependencies. Managing dependencies is important for keeping track of the libraries and frameworks that an application depends on. Gradle can help to resolve dependencies automatically, and it can also download dependencies from public repositories such as Maven Central.

Gradle also includes a plugin system that allows it to be extended. There are a number of plugins available for Gradle, such as plugins for popular build tools like Ant and Maven. These plugins can help to further improve the efficiency of DevOps workflows.

# 30. eG Enterprise

The eG Enterprise platform is a powerful tool for <u>DevOps teams</u>. It provides comprehensive monitoring and diagnostics capabilities that can help you optimize your application delivery process. In addition, eG Enterprise enables you to automatically generate performance reports and share them with your team members. This makes it easier for you to identify potential problems and take corrective action.

The eG Enterprise platform can be used to monitor a variety of applications, including web applications, middleware, databases, and cloud-based services. It also provides support for monitoring containerized applications. The eG Enterprise platform can be deployed on-premises or in the cloud.

# **DevOps Automation Tools**

There are a variety of DevOps automation tools available to help streamline and automate the software development and delivery process. Some of the most popular DevOps automation tools include Puppet, Chef, Ansible, and SaltStack.

- <u>Puppet</u> is a configuration management tool that helps you manage your infrastructure as code. With Puppet, you can define your infrastructure using a declarative language, and then Puppet will manage the lifecycle of your infrastructure for you.
- <u>Chef</u> is another configuration management tool that helps you automate the provisioning and management of your infrastructure. Chef also uses a declarative language to define your infrastructure, and it includes a number of powerful tools to help you automate your workflows.
- Ansible is a simple, yet powerful, configuration management and orchestration tool.
   Ansible uses an agentless architecture, which means that you don't need to install any agents on your servers in order to use it. Ansible also has a strong focus on being idempotent, which means that you can run your Ansible playbooks multiple times without having to worry about them causing any side effects.
- SaltStack is a configuration management and orchestration tool that is similar to
  Ansible. SaltStack also uses an agentless architecture, and it includes a number of
  powerful tools to help you automate your workflows. SaltStack also has a strong
  focus on being idempotent, which means that you can run your SaltStack playbooks
  multiple times without having to worry about them causing any side effects.

These are just a few of the many DevOps automation tools available. Each tool has its own strengths and weaknesses, so it's important to choose the right tool for your specific needs.

# DevOps Pipeline (CI/CD) Tools

There are a number of different DevOps pipeline (CI/CD) tools available on the market today. Each tool has its own strengths and weaknesses, so it's important to choose the right tool for your specific needs. Some examples include:

#### Jenkins

Jenkins is one of the most popular open source DevOps pipeline (CI/CD) tools. It's written in Java and organizations of all sizes use it. Jenkins is a very extensible tool, with a large number of plugins available. This means that you can use Jenkins to build just about any type of pipeline you need.

#### Bamboo

Bamboo is a commercial DevOps pipeline (CI/CD) tool from Atlassian. It's written in Java and it integrates well with other Atlassian tools such as Jira and Bitbucket. Bamboo is a very feature-rich tool and it's easy to use. However, it's not as widely used as Jenkins, so there's a smaller community of users and less support available.

#### GitLab CI

GitLab CI is a free and open source DevOps pipeline (CI/CD) tool. It integrates with GitLab, providing a seamless workflow for your development team. GitLab CI is easy to use and it has a lot of features. However, it's not as widely used as Jenkins or Bamboo, so there's less support available.

#### Travis CI

Travis CI is a free and open source DevOps pipeline (CI/CD) tool. It integrates with GitHub, providing a seamless workflow for your development team. Travis CI is easy to use and it has a lot of features. However, it's not as widely used as Jenkins or Bamboo, so there's less support available.

#### CircleCl

CircleCI is a commercial DevOps pipeline (CI/CD) tool. It integrates with GitHub, providing a seamless workflow for your development team. CircleCI is easy to use and it has a lot of features. However, it's not as widely used as Jenkins or Bamboo, so there's less support available.

### AWS CodePipeline

AWS CodePipeline is a commercial DevOps pipeline (CI/CD) tool from Amazon. It integrates with a number of different Amazon services, making it easy to set up a pipeline in the cloud. AWS CodePipeline is a very feature-rich tool, but it can be difficult to use if you're not familiar with Amazon's services.

# **DevOps Version Control Tools**

There are a number of different version control tools that can be used in a DevOps environment. Some of the most popular include Git, Mercurial, and Subversion.

- Git is a distributed version control system that is widely used in the DevOps community. It is fast, flexible, and has a wide range of features. Git also has good support for branching and merging, which is essential for a smooth workflow.
- Mercurial is another popular version control system that is similar to Git in many ways. It is also distributed, fast, and flexible. However, Mercurial does not have as many features as Git, and it can be more difficult to use.
- Subversion is a centralized version control system that is often used in enterprise
  environments. It is slower than Git and Mercurial, but it is more reliable and easier to
  use. Subversion also has better support for security and permissions, which is
  important in a corporate setting.

# **DevOps Configuration Management Tools**

One of the most popular configuration management tools is Puppet. Puppet is designed to manage server configurations and automate server administration tasks. It is used by some of the biggest companies in the world, including Facebook, Twitter, and Google. One of Puppet's main advantages is its ease of use; it is relatively simple to set up and get started with. However, Puppet can be complex to manage at scale, and it is not always the most efficient tool for managing large numbers of servers.

Another popular configuration management tool is Chef. Chef is similar to Puppet in many respects, but it is designed to be more flexible and extensible. It is used by some of the largest companies in the world, including Amazon, Microsoft, and IBM. Chef has a reputation for being difficult to learn and use, but it is very powerful and can be used to manage a wide variety of server configurations.

Ansible is a newer configuration management tool that is designed to be simple and easy to use. It is growing in popularity, as it is relatively easy to set up and get started with. However, Ansible does have some limitations, such as the lack of support for Windows servers.

Salt is a configuration management tool that is similar to Ansible in many respects. It is designed to be simple and easy to use, but it does have some limitations. For example, it does not support Windows servers.

There are a number of other DevOps configuration management tools available, but these are some of the most popular options.

# **DevOps Testing Tools**

DevOps testing tools are designed to help software development and delivery teams test their code more effectively. By automating certain tasks and providing an easy way to manage testing data, these tools can help streamline the process and make it more efficient.

There are a number of different types of DevOps testing tools available, each designed to tackle specific tasks. For example, some DevOps testing tools focus on unit testing, while others are designed for integration or performance testing.

DevOps testing tools typically work by integrating with your existing development tools and processes. For instance, many DevOps testing tools can be configured to run automated tests whenever code is pushed to a central repository. In addition, DevOps testing tools often provide a way to collect and track testing data. This data can then be used to improve the process over time.

When choosing a DevOps testing tool, it's important to consider your specific needs. Some DevOps testing tools are better suited for certain tasks than others.

Some of the best DevOps testing tools available include:

#### Jenkins

Jenkins is a popular open-source automation server that can be used for a variety of tasks, including DevOps testing. Jenkins is easy to set up and configure, and it can be used to automate a variety of testing tasks.

#### Selenium

Selenium is a popular open-source automated testing tool that can be used for web applications. Selenium is easy to use and can be integrated with a number of different development tools.

### SoapUl

SoapUI is a popular open-source tool that can be used for testing web services. SoapUI is easy to use and can be integrated with a number of different development tools.

#### **TestComplete**

TestComplete is a commercial automated testing tool that can be used for a variety of purposes, including DevOps testing. TestComplete is easy to use and can be integrated with a number of different development tools.

#### Zephyr

Zephyr is a commercial automated testing tool that can be used for a variety of purposes, including DevOps testing. Zephyr is easy to use and can be integrated with a number of different development tools.

# **DevOps Monitoring Tools**

There are a variety of DevOps monitoring tools available to help you keep track of the performance of your applications and infrastructure. Here are some of the most popular DevOps monitoring tools:

- Prometheus: An open-source monitoring tool that can be used to collect and query data about your applications and infrastructure.
- DataDog: A cloud-based monitoring service that provides comprehensive monitoring of your applications and infrastructure.
- New Relic: A cloud-based monitoring service that provides detailed performance data about your applications.
- Nagios: An open-source monitoring tool that can be used to monitor your applications and infrastructure.
- Zabbix: An open-source monitoring tool that can be used to monitor your applications and infrastructure.

Choosing the right DevOps monitoring tool for your needs will depend on a number of factors, including the size and complexity of your environment, the type of data you need to collect, and your budget.

Transform your DevOps career and learn the science of improving the operational and developmental activities by choosing our <u>PGP in DevOps.</u> Contact our admission counselor today and grab your seat!