HR-Brain & IDEA-Infrastructure

Hybrid Cloud Infrastructure Setup – HR-Brain & IDEA-Infrastructure

Company: Mercedes-Benz R&D Pvt Ltd

Client: Daimler (Germany)

Duration: *(Nov 2018 – Feb 2022)*

📖 Project Overview

The **HR-Brain** and **IDEA-Infrastructure** projects were part of Mercedes-Benz's digital transformation initiative, aimed at modernizing internal HR systems and infrastructure management. As a DevOps Engineer, I was responsible for designing and implementing a **Hybrid Cloud infrastructure** to support scalable, secure, and resilient deployments of both applications.

🎯 Objectives

- Set up a robust and scalable infrastructure across on-premises and cloud environments.
- Containerize and deploy applications using Kubernetes.
- Implement centralized monitoring and logging.
- Automate configuration and deployment processes using industry-standard tools.

🛠️ Technologies Used

Category	Tools & Technologies
Container Registry	Harbor
Orchestration	Kubernetes
Monitoring	Grafana, Prometheus
Configuration Mgmt	Ansible
CI/CD	GitHub Actions, Shell Scripts
Cloud Infrastructure	Hybrid Cloud (On-prem)
Version Control	Git, GitHub

🧑‍💻 Roles & Responsibilities

- Designed and deployed Kubernetes clusters for HR-Brain and IDEA-Infrastructure applications.
- Set up **Harbor** as a private container registry for secure image storage and management.
- Automated infrastructure provisioning and configuration using **Ansible** playbooks.
- Integrated **Grafana** and **Prometheus** for real-time monitoring and alerting.
- Managed secrets, config maps, and persistent volumes in Kubernetes.
- Implemented CI/CD pipelines for container build, test, and deployment.
- Collaborated with cloud architects to ensure seamless integration between on-prem and cloud environments.
- Conducted performance tuning and capacity planning for production workloads.
- Documented infrastructure architecture and deployment procedures for internal teams.

📈 Key Achievements

- Reduced deployment time by 70% through automation and containerization.
- Achieved high availability and fault tolerance across hybrid environments.
- Enabled real-time monitoring and proactive issue resolution using Grafana dashboards.
- Successfully transitioned legacy systems to containerized microservices architecture.