

# Application Deployment

(Deploy the given React application to a production ready state)

## Application:

Clone the below mentioned repository and deploy the application (Run application in port 3000).

Repo URL : <https://github.com/Vennilavan12/Brain-Tasks-App.git>

## Docker:

- Dockerize the application by creating Dockerfile
- Build an application and check output using docker image.

## ECR:

- Create an AWS ECR repository for store docker images.

## Kubernetes:

- Setup Kubernetes in AWS EKS and Confirm EKS cluster is running.
- Write deployment and service YAML files.
- Deploy using kubectl via Codedeploy.

## CodeBuild:

- Create a CodeBuild project:
- Source: Connect to your repository
- Environment: Use managed image (Amazon Linux, Ubuntu)
- Write and define commands in buildspec.yml.

## CodeDeploy:

- Create codedeploy application.
- create appspec.yml file to deploy applications in EKS.

## Version Control:

- Push the codebase to a Git provider (GitHub).
- Use CLI commands to push code.

**CodePipeline:**

- Source: GitHub
- Build: AWS CodeBuild project
- Deploy: AWS CodeDeploy or deploy to EKS via Lambda or custom script.

**Monitoring:**

- Use CloudWatch Logs to track build, deploy, and application logs.

**Submission Guidelines:**

- GitHub Link: Submit full code repository.
- README File: Include setup instructions, pipeline explanation, and screenshots or create a document and attach all screenshots.
- Application deployed kubernetes Loadbalancer ARN.