

Documentation for Deploy Node js web app on AWS S3 via GitHub Actions (DHF-SaaS)

1. Create AWS IAM User with S3 Full Access

1. **Sign into the AWS Management Console** and open the IAM console.
2. **Navigate to Users > Add user.**
3. **Enter user details:**
 - Username: your-username
 - Select **Programmatic access**.
4. **Permissions:**
 - Select **Attach existing policies directly**.
 - Search for **AmazonS3FullAccess** and check it.
5. **Review and create the user.** Note down the **Access key ID** and **Secret access key**.

2. Create an S3 Bucket and Give Public Access

1. **Open the Amazon S3 console.**
2. **Create bucket:** Enter a name and region.
3. **Uncheck "Block all public access".**
4. **Create the bucket.**

3. Edit Bucket Policy

1. **Go to the S3 console** and select your bucket.
2. **Permissions tab > Edit Bucket policy.**
3. **Paste the policy** (replace bucket_name):

```
1. {  
2.     "Version": "2012-10-17",  
3.     "Statement": [  
4.         {  
5.             "Sid": "AllowPublicReadAccess",  
6.             "Effect": "Allow",  
7.             "Principal": "*",  
8.             "Action": "s3:GetObject",  
9.             "Resource": "arn:aws:s3:::bucket_name/*"  
10.        }  
11.    ]  
12. }
```

4. Add AWS Credentials to GitHub Secrets

1. **Go to GitHub repository > Settings > Secrets and variables > Actions.**
2. **Add secrets:**
 - AWS_ACCESS_KEY_ID: Your AWS Access key ID
 - AWS_SECRET_ACCESS_KEY: Your AWS Secret access key

5. Create a New Branch for Staging

1. **Go to your GitHub repository.**
2. **Create new branch:** Type stage and press Enter.

6. Set Up GitHub Actions Workflow

1. **Create folder:** .github/workflows in your repository.
2. **Create file:** main.yml in the workflows folder.

7. Add Deployment Workflow

```
1. name: Deploy React App to AWS S3
2.
3. on:
4.   push: # Trigger on push events
5.     branches: # Trigger on pushes to these branches
6.       - stage
7.       - dev
8.       - main
9.
10. jobs:
11.   build_and_deploy:
12.     runs-on: ubuntu-latest
13.
14.     steps:
15.       - name: Checkout Repository
16.         uses: actions/checkout@v2
17.
18.       - name: Set up Node.js
19.         uses: actions/setup-node@v2
20.         with:
21.           node-version: '21' # Specify the Node.js version to use
22.
23.       - name: Install Dependencies
24.         run: npm install
25.
26.       - name: Build
27.         run: |
28.           npm run build
29.
30.       - name: Deploy # Step to deploy the project to AWS S3
31.         run: |
32.           aws configure set aws_access_key_id ${ secrets.AWS_ACCESS_KEY_ID }
33.           aws configure set aws_secret_access_key ${ secrets.AWS_SECRET_ACCESS_KEY }
34.           aws configure set region us-east-1
35.           aws s3 sync ./dist s3://docsforhealthweb -delete
36.           # Sync the built files to the S3 bucket and delete previous files
```