**Day-to-day Activities**

* In my current company, I work with an agile process (same 15days sprint with daily scrum meeting).
* There is no separate team for DevOps Development and Support here so I work on both development and support tickets/tasks like

**Most of the tasks which I worked on are related to CICD**

* Configured Kubernetes microservices  deployment, written and managed k8s yaml files with helm charts
* Written Dockerfiles and also multi-stage Dockerfiles for microservice applications.
* Define Terraform modules to provision AWS infrastructure resources.
* Created many Jenkins declarative pipelines with shared library setup to automate the build, test, and deployment process for the application.
* Integrate SonarQube into CI/CD pipelines for code quality analysis.
* Integrate Trivy vulnerability scanner into CI/CD pipelines for container security scanning.
* Set up Prometheus for metric collection and Grafana for visualization and alerting.
* Created documentation on CICD setup, automation process, and runbook with deployment and incident response procedures.

**Tool specific more daily task example**

**Kubernetes related tasks**

* + - Deploying containerized applications to Kubernetes clusters using deployment manifests by Helm charts.
    - Integrated Kubernetes deployments into CI/CD pipelines using tools like Jenkins and ArgoCD
    - Doing configuration settings for applications and Kubernetes resources using ConfigMaps and Secrets.
    - Optimizing resource usage by right-sizing pod requests and limits based on application requirements.
    - Implementing RBAC (Role-Based Access Control) policies to control access to Kubernetes resources.
    - Configuring Kubernetes services to provide internal and external access to applications. Implement load balancing and service discovery using Kubernetes Service objects.
    - Automate the deployment process and rollout strategies such as blue-green deployments or canary releases.
    - Troubleshoot issues related to application deployment, networking, or resource allocation.
    - Analyze logs, events, and Kubernetes API resources to identify and resolve problems.
    - Plan and execute Kubernetes version upgrades and node maintenance tasks.
    - Set up monitoring and alerting for Kubernetes clusters using tools like Prometheus and Grafana.

**Terraform**

* + - Writing and maintaining Terraform configuration files to define and manage infrastructure resources. This includes defining resource types, attributes, dependencies, and modules for separate services.
    - managed multiple environments (e.g., development, staging, production) using Terraform workspaces or by parameterizing configurations using .tfvars