Agenda:

- recap: gitlab
- github: environments
- github Workflow: Approvals
- Demo: github Workflow: Approvals
- github action: Simple k8s pipeline

gitlab vs gitHub?

container Registry	built in	no built in
Azure DevOps	not supported	supported
terminologies	MR	PR
open to all	aws, gcp azure	mainly on azure

yaml file:
- github.ci.yaml
- gitlab.ci.yaml

pipeline.yaml
pipeline.yml

yaml-lint
json-lint

Syntax? → yet another markup language → config

Chirag: python - yaml(module)

python => yaml (ansible)

python => Microsoft
Micheal Dec Haan -> **Ansible**

Azure-cloud(automated Deployments)
Ansible(templates)

sonarLint → CodeCoverage: Reporting
Real-time: **Linter**

Environment??

Dev-env → EndGoal

Dev

env

github actions-yaml

Dev
Qaa
Prod

dev-Env → test-Env → uat-Env → prod-Env

Machine configuration
Macos m1 chip

testing Libs → testing Libs → library: Beta / alpha

production: beta/alpha (library)

- Security Issues: **log4j**
- **library:** tested, minimal downtime

Webapp: **Payment GateWay** [Live]

Key Man

"Mock"

Razr-Pay

Dummy API

Dev- env → test- env → prod- env

Trigger / Approval

env-variable:
- Razorpay payment Gateway

Credit Card
- Card Number
- CVV
- Name
- Exp Date

app.py

Admin

Env-Var

Env-Mangers

Choco - Cake
Vanilla - Cake
Cheese - Cake

investment Banking:
- github

tcs / wipro: github

accenture: github

atlassian/cprime/goldmansach: bitbucket

ibm: gitlab

aadharCard → Laptop → AWS - Storage

99% avalabe

Admin

on-Premises Server
Over Cloud Based technology

firewall

Pwd

intranet

Code

GitHub → Cloud

Admin

intranet

GATE

TCS
IBM

intranet => Cloud

Steps for Lab:
- Create a repo
- add collaborators from chat:
  - add 3 collaborators
- create envs: add collaborators in envs
- create approvals / triggers

yes → Approve

No → Reject

Sir jo yaml hamane likhi vo koi bhi env mai pieline setup mai same rahegi kya?

Master

env: dev
env: test
env: prod

yaml

Note:
for rollback, use git commands

enterprise github: you can use release / unDo artifacts

github Actions: <> connect with AWS Cloud, EKS(Elastic K8s Service)

Auto

Auto

"PAT"

github Actions

Access_KEY
Secret_KEY

AWS Cloud

Project → Aws EC2

permissions:
- ec2 full access
- vpc, storage, clcd/token

githubActions -> Settings:
- Environment Variables
- Secrets
- Token / SecretManger

accessKey: 1aswd12412
secretkey: asdfasf326jhfghgf

AccountID: dependent

t2.micro

env-secret:
access
secret

dev-code
dev-env

access secret

dev-ec2

env-secret:
access
secret

prod-code
prod-env

prod-ec2

c4.Xlarge

SRE

dev-env

prod-env

sritam(dev) -> awsAccount

Chirag(prod) -> awsAccount

github-actions

dev

REPO

github action

env: prod
- secret.accessKey(chirag)

Org: Amazon

amazon.com

access secret

dev

test

prod

dev-ec2

test-ec2

prod-ec2

AWS Account
A/S