REAL TIME PROJECTS:

1. AUTOMATION DEPLOYMENT USING JENKINS FREE STYLE AND PIPELINE JOBS:

TOOLS: **GIT, GITHUB, JENKINS, MAVEN, NEXUS, SONAR & TOMCAT.**

DESCRIPTION: WRITE A JENKINS PIPELINE TO GET THE SOURCE CODE FROM GITHUB TO CI SERVER AND BUILD THE CODE USING MAVEN AND STORING THE ARTIFACT's ON NEXUS AND WILL BE ABLE TO ROLL BACK ONCE IT FAILED. SCAN THE SOURCE CODE USING SONARQUBE TO CHECK THE BUGS AND CODE SMELLS. DEPLOY THE WEB APPLICATION ON A APPLICATION SERVER LIKE TOMCAT.

2. MICROSERVICES PROJECT:

TOOLS: **GIT, GITHUB, JENKINS, SONAR, TRIVY & DOCKER**

DESCRIPTION: GET THE SOURCE CODE FROM GITHUB AND SCAN THE SOURCE CODE USING SONARQUBE. WRITE THE DOCKER FILE TO DEPLOY STATIC WEBSITE IN APACHE, PUSH IT INTO GITHUB AND BUILD THAT DOCKER FILE IN JENKINS BY INTEGRATED GIT WITH JENKINS BY WRITING JENKINS DECLARATIVE PIPELINES. AFTER BUILDING THE DOCKER IMAGE WE HAVE TO SCAN THE DOCKER IMAGE USING TRIVY AND CHECK THE DEPENDENCIES INSTALLATION USING OWASP. SHARE THE IMAGE TO DOCKER HUB AND CONTAINERIZER IT USING DOKCER.

3. MONOLITHIC PROJECT

TOOLS: **GIT, GITHUB, JENKINS, TERRAFORM & ANSIBLE**

DESCRIPTION: WRITE A CODE FOR INFRASTRUCTURE USING TERRAFORM AND AUTOMATE IT USING JENKINS. ONCE AFTER INFRA IS CREATED, WRITE A PLAYBOOK TO INSTALL ALL THE DEPENDENCIES AND DEPLOY THE APPLICATION BY WRITING THE JENKINS DECLARATIVE PIPELINE

4. CI/CD USING ANSIBLE:

TOOLS: GIT, GITHUB, ANSIBLE, JENKINS & TOMCAT.

DESCRIPTION: WRITE A PLAYBOOK TO SETUP APPLICATION SERVER (TOMCAT) USING ANSIBLE PLAYBOOK AND DEPLOY THE APPLICATION USING ANSIBLE BY INTEGRATING WITH THE JENKINS.

5. CI/CD USING AWS CODE PIPELINE:

SERVICES: GIT, S3, IAM, GITHUB, CODE BUILD, CODE DEPLOY, CODE PIPELINE.

DESCRIPTION: CREATE AWS CODE PIPELINE TO IMPLEMENT CONTINUOUS INTEGRATION AND CONTINUOUS DEPLOYMENT. WHENEVER DEVELOPER PUSH THE CODE INTO CENTRAL REPO, AUTOMATICALLY IT PIPELINE GETS RELEASED AND DEPLOYED.

6. DEPLOY 3 TIER APPLICATION USING DOCKER COMPOSE

TOOLS USED: GIT, MAVEN, JENKINS, DOCKER, DOCKER-COMPOSE, TOMCAT, DATADOG

DESCRIPTION: DEPLOYING A JAVA BASED 3 TIER WEB APPLICATION USING DOCKER COMPOSE BY AUTOMATING WITH JENKINS. MONITORING USING DATADOG.

7. DEPLOY 3 TIER APPLICATION USING AWS CLOUD WITH HIGH AVAILABILITY

SERVICES USED: EC2, VPC, DATABASE, LOAD BALANCERS, AUTOSCALING GROUPS

DESCRIPTION: DEPLOYING A NODE JS APPLICATION ON AWS CLOUD BY CREATING HIGH AVAILABILITY CLUSTER WITH 1 VPC, 3 PRIVATE SUBNETS, 2 PUBLIC SUBNETS, 1 LOAD BALANCER, 1 AUTO SCALING GROUPS. ITS A 3 TIER APPLICATION WHERE USER CAN STORE AND RETRIEVE THE DATA AT ANYTIME.

8. DEPLOY BLOOD BANK APPLICATION USING KUBERNETES KOPS CLUSTER

SERVICES USED: EC2, IAM, S3, AWS CLI, KOPS, KUBECTL, PROMETHEUS & GRAFANA

DESCRIPTION: DEPLOYING A 3 TIER APPLICATION ON KUBERNETES OPERATIONS CLUSTER BY WRITING THE DEPLOYMENT FILE AND STATEFUL FILES TO CREATE THE PODS WITH HIGH AVAILABILITY AND MONITOR THE CLUSTER RESOURCES AND INFRA USING PROMETHEUS AND GRAFANA.

9. DEPLOY A E-COMMERCE APPLICATION ON EKS CLUSTER

SERVICES USED: EC2, IAM, S3, AWS CLI, EKS, KUBECTL, PROMETHEUS & GRAFANA

DESCRIPTION: CRETED AN EKS CLUSTER AND DEPLOY AN E-COMMERCE APPLICATION ON EKS CLUSTER BY WRITING THE DEPLOYMENT FILE AND STATEFUL FILES TO CREATE THE PODS WITH HIGH AVAILABILITY. TO AUTOMATE THE PROCESS, WE WILL WRITE MULTI BRANCH PIPELINES IN JENKINS.

10. DEPLOY A PYTHON BASED APPLICATION USING ARGO CD

SERVICES USED: EC2, IAM, AWS CLI, KOPS, KUBECTL, HELM & ARGO CD,

DESCRIPTION: CRETED AN KOPS CLUSTER AND DEPLOY AN PYTHON APPLICATION BY WRITING THE DEPLOYMENT FILE AND STATEFUL FILES TO CREATE THE PODS WITH HIGH AVAILABILITY. TO AUTOMATE THE PROCESS WE ARE IMPLEMENTING GITOPS AS ARGO CD.

11. DEPLOY A FULL STACK APPLICATION FROM LOCAL TO PROD

SERVICES USED: EC2, IAM, AWS CLI, KOPS, KUBECTL, HELM & ARGO CD, EKS, DOCKER, TERRAFORM, ARGOCD, JENKINS, SLACK, MONGODB

DESCRIPTION: DEPLOY AN REACT APPLICATION WITH MONGODB, ITS A CAMP APPLICATION WHERE USERS CAN UPLOAD EVENTS AROUND THE WORLD AND EXPLORE ALL THE EVENTS. USED DIFFERENT TOOLS LIKE DOCKER, KUBERNETES AND TERRAFORM TO DEPLOY APPLICATIONS FROM LOCAL TO PROD.