

Deployment in *AWS*

What is AWS?

- Amazon Web Services (AWS) is a subsidiary of Amazon providing on-demand cloud computing platforms and APIs to individuals, companies, and governments, on a metered pay-as-you-go basis.
- These cloud computing web services provide a variety of basic abstract technical infrastructure and distributed computing building blocks and tools.

Why AWS (Cloud)?

- **Scalability** - Scale up or down quickly and easily to meet changing business needs.
- **Agility** - Develop and deploy applications faster, and dynamically change your infrastructure as required.
- **Reliability** - Achieve a seamless experience for your customers with the same technologies used by Amazon to run its own business.
- **Security** - Protect your data more cost-effectively than on-premises with the largest set of security services and features.

AWS S3

- Amazon S3 or Amazon Simple Storage Service is a service offered by Amazon Web Services that provides object storage.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "PublicReadGetObject",
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:GetObject",
      "Resource": "arn:aws:s3:::<your_bucket_name>/*"
    }
  ]
}
```

Deploy a React App in AWS S3

- Create a new S3 bucket
- Upload the build folder
- Enable static website hosting
- Set the index document
- Set the error document
- Set the permissions
- Set the bucket policy

AWS CloudFront

“ Amazon CloudFront is a content delivery network (CDN) offered by Amazon Web Services. ”

- Create a CloudFront distribution
- Set the origin domain name

CI/CD

- Continuous integration (CI) and continuous delivery (CD) embody a culture, set of operating principles, and collection of practices that enable application development teams to deliver code changes more frequently and reliably.
- AWS CLI / AWS CodeDeploy / AWS CodePipeline

```
{  
  "deploy": "aws s3 sync build/ s3://my-bucket",  
  "prod": "npm run build && npm run deploy"  
}
```

AWS Amplify

- AWS Amplify is a set of tools and services that can be used together or on their own, to help front-end web and mobile developers build scalable full stack applications, powered by AWS.

Deploy a React App in AWS Amplify

- Create a new Amplify app
- Connect the app to the GitHub repository
- Set the build settings
- Deploy the app