Setting Up CD

TESTERS DON'T LIKE TO BREAK THINGS

THEY LIKE TO DISPEL THE ILLUSION THAT THINGS WORK

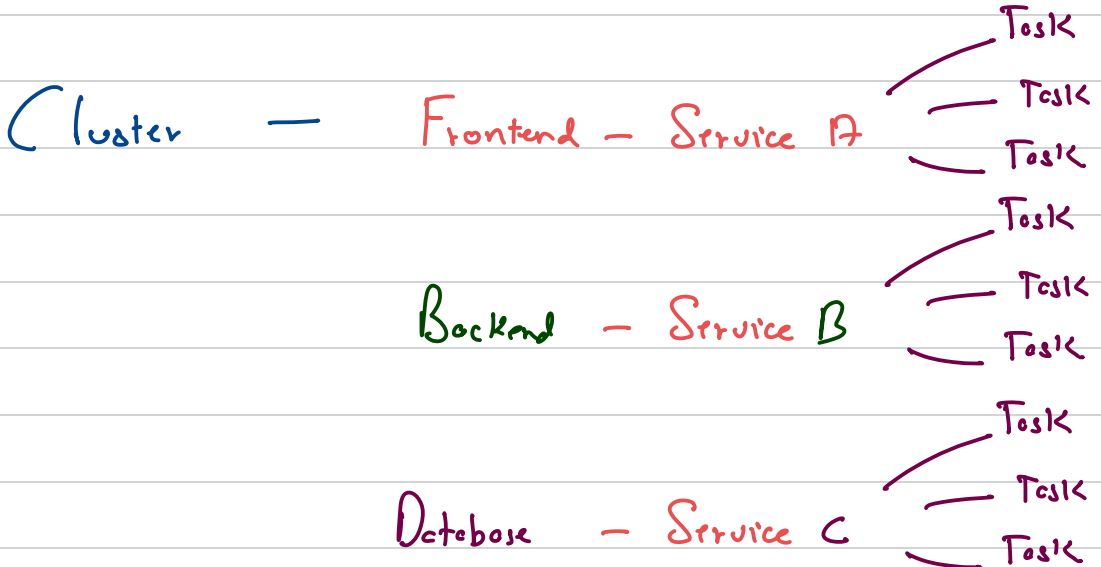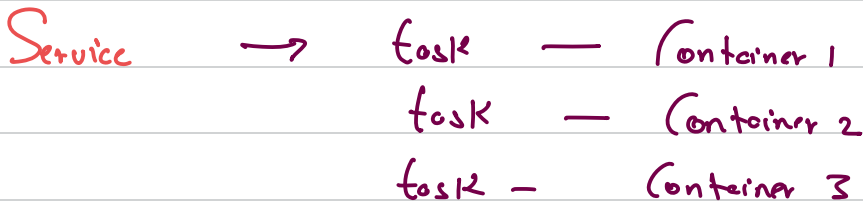QA watching devs work on weekends after assigning critical bugs on friday evening.

Agenda

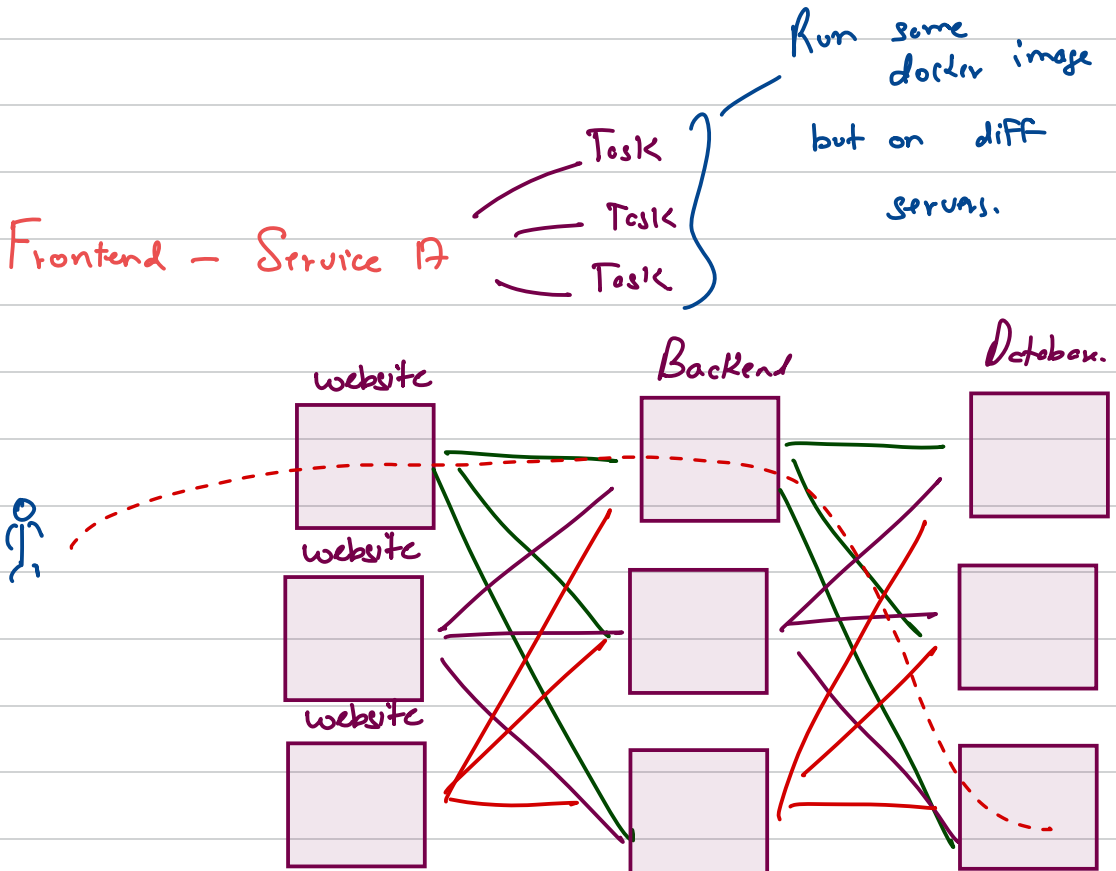1. End to End deployment using CI/CD

2. Jmeter

1. Get/Create Access key and Secret Access Key from IAM (Manually, only once, but has to be done manually).
2. Create/Push Updated image to ECR (Need to create repo in ECR, pushing can be automated).
3. Create a cluster in ECS (This has to be done manually, but only once, in the beginning).
4. Create Task Definition (This will be automated).
5. Assign task to cluster and deploy (This will also be automated).

Service $\longrightarrow$ task — Container 1
task — Container 2
task — Container 3

Cluster — Frontend — Service A
- Task
- Task
- Task

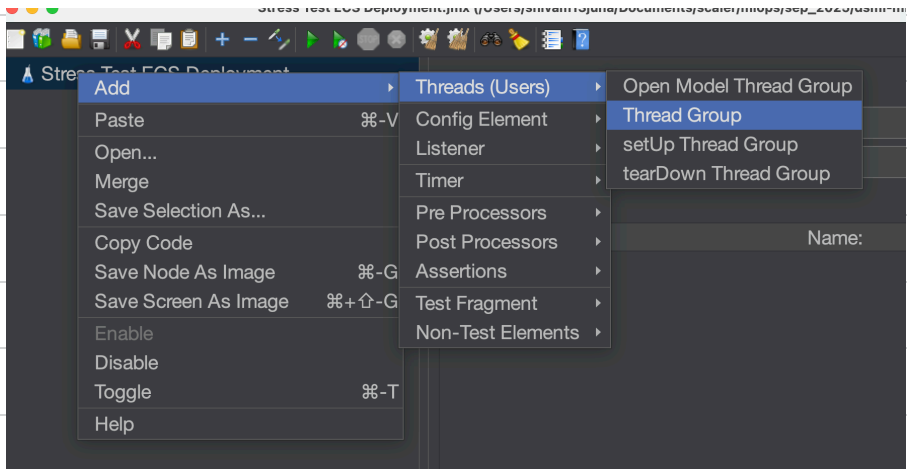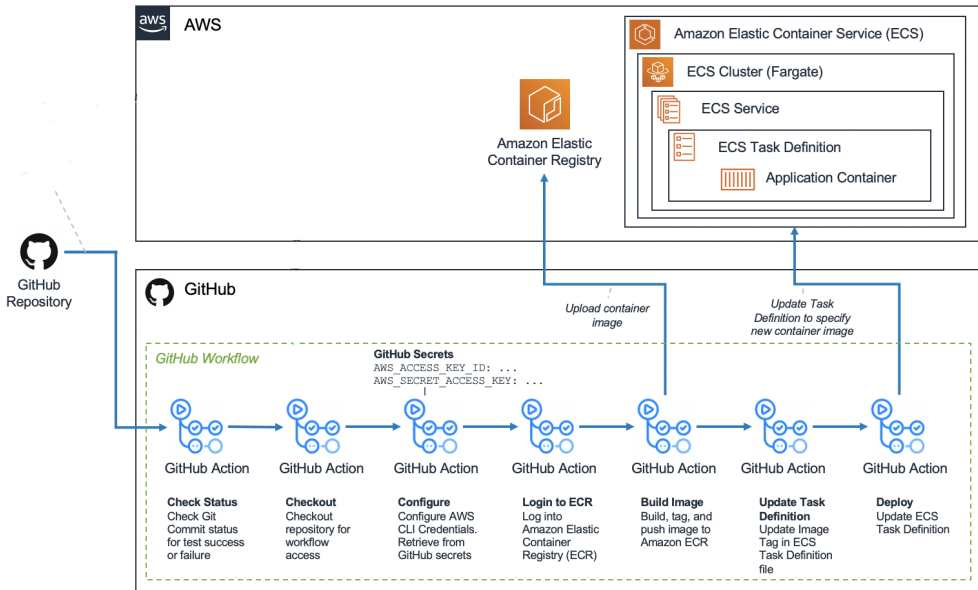Backend — Service B
- Task
- Task
- Task

Database — Service C
- Task
- Task
- Task

Aws function
/
TASK ⟶ Spawns a Server on
which container runs

Task ⟶ Spawns a Server on
which container runs

Run some
docker image
but on diff
servers.

Task
Task
Task

Frontend — Service A

website
Backend
Database.
website

website

AWS

Amazon Elastic Container Registry

Amazon Elastic Container Service (ECS)

ECS Cluster (Fargate)

ECS Service

ECS Task Definition

Application Container

GitHub

Upload container image

Update Task Definition to specify new container image

GitHub Repository

GitHub Workflow

GitHub Secrets
AWS_ACCESS_KEY_ID: ...
AWS_SECRET_ACCESS_KEY: ...

GitHub Action — **Check Status** Check Git Commit status for test success or failure

GitHub Action — **Checkout** Checkout repository for workflow access

GitHub Action — **Configure** Configure AWS CLI Credentials. Retrieve from GitHub secrets

GitHub Action — **Login to ECR** Log into Amazon Elastic Container Registry (ECR)

GitHub Action — **Build Image** Build, tag, and push image to Amazon ECR

GitHub Action — **Update Task Definition** Update Image Tag in ECS Task Definition file

GitHub Action — **Deploy** Update ECS Task Definition

Stress Test ECS Deployment.jmx (/Users/shivamrtsjuna/Documents/scaler/mlops/sep_2023/dsmit-m...

Stress Test ECS Deployment

Add ▸
Paste   ⌘-V
Open...
Merge
Save Selection As...
Copy Code
Save Node As Image   ⌘-G
Save Screen As Image   ⌘+⇧-G
Enable
Disable
Toggle   ⌘-T
Help

Threads (Users) ▸
Config Element ▸
Listener ▸
Timer ▸
Pre Processors ▸
Post Processors ▸
Assertions ▸
Test Fragment ▸
Non-Test Elements ▸

Open Model Thread Group
Thread Group
setUp Thread Group
tearDown Thread Group

Name:

Web Server

Dynamic Post Request

Protocol [http]: Server Name or IP: 18.236.133.66

HTTP Header

View Results

Add	▶	Assertions	▶
Insert Parent	▶	Timer	▶
		Pre Processors	▶
Cut	⌘-X	Post Processors	▶
Copy	⌘-C	Config Element	▶
Paste	⌘-V	Listener	▶
Duplicate	⌘+⇧-C		
Remove	⊠		
Open...			
Merge			
Save Selection As...			
Save as Test Fragment			
Copy Code			
Save Node As Image	⌘-G		
Save Screen As Image	⌘+⇧-G		

ict

ultipart/

redit_History":
pplicantIncome"
oanAmount": 5

Pre Processors ▶
- JSR223 PreProcessor
- User Parameters
- HTML Link Parser
- HTTP URL Re-writing Modifier
- JDBC PreProcessor
- RegEx User Parameters
- Sample Timeout
- **BeanShell PreProcessor**

In GitHub Actions, what is an "event" that can trigger a workflow?

0 users have participated

A	An operational malfunction within the workflow's execution environment.	0%
B	A pre-defined time when the GitHub Actions server conducts maintenance.	0%
C	Any significant modification to GitHub's platform codebase.	0%
✓ D	A specific activity in a repository like a pull request or push event.	0%

End Quiz Now

🏆 **2** sarita Chauhan`
1/1 ⚡ 84.50

🏆 **A 1** Anoop
1/1 ⚡ 92.40

🏆 **RT 3** Riddhi Tatke
1/1 ⚡ 81.20

4	SP	Surya Prakash	1/1 ⚡ 80.72
5		Alan Miller	1/1 ⚡ 79.57
6	VY	Vinay Yelanadu	1/1 ⚡ 77.13
7	L	lakshmi santhi	1/1 ⚡ 67.56