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INTERNSHIP REPORT

Faiyaz Jambotkar
2027

INTERNSHIP REPORT

Submitted by

FAIYAZ JAMBOTKAR
2027

for the partial fulfillment of
MCA Degree for Semester VI
Discipline of Computer Science and Technology,
Goa Business School,
Goa University

At
Zapcom Solutions Private Limited
#9 Floor, Gamma Block, Sigma Tech Park, Whitefield
Bengaluru - India

UNDER THE GUIDANCE OF

Mr. Rapeta Tarun
(Software Engineer, ZapCom BLR)

WITH

Mr. Srinivas Kanisetty
(Sr. DevOps Engineer and Tech Lead,
Zapcom HYD)

Mr. Nagarjuna Reddy
(Sr. DevOps Engineer and Tech Lead,
ZapCom BLR)

zapcom.

1st June 2023

TO WHOMSOEVER IT MAY CONCERN

This is to inform you that **Mr. Faiyaz Jambotkar,** student of Master of Computer Applications (MCA) of Goa University, Goa, is currently undergoing his final semester project (Semester VI/V) at our company, **Zapcom Solutions Pvt. Ltd** from 4th January, 2023.

During his tenure he has met the expectations of his team lead/mentor/guide and found to be regular and sincere.

This letter is being issued on his request to be submitted with the project report at Goa University.

The final internship completion letter will be provided on completing his internship.

For Zapcom Solutions Pvt. Ltd.

ZapCom Solutions Pvt. Ltd. INDIA

Srinivas Reddy Kothakota
Chief Operating Officer

INDIA
Zapcom Solutions Pvt. Ltd
9th Floor, Gamma Tower, Sigma Soft Tech Park,
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USA
Zapcom Group Inc.
105 Decker Court, Ste. 810 Irving,
TX 75062.
Ph: (972)441-2081

GOA UNIVERSITY

GOA BUSINESS SCHOOL

CERTIFICATE OF EVALUATION

This is to certify that **Mr. Faiyaz Mohd Rafik Jambotkar** has been evaluated for the project work titled **'Internship Report'** undertaken at **ZapCom Solutions Private Limited, Bangalore**, in partial fulfillment of the award of the degree in Master of Computer Application.

Examiner 1

Examiner 2

[Kiran Kulkarni]

Place: Goa University

Date: 16th June 2023

Dean

Goa Business School

Acknowledgement

I would like to express my heartfelt gratitude to Zapcom for providing me with the opportunity to intern with their esteemed organization. I am immensely grateful for the support, guidance, and valuable experiences I gained throughout my internship.

I extend my sincere appreciation to my Mentor, and Reporting Manager, Mr. Rapeta Tarun, for his unwavering support and mentorship. To my previous Mentors, Mr. Nagarjuna Reddy and Mr. Srinivas Kanisetty, for their invaluable guidance. Also, I thank Mr. Shawn Dsouza for his help. Their expertise and encouragement have been pivotal in my professional growth.

I would also like to thank my fellow colleagues for their collaboration and knowledge-sharing, which made me feel like an integral part of the team.

I am grateful for the trust placed in me to work on projects and complete meaningful tasks during my internship. These experiences have enhanced my practical skills and understanding of real-world challenges.

I acknowledge Zapcom for providing access to advanced tools and technologies, enabling me to gain hands-on experience and proficiency in their utilization.

I wish to thank the Delivery Manager, Mr. Subramanian Arumugam, for all his help and guidance, and for sharing his invaluable experience and wisdom with us. I also appreciate all the help and support provided by the Chief of Staff, Ms. Savitha Carriappa, the HRs and all the staff at the office.

I am deeply grateful to Prof. Hanumant Redkar and Prof. Ramdas Karmali, for providing me this opportunity, and to all the teaching and non-teaching staff at Goa University, for their continuous support throughout my academic period of MCA.

I am also truly thankful to my parents, my sister, my family, my bestfriend and all my other friends for their love and support. The knowledge and skills I have acquired through you all will always have a lasting impact on my life and future journey.

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Table of Contents

Introduction

This report provides a concise overview of my enriching full-time on-site internship experience at Zapcom, Bangalore. Since joining Zapcom as an Intern on January 4th, 2023, I have been actively working on various projects, completed essential tasks, and engaged in many online courses. In the following sections, I will delve into the organization's background, the nature of my work, the company culture, and more. Furthermore, I will provide detailed insights into the proof of concept (POC) projects I have worked on, along with a comprehensive list of tasks I successfully accomplished during my internship.

This report aims to highlight the valuable learning experience I gained during my time at Zapcom and the valuable contributions I made to the organization as an intern. I will elaborate on the knowledge and skills I acquired through the successful completion of assigned tasks. Additionally, I will outline the tools and technologies I utilized throughout my internship, presenting a comprehensive overview of my hands-on experience with various software and hardware resources.

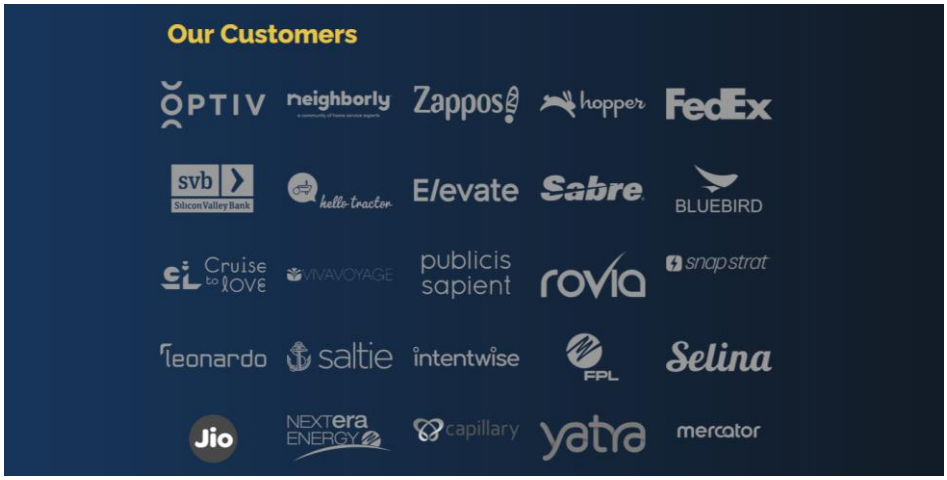
To provide a clear timeline of my internship, I will outline the significant milestones and achievements accomplished in a chronological manner, allowing for a better understanding of my growth and progression throughout the internship period.

Finally, I will conclude by sharing my overall experience and reflecting on how this internship has facilitated my personal and professional growth. I will emphasize the valuable insights gained, the challenges overcome, and the skills honed during my time at Zapcom.

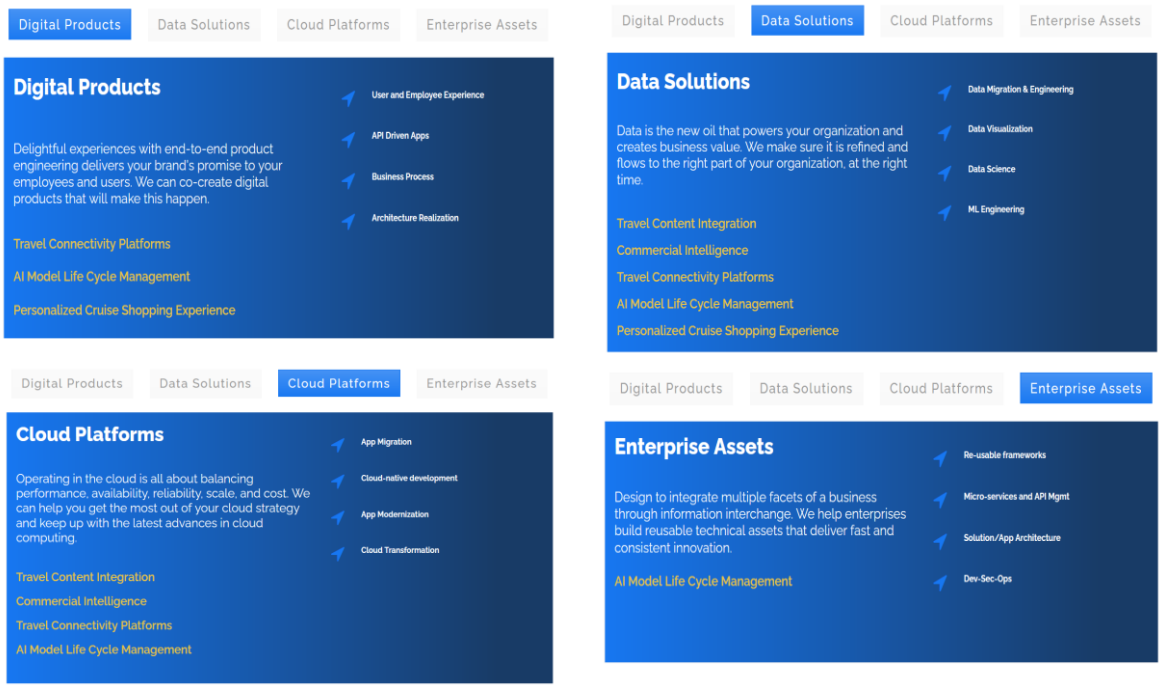
Company Profile

ZapCom Group is a US based Product and technology Start-up, focusing on Travel & Logistics, Ecommerce & Retail, Banking & Fintech domains. It is a boutique engineering solutions firm with a product mindset that has the ability to inspire, engage and transform. Currently, Zapcom is located in 5 different global locations: Dallas - Texas, Dublin – California, Heredia – Costa Rica, Hyderabad – India, and Bangalore – India.

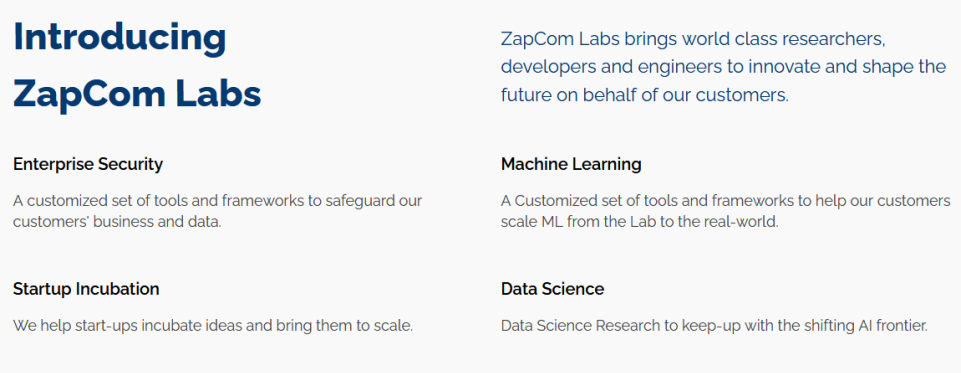
Zapcom is passionate about building digital products and platforms that can bend revenue and cost curves. They build, operate and optimize technology for their clients by taking a data-centric approach to creating products, platforms, and teams that drive delightful experiences and measurable business value.



The approach that defines Zapcom with their work include Solution co-creation, Elasticity, Security first, Metrics Driven, Automate, Product Mindset, and Customized Pods.



Zapcom has recently introduced a new venture coined as 'ZapCom Labs'.



Certification Courses and Self Study Completed During Internship

Udemy Certifications:

- Docker
- Hashi Corp Certified: Terraform Associate 2023
- DevOps Beginners to Advanced | Decoding DevOps
- Udemy Labs – Online Kubernetes Lab for Beginners – Hands On (from KodeKloud)
- Certified Kubernetes Administrator (CKA) with Practice Tests (from KodeKloud)
- JSON PATH for Kubernetes (from KodeKloud)
- Helm Kubernetes Packaging Manager for Developers and DevOps
- Azure DevOps Fundamentals for Beginners
- Build Responsive Real-World Websites with HTML and CSS
- 100 Days of Code: The Complete Python Pro Bootcamp for 2023 (Ongoing)
- React - The Complete Guide (incl Hooks, React Router, Redux) (Ongoing)

LinkedIn Learnings Certifications:

- Jenkins Essential Training
- AWS: Networking
- AWS for Developers: Identity Access Management
- Learning Terraform
- Agile Foundations
- DevOps Foundations: Lean and Agile
- Tips for Writing Business Emails
- Develop Your Communication Skills and Interpersonal Influence

YouTube Tutorials:

- Git
- GitHub
- Gitlab
- Linux Essential Commands for DevOps
- Docker
- AWS DevOps Tutorial
- Creating Pipelines in Jenkins
- Creating infrastructure as Code through Terraform
- Minikube setup and usage
- Creating EKS Clusters

Tools and Technologies Used

Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

GitHub, Inc. is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and source code management functionality of Git, plus its own features.

GitLab Inc. is the open-core company that provides GitLab, the DevOps software that combines the ability to develop, secure, and operate software in a single application.

Docker is a set of platform as a service products that use OS-level virtualization to deliver software in packages called containers.

Amazon Web Services, Inc. (AWS) is a subsidiary of Amazon that provides on demand cloud computing platforms and APIs to individuals, companies, and governments, on a metered pay-as-you-go basis.

Amazon Elastic Compute Cloud is a part of Amazon.com's cloud-computing platform, Amazon Web Services, that allows users to rent virtual computers on which to run their own computer applications.

Amazon Virtual Private Cloud (Amazon VPC) gives you full control over your virtual networking environment, including resource placement, connectivity, and security.

Amazon Elastic Kubernetes Service (Amazon EKS) is a managed Kubernetes service that makes it easy for you to run Kubernetes on AWS and on-premises.

An **AWS Identity and Access Management** (IAM) user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS. A user in AWS consists of a name and credentials.

Amazon Simple Storage Service (Amazon S3) is an object storage service offering industry-leading scalability, data availability, security, and performance. Customers of all sizes and industries can store and protect any amount of data for virtually any use case, such as cloud-native applications, and mobile apps.

Jenkins is an open source automation server. It helps automate the parts of software development related to building, testing, and deploying, facilitating continuous integration and continuous delivery.

Terraform is an open-source infrastructure as code software tool created by HashiCorp. Users define and provide data center infrastructure using a declarative configuration language known as HashiCorp Configuration Language.

Kubernetes, also known as K8s, is an open-source system for automating deployment, scaling, and management of containerized applications.

Minikube is local Kubernetes, focusing on making it easy to learn and develop for Kubernetes.

Helm Charts are simply Kubernetes YAML manifests combined into a single package that can be advertised to your Kubernetes clusters.

PostgreSQL, also known as Postgres, is a free and open-source relational database management system emphasizing extensibility and SQL compliance. It was originally named POSTGRES, referring to its origins.

NGINX is open source software for web serving, reverse proxying, caching, load balancing, media streaming, and more.

Nexus Repository OSS is an open source repository that supports many artifact formats, including Docker, Java™, and npm. With the Nexus tool integration, pipelines in your toolchain can publish and retrieve versioned apps and their dependencies by using central repositories that are accessible from other evironments

SonarQube is a self-managed, automatic code review tool that systematically helps you deliver clean code. As a core element of our Sonar solution, SonarQube integrates into your existing workflow and detects issues in your code to help you perform continuous code inspections of your projects.

Azure DevOps is a comprehensive set of development tools and services provided by Microsoft to facilitate the end-to-end software development lifecycle. It combines people, processes, and technologies to enable teams to plan, develop, test, deliver, and monitor applications with efficiency and agility

Python is a high-level, interpreted programming language known for its simplicity, readability, and versatility. Created by Guido van Rossum and first released in 1991, Python has become immensely popular among developers for a wide range of applications, from web development and data analysis to artificial intelligence and scientific computing.

HTML, short for HyperText Markup Language, is the standard markup language used for creating web pages and applications. It provides the structure and presentation of content on the World Wide Web. HTML is a core technology alongside CSS (Cascading Style Sheets) and JavaScript, forming the foundation for building webpages and web applications.

CSS, short for Cascading Style Sheets, is a stylesheet language used to describe the presentation and styling of HTML (and XML) documents. It allows web developers to control the appearance and layout of webpages, including colors, fonts, spacing, positioning, and more.

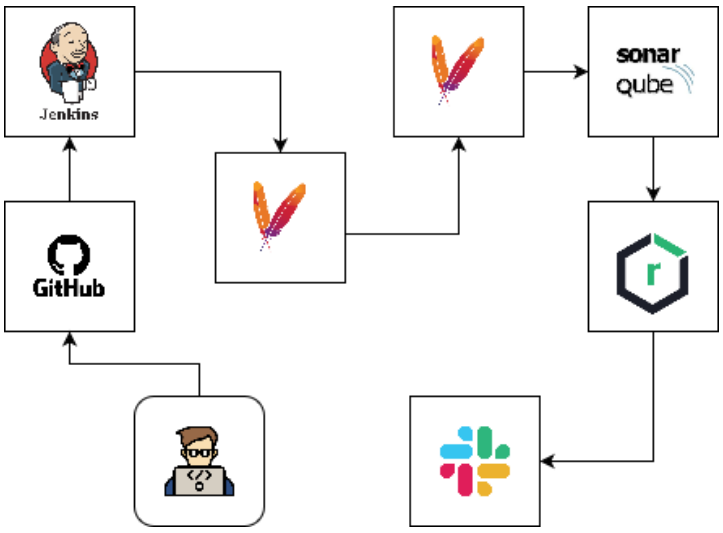
JavaScript is a versatile programming language primarily used for web development. It enables dynamic and interactive behavior within webpages, allowing developers to create responsive and feature-rich web applications.

React is a popular JavaScript library for building user interfaces. It allows developers to create dynamic, interactive, and reusable UI components for web applications. React was developed by Facebook and has gained significant traction due to its efficiency, simplicity, and component-based approach.

Slack is an instant messaging program designed by Slack Technologies and owned by Salesforce.

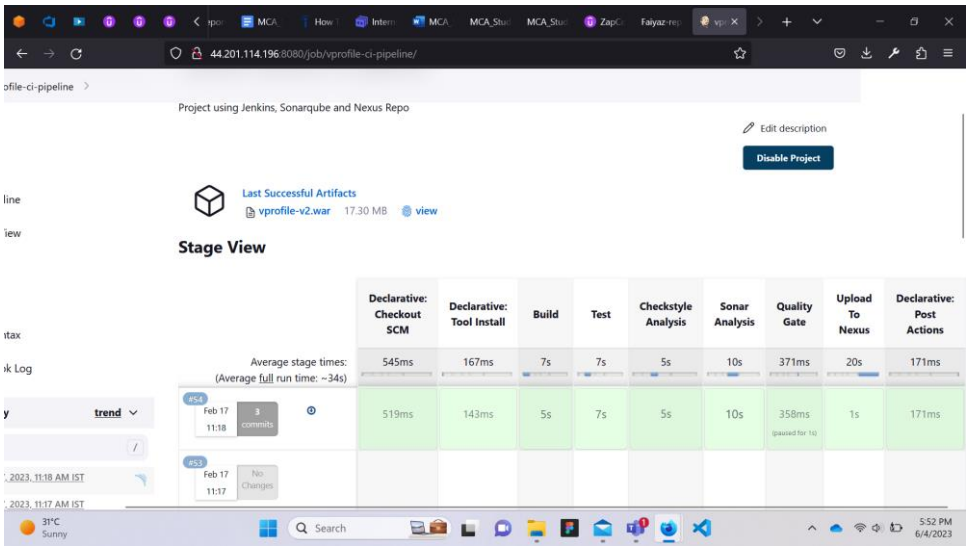
POC Project 1 - Terraform Pipeline For A Java App

Problem Statement: Create a pipeline to build and test a Java application using Maven, perform analysis on the application using SonarQube, upload its artifact on Nexus Repository and send a Slack message after the pipeline completes.



- Steps included in the pipeline are:
  - **Build:** Executes the Maven build with the 'install' command, skipping the tests. This stage compiles the source code, resolves dependencies, and packages the project artifacts.
  - **Test:** Runs the Maven tests using the 'test' command. This stage executes the project's unit tests to ensure code quality.
  - **Checkstyle Analysis:** Executes the Maven Checkstyle plugin to perform static code analysis and enforce coding standards.
  - **Sonar Analysis:** Performs SonarQube analysis on the project using the SonarScanner. It sets up the necessary parameters, such as project key, name, version, source directories, test report paths, and code style report path.
  - **Quality Gate:** Waits for the SonarQube quality gate to complete within the specified time limit. The pipeline will abort if the quality gate fails.
  - **Upload To Nexus:** Uploads the project artifact (a WAR file) to Nexus repository using the nexusArtifactUploader step. It specifies the Nexus version, URL, credentials, repository, and the artifact details.

- **Post:** Executes post-build actions, which in this case sends Slack notifications. It uses the 'slackSend' step to send a message to the specified channel, including information about the current build result, job name, build number, and build URL.



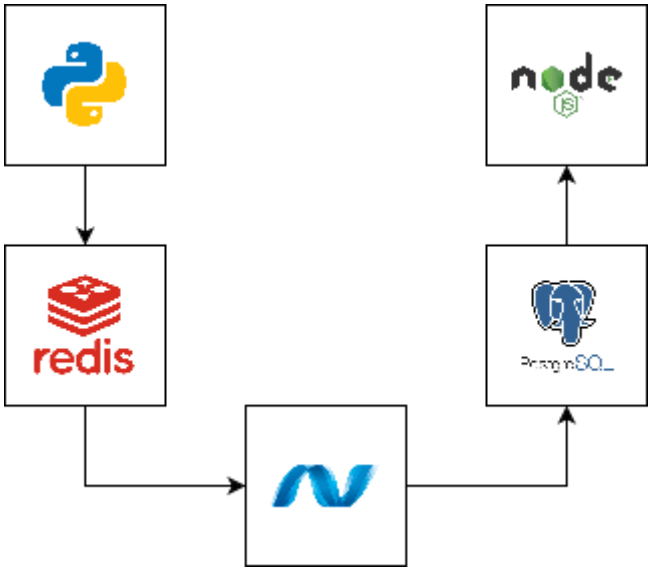
Screenshot of the completed pipeline on Jenkins

POC Project 2 – Simple Voting App

Problem Statement: Deploy a Full Stack Application using onto a kubernetes cluster.

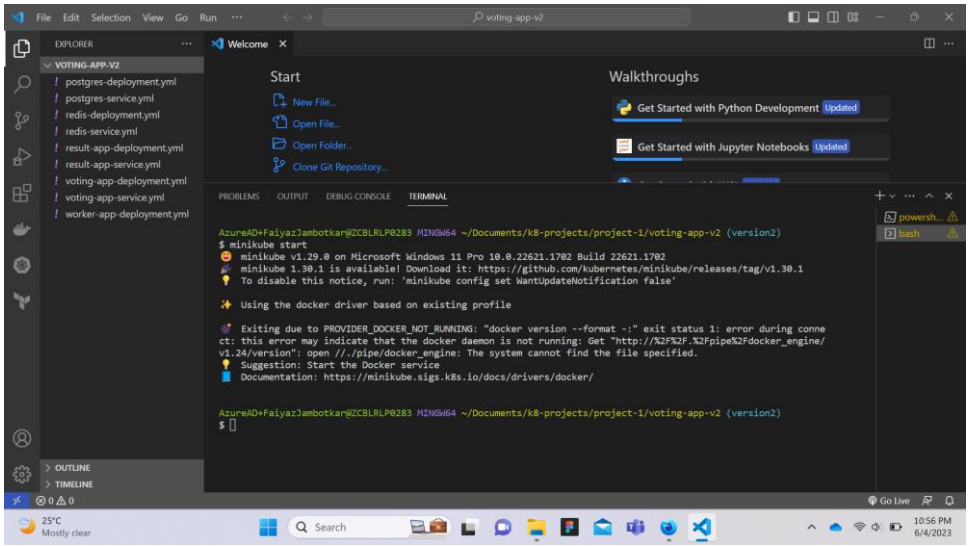
Requirements:

- Understand the working of the application.
- Containerize/dockerize the application.
- Host the application on DockerHub.
- Write YAML files to create deployments and services for the application and host it on a kubernetes cluster on MInikube and test.

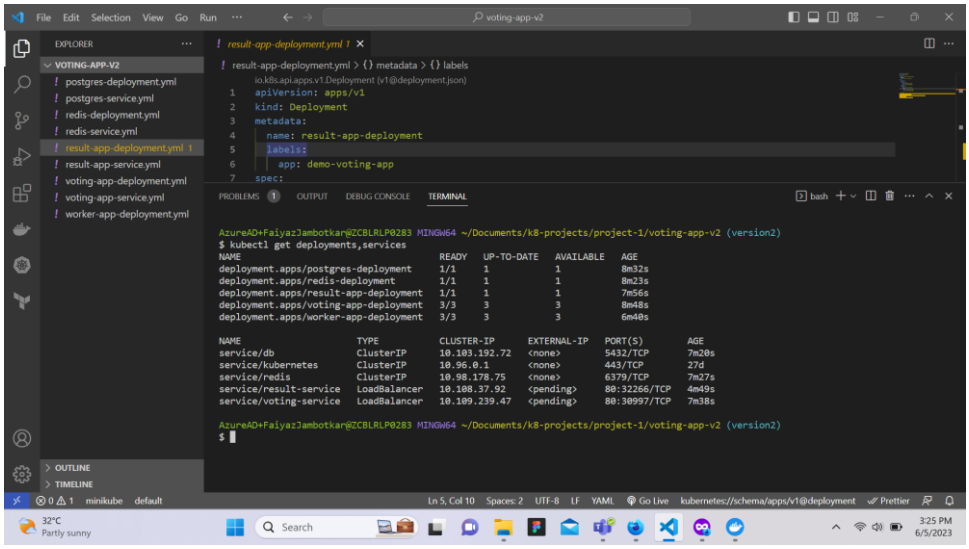


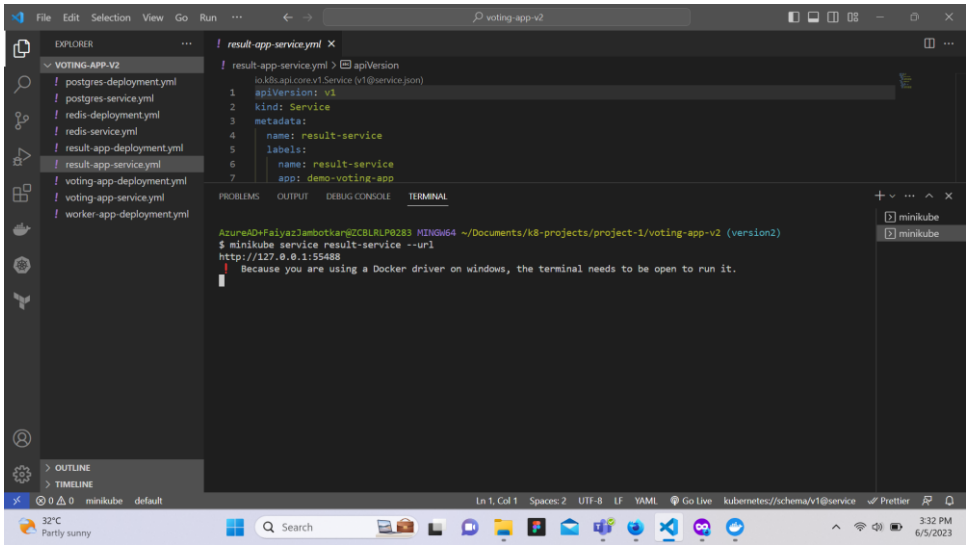
Description:

- It is a sample voting application which provides an interface for a user to vote and another interface to show the results.

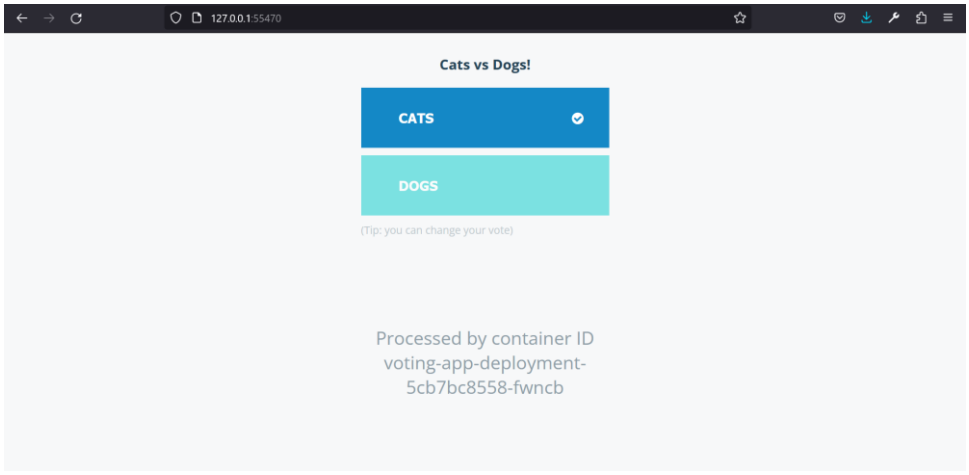


- The application consists of various components, such as the voting app, which is a web application developed in Python to provide the user with an interface to choose between two options a Cat and a Dog. When you make a selection, the vote is stored in readers.

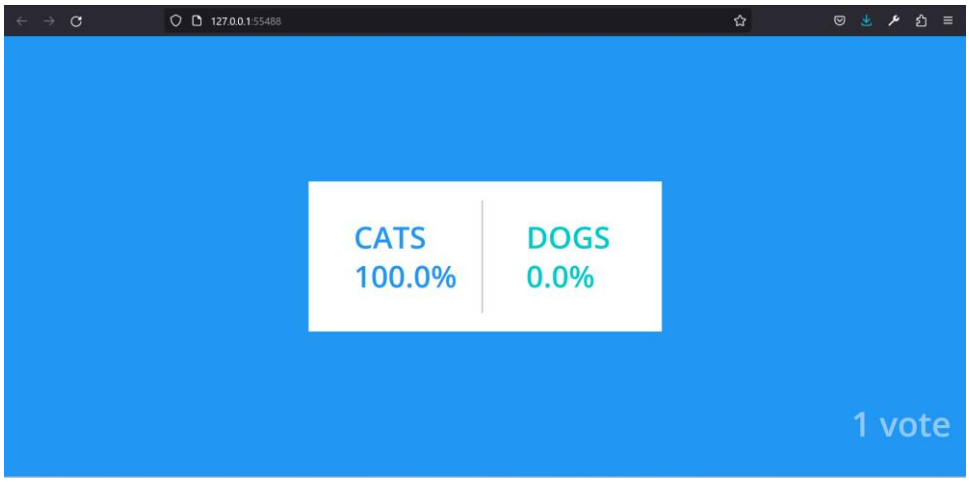




- Redis serves as a database in the memory. The vote is then processed by the worker, which is an application written in .NET. The worker application takes the new vote and updates the persistent database, which is PostgreSQL.



- The PostgreSQL has a table with the number of votes for each category, Cats and Dogs. In our case, it increments the number of votes for cats as our vote is for cats.



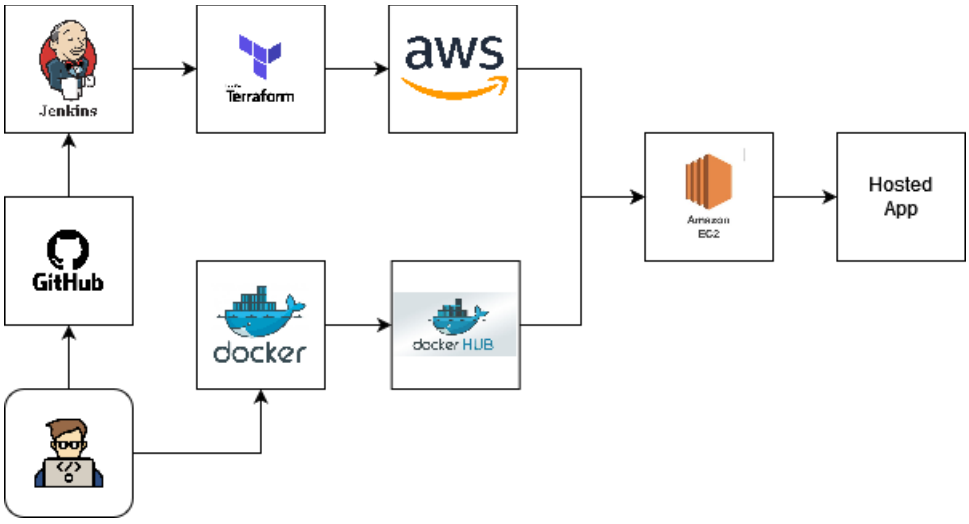
- Finally, the result of the vote is displayed in a web interface, which is another web application developed in Node.js. This resulting application reads the count of votes from the Postgres SQL database and displays it to the user.

POC Project 3 - SemiColon – A Blog Site

Problem Statement: Create a pipeline to deploy and host an application using Terraform for Infrastructure as Code.

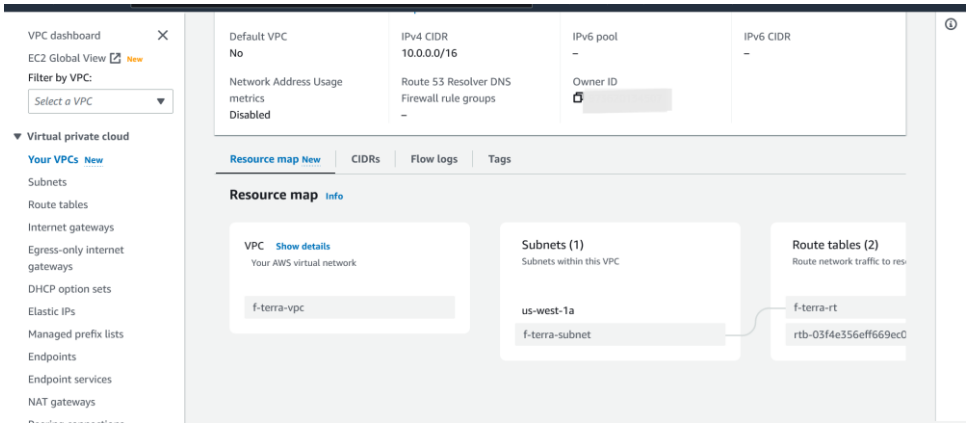
Requirement:

- Understand the working of the application.
- Containerize/dockerize the application.
- Host the application on DockerHub.
- Write Terraform code to create the infrastructure on AWS.
- Install required dependencies for the application on the EC2 using remote exec.
- Host the application on the EC2, all via the Terraform Code.

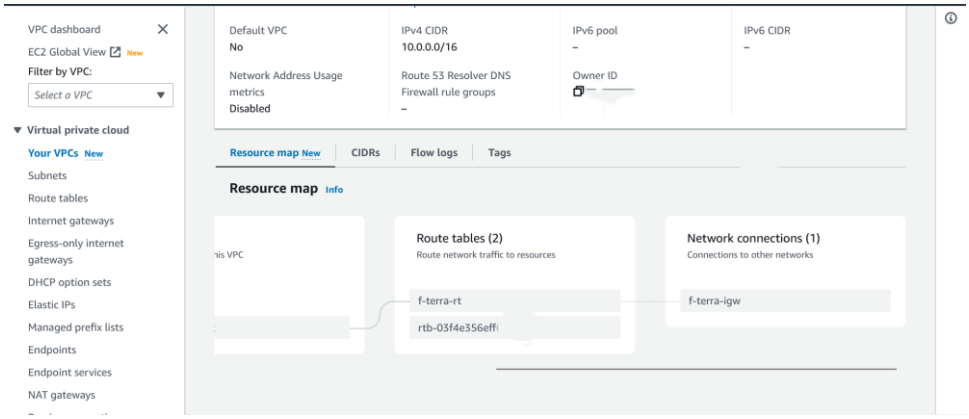


Description:

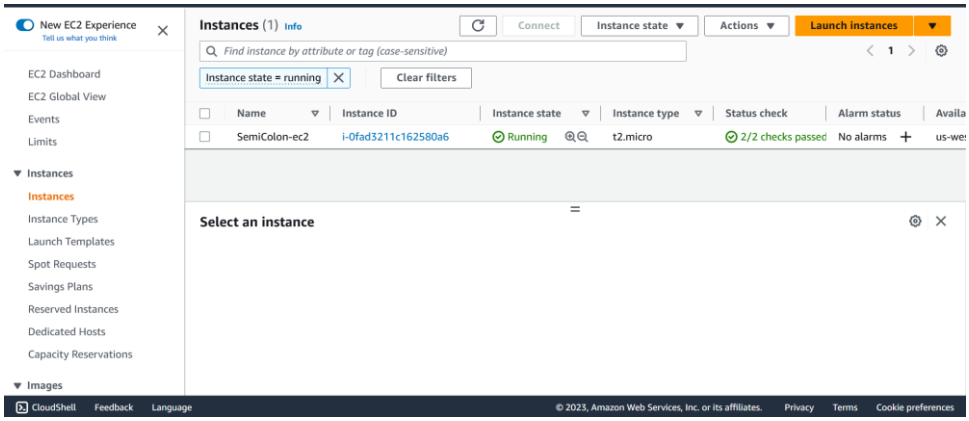
- We first pull the application and containerize it while using Dockerfile on Docker and then push the container onto DockerHub.



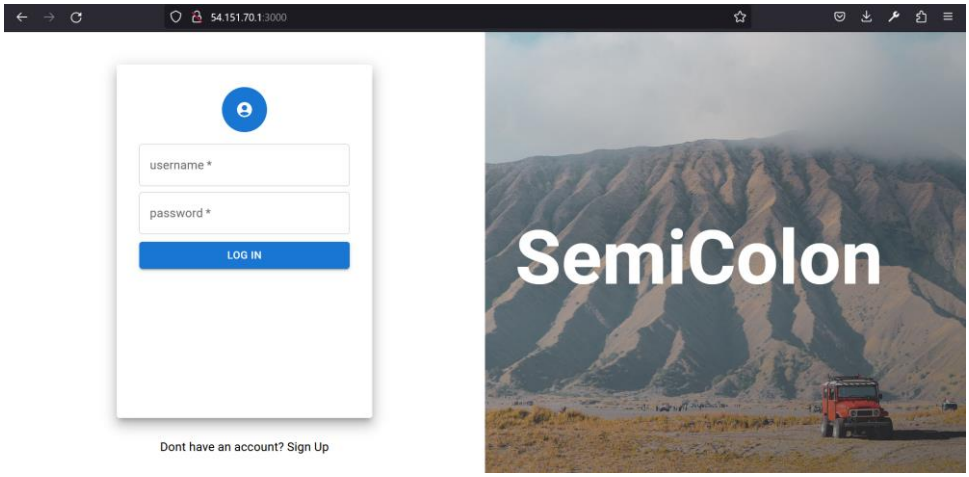
- We then write a modularized Terraform code which creates a VPC with a public subnet and a routing table, attached to the subnet. Then they are both attached to an Internet Gateway.



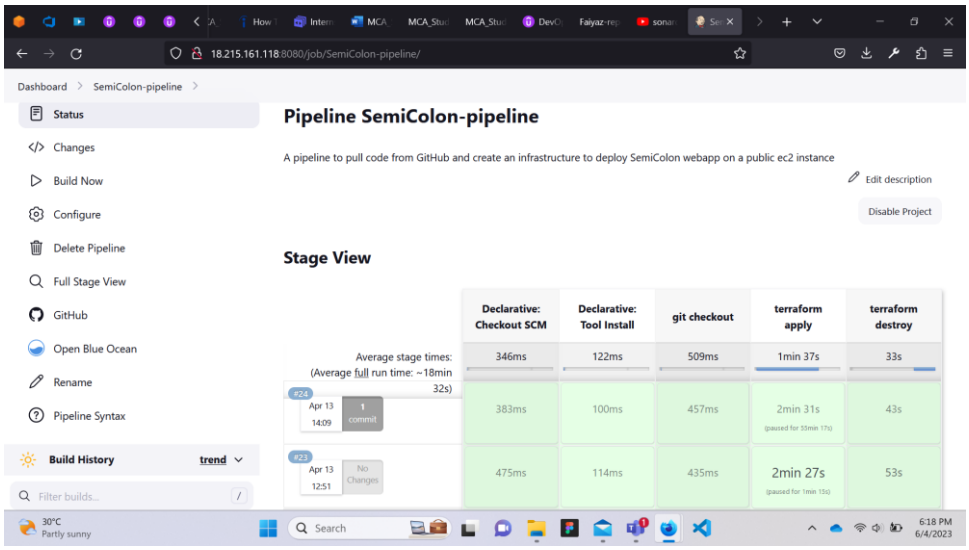
- Then we write code for an EC2 instance and associate it to the VPC. After writing this Terraform code, we write a Jenkinsfile and push everything onto GitHub.



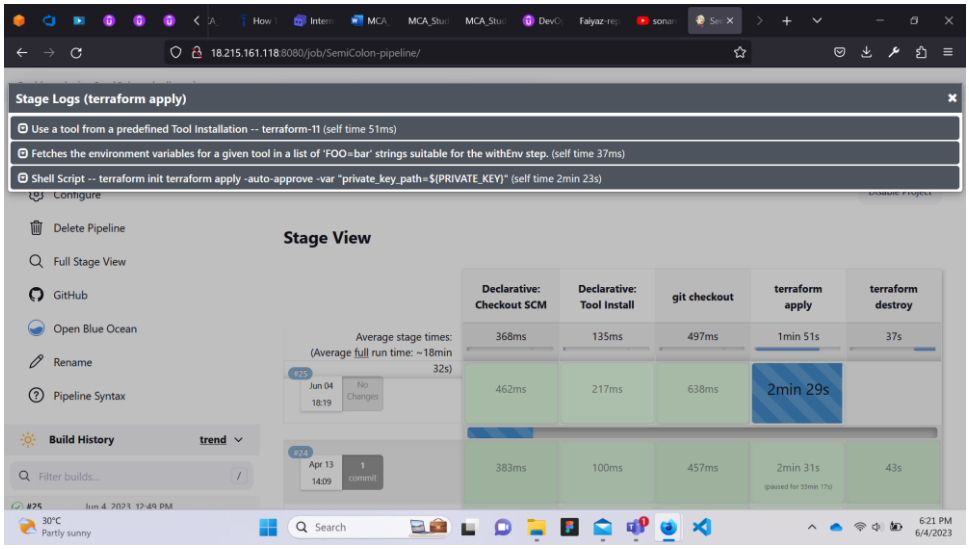
- In the EC2 module, we add a remote execute, with inline commands which install required dependencies for docker, pull the application image from DockerHub and start a container of the web application. We then access it using our public ip along with the port ‘3000’.



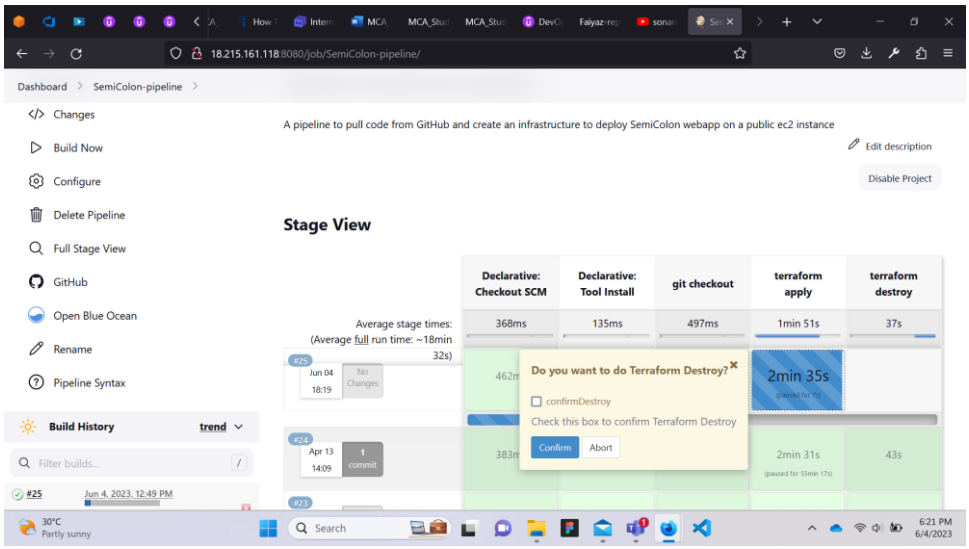
- We achieve all this, everytime, through creating a build and each step has its own task. We first install the required, declared tools and pull the code from GitHub.



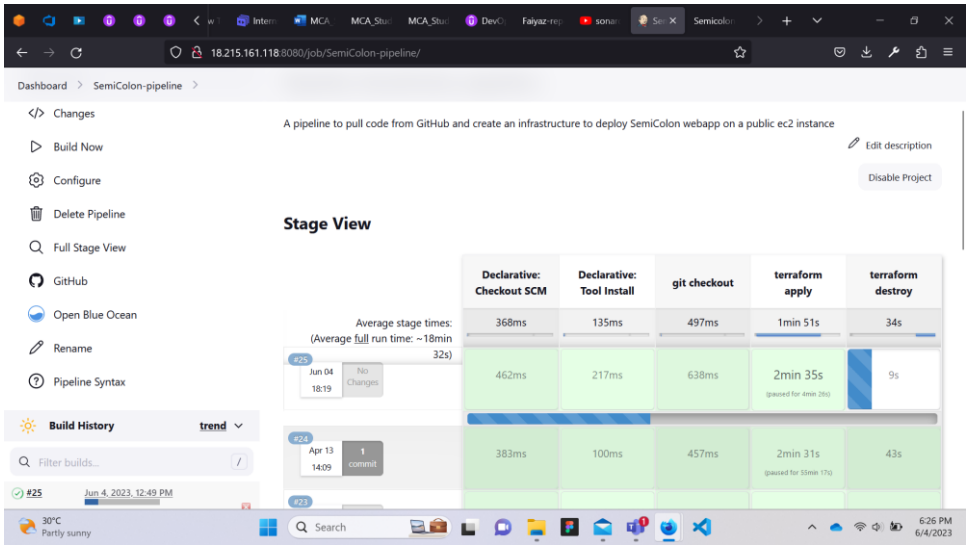
- The nect stage sends the commands ‘Terraform apply’ along with required variables, to build and deploy the infrastructure and host the application.



- The pipeline waits at the ‘Terraform apply’ stage for an input in the form of a checkbox and button, which decides whether to go ahead with the next step of skip it and terminate.



- After checking off the checkbox and doing a ‘Confirm’, the pipeline moves ahead to the next step of Terraform destroy and sends the ‘Terraform destroy’ command to destroy all the infrastructure.

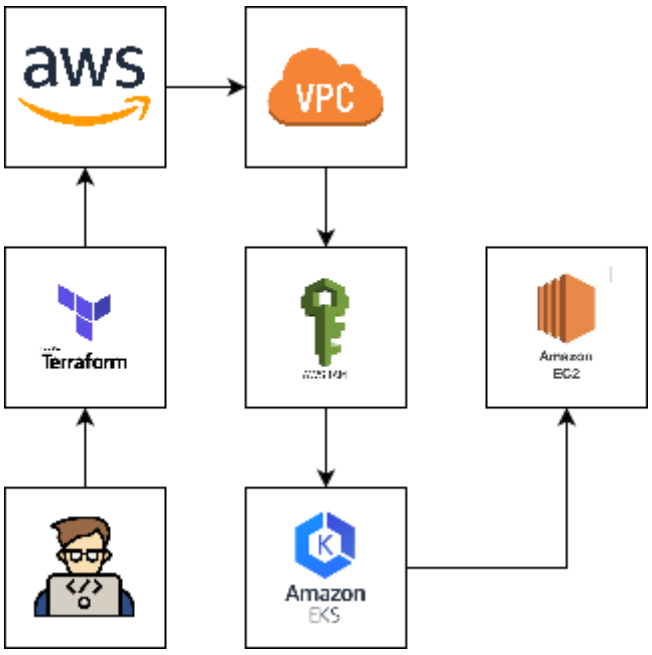

18.215.161.118:8080/job/SemiColon-pipeline/
Dashboard
SemiColon-pipeline
Changes
Build Now
Configure
Delete Pipeline
Full Stage View
GitHub
Open Blue Ocean
Rename
Pipeline Syntax
Build History
trend
Filter builds...
#25
Jun 4, 2023, 12:49 PM
A pipeline to pull code from GitHub and create an infrastructure to deploy SemiColon webapp on a public ec2 instance
Edit description
Disable Project
Stage View
Declarative: Checkout SCM
Declarative: Tool Install
git checkout
terraform apply
terraform destroy
Average stage times:
(Average full run time: ~18min 32s)
368ms
135ms
497ms
1min 51s
34s
#25
Jun 04
18:19
No Changes
462ms
217ms
638ms
2min 35s
9s
#24
Apr 13
14:09
1 commit
383ms
100ms
457ms
2min 31s
43s
#23
30°C
Partly sunny
Search
6:26 PM
6/4/2023

POC Project 4 – Creating an EKS Cluster using Terraform

Problem Statement: Write a Terraform code to deploy an AWS EKS cluster using Infrastructure as Code.

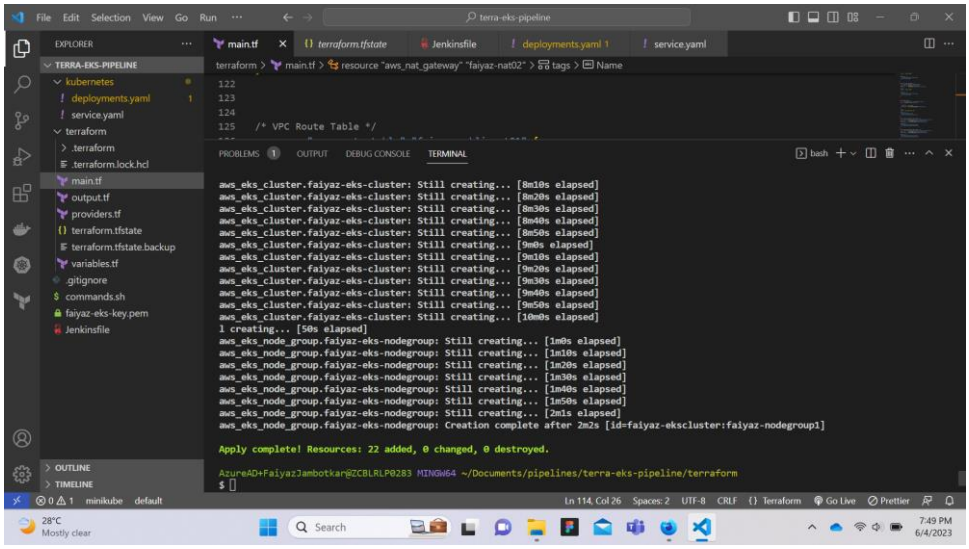
Requirements:

- Understanding the architecture and networking of AWS
- Writing a Terraform code
- Access to related services
- Understanding of VPC, IAM and EKS

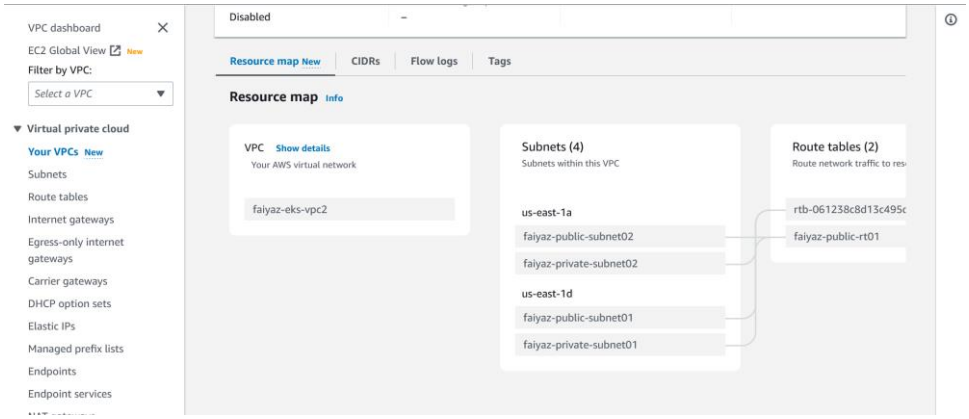


Description:

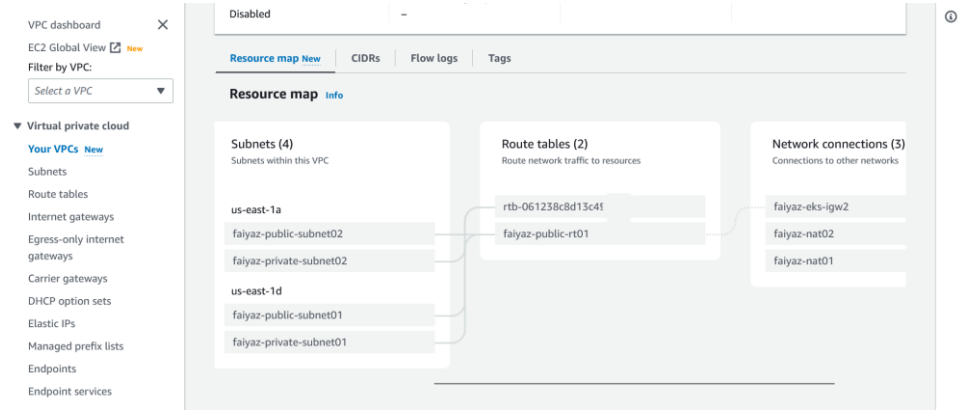
- Writing Terraform code to create an AWS VPC with 4 subnets. One private and Public subnet belongs to one availability zone and the other two belonging to another availibility zone.



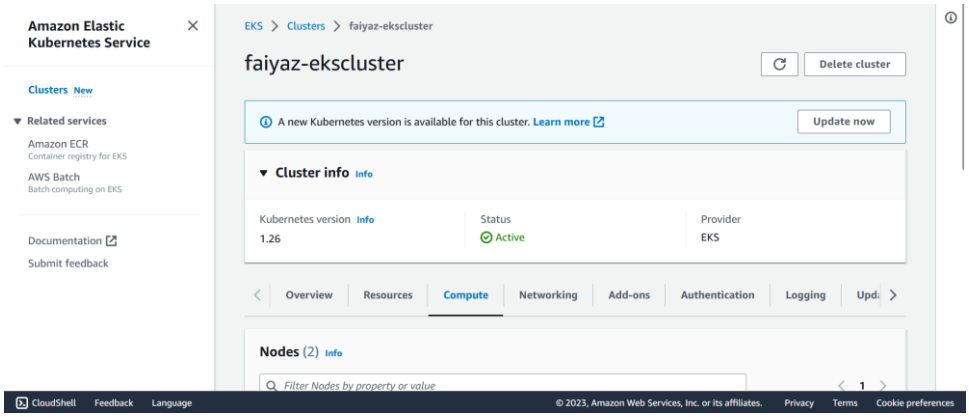
- We then create two different route tables and attaching the two public and two private subnets to each of them.



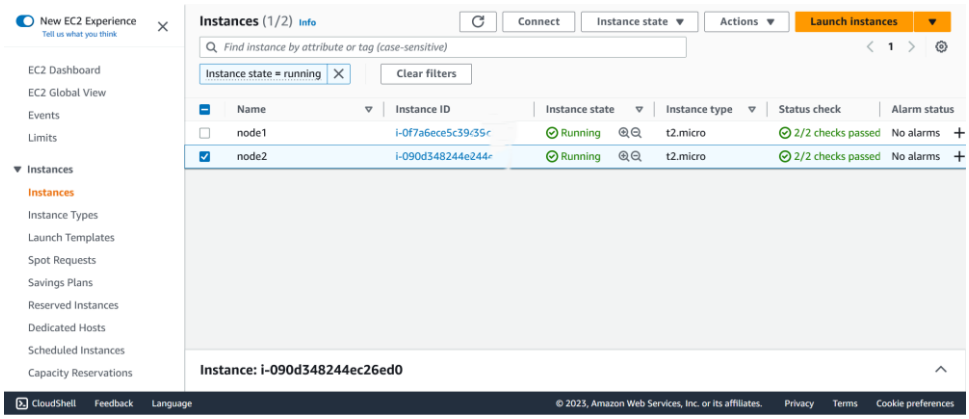
- We then connect the route table with public subnets to an Internet Gateway the two private subnets are configured to have a connection throufg two different NAT Gateways.



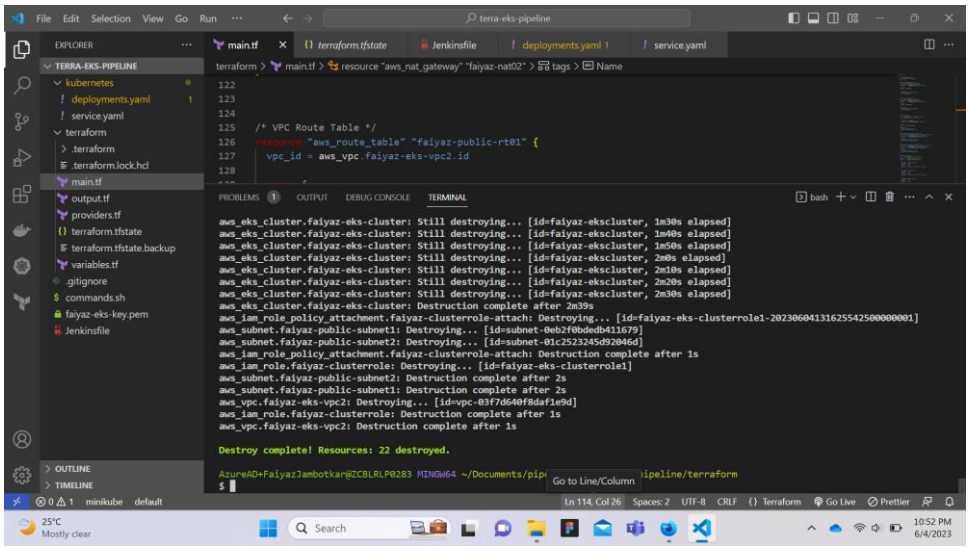
- We then create a cluster role and a cluster policy attachment. After which we create an EKS Cluster and IAM role for a Node Group, attaching the various required policies to the role for Node Group.



- In the end we configure and create a Node Group for creating nodes in our EKS cluster.

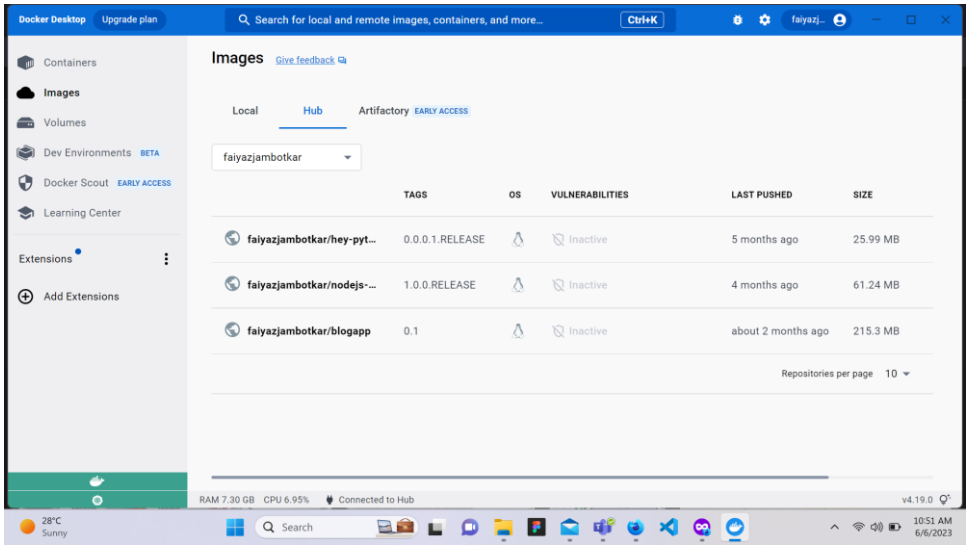


- We use the command ‘terraform init’ to install the providers, ‘terraform plan’ to test the creation of the infrastructure, ‘terraform apply’ to build the infrastructure and ‘terraform destroy’ to destroy the created infrastructure.

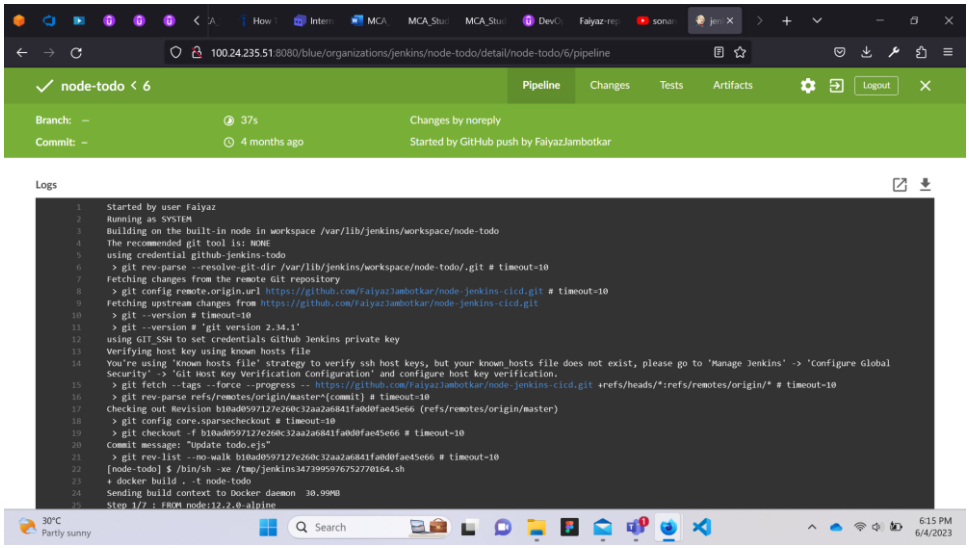


Other Tasks

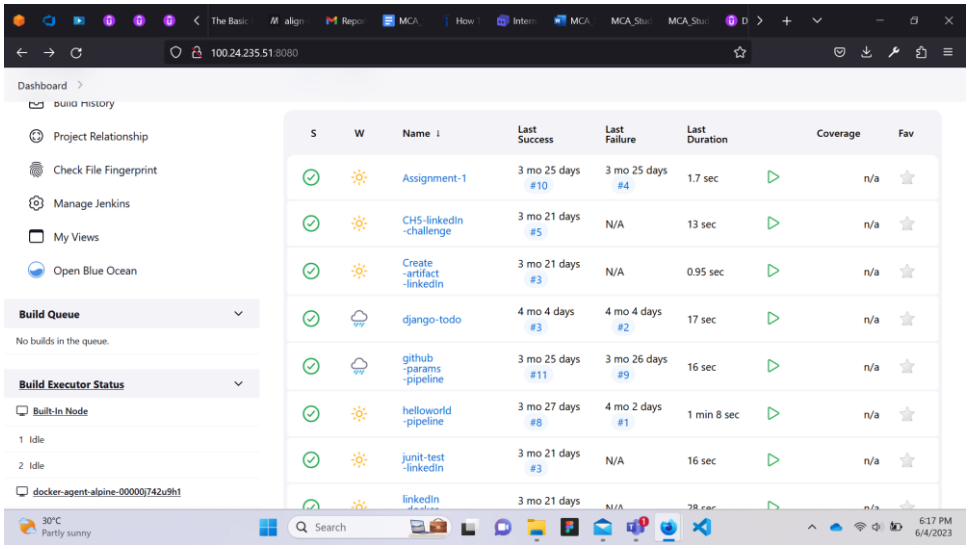
- Created multiple containers and images and pushed some of them on DockerHub.



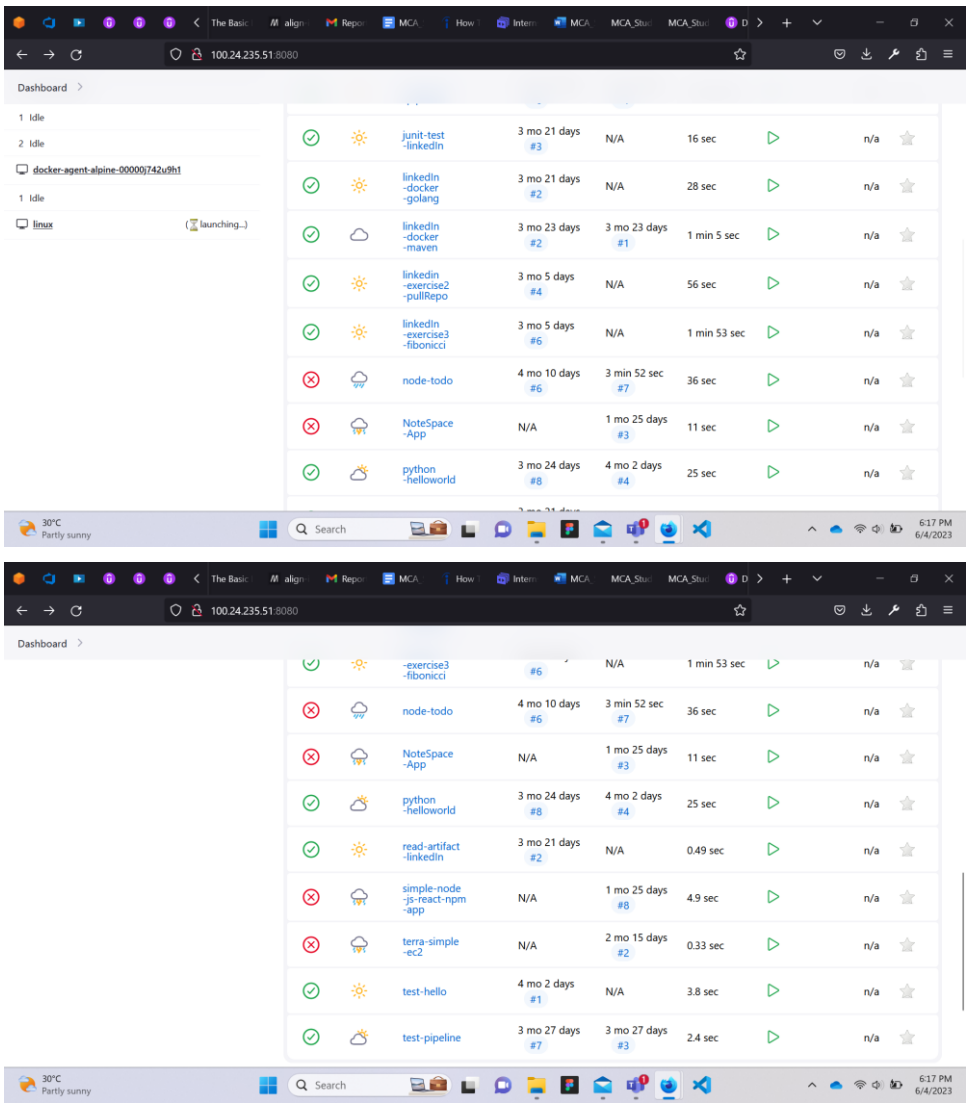
- Created and built multiple pipelines. Some of which include:
  - Deploying a To-Do app written using Nodejs.



- Built pipelines for the purpose of creating artifacts, passing different parameters, as well as running tests. Which included applications written in Nodejs, Python, Flask, Java, Golang.



- Some pipelines even contained GitHub webhooks, Terraform infrastructure and Kubernetes files.



Internship Timeline

Week 1 and 2:

- Git
  - Version controlling using commands
  - Locally created repos, branches, tags, etc
  - Added remote repos, pushed, pulled, stashed, forked and cloned code

- GitHub and GitLab
  - Practiced remote version controlling tools GitHub and GitLab
  - Created remote repos, branched them, committed changes, forked, merched changes, etc.

- Networking
  - Studied more about networks
  - Network models
  - IPs
  - Subnets
  - Protocols and more network related topics

- Operating System
  - Set up WSL
  - Installed Ubuntu distro via WSL
  - Brushed up on linux commands and practiced them

- YAML
  - Learnt YAML
  - Practiced writing YAML files

Week 3:

- Docker
  - Containerization
  - Using images and building containers
  - Manipulating the containers
  - Volumes
  - Connections between APIs and DB

a. Worked on python flask API
b. Worked on connecting MongoDB and Mongo-Express
c. Worked on MongoDB and NodeJS

- Practiced everything using CLI
- Also practiced writing Dockerfile and Docker-Compose

Week 4, 5 and 6:

- Continuous Integration using Jenkins
  - Installed Jenkins and used it to create pipelines
  - Created freestyle pipelines
  - Practiced creating freestyle pipelines
  - Build pipelines using declarative groovy scripts
  - Created continuous integration using Github-Jenkins using poll scm
  - Connected GitHub and Jenkins via SSH
  - Integrated git webhooks
  - Learnt to create Jenkinsfile
  - Practiced automating the builds by creating webhooks and Jenkinsfiles

- AWS EC2 and Jenkins
  - Created EC2 instances
  - Practiced Jenkins on EC2
  - Tried creating users, access scopes and project relationships in Jenkins
  - Built several pipelines in Jenkins on EC2
  - Learned and practiced writing groovy scripts
  - Wrote scripts for
    a. Hello World code in python
    b. Delivering a Django To-Do app
    c. Creating pipelines with defined parameters to practice groovy
    d. Reading artifacts
    e. Creating new maven containers using docker image by docker agent
    f. Installing golang image through docker
    g. Testing files using Junit
    h. Creating reports for all the test results and artifacts
  - Created and used nodes, agents in Jenkins
  - Created artifacts and reports in Jenkins
  - Tried Blue Ocean and several other plugins

- Did a mini project on jenkins where I created stages in a Jenkinsfile to
    a. Build a java project to create its .war file and archive it as artifact
    b. Test the file
    c. Use Checkstyle analysis plugin to create reports of the file
    d. Use SonarQube to test and display the quality of the file by the report created by checkstyle analysis
    e. Upload the artifacts on local Nexus Repository
    f. Send notifications via Slack

Week 7:

- AWS Services
    - Learnt aws networking
    - Created VPCs, CIDR assigning, public and private subnets
    - Route tables with appropriate routes
    - Practiced using Elastic IPs, Endpoints, NAT Gateways, NACLs.
    - Created EC2 instances with appropriate Security groups to felicitate connections between different VPCs
    - Did Peering Connections by creating two VPCs in two different regions and connecting them through customer gateways
    - Connected two VPCs through a VPN connection in two different regions using customer gateway, virtual private gateway and site-to-site VPN connection
    - Learned about Load Balancers and Route53
    - Learned about IAM concepts like creating users, policies, groups, roles, resource-based policies, access keys and more.

Week 8, 9

- Terraform
    - Learnt about Infrastructure as Code
    - Installed Terraform and set up AWS CLI
    - Learnt Terraform to implement IaC
    - Created mini projects using Terraform to implement learnings
    - Created a POC terraform project to deploy inrastructure in AWS and modularized its code

Week 10:

- Terraform and Jenkins
    - Learnt how to create a Jenkins pipeline to deploy Terraform code on AWS

- Deployed infrastructure on AWS, via Jenkinsfile through an automated Jenkins pipeline

➢ Kubernetes
- Started a kubernetes beginner's course
- Learnt ho to create pods, services, deployments and creating them using YAML files
- Learnt about Replica Controllers and Replica Sets
- Learnt about microservices architecture.
- Watched tutorials on AWS EKS, Azure AKS and their CLI
- Set up Minikube on local desktop

Week 11:

➢ Kubernetes
- Configured Minikube and Kubernetes on Docker Desktop
- Created a and deployed a voting app using Kubernetes on Minikube
- Started a new course on Udemy for advanced Kubernetes concepts
- Learnt and practiced core concepts and scheduling in K8s
- Learned to do logging and monitoring, and application lifecycle management

Week 12:

➢ Kubernetes
- Understood application lifestyle management and cluster maintainence in Kubernetes
- Learned about concepts of security in K8s
- Understood the oncepts of storage and network in K8s

Week 13:

➢ Creating a project for SLT Demo
- Creating a pipeline to deploy a Containerized web application through jenkins, over aws via Terraform
- Dockerised the application and pushed it to dockerhub, deployed a terrafrom infrastructure to host the application
- Created a pipeline for the application and deployed the application to AWS using terraform via Jenkin pipeline
- Added more implementations to the pipeline and attended SLT demo dry-run with the HRs

- Learnt concepts of networking in kubernetes from a course on Udemy

Week 14:

- Kubernetes and SLT Demo
  - Studied networking in Kubernetes
  - Studied networking in Kubernetes and attended SLT Demo
  - Learned how to design a kubernetes cluster through the Udemy course, attended SLT demo
  - Learned how to install and use kubernetes in the kubeadm way

Week 15:

- Kubernetes
  - Took an EKS course on Linkedin
  - Practiced troubleshooting kubernetes clusters on KodeKloud
  - Did a course on JSON PATH and understood its implementation in Kubernetes
  - Practiced kubernetes through CKA mock tests
  - Started an EKS course on Udemy and watched EKS tutorials on YouTube

Week 16:

- Kubernetes, Helm and HTML
  - Practicing setting up and deployment of kubernetes clusters locally using minikube
  - Learning Fullstack Development during free time due to interest and to increase understanding of development to imporve devops workflow
  - Created a cluster to deploy a webapp, spent the second session learning html
  - Creating a cluster to deploy a flask app, spent the second session practicing html
  - Learning helm through a udemy course
  - Learning helm repos, charts, templates creation and usage, learning CSS after workhours

Week 17:

- Helm Charts and CSS
  - Learning helm charts from Udemy
  - Learning CSS during free time
  - Learning helm charts from Udemy
  - Learnt how to create AWS EKS manually via AWS UI
  - Working on POC project: To create IaC to deploy an EKS cluster using terraform

Week 18:

- AWS EKS, Terraform and CSS
  - Manually created multiple VPC infrastructure, roles, clusters and nodes through AWS GUI
  - Created Infrastructure to deploy EKS Cluster using Terraform
  - Fixing issues related to the deployment (Nodes in the NodeGroup unable to connect to the Cluster)
  - Practiced HTML, CSS through a Udemy Course during free time
  - Working on EKS Cluster using Terraform, practicing HTML, CSS through a Udemy Course
  - Attended meetings and worked on EKS cluster.
  - Practiced using CSS layouts by creating a HTML, CSS webpage

Week 19:

- AWS EKS, Terraform and IP Project
  - Fixed Terraform-EKS cluster issue (caused due to Availability Zone compatibility while creating the nodes).
  - Created a working Terraform-EKS pipeline.
  - Improved vanilla CSS through practice by referring to a Udemy course
  - Discussed ideas for Company's Lunch App UI and reviews with Delivery Manager.
  - Worked on the admin side layout of Lunch App
  - Worked on front-end of admin-side manageFood page of Zapcom Lunch App, by using HTML, CSS and Bootstrap.
  - Attended a meeting with HRs for the Lunch App dry-run.
  - Completed a course on business/professional email writing and completing a course on Agile and Lean methodologies in DevOps, on LinkedIn

Week 20:

- Azure DevOps(ADO), CSS and JavaScript
  - Had a meeting with the Delivery Manager who, as suggested by the CTO, encouraged me to learn MERN stack along with DevOps.
  - Got assigned as a shadow resource to a client.
  - Learnt Azure DevOps from a Udemy course.
  - Practiced CSS Flexbox.
  - Learnt Azure DevOps repo and piplines from a Udemy course.
  - Practiced CSS Grid.
  - Created simple webpages to implement learnings.

- Learned Azure DevOps pipelines.
- Revising JavaScript.
- Completing the LinkedIn learning path of 'Develop Your Communication Skills and Interpersonal Influence' recommended by Zapcom

My Internship Experience at Zapcom

During my internship in the company, I had the opportunity to gain valuable insights and experience within a professional work environment. From day one, I was introduced to people who believed in fun, supportive and collaborative mindset that fostered a positive learning atmosphere.

Throughout my internship, I actively engaged in various activities that allowed me to contribute and learn. I had the chance to participate in activities like:

- Town Hall Meetings(Quarterly Meetings).
- Interesting training sessions.
- A weekly programme named ‘Tech Talk’ where different Managers, Tech Leads and Senior Developers from the organization shared their knowledge and insights in different technologies.
- Being a part of celebrations like Ugadi, Women’s Day, Holi, etc.
- Many fun days at the office.
- An adventure outing at Area83.

These experiences provided me with a well-rounded understanding of the company's operations and allowed me to develop a broader skill set, along with increasing my knowledge and awareness in different aspects of technology and corporate skills.

One aspect that I particularly appreciated during my internship was the company's commitment to nurturing personal and professional growth. I had access to resources like Udemy, LinkedIn Learnings and chargable technologies like AWS and Azure DevOps. I was also assigned mentors who provided guidance and support, anytime I needed, enabling me to expand my knowledge and enhance my skills through their guidance. The learning opportunities were not only informative but also inspiring, motivating me to continue my journey of self-improvement, both, personally and professionally.

Additionally, the work environment was characterized by open communication and a strong sense of teamwork. We were encouraged to meet and communicate with colleagues, who were always willing to lend a helping hand and share their expertise, creating a collaborative atmosphere where ideas were encouraged and valued. This enabled me to build connections and relationships that I believe will have a lasting impact on my career.

Overall, my internship experience in the company was incredibly enriching. It allowed me to gain practical insights into the industry, develop essential skills, and grow both personally and professionally. I am grateful for the support and guidance I received throughout my time as a project trainee, and I am confident that the knowledge and experiences I gained will positively shape my future endeavors.

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