Rajesh Kumar Mallik

DevOps

Contact

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Objective

Seeking a challenging position as a DevOps Engineer to leverage my skills in automation, configuration management, and cloud technologies, while contributing to the success of a dynamic and innovative team.

Projects Done

- Project 1: The goal of this project is to deploy a scalable and resilient two-tier web application using Kubernetes

- Project 2: Terraform Deployment of EC2 Instance with install Jenkins, Java, and Python

- Project 3 : End to End Servless project using Cloudfront-S3-lambda-Dynamo for a feature increase , deploy of full flow in servless technology

Key Skills
Operating System: Linux , windows
Cloud Technologies: AWS,GCP
Version Control: Git
Continuous Integration/Continuous Deployment (CI/CD): Jenkins
Containerization: Docker
Orchestration: Kubernetes
Programming: Python,Shell Script
SQL/NO-SQL: MYSQL/MongoDB,DynamoDB

Project Details:

Kubernetes:

Project 1 Details: Project Name: Kubernetes Deployment of Two-Tier Application with Flask and MySQL

Description: The goal of this project is to deploy a scalable and resilient two-tier web application using Kubernetes. The application consists of a Flask-based web frontend serving as the user interface and a MySQL database as the backend data store. Kubernetes will be utilized for container orchestration, ensuring easy scalability, high availability, and efficient management of the application.Initiated the project by cloning the Flask application code from GitHub

Key Contributions:
Deployments: Separate Deployments for Flask and MySQL to manage the application's replica sets independently.
Deployment configurations will include resource limits, environment variables, and health checks.

Services: Kubernetes Services NordPort to expose the Flask application and MySQL database internally within the cluster.

Persistent Volumes and Persistent Volume Claims: PVC for managing the data storage needs of the MySQL database.
PVs to provide scalable and persistent storage.

Secrets: Utilization of Kubernetes Secrets to securely manage sensitive information such as database credentials

Technologies Used: Deployment,Services,Sectrets,Persistent Volumes and Persistent Volume Claims,(Docker,Github)

Terraform:
Project 2 Details:

Project name: Terraform Deployment of EC2 Instance with install Jenkins, Java, and Python.

Description: Executed a Terraform-driven initiative to automate the provisioning of an EC2 instance and the subsequent installation of Jenkins, Java, and Python. This project aimed at establishing a resilient and scalable CI/CD environment through Infrastructure as Code (IaC) practices.

Key Contributions :
Infrastructure Provisioning: Utilized Terraform to define and provision an EC2 instance, specifying instance type, networking, and security group configurations.

Configuration Management: Employed Terraform modules to enhance code modularity, providing a reusable and maintainable structure for deploying similar environments.

Security and Access Control: Applied AWS security best practices by configuring IAM roles, security groups, and key pairs, ensuring secure access to the EC2 instance

Technologies Used:
Terraform, AWS (EC2, IAM), Jenkins, Java, Python

AWS:
Project 3 details: Project Name: End-to-End Serverless Project for Feature Enhancement

Description: Led the development and deployment of a serverless architecture on AWS to introduce new features seamlessly. Utilized CloudFront, S3, Lambda, and DynamoDB for a scalable and efficient end-to-end solution.

Key Contributions:
Frontend Acceleration with CloudFront and S3:
Integrated CloudFront with an S3 bucket to create a high-performance content delivery network (CDN) for the frontend, ensuring low-latency access globally.

Serverless Compute with Lambda:
Implemented AWS Lambda functions to execute serverless compute for handling business logic, seamlessly incorporating new features into the application.

Data Storage with DynamoDB:
Leveraged DynamoDB as a serverless, highly scalable NoSQL database for efficient storage and retrieval of application data.

Technologies Used:
AWS (CloudFront, S3, Lambda, DynamoDB), Serverless Framework, Event-Driven Architecture

Education

DIPLOMA (Govt. Polytechnic) (2014-2017)
B. Tech (Eastern Academy of Science & Technology) (2017-2021)
M. Tech (Eastern Academy of Science & Technology) (2021-2024)
DevOps Master Program (Simplilearn) (2023-2024)

Hobbies

Playing Cricket,Swimming

I certify that the information provided in this resume is true and accurate to the best of my knowledge.

RAJESH KUMAR MALLIK