Task1
Create three Ec2's using the yaml file deploy8.yaml
Cd in .ssh folder and ssh-keygen
cd /etc/ansible/
Nano the hosts file and replace the ip with your public ip ec2

[ubuntu]
54.211.32.132 ansible_user=ubuntu ansible_ssh_private_key_file=~/.ssh/deploy08
[ubuntu1]
3.84.22.180 ansible_user=ubuntu ansible_ssh_private_key_file=~/.ssh/deploy08
[ubuntu2]
54.211.32.132 ansible_user=ubuntu ansible_ssh_private_key_file=~/.ssh/deploy08

Sudo nano dependes.yml
Replace the ips with your ec2 ip's and key with your keyname
sudo ansible-playbook dependes.yml (yml file playbook may not work so just do the commands manually)
Ssh into your ec2's and in the .ssh directory sudo known_hosts and copy the public key content into it
ansible all -m ping -v

ansible-playbook test.yml
Replace anything you need too

If installing docker fails for whatever reason check the third ec2 by sshing and do docker ps if its not there do sudo rm /usr/share/keyrings/docker-archive-keyring.gpg then rerun the playbook.

Part 2,3, and 4
We are going to create a Jenkinsfile and figure out how to build, test, and deploy.
Sudo apt install npm on the second ec2
Make a new agent for jenkins and connect the node
Create a multibranch pipeline on jenkins
Run the build

<u>Testing</u>
You can use npm test to do testing and also change app.test.js text to make it pass

<u>Deploy</u>
Push the Image up to ECR from your local host
Pull the image from ECR with jenkins
Push the docker image up to dockerhub

Docker

Sudo nano Dockerfile
docker pull openjdk
docker build -t nameforimage . (Builds the image using Dockerfile)
docker run -dit -p 3000:3000 --name saiApp openjdk:latest (test the application on your browser)

Creating your github key so you can ssh and do git push

Ssh-keygen
Cd ~/.ssh
eval "$(ssh-agent -s)"
ssh-add ~/.ssh/id_ed25519
Click on developer settings on your profile
Create a personal access token
For scopes check full repo
Copy the key generated

Part5
Monitoring
WIP

Work in progress doc Ignore this part...

Part 2

Test the application frontend

Git clone the repo

Sudo apt install npm on the third ec2

Npm install

Cat package.json

Npm run start

Edit Security group to allow port 3000

Sudo nano Dockerfile

Launch a new agent on jenkins