

# CI/CD PIPELINE

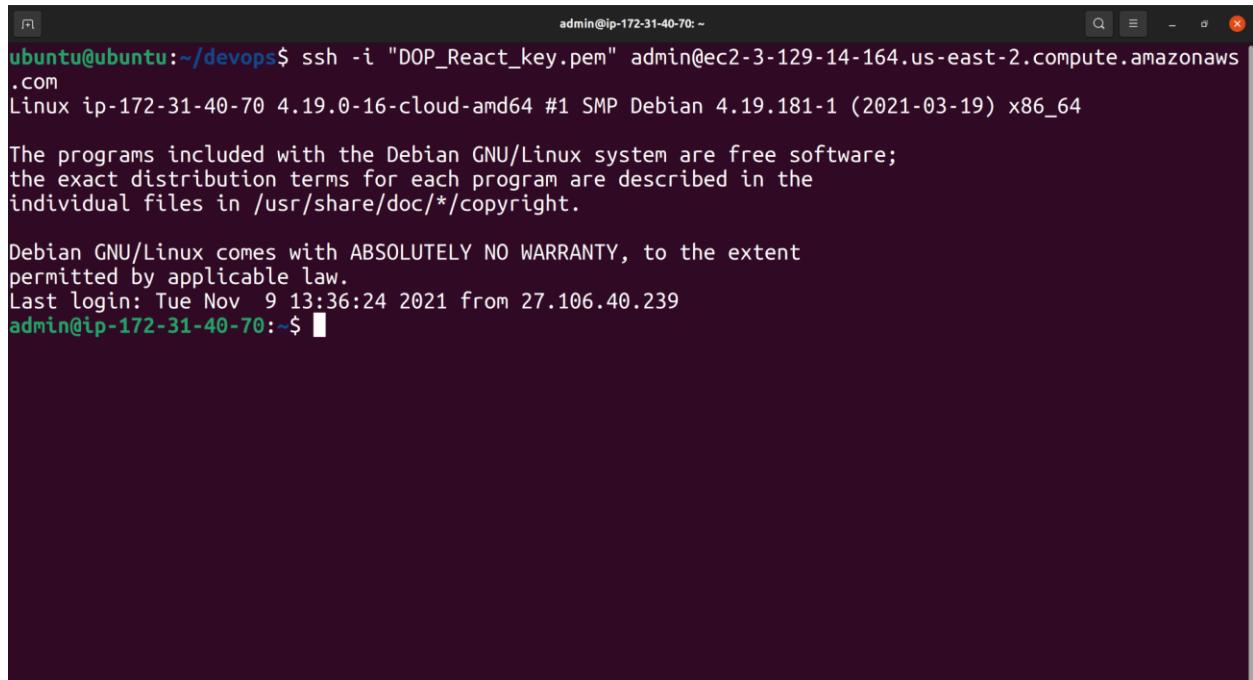
Automate React App Deployment on AWS EC2 Using Jenkins

## Tools

1. Jenkins
2. AWS
3. Github
4. Git
5. NGINX
6. Visual Studio Code
7. Node.js
8. React
9. Jest

## Procedure

SSH to EC2 instance

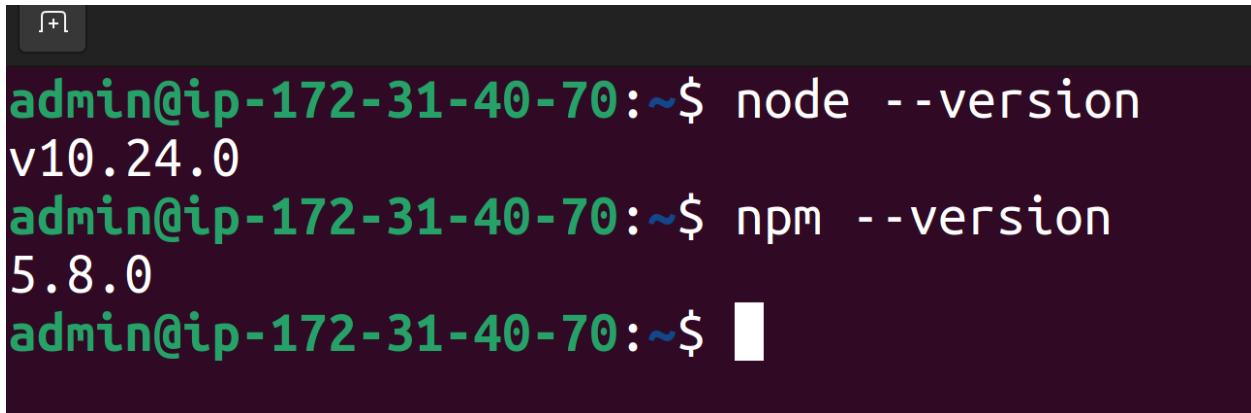


```
admin@ip-172-31-40-70: ~
ubuntu@ubuntu:~/devops$ ssh -i "DOP_React_key.pem" admin@ec2-3-129-14-164.us-east-2.compute.amazonaws.com
Linux ip-172-31-40-70 4.19.0-16-cloud-amd64 #1 SMP Debian 4.19.181-1 (2021-03-19) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/*copyright.

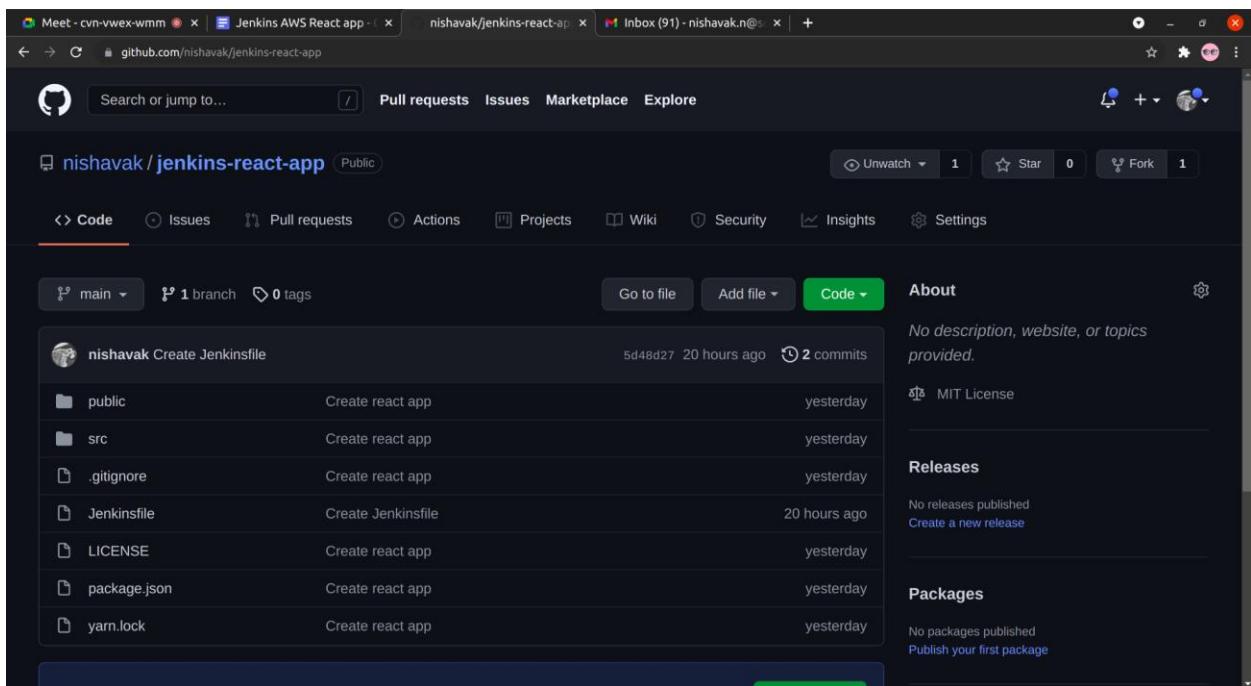
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Tue Nov  9 13:36:24 2021 from 27.106.40.239
admin@ip-172-31-40-70:~$
```

Install node, npm



```
admin@ip-172-31-40-70:~$ node --version
v10.24.0
admin@ip-172-31-40-70:~$ npm --version
5.8.0
admin@ip-172-31-40-70:~$ █
```

Create React app and push it to GitHub



The screenshot shows a GitHub repository page for 'nishavak/jenkins-react-app'. The repository is public and contains the following files:

- main branch (1 branch)
- 0 tags
- 2 commits (5d48d27 20 hours ago)
- Code dropdown menu
- File list:
  - public (Create react app, yesterday)
  - src (Create react app, yesterday)
  - .gitignore (Create react app, yesterday)
  - Jenkinsfile (Create Jenkinsfile, 20 hours ago)
  - LICENSE (Create react app, yesterday)
  - package.json (Create react app, yesterday)
  - yarn.lock (Create react app, yesterday)

Repository details:

- Unwatched (1)
- Starred (0)
- Forked (1)
- Code dropdown menu

Repository settings:

- About: No description, website, or topics provided.
- License: MIT License
- Releases: No releases published. Create a new release
- Packages: No packages published. Publish your first package

## Install NGINX

```
admin@ip-172-31-40-70:~$ sudo apt install nginx -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  fontconfig-config fonts-dejavu-core libfontconfig1 libgd3 libjbig0 libjpeg62-turbo
  libnginx-mod-http-auth-pam libnginx-mod-http-dav-ext libnginx-mod-http-echo
  libnginx-mod-http-geoip libnginx-mod-http-image-filter libnginx-mod-http-subs-filter
  libnginx-mod-http-upstream-fair libnginx-mod-http-xslt-filter libnginx-mod-mail
  libnginx-mod-stream libtiff5 libwebp6 libx11-6 libx11-data libxau6 libxcb1 libxdmcp6 libxpm4
  libxslt1.1 nginx-common nginx-full
Suggested packages:
  libgd-tools fcgiwrap nginx-doc ssl-cert
The following NEW packages will be installed:
  fontconfig-config fonts-dejavu-core libfontconfig1 libgd3 libjbig0 libjpeg62-turbo
  libnginx-mod-http-auth-pam libnginx-mod-http-dav-ext libnginx-mod-http-echo
  libnginx-mod-http-geoip libnginx-mod-http-image-filter libnginx-mod-http-subs-filter
  libnginx-mod-http-upstream-fair libnginx-mod-http-xslt-filter libnginx-mod-mail
  libnginx-mod-stream libtiff5 libwebp6 libx11-6 libx11-data libxau6 libxcb1 libxdmcp6 libxpm4
  libxslt1.1 nginx nginx-common nginx-full
0 upgraded, 28 newly installed, 0 to remove and 45 not upgraded.
Need to get 5812 kB of archives.
After this operation, 13.8 MB of additional disk space will be used.
Get:1 http://security.debian.org/debian-security buster/updates/main amd64 libtiff5 amd64 4.1.0+git19
1117-2~deb10u3 [271 kB]
Get:2 http://cdn-aws.deb.debian.org/debian buster/main amd64 fonts-dejavu-core all 2.37-1 [1068 kB]
```

## Create NGINX configuration file

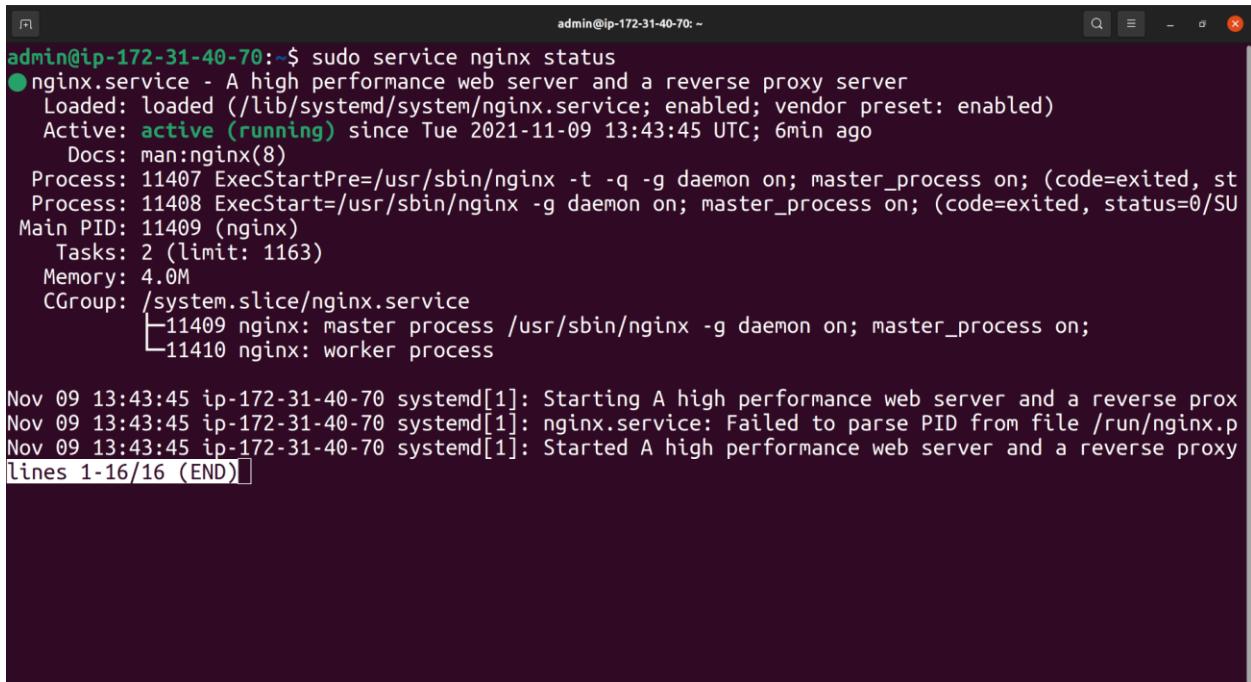
```
admin@ip-172-31-40-70:~$ nano /etc/nginx/sites-available/jenkins-react-app
GNU nano 3.2

server {
  listen 3000;
  server_name 3.129.14.164;
  root /var/www/jenkins-react-app;
  index index.html;

  access_log /var/log/nginx/jenkins-react-app.log;
  error_log /var/log/nginx/jenkins-react-app.error.log;
  location / {
    try_files $uri /index.html =404;
  }
}
```

^G Get Help ^O Write Out ^W Where Is [ Read 12 lines ]
^X Exit ^R Read File ^\ Replace ^K Cut Text ^J Justify ^C Cur Pos M-U Undo
^U Uncut Text ^T To Spell ^ Go To Line M-E Redo

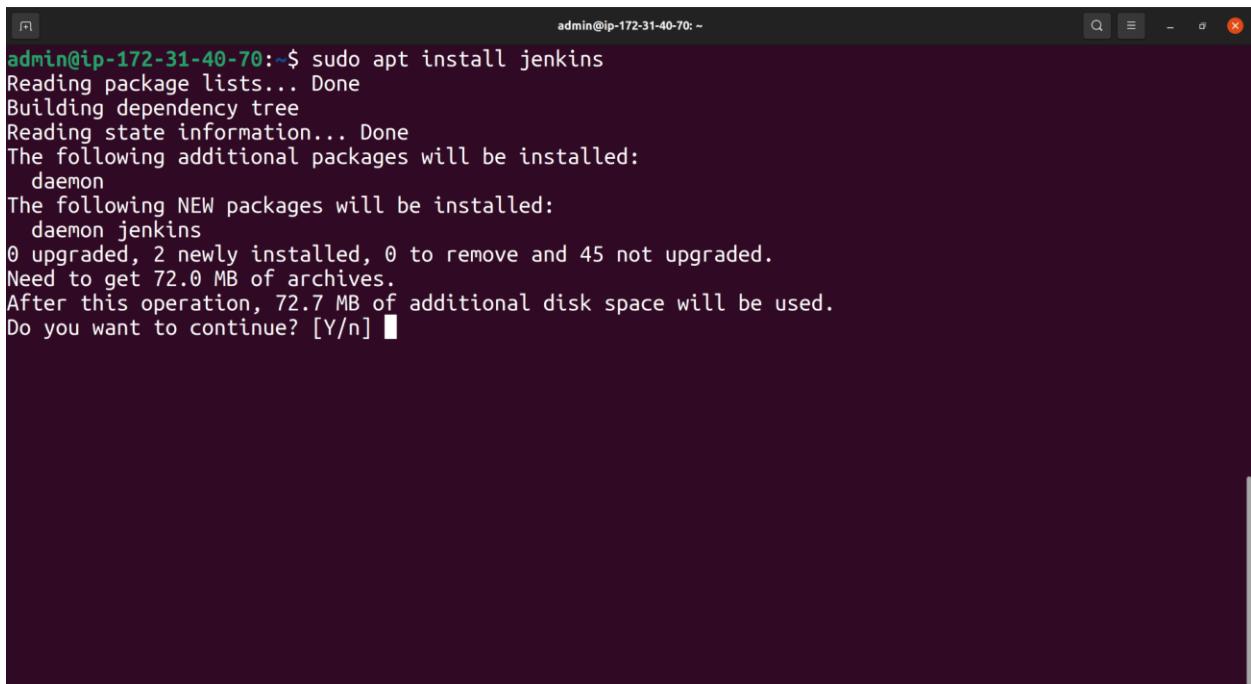
## Running NGINX service



```
admin@ip-172-31-40-70:~$ sudo service nginx status
● nginx.service - A high performance web server and a reverse proxy server
  Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
  Active: active (running) since Tue 2021-11-09 13:43:45 UTC; 6min ago
    Docs: man:nginx(8)
 Process: 11407 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, st
 Process: 11408 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SU
 Main PID: 11409 (nginx)
   Tasks: 2 (limit: 1163)
  Memory: 4.0M
    CGroup: /system.slice/nginx.service
            └─11409 nginx: master process /usr/sbin/nginx -g daemon on; master_process on;
              ├─11410 nginx: worker process

Nov 09 13:43:45 ip-172-31-40-70 systemd[1]: Starting A high performance web server and a reverse prox
Nov 09 13:43:45 ip-172-31-40-70 systemd[1]: nginx.service: Failed to parse PID from file /run/nginx.p
Nov 09 13:43:45 ip-172-31-40-70 systemd[1]: Started A high performance web server and a reverse proxy
lines 1-16/16 (END)
```

## Install Jenkins

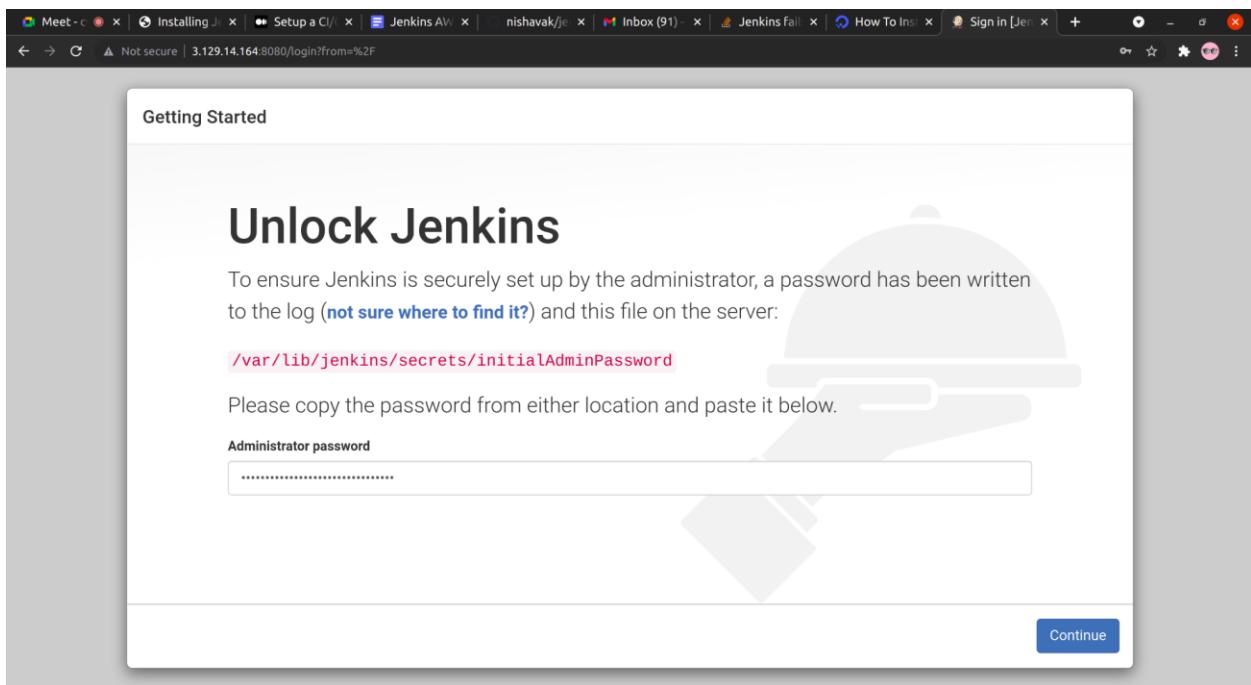


```
admin@ip-172-31-40-70:~$ sudo apt install jenkins
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  daemon
The following NEW packages will be installed:
  daemon jenkins
0 upgraded, 2 newly installed, 0 to remove and 45 not upgraded.
Need to get 72.0 MB of archives.
After this operation, 72.7 MB of additional disk space will be used.
Do you want to continue? [Y/n] ■
```

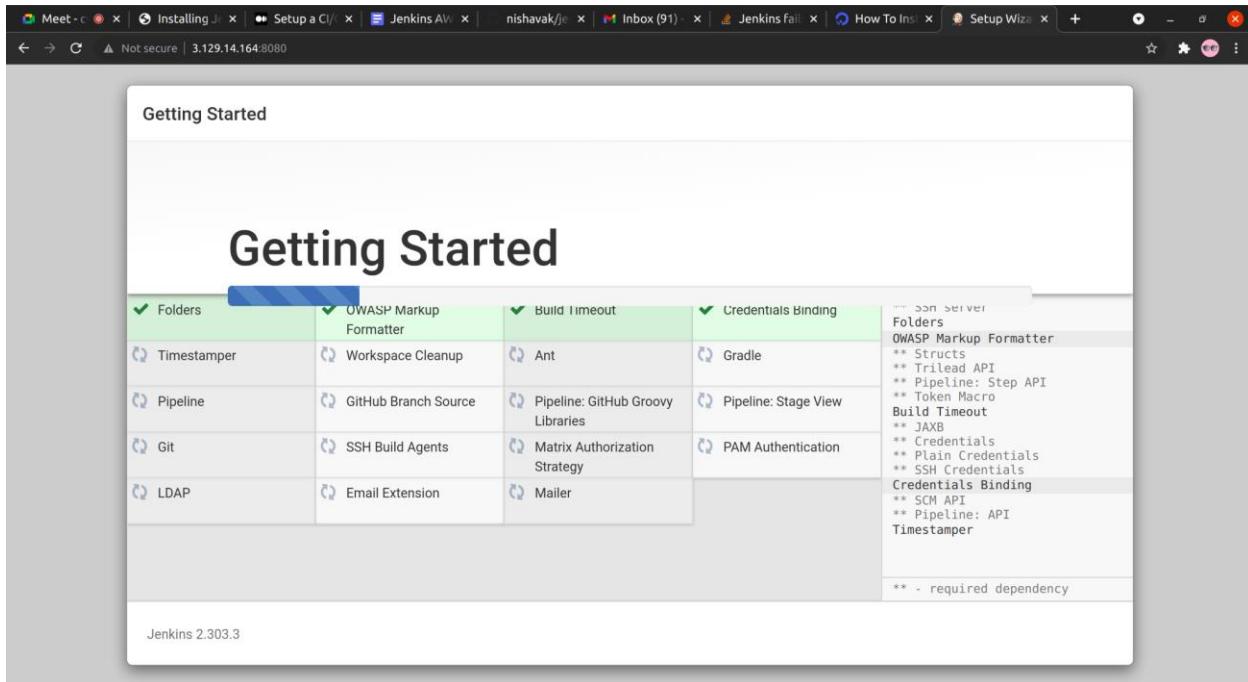
For running Jenkins we need JRE & JDK

```
admin@ip-172-31-40-70:~$ java --version
openjdk 11.0.12 2021-07-20
OpenJDK Runtime Environment (build 11.0.12+7-post-Debian-2deb10u1)
OpenJDK 64-Bit Server VM (build 11.0.12+7-post-Debian-2deb10u1, mixed mode, sharing)
admin@ip-172-31-40-70:~$ javac --version
javac 11.0.12
admin@ip-172-31-40-70:~$
```

Running Jenkins

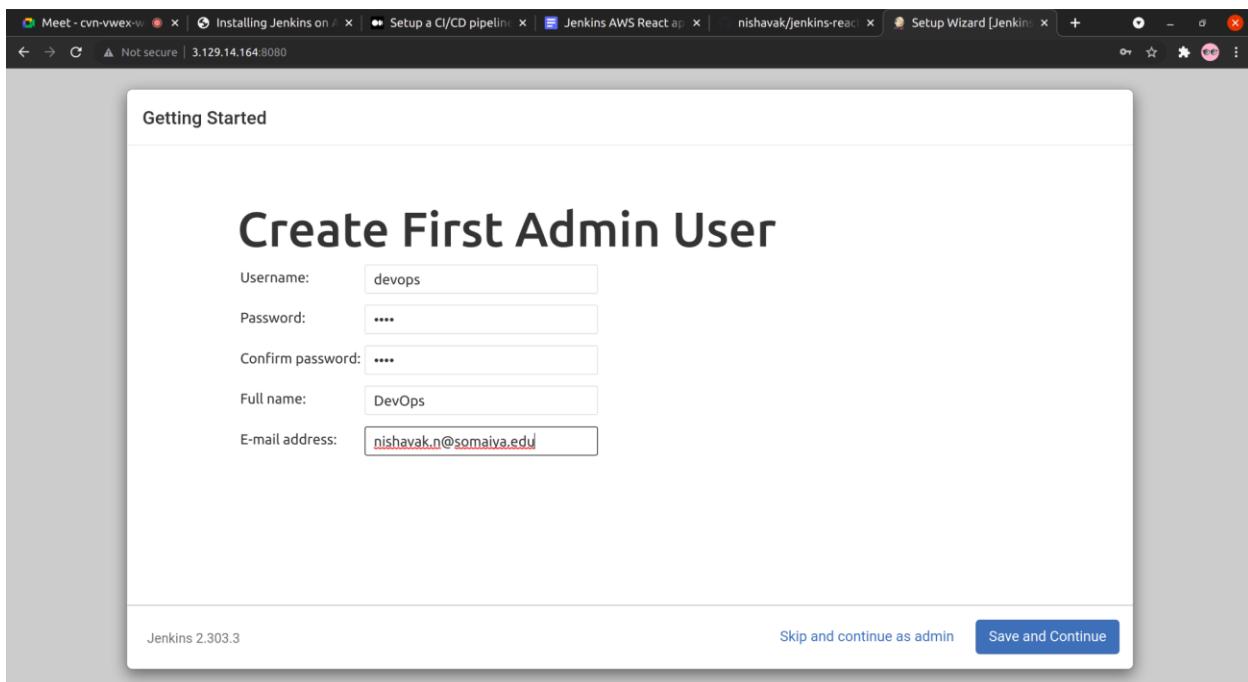


## Installing recommended plugins



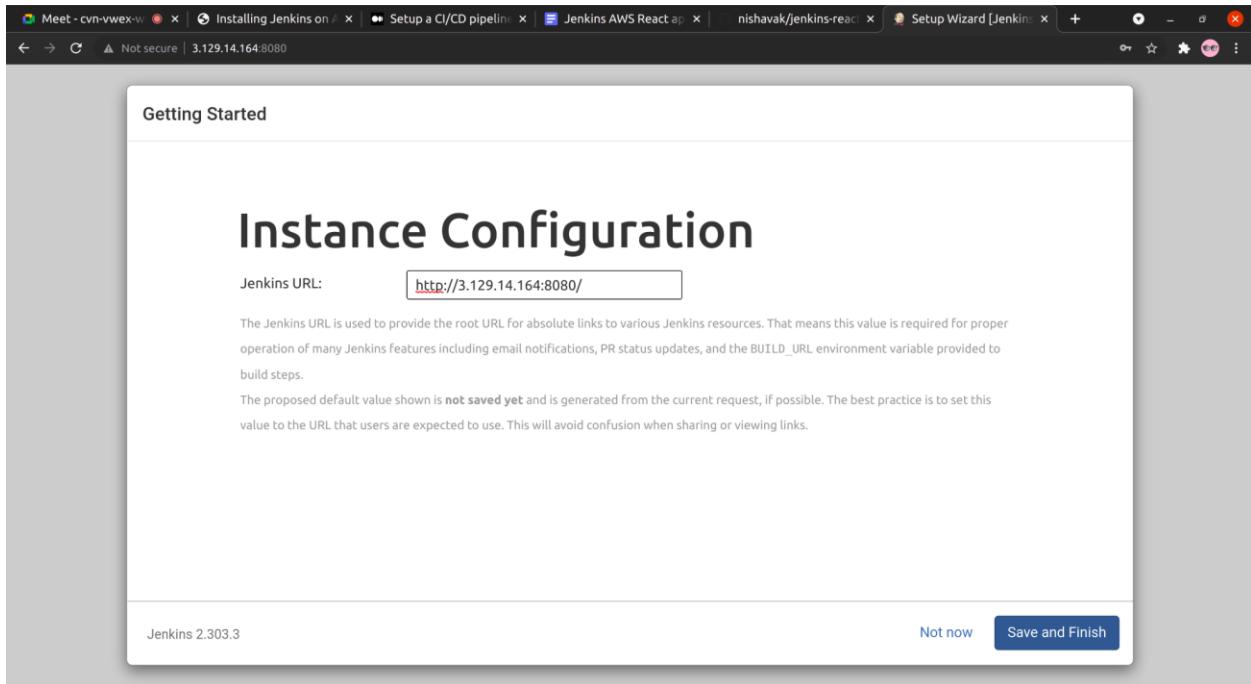
The screenshot shows the Jenkins 'Getting Started' page. At the top, there is a table with four columns: 'Folders', 'OWASP Markup Formatter', 'Build Timeout', and 'Credentials Binding'. The 'Folders' column contains links to 'Timestamper', 'Pipeline', 'Git', and 'LDAP'. The 'OWASP Markup Formatter' column contains links to 'Workspace Cleanup', 'GitHub Branch Source', 'SSH Build Agents', and 'Email Extension'. The 'Build Timeout' column contains links to 'Ant', 'Pipeline: GitHub Groovy Libraries', 'Matrix Authorization Strategy', and 'Mailer'. The 'Credentials Binding' column contains links to 'Gradle', 'Pipeline: Stage View', 'PAM Authentication', and 'Credentials Binding'. A tooltip for 'Credentials Binding' shows a dependency tree: 'Folders' → 'OWASP Markup Formatter' → 'Build Timeout' → 'Credentials Binding'. The Jenkins version '2.303.3' is visible at the bottom of the page.

## Creating Jenkins user



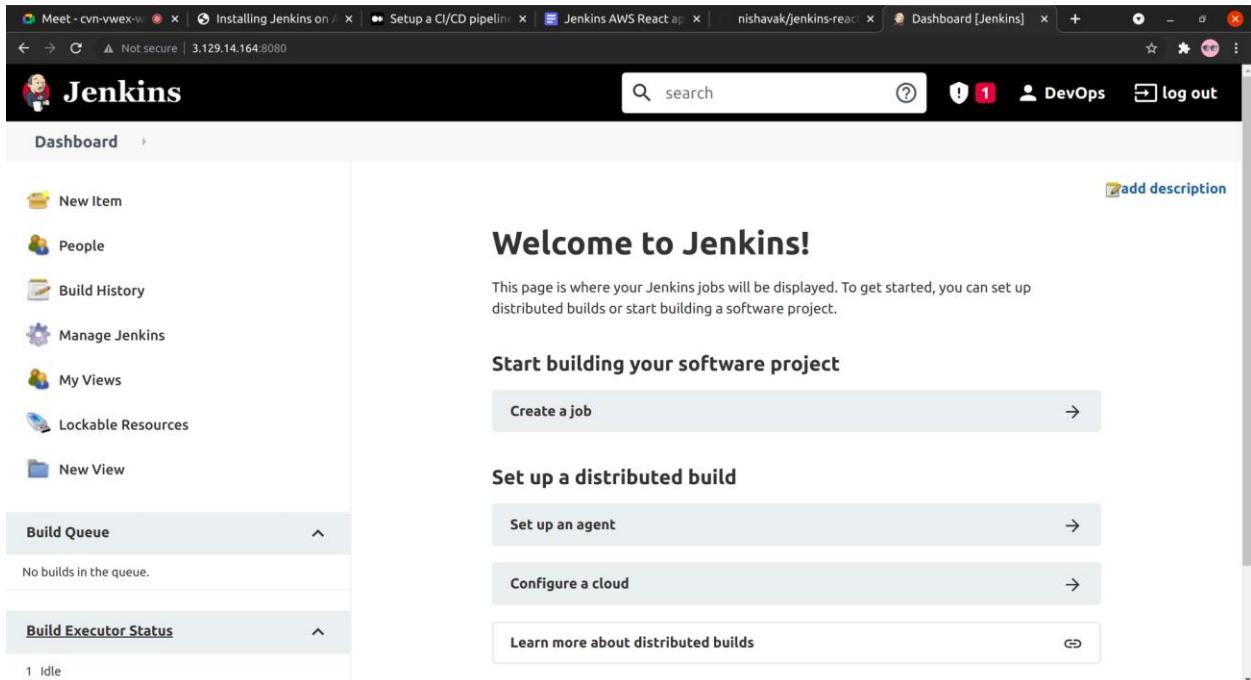
The screenshot shows the Jenkins 'Create First Admin User' page. It has fields for 'Username' (devops), 'Password' (\*\*\*\*), 'Confirm password' (\*\*\*\*), 'Full name' (DevOps), and 'E-mail address' (nishavak.n@somaiva.edu). At the bottom, there are buttons for 'Skip and continue as admin' and 'Save and Continue'. The Jenkins version '2.303.3' is visible at the bottom of the page.

## Configuring instance



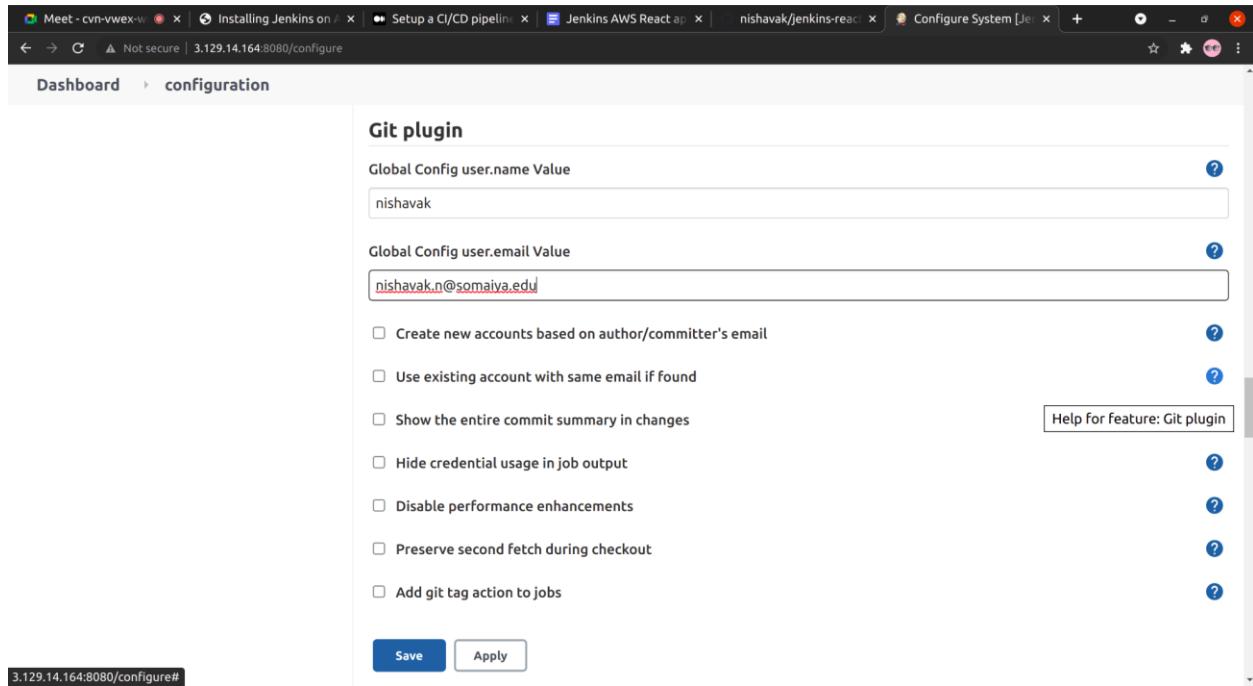
The screenshot shows a browser window with multiple tabs open. The active tab is titled 'Setup Wizard [Jenkins]'. The content of the page is titled 'Instance Configuration' and shows the 'Getting Started' section. It includes a 'Jenkins URL' input field containing 'http://3.129.14.164:8080/'. Below the input field is a descriptive text block. At the bottom of the page, there is a footer with the text 'Jenkins 2.303.3' and two buttons: 'Not now' and 'Save and Finish'.

Jenkins successfully installed and running



The screenshot shows the Jenkins Dashboard. The top navigation bar includes links for 'Meet - cvn-vwex-w', 'Installing Jenkins on', 'Setup a CI/CD pipeline', 'Jenkins AWS React app', 'nishavak/jenkins-read', 'Dashboard [Jenkins]', and 'log out'. The dashboard features a sidebar with links for 'New Item', 'People', 'Build History', 'Manage Jenkins', 'My Views', and 'Lockable Resources'. The main content area is titled 'Welcome to Jenkins!' and includes sections for 'Start building your software project' (with a 'Create a job' button) and 'Set up a distributed build' (with links for 'Set up an agent', 'Configure a cloud', and 'Learn more about distributed builds').

## Git configuration



The screenshot shows the Jenkins configuration interface for the Git plugin. The URL is <http://3.129.14.164:8080/configure>. The page title is "Git plugin".

Global Config user.name Value: nishavak

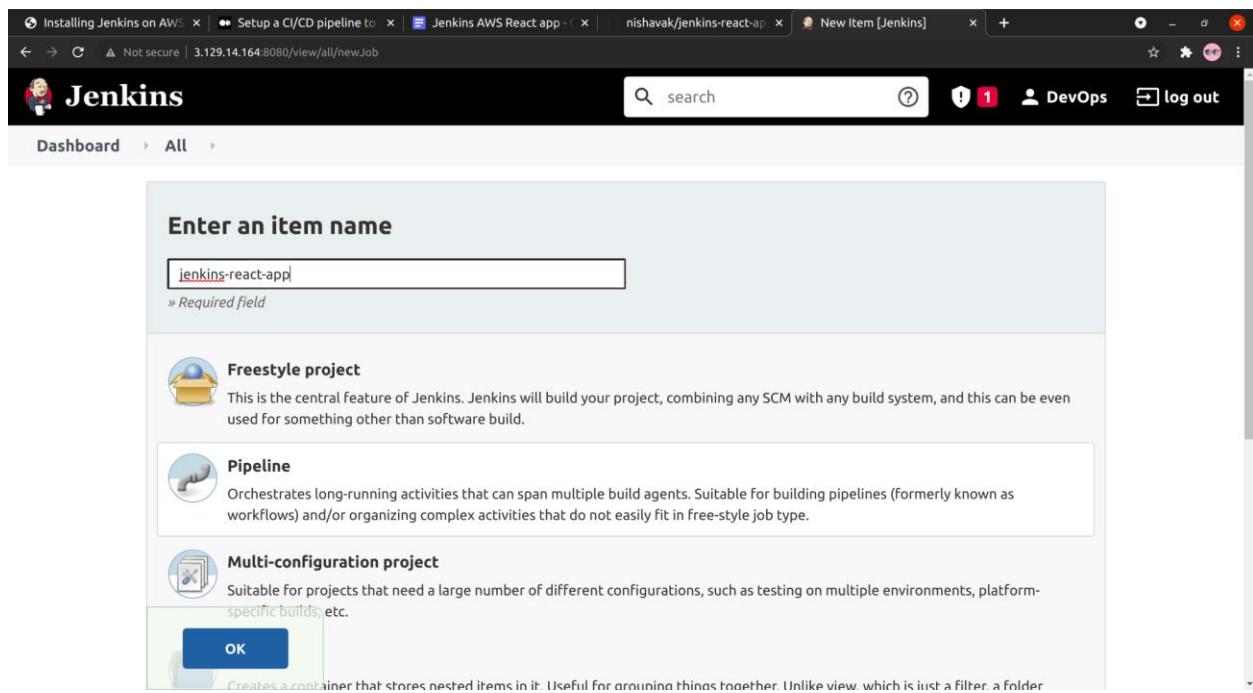
Global Config user.email Value: nishavak.n@somaiya.edu

Configuration options (checkboxes):

- Create new accounts based on author/committer's email
- Use existing account with same email if found
- Show the entire commit summary in changes
- Hide credential usage in job output
- Disable performance enhancements
- Preserve second fetch during checkout
- Add git tag action to jobs

Buttons: Save, Apply

## Creating a new pipeline in Jenkins



The screenshot shows the Jenkins "New Item" creation page. The URL is <http://3.129.14.164:8080/view/all/newJob>. The page title is "New Item [Jenkins]".

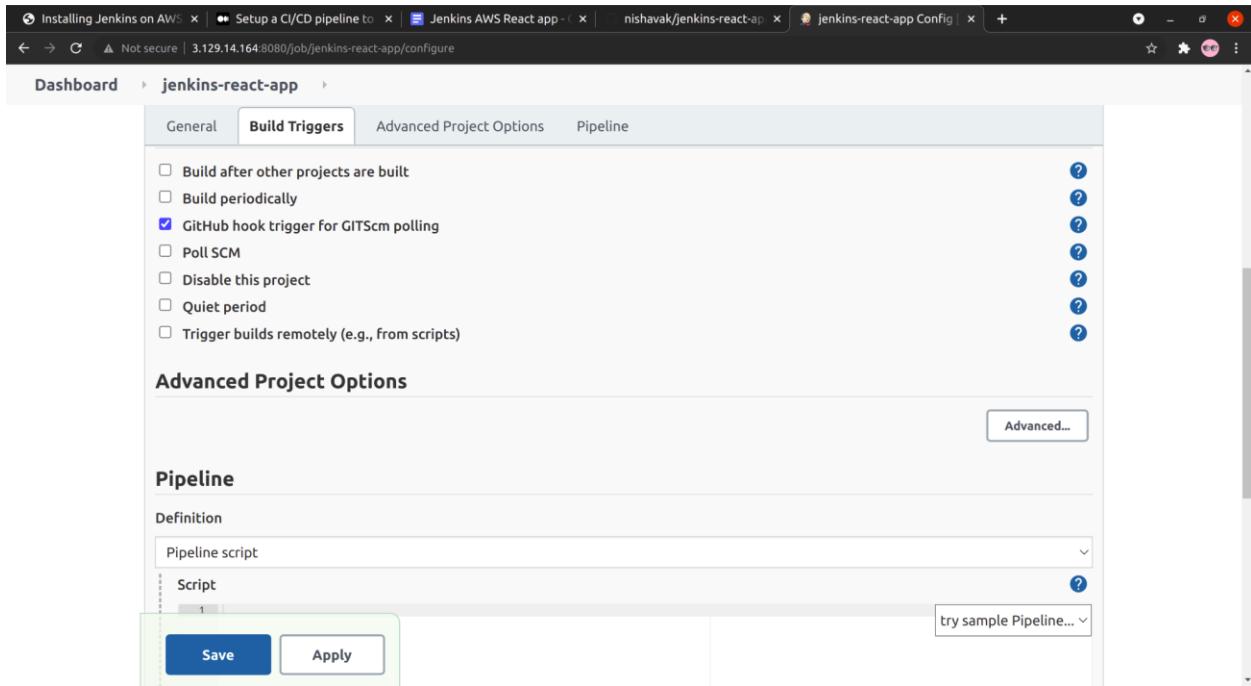
Enter an item name: jenkins-react-app

Project types:

- Freestyle project**: This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.
- Pipeline**: Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.
- Multi-configuration project**: Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

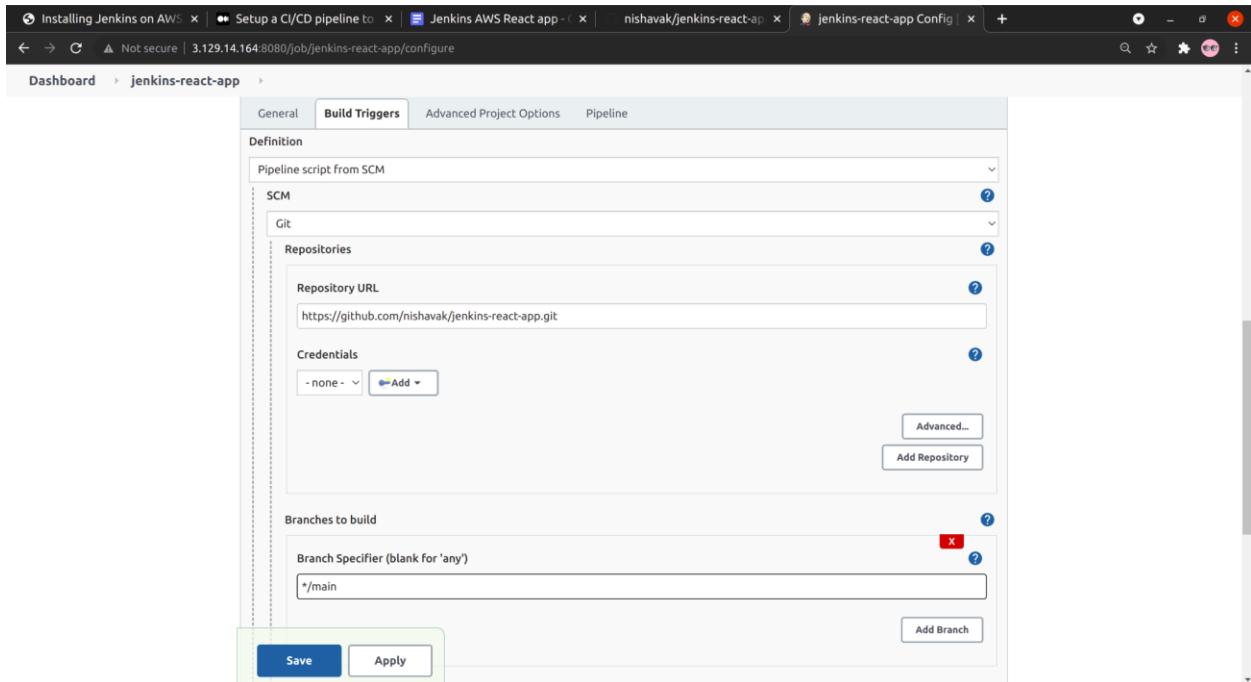
Buttons: OK

## Adding build trigger



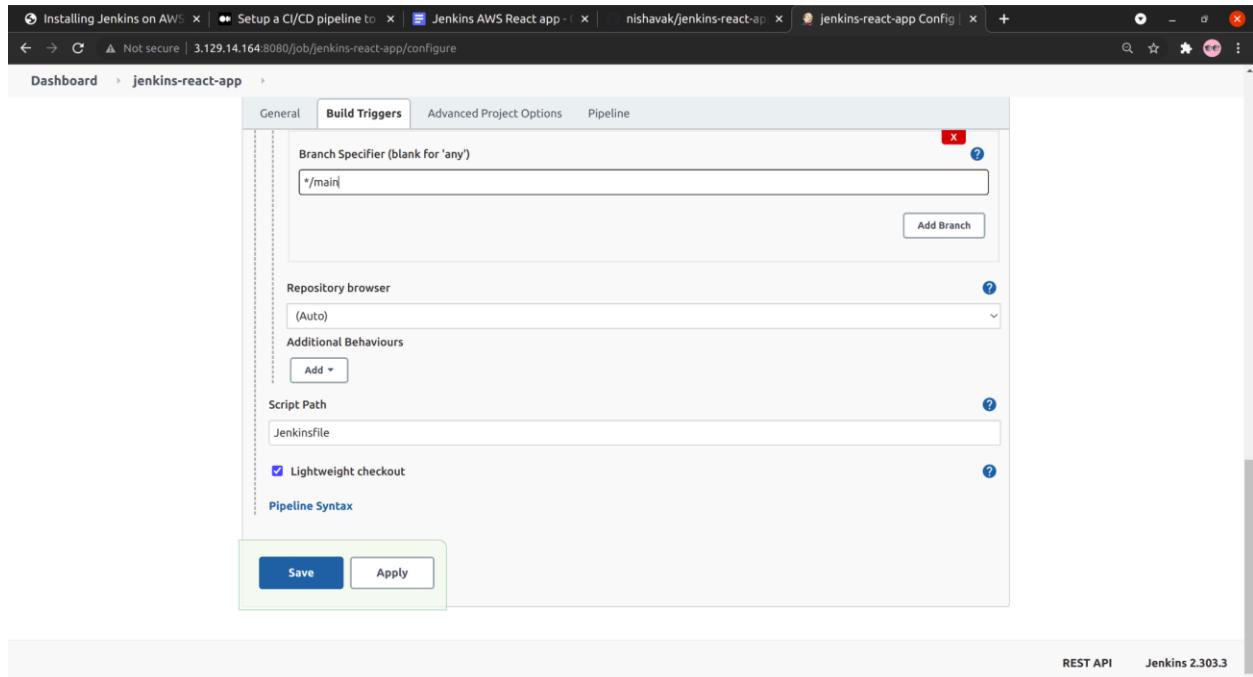
The screenshot shows the Jenkins configuration page for the 'jenkins-react-app' project. The 'Build Triggers' tab is selected. Under 'Build Triggers', the 'GitHub hook trigger for GITScm polling' option is checked. Other options like 'Build after other projects are built' and 'Poll SCM' are unchecked. Below the triggers, there is an 'Advanced Project Options' section with a 'Pipeline' tab selected. The 'Definition' section shows a 'Pipeline script' input field containing a script block with a single step labeled '1'. Buttons for 'Save' and 'Apply' are at the bottom of the script editor.

## Adding pipeline script



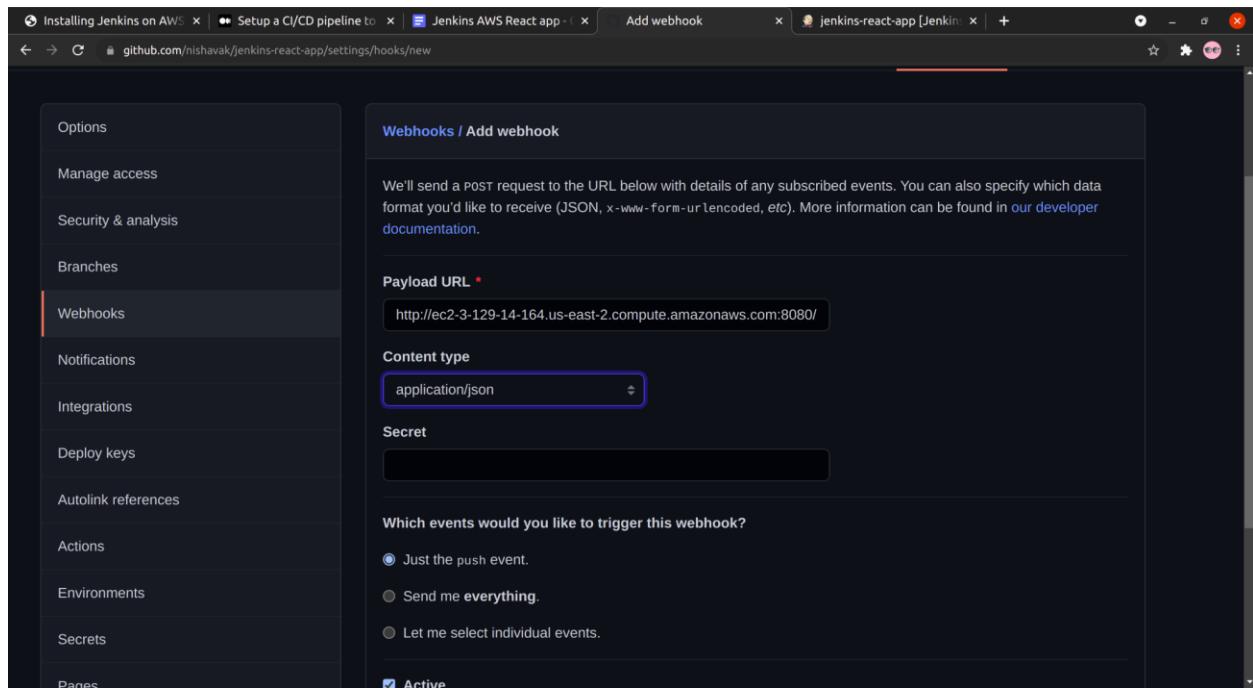
The screenshot shows the Jenkins configuration page for the 'jenkins-react-app' project. The 'Pipeline' tab is selected under 'Advanced Project Options'. In the 'Definition' section, 'Pipeline script from SCM' is selected. Under 'SCM', 'Git' is chosen, and 'Repository URL' is set to 'https://github.com/nishavak/jenkins-react-app.git'. The 'Credentials' section shows a dropdown set to '-none-' and a 'Add' button. In the 'Branches to build' section, 'Branch Specifier (blank for 'any')' is set to '\*/\*main'. Buttons for 'Save' and 'Apply' are at the bottom of the pipeline configuration.

## Using Jenkinsfile to execute commands



The screenshot shows the Jenkins configuration interface for a project named 'jenkins-react-app'. The 'Build Triggers' tab is active. Under 'Branch Specifier (blank for 'any')', the value is set to '\*/\*'. Under 'Script Path', the value is 'Jenkinsfile'. The 'Lightweight checkout' checkbox is checked. At the bottom, there are 'Save' and 'Apply' buttons.

## Creating webhook to notify Jenkins about a new change to the repository to trigger the build

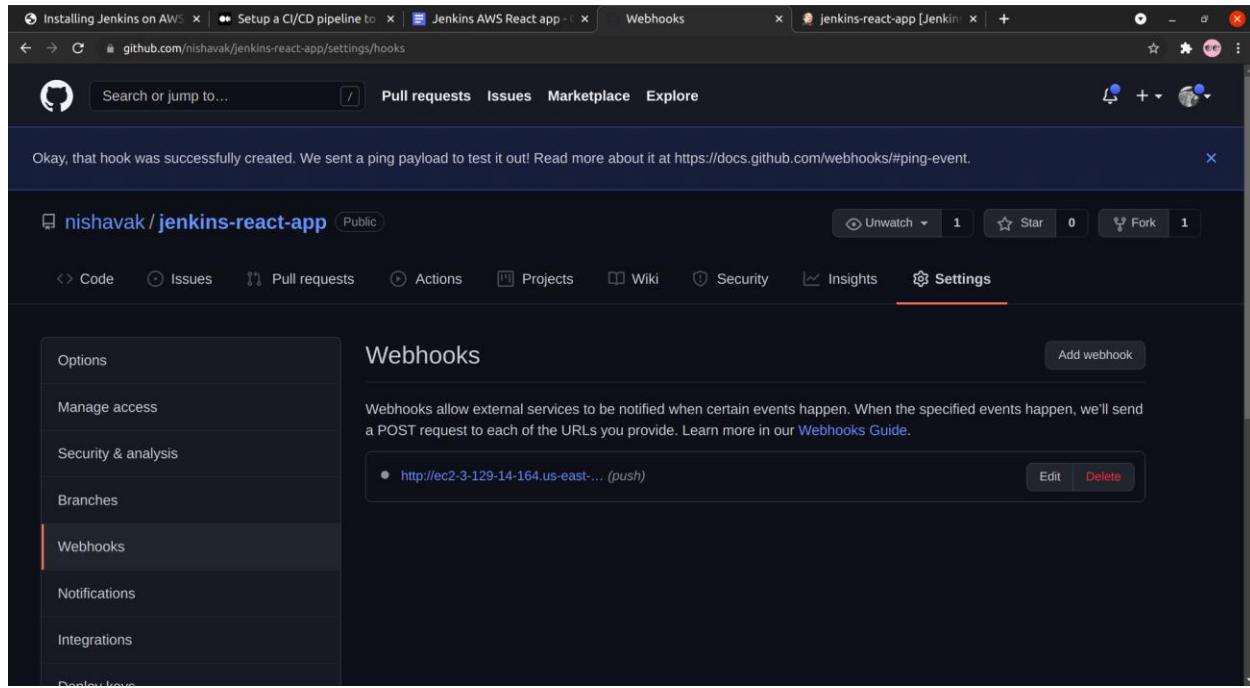


The screenshot shows the GitHub settings for a repository named 'jenkins-react-app'. The 'Webhooks' tab is selected. A new webhook is being configured with the following details:

- Payload URL**: `http://ec2-3-129-14-164.us-east-2.compute.amazonaws.com:8080`
- Content type**: `application/json`
- Secret**: (empty)
- Active**:

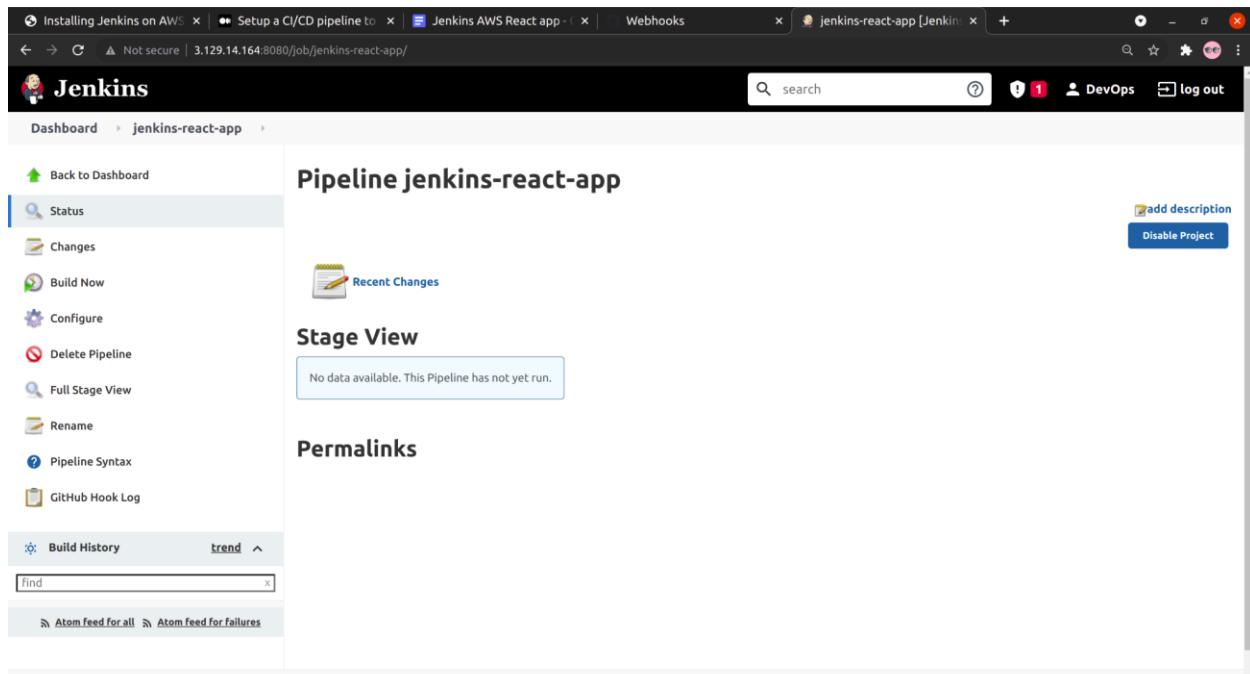
The 'Which events would you like to trigger this webhook?' section shows 'Just the push event.' selected.

## Successfully created a webhook



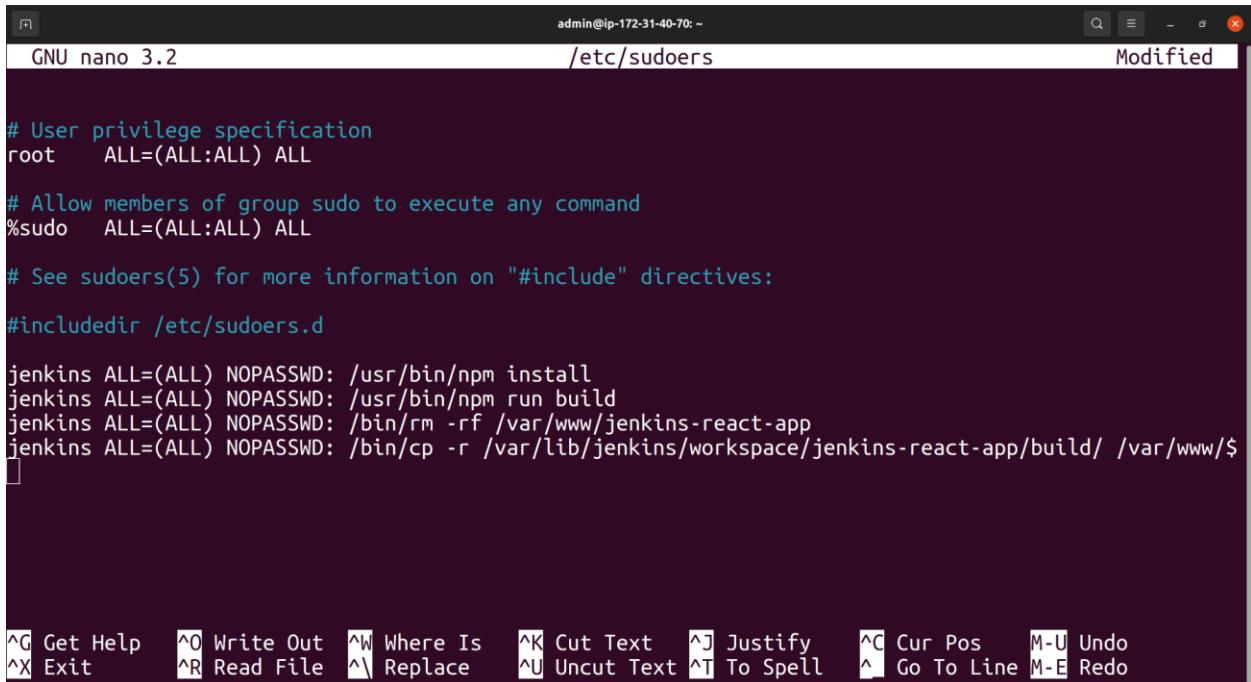
The screenshot shows a GitHub repository settings page for 'jenkins-react-app'. The 'Webhooks' tab is selected. A single webhook is listed with the URL 'http://ec2-3-129-14-164.us-east-... (push)'. There are 'Edit' and 'Delete' buttons next to the URL. The left sidebar shows 'Webhooks' is the active section. The top navigation bar includes tabs for 'Pull requests', 'Issues', 'Marketplace', and 'Explore'.

## Initializing the build for the first time



The screenshot shows the Jenkins Pipeline interface for the 'jenkins-react-app' pipeline. The pipeline name is 'Pipeline jenkins-react-app'. The 'Stage View' section displays the message 'No data available. This Pipeline has not yet run.' The left sidebar lists pipeline management options: 'Status', 'Changes', 'Build Now', 'Configure', 'Delete Pipeline', 'Full Stage View', 'Rename', 'Pipeline Syntax', and 'GitHub Hook Log'. The top navigation bar shows the Jenkins logo, a search bar, and user information.

## Granting Jenkins sudo permission to make changes



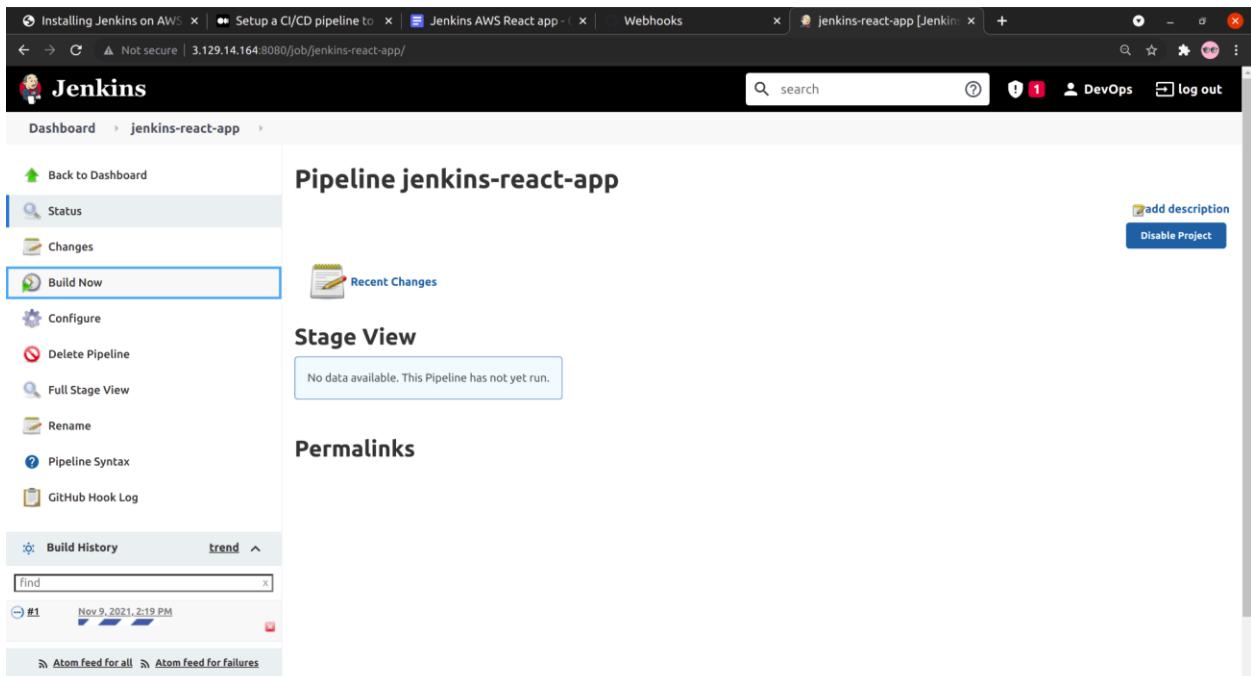
```
# User privilege specification
root    ALL=(ALL:ALL) ALL

# Allow members of group sudo to execute any command
%sudo  ALL=(ALL:ALL) ALL

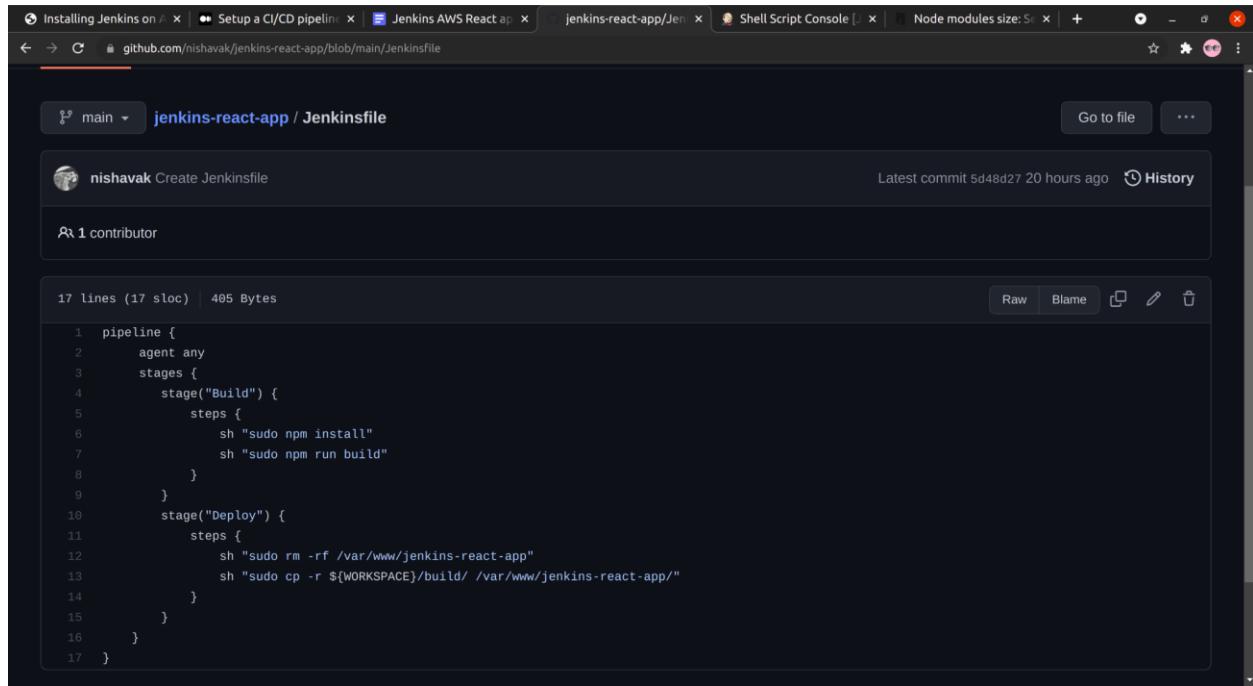
# See sudoers(5) for more information on "#include" directives:
#include /etc/sudoers.d

jenkins ALL=(ALL) NOPASSWD: /usr/bin/npm install
jenkins ALL=(ALL) NOPASSWD: /usr/bin/npm run build
jenkins ALL=(ALL) NOPASSWD: /bin/rm -rf /var/www/jenkins-react-app
jenkins ALL=(ALL) NOPASSWD: /bin/cp -r /var/lib/jenkins/workspace/jenkins-react-app/build/ /var/www/$
```

## Jenkins building the project

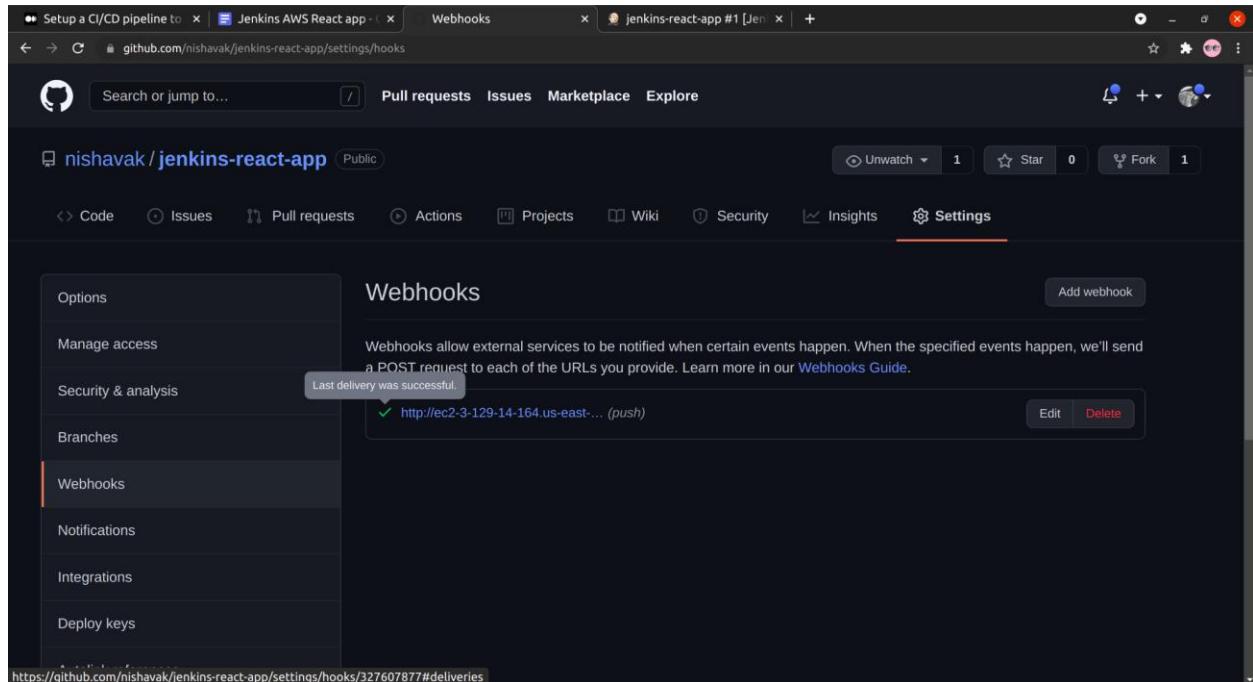


## Jenkinsfile that tells Jenkins what to do



```
1 pipeline {
2     agent any
3     stages {
4         stage("Build") {
5             steps {
6                 sh "sudo npm install"
7                 sh "sudo npm run build"
8             }
9         }
10        stage("Deploy") {
11            steps {
12                sh "sudo rm -rf /var/www/jenkins-react-app"
13                sh "sudo cp -r ${WORKSPACE}/build/ /var/www/jenkins-react-app/"
14            }
15        }
16    }
17 }
```

## Jenkins fetched repository from GitHub webhook



The screenshot shows the GitHub repository settings for 'jenkins-react-app'. The 'Webhooks' tab is selected. On the left, a sidebar menu is open with 'Webhooks' highlighted. The main content area is titled 'Webhooks' and contains a message: 'Webhooks allow external services to be notified when certain events happen. When the specified events happen, we'll send a POST request to each of the URLs you provide. Learn more in our [Webhooks Guide](#)'. Below this message, there is a list of configured webhooks. One webhook is listed with the URL 'http://ec2-3-129-14-164.us-east-2.compute.amazonaws.com:8080/jenkins-webhook' and the event type '(push)'. There are 'Edit' and 'Delete' buttons next to the webhook entry. A message at the bottom of the list states 'Last delivery was successful.'.

Setup a CI/CD pipeline to Jenkins AWS React app Webhook Deliveries 3.129.14.164 +

github.com/nishavak/jenkins-react-app/settings/hooks/327607877/deliveries

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

Webhooks / Manage webhook

Options Manage access Security & analysis Branches Webhooks Notifications Integrations Deploy keys Autolink references Actions Environments Secrets

Recent Deliveries

Request Response 200 2021-11-09 19:45:22 Redeliver Completed in 0.46 seconds.

Headers

Date: Tue, 09 Nov 2021 14:15:21 GMT  
Server: Jetty(9.4.43.v20210629)  
X-Content-Type-Options: nosniff

Body

Installing Jenkins on AWS Setup a CI/CD pipeline to Jenkins AWS React app Webhooks jenkins-react-app [Jenkins] +

Not secure | 3.129.14.164:8080/job/jenkins-react-app/

Jenkins

Dashboard > Jenkins-react-app >

Back to Dashboard Status Changes Build Now Build History trend Find Nov 9, 2021, 2:19 PM

Configure Delete Pipeline Full Stage View Rename Pipeline Syntax GitHub Hook Log

Recent Changes

### Pipeline jenkins-react-app

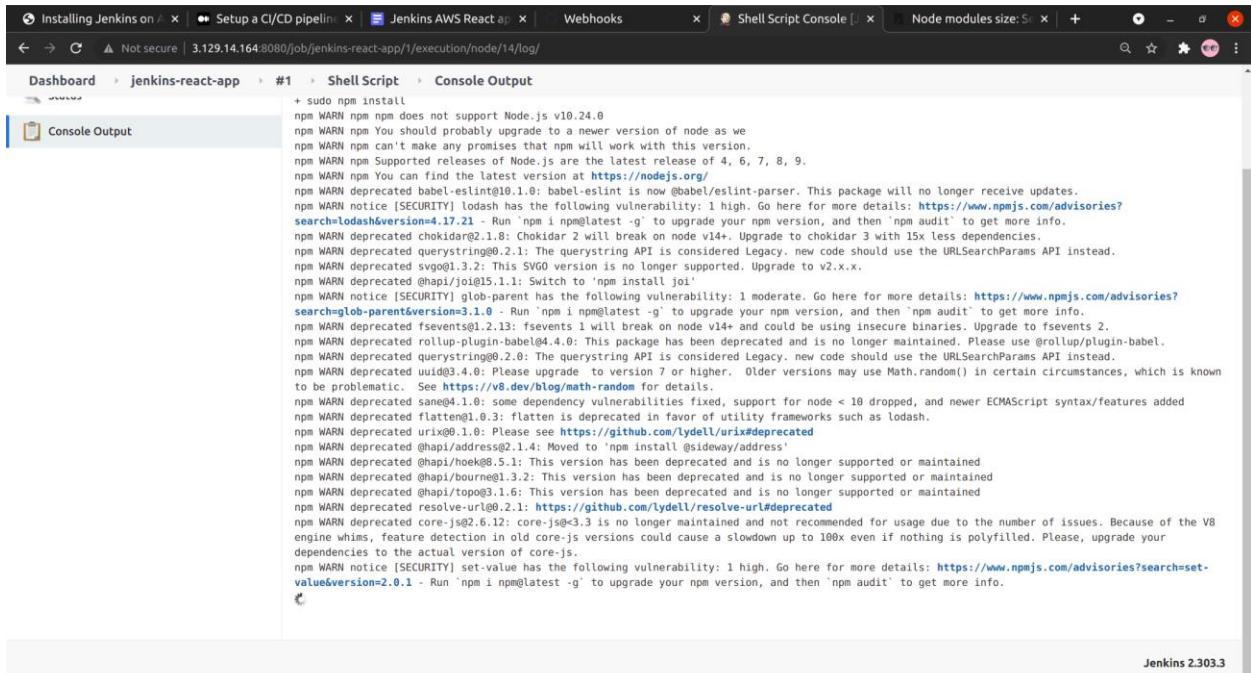
Stage View

Declarative: Checkout SCM	Build
Average stage times: 954ms	32s
Nov 09 19:49 No Changes	954ms

Permalinks Atom feed for all Atom feed for failures

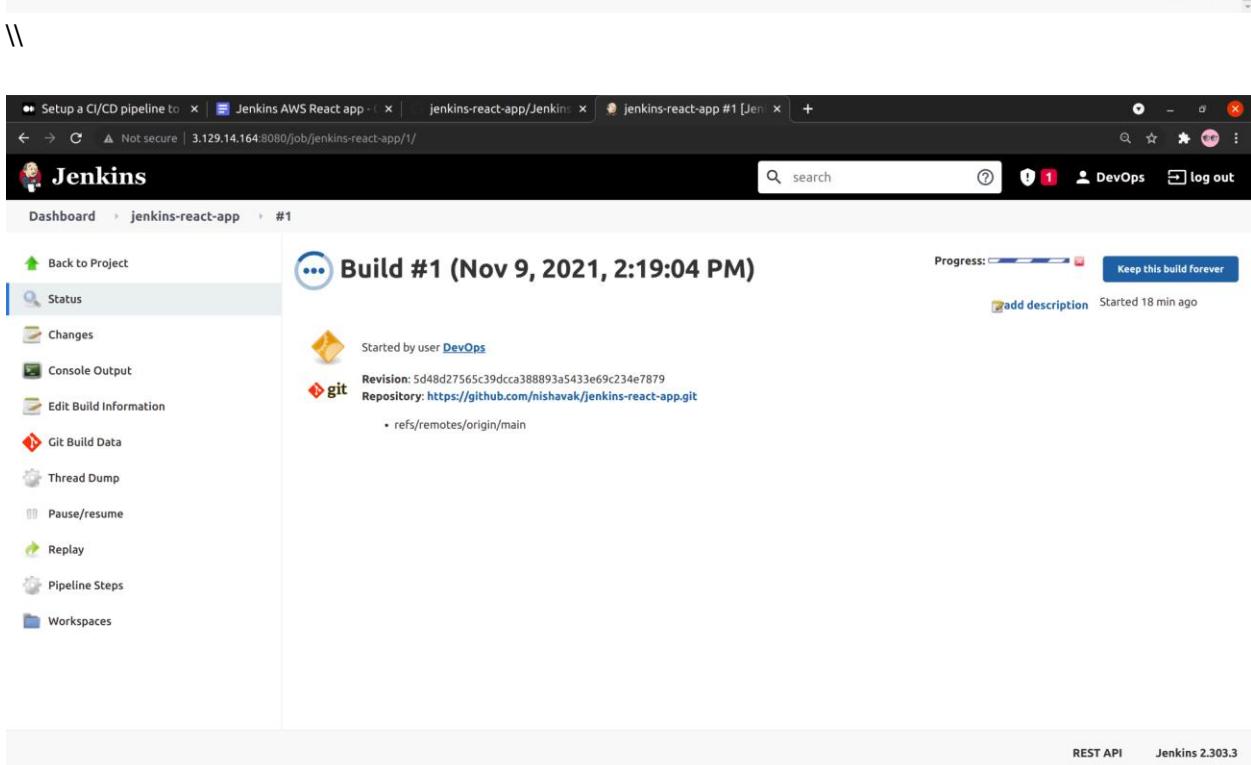
add description Disable Project

## Jenkins working to create the build



The screenshot shows a Jenkins job named 'jenkins-react-app' running a shell script. The command is 'sudo npm install'. The output of the command is displayed, showing various npm WARN messages about deprecated packages and security vulnerabilities. The output ends with 'npm WARN deprecated core-js@2.6.12: core-js@3.0.0 is no longer maintained and is not recommended for usage due to the number of issues. Because of the V8 engine whims, feature detection in old core-js versions could cause a slowdown up to 100x even if nothing is polyfilled. Please, upgrade your dependencies to the actual version of core-js.'

```
+ sudo npm install
npm WARN npm npm does not support Node.js v10.24.0
npm WARN npm You should probably upgrade to a newer version of node as we
npm WARN npm can't make any promises that npm will work with this version.
npm WARN npm Supported releases of Node.js are the latest release of 4, 6, 7, 8, 9.
npm WARN npm You can find the latest version at https://nodejs.org/
npm WARN deprecated babel-eslint@10.1.0: babel-eslint is now @babel/eslint-parser. This package will no longer receive updates.
npm WARN deprecated lodash@4.17.21 - Run 'npm i npm@latest -g' to upgrade your npm version, and then 'npm audit' to get more info.
npm WARN deprecated chokidar@2.1.8: Chokidar 2 will break on node v14+. Upgrade to chokidar 3 with 15x less dependencies.
npm WARN deprecated querystring@0.2.1: The querystring API is considered Legacy. new code should use the URLSearchParams API instead.
npm WARN deprecated svgo@1.3.2: This SVGO version is no longer supported. Upgrade to v2.x.x.
npm WARN deprecated @api/joi@15.1.1: Switch to 'npm install joi'
npm WARN notice [SECURITY] glob-parent has the following vulnerability: 1 moderate. Go here for more details: https://www.npmjs.com/advisories?search=glob-parent&version=3.1.0
npm WARN deprecated fsevents@1.2.13: fsevents 1 will break on node v14+ and could be using insecure binaries. Upgrade to fsevents 2.
npm WARN deprecated rollup-plugin-babel@4.4.0: This package has been deprecated and is no longer maintained. Please use @rollup/plugin-babel.
npm WARN deprecated querystring@0.2.0: The querystring API is considered Legacy. new code should use the URLSearchParams API instead.
npm WARN deprecated uid@0.4.0: Please upgrade to version 7 or higher. Older versions may use Math.random() in certain circumstances, which is known to be problematic. See https://v8.dev/blog/math-random for details.
npm WARN deprecated sane@4.1.0: Some dependency vulnerabilities fixed, support for node < 10 dropped, and newer ECMAScript syntax/features added
npm WARN deprecated flatten@1.0.3: flatten is deprecated in favor of utility frameworks such as lodash.
npm WARN deprecated url@0.1.0: Please see https://github.com/lydell/url#deprecated
npm WARN deprecated @hapi/address@2.1.4: Moved to 'npm install @sideaway/address'
npm WARN deprecated @hapi/hoek@8.5.1: This version has been deprecated and is no longer supported or maintained
npm WARN deprecated @hapi/bourne@0.3.2: This version has been deprecated and is no longer supported or maintained
npm WARN deprecated @hapi/topo@3.1.6: This version has been deprecated and is no longer supported or maintained
npm WARN deprecated resolve-url@0.2.1: https://github.com/lydell/resolve-url#deprecated
npm WARN deprecated core-js@2.6.12: core-js@3.0.0 is no longer maintained and is not recommended for usage due to the number of issues. Because of the V8 engine whims, feature detection in old core-js versions could cause a slowdown up to 100x even if nothing is polyfilled. Please, upgrade your dependencies to the actual version of core-js.
npm WARN notice [SECURITY] set-value has the following vulnerability: 1 high. Go here for more details: https://www.npmjs.com/advisories?search=set-value&version=2.0.1
- Run 'npm i npm@latest -g' to upgrade your npm version, and then 'npm audit' to get more info.
```



The screenshot shows the Jenkins UI for the 'jenkins-react-app' job. It displays a successful build (#1) from November 9, 2021, at 2:19:04 PM. The build was started by a user named 'DevOps'. The build information shows a git revision and repository. The build progress is shown as a bar, and there is a link to 'Keep this build forever'. The sidebar on the left lists various Jenkins features: Back to Project, Status, Changes, Console Output, Edit Build Information, Git Build Data, Thread Dump, Pause/resume, Replay, Pipeline Steps, and Workspaces. The bottom right corner shows 'REST API' and 'Jenkins 2.303.3'.

Build #1 (Nov 9, 2021, 2:19:04 PM)

Started by user DevOps

Revision: 5d48d27565c39dcca388893a5433e69c234e7879

Repository: <https://github.com/nishavak/jenkins-react-app.git>

refs/remotes/origin/main

Progress:  Keep this build forever

add description Started 18 min ago

REST API Jenkins 2.303.3

## Jenkins build complete **Console Output**

```
Started by user DevOps
Obtained Jenkinsfile from git https://github.com/nishavak/jenkins-react-app.git
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/jenkins-react-app
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/nishavak/jenkins-react-app.git
> git init /var/lib/jenkins/workspace/jenkins-react-app # timeout=10
Fetching upstream changes from https://github.com/nishavak/jenkins-react-app.git
> git --version # timeout=10
> git --version # 'git version 2.20.1'
> git fetch --tags --force --progress -- https://github.com/nishavak/jenkins-react-app.git
+refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url https://github.com/nishavak/jenkins-react-app.git # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 5d48d27565c39dcca388893a5433e69c234e7879
(refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 5d48d27565c39dcca388893a5433e69c234e7879 # timeout=10
Commit message: "Create Jenkinsfile"
First time build. Skipping changelog.
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] sh
+ sudo npm install
npm WARN npm npm does not support Node.js v10.24.0
npm WARN npm You should probably upgrade to a newer version of node as we
npm WARN npm can't make any promises that npm will work with this version.
npm WARN npm Supported releases of Node.js are the latest release of 4, 6, 7, 8, 9.
```

npm WARN npm You can find the latest version at <https://nodejs.org/>  
npm WARN deprecated babel-eslint@10.1.0: babel-eslint is now @babel/eslint-parser. This package will no longer receive updates.  
npm WARN notice [SECURITY] lodash has the following vulnerability: 1 high. Go here for more details: <https://www.npmjs.com/advisories?search=lodash&version=4.17.21> - Run `npm i npm@latest -g` to upgrade your npm version, and then `npm audit` to get more info.  
npm WARN deprecated chokidar@2.1.8: Chokidar 2 will break on node v14+. Upgrade to chokidar 3 with 15x less dependencies.  
npm WARN deprecated querystring@0.2.1: The querystring API is considered Legacy. new code should use the URLSearchParams API instead.  
npm WARN deprecated svgo@1.3.2: This SVGO version is no longer supported. Upgrade to v2.x.x.  
npm WARN deprecated @hapi/joi@15.1.1: Switch to 'npm install joi'  
npm WARN notice [SECURITY] glob-parent has the following vulnerability: 1 moderate. Go here for more details: <https://www.npmjs.com/advisories?search=glob-parent&version=3.1.0> - Run `npm i npm@latest -g` to upgrade your npm version, and then `npm audit` to get more info.  
npm WARN deprecated fsevents@1.2.13: fsevents 1 will break on node v14+ and could be using insecure binaries. Upgrade to fsevents 2.  
npm WARN deprecated rollup-plugin-babel@4.4.0: This package has been deprecated and is no longer maintained. Please use @rollup/plugin-babel.  
npm WARN deprecated querystring@0.2.0: The querystring API is considered Legacy. new code should use the URLSearchParams API instead.  
npm WARN deprecated uuid@3.4.0: Please upgrade to version 7 or higher. Older versions may use Math.random() in certain circumstances, which is known to be problematic. See <https://v8.dev/blog/math-random> for details.  
npm WARN deprecated sane@4.1.0: some dependency vulnerabilities fixed, support for node < 10 dropped, and newer ECMAScript syntax/features added  
npm WARN deprecated flatten@1.0.3: flatten is deprecated in favor of utility frameworks such as lodash.  
npm WARN deprecated urix@0.1.0: Please see <https://github.com/lydell/urix#deprecated>  
npm WARN deprecated @hapi/address@2.1.4: Moved to 'npm install @sideway/address'  
npm WARN deprecated @hapi/hoek@8.5.1: This version has been deprecated and is no longer supported or maintained  
npm WARN deprecated @hapi/bourne@1.3.2: This version has been deprecated and is no longer supported or maintained  
npm WARN deprecated @hapi/topo@3.1.6: This version has been deprecated and is no longer supported or maintained  
npm WARN deprecated resolve-url@0.2.1: <https://github.com/lydell/resolve-url#deprecated>  
npm WARN deprecated core-js@2.6.12: core-js@<3.3 is no longer maintained and not recommended for usage due to the number of issues. Because of the V8 engine whims, feature detection in old core-js versions could cause a slowdown up to 100x even if nothing is polyfilled. Please, upgrade your dependencies to the actual version of core-js.

npm WARN notice [SECURITY] set-value has the following vulnerability: 1 high. Go here for more details: <https://www.npmjs.com/advisories?search=set-value&version=2.0.1> - Run `npm i npm@latest -g` to upgrade your npm version, and then `npm audit` to get more info.

Resuming build at Tue Nov 09 15:09:43 UTC 2021 after Jenkins restart

Waiting to resume part of jenkins-react-app #1: Waiting for next available executor

Ready to run at Tue Nov 09 15:09:48 UTC 2021

```
> core-js@2.6.12 postinstall /var/lib/jenkins/workspace/jenkins-react-app/node_modules/babel-runtime/node_modules/core-js
> node -e "try{require('./postinstall')}catch(e){}"
```

[96mThank you for using core-js ([94m <https://github.com/zloirock/core-js> [96m) for polyfilling JavaScript standard library![0m

[96mThe project needs your help! Please consider supporting of core-js on Open Collective or Patreon: [0m

[96m>[94m <https://opencollective.com/core-js> [0m

[96m>[94m <https://www.patreon.com/zloirock> [0m

[96mAlso, the author of core-js ([94m <https://github.com/zloirock> [96m) is looking for a good job -)[0m

```
> core-js@3.19.1 postinstall /var/lib/jenkins/workspace/jenkins-react-app/node_modules/core-js
> node -e "try{require('./postinstall')}catch(e){}"
```

[96mThank you for using core-js ([94m <https://github.com/zloirock/core-js> [96m) for polyfilling JavaScript standard library![0m

[96mThe project needs your help! Please consider supporting of core-js:[0m

[96m>[94m <https://opencollective.com/core-js> [0m

[96m>[94m <https://patreon.com/zloirock> [0m

[96m>[94m <https://paypal.me/zloirock> [0m

[96m>[94m bitcoin: bc1qlea7544qtsmj2rayg0lthvza9fau63ux0fstcz [0m

[96mAlso, the author of core-js ([94m <https://github.com/zloirock> [96m) is looking for a good job -)[0m

```
> core-js-pure@3.19.1 postinstall /var/lib/jenkins/workspace/jenkins-react-app/node_modules/core-js-pure
> node -e "try{require('./postinstall')}catch(e){}"
```

[96mThank you for using core-js ([94m <https://github.com/zloirock/core-js> [96m) for polyfilling JavaScript standard library![0m

[96mThe project needs your help! Please consider supporting of core-js:[0m

[96m>[94m <https://opencollective.com/core-js> [0m

[96m>[94m <https://patreon.com/zloirock> [0m

[96m>[94m <https://paypal.me/zloirock> [0m

[96m>[94m bitcoin: bc1qlea7544qtsmj2rayg0lthvza9fau63ux0fstcz [0m

[96mAlso, the author of core-js ([94m <https://github.com/zloirock> [96m) is looking for a good job -)[0m

```
> ejs@2.7.4 postinstall /var/lib/jenkins/workspace/jenkins-react-app/node_modules/ejs
> node ./postinstall.js
```

Thank you for installing [35mEJS[0m: built with the [32mJake[0m JavaScript build tool ([32m<https://jakejs.com/>[0m)

npm notice created a lockfile as package-lock.json. You should commit this file.

npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@^2.1.3

(node\_modules/react-scripts/node\_modules/fsevents):

npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.3.2: wanted {"os":"darwin","arch":"any"} (current: {"os":"linux","arch":"x64"})

npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@^1.2.7

(node\_modules/watchpack-chokidar2/node\_modules/chokidar/node\_modules/fsevents):

npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"linux","arch":"x64"})

npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@^1.2.7

(node\_modules/webpack-dev-server/node\_modules/chokidar/node\_modules/fsevents):

npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"linux","arch":"x64"})

npm WARN react-scripts@4.0.3 requires a peer of typescript@^3.2.1 || ^4 but none is installed. You must install peer dependencies yourself.

npm WARN @pmmmwh/react-refresh-webpack-plugin@0.4.3 requires a peer of typefest@^0.13.1 but none is installed. You must install peer dependencies yourself.

npm WARN @pmmmwh/react-refresh-webpack-plugin@0.4.3 requires a peer of webpack-hot-middleware@2.x but none is installed. You must install peer dependencies yourself.

npm WARN @pmmmwh/react-refresh-webpack-plugin@0.4.3 requires a peer of webpack-plugin-serve@0.x || 1.x but none is installed. You must install peer dependencies yourself.

npm WARN sass-loader@10.2.0 requires a peer of fibers@>= 3.1.0 but none is installed. You must install peer dependencies yourself.

npm WARN sass-loader@10.2.0 requires a peer of node-sass@^4.0.0 || ^5.0.0 || ^6.0.0 but none is installed. You must install peer dependencies yourself.

```
npm WARN sass-loader@10.2.0 requires a peer of sass@^1.3.0 but none is installed. You
must install peer dependencies yourself.
npm WARN @babel/plugin-bugfix-v8-spread-parameters-in-optional-chaining@7.16.0 requires
a peer of @babel/core@^7.13.0 but none is installed. You must install peer dependencies
yourself.
npm WARN tsutils@3.21.0 requires a peer of typescript@>=2.8.0 || >= 3.2.0-dev || >= 3.3.0-dev
|| >= 3.4.0-dev || >= 3.5.0-dev || >= 3.6.0-dev || >= 3.6.0-beta || >= 3.7.0-dev || >= 3.7.0-beta but
none is installed. You must install peer dependencies yourself.
npm WARN jest-config@26.6.3 requires a peer of ts-node@>=9.0.0 but none is installed. You
must install peer dependencies yourself.
npm WARN jsdom@16.7.0 requires a peer of canvas@^2.5.0 but none is installed. You must
install peer dependencies yourself.
npm WARN ws@7.5.5 requires a peer of bufferutil@^4.0.1 but none is installed. You must
install peer dependencies yourself.
npm WARN ws@7.5.5 requires a peer of utf-8-validate@^5.0.2 but none is installed. You must
install peer dependencies yourself.
```

added 1878 packages from 740 contributors in 1124.172s

[Pipeline] sh

+ sudo npm run build

```
npm WARN npm npm does not support Node.js v10.24.0
```

```
npm WARN npm You should probably upgrade to a newer version of node as we
```

```
npm WARN npm can't make any promises that npm will work with this version.
```

```
npm WARN npm Supported releases of Node.js are the latest release of 4, 6, 7, 8, 9.
```

```
npm WARN npm You can find the latest version at https://nodejs.org/
```

> dop@0.1.0 build /var/lib/jenkins/workspace/jenkins-react-app

> react-scripts build

Creating an optimized production build...

Compiled successfully.

File sizes after gzip:

41.83 KB	build/static/js/2.000a7a3f.chunk.js
1.39 KB	build/static/js/3.9a62c743.chunk.js
1.16 KB	build/static/js/runtime-main.d21949e9.js
1.13 KB	build/static/js/main.986f0145.chunk.js
278 B	build/static/css/main.6dea0f05.chunk.css

The project was built assuming it is hosted at /.

You can control this with the homepage field in your package.json.

The build folder is ready to be deployed.

You may serve it with a static server:

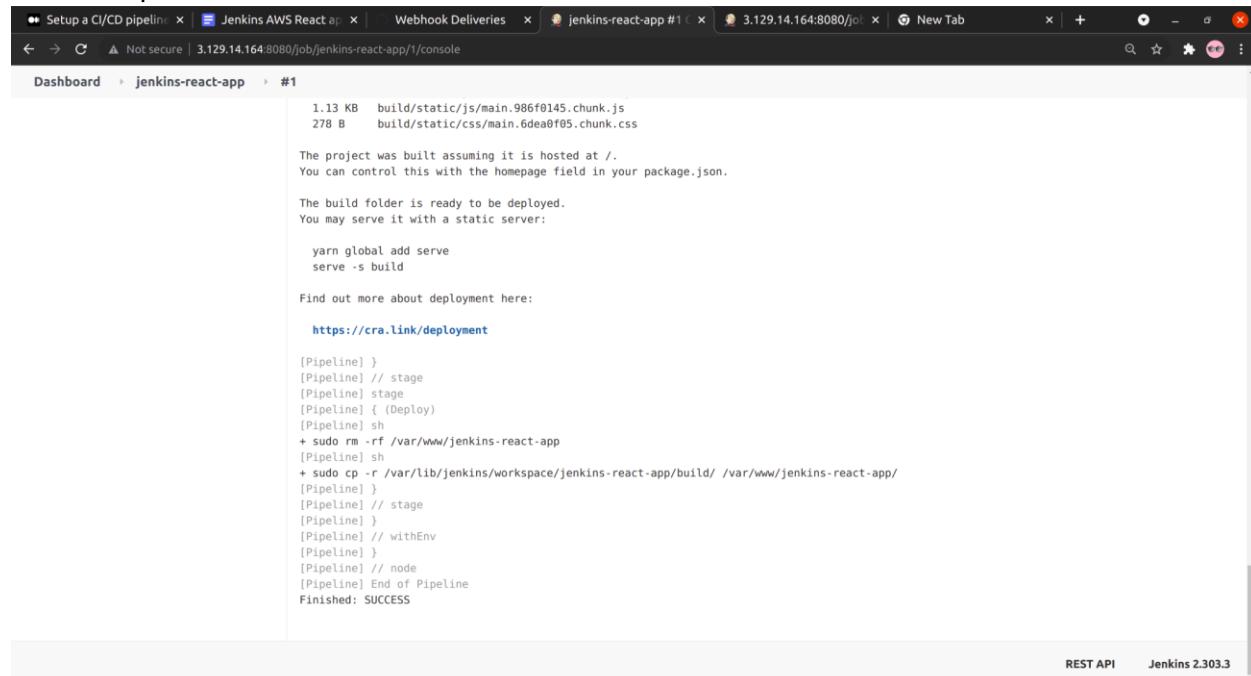
```
yarn global add serve
serve -s build
```

Find out more about deployment here:

<https://cra.link/deployment>

```
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Deploy)
[Pipeline] sh
+ sudo rm -rf /var/www/jenkins-react-app
[Pipeline] sh
+ sudo cp -r /var/lib/jenkins/workspace/jenkins-react-app/build/ /var/www/jenkins-react-app/
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Build complete



The project was built assuming it is hosted at /.  
You can control this with the homepage field in your package.json.

The build folder is ready to be deployed.  
You may serve it with a static server:

```
yarn global add serve
serve -s build
```

Find out more about deployment here:

<https://cra.link/deployment>

```
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Deploy)
[Pipeline] sh
+ sudo rm -rf /var/www/jenkins-react-app
[Pipeline] sh
+ sudo cp -r /var/lib/jenkins/workspace/jenkins-react-app/build/ /var/www/jenkins-react-app/
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Build #1 (Nov 9, 2021, 2:19:04 PM)

Started by user DevOps

Revision: 5d48d27565c39dcca388893a5433e69c234e7879

Repository: <https://github.com/nishavak/jenkins-react-app.git>

refs/remotes/origin/main

Status Changes Console Output Edit Build Information Delete build '#1' Git Build Data Restart from Stage Replay Pipeline Steps Workspaces

Keep this build forever

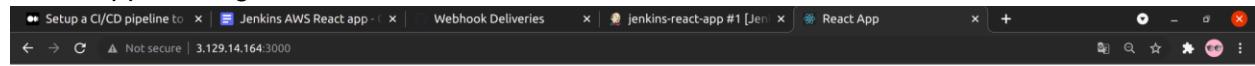
add description Started 52 min ago Took 51 min

REST API Jenkins 2.303.3

Restarting nginx to listen to new changes

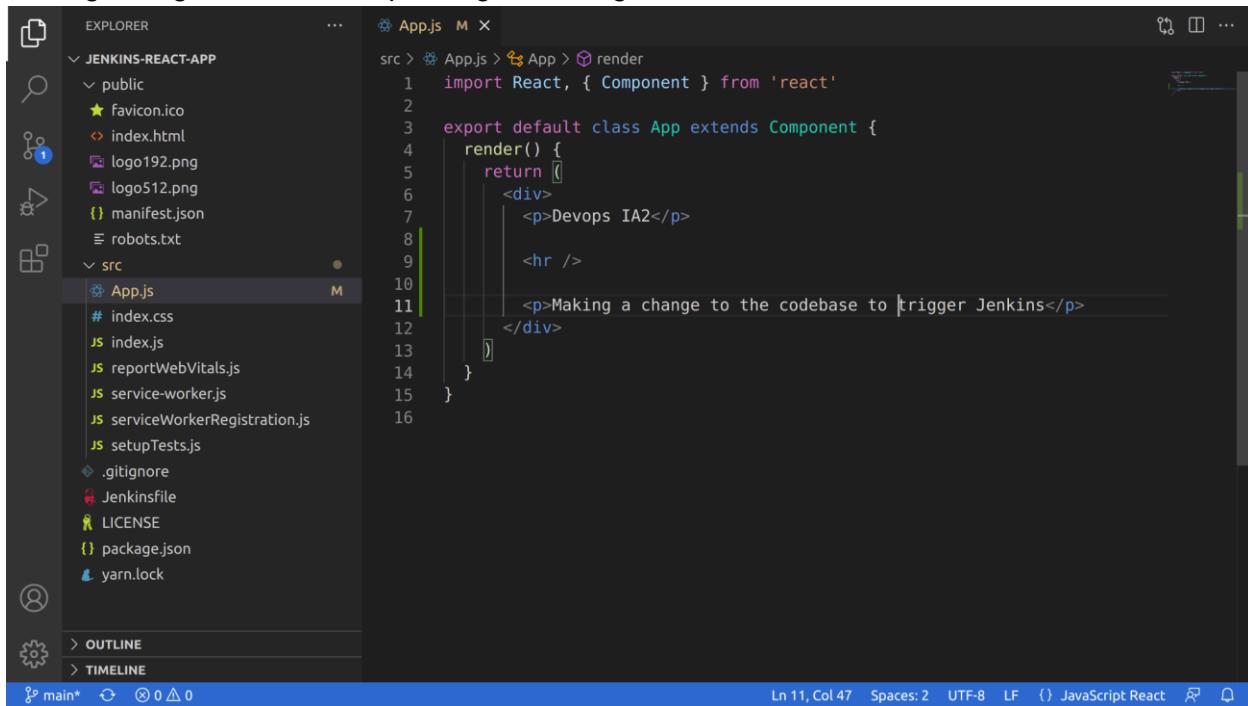
```
root@ip-172-31-40-70:~# sudo systemctl restart nginx
root@ip-172-31-40-70:~#
```

## React app running



Devops IA2

## Making changes to code and pushing the changes to GitHub



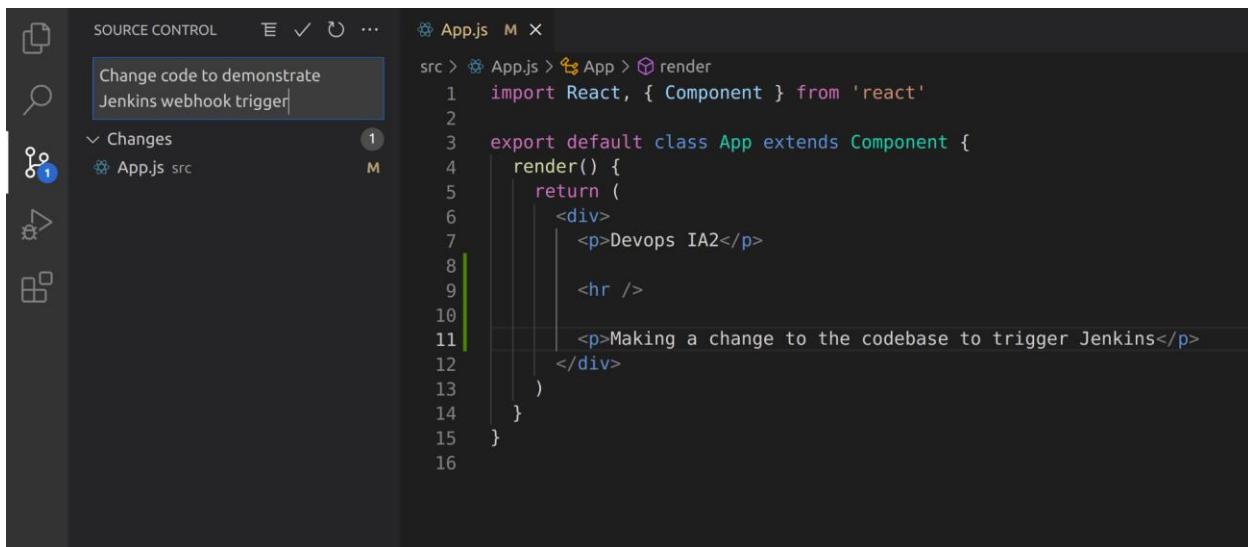
VS Code interface showing the code editor and file explorer. The code editor displays the following code in `App.js`:

```
src > App.js > App > render
1 import React, { Component } from 'react'
2
3 export default class App extends Component {
4   render() {
5     return [
6       <div>
7         <p>Devops IA2</p>
8
9         <hr />
10
11        <p>Making a change to the codebase to trigger Jenkins</p>
12      </div>
13    ]
14  }
15}
16
```

The file explorer on the left shows the project structure:

- JENKINS-REACT-APP**
  - public
    - favicon.ico
    - index.html
    - logo192.png
    - logo512.png
  - manifest.json
  - robots.txt
  - src
    - App.js
    - index.css
    - index.js
    - reportWebVitals.js
    - service-worker.js
    - serviceWorkerRegistration.js
    - setupTests.js
    - .gitignore
    - Jenkinsfile
    - LICENSE
    - package.json
    - yarn.lock

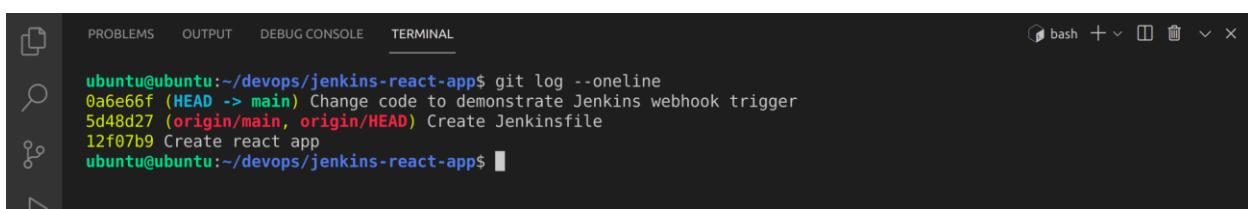
## Git commit



VS Code interface showing the source control interface. A commit message is entered in the commit message field:

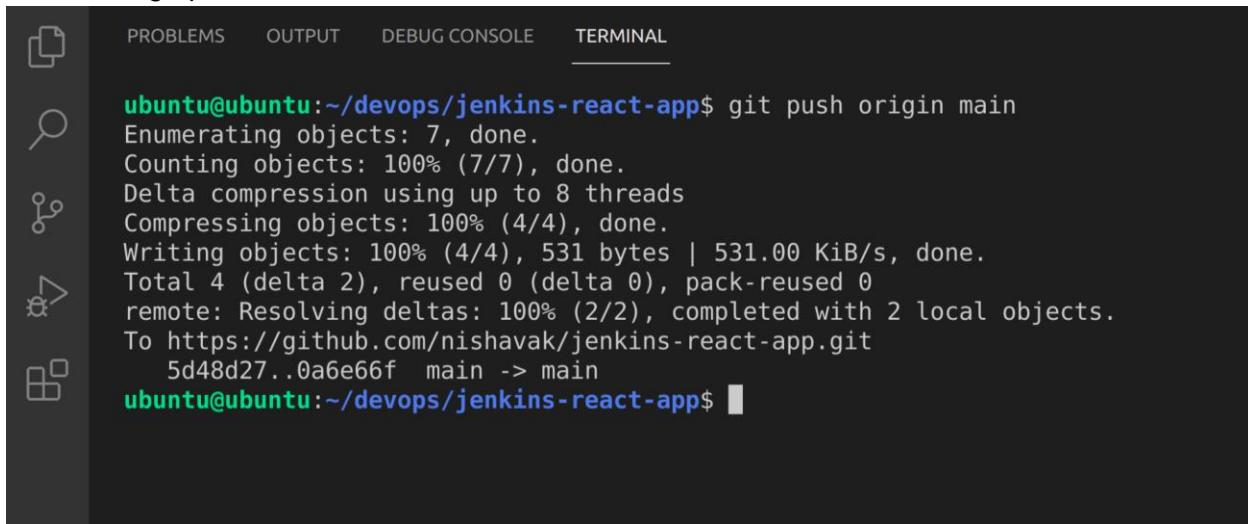
Change code to demonstrate Jenkins webhook trigger

The code editor shows the same code as in the previous screenshot.



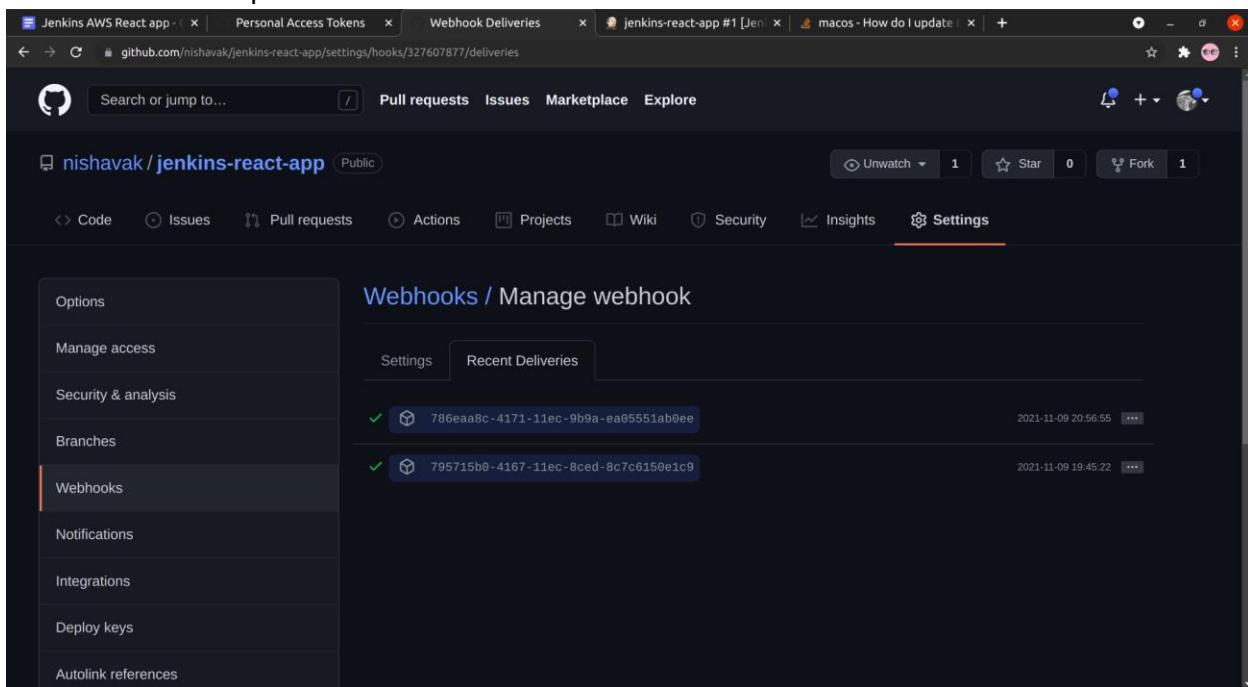
```
ubuntu@ubuntu:~/devops/jenkins-react-app$ git log --oneline
0a6e66f (HEAD -> main) Change code to demonstrate Jenkins webhook trigger
5d48d27 (origin/main, origin/HEAD) Create Jenkinsfile
12f07b9 Create react app
ubuntu@ubuntu:~/devops/jenkins-react-app$
```

## Code change pushed



```
ubuntu@ubuntu:~/devops/jenkins-react-app$ git push origin main
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 531 bytes | 531.00 KiB/s, done.
Total 4 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/nishavak/jenkins-react-app.git
  5d48d27..0a6e66f  main -> main
ubuntu@ubuntu:~/devops/jenkins-react-app$
```

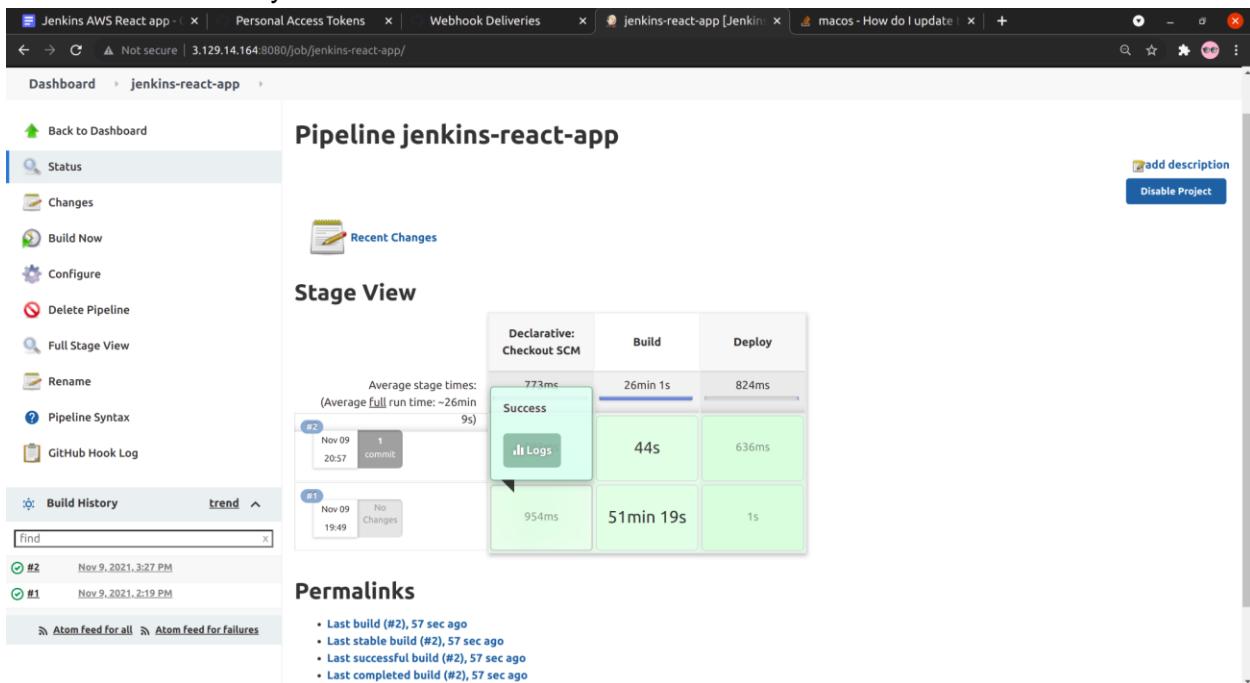
## Webhook sent the push information to Jenkins



The screenshot shows the GitHub repository settings page for 'nishavak/jenkins-react-app'. The 'Webhooks' tab is selected in the sidebar. The main area displays a list of recent webhook deliveries. Each entry shows a green checkmark, a small Jenkins icon, a unique identifier, and the timestamp of the delivery.

Delivery ID	Timestamp
786eaab8-4171-11ec-9b9a-ea05551ab0ee	2021-11-09 20:56:55
795715b0-4167-11ec-8ced-8c7c6150e1c9	2021-11-09 19:45:22

## Jenkins automatically ran build



The screenshot shows the Jenkins Pipeline Jenkins-react-app stage view. The pipeline consists of three stages: Declarative: Checkout SCM, Build, and Deploy. The Build stage is highlighted in blue, indicating it is currently running. The Deploy stage is shown as a light green box with a duration of 824ms. The Build stage has a duration of 26min 1s. The Declarative: Checkout SCM stage has a duration of 773ms. The Stage View also displays recent changes and build history. Build #2 was triggered on Nov 09 at 20:57 with 1 commit, and Build #1 was triggered on Nov 09 at 19:49 with no changes. The Permalinks section lists the last four builds.

Build	Triggered On	Duration
#2	Nov 09, 2021, 20:57 PM	26min 1s
#1	Nov 09, 2021, 19:49 PM	954ms
		51min 19s
		1s

**Recent Changes**

**Stage View**

**Declarative: Checkout SCM**

**Build**

**Deploy**

Average stage times:  
(Average full run time: ~26min 9s)

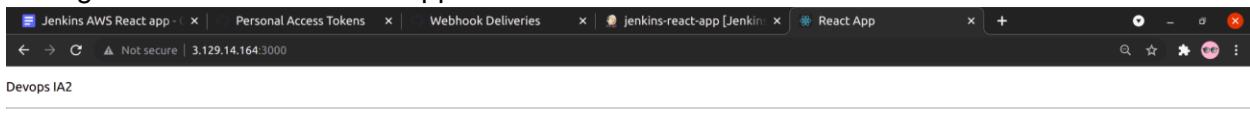
**Success**

**Logs**

**Permalinks**

- Last build (#2), 57 sec ago
- Last stable build (#2), 57 sec ago
- Last successful build (#2), 57 sec ago
- Last completed build (#2), 57 sec ago

## Changes reflected in the react app on EC2

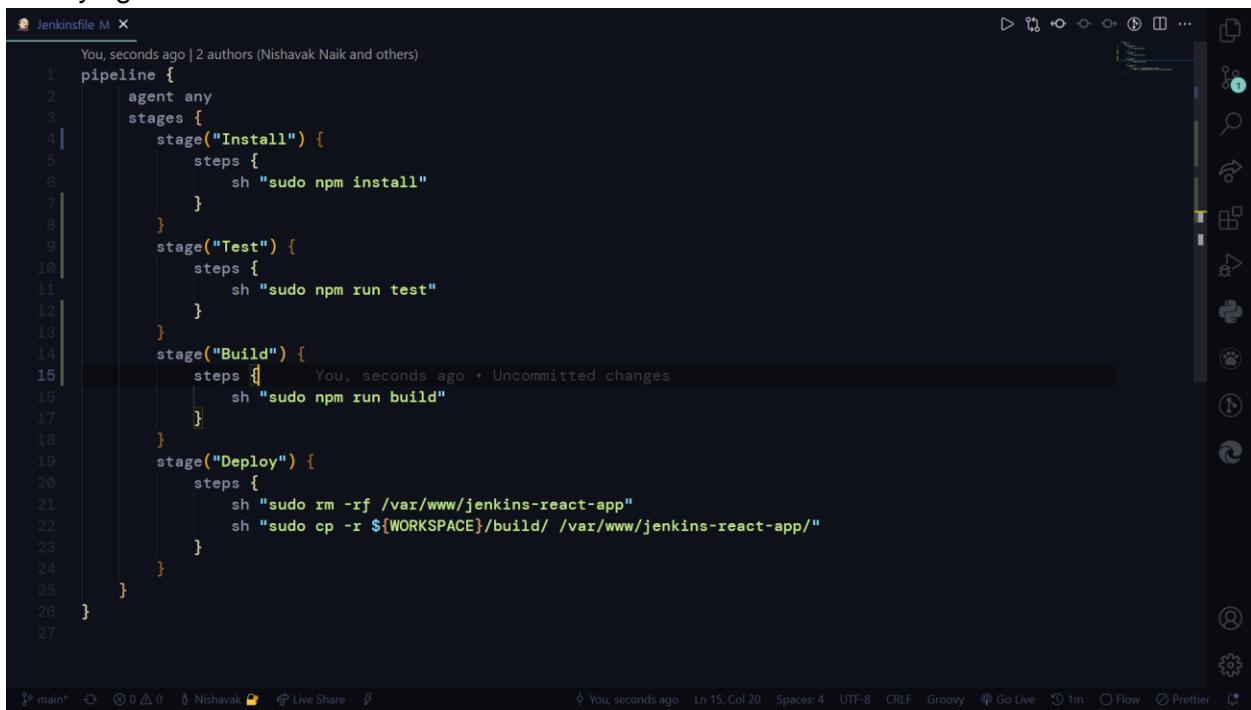


The screenshot shows a browser window with the React App tab active. The page displays a message: "Making a change to the codebase to trigger Jenkins".

Devops IA2

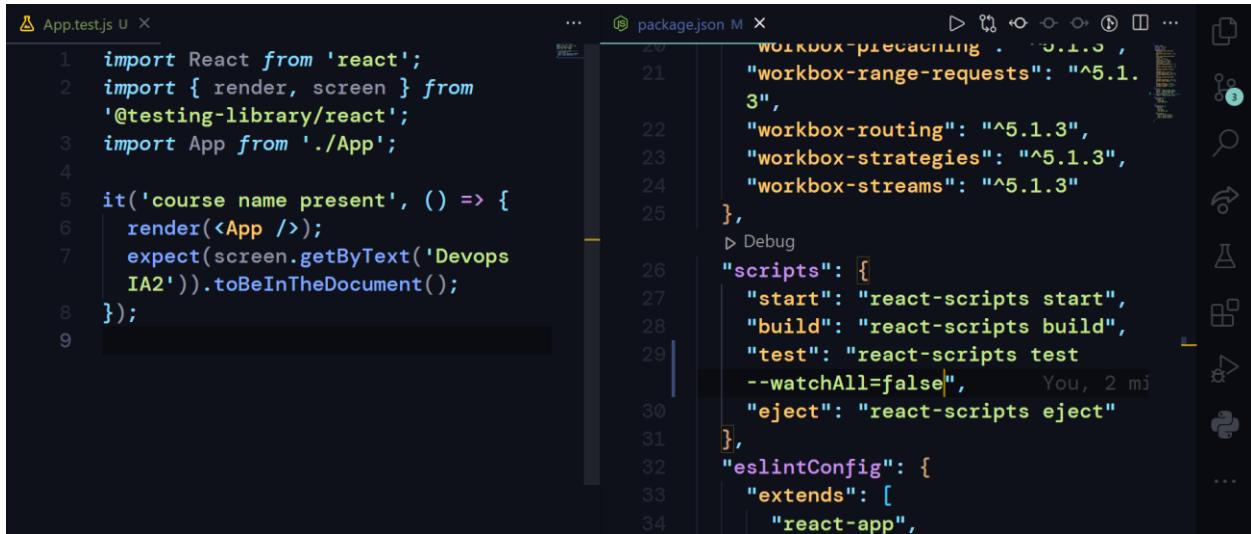
Making a change to the codebase to trigger Jenkins

## Modifying Jenkinsfile to run the test.



```
You, seconds ago | 2 authors (Nishavak Naik and others)
1 pipeline {
2     agent any
3     stages {
4         stage("Install") {
5             steps {
6                 sh "sudo npm install"
7             }
8         }
9         stage("Test") {
10            steps {
11                sh "sudo npm run test"
12            }
13        }
14        stage("Build") {
15            steps {
16                sh "You, seconds ago * Uncommitted changes"
17                sh "sudo npm run build"
18            }
19        }
20        stage("Deploy") {
21            steps {
22                sh "sudo rm -rf /var/www/jenkins-react-app"
23                sh "sudo cp -r ${WORKSPACE}/build/ /var/www/jenkins-react-app/"
24            }
25        }
26    }
27 }
```

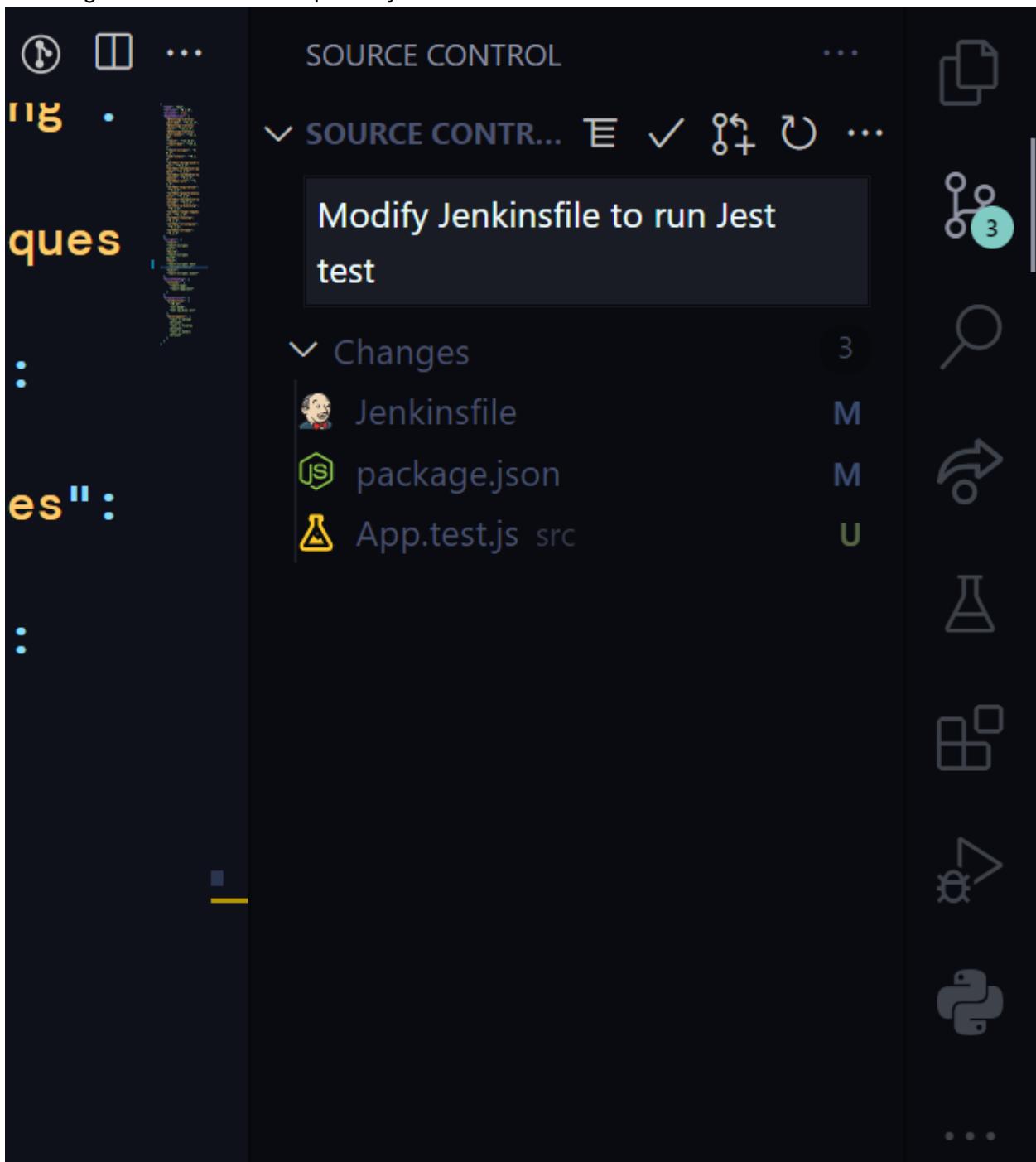
## Adding simple Jest test



```
App.test.js M ...
1 import React from 'react';
2 import { render, screen } from
  '@testing-library/react';
3 import App from './App';
4
5 it('course name present', () => {
6     render(<App />);
7     expect(screen.getByText('Devops
  IA2')).toBeInTheDocument();
8 });
9
```

```
... package.json M ...
21 "workbox-precaching": "5.1.0",
22 "workbox-range-requests": "5.1.
  3",
23 "workbox-routing": "5.1.3",
24 "workbox-strategies": "5.1.3",
25 "workbox-streams": "5.1.3"
},
▷ Debug
26 "scripts": {
27     "start": "react-scripts start",
28     "build": "react-scripts build",
29     "test": "react-scripts test
  --watchAll=false", You, 2 mi
30     "eject": "react-scripts eject"
},
31 "eslintConfig": {
32     "extends": [
33         "react-app",
34     ],
35     "rules": {
36         "react/react-in-jsx-scope": "off"
37     }
38 },
39 "browserslist": [
40     "last 1 version",
41     "not ie < 9"
42 ],
43 "proxy": "http://localhost:4000"
44 }
```

Creating a commit to local repository



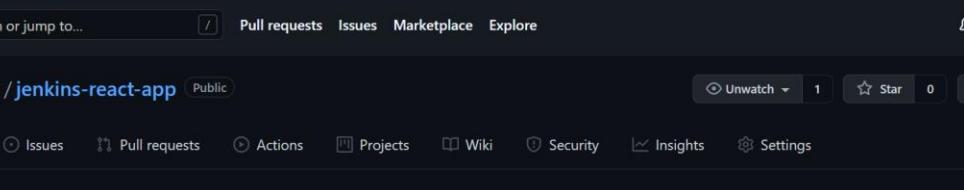
## Pushing changes to GitHub

```
C:\Users\nisha\Projects\devops\jenkins-react-app>git log --oneline
4bcec53 (HEAD -> main) Modify Jenkinsfile to run Jest test
0a6e66f (origin/main, origin/HEAD) Change code to demonstrate Jenkins webhook trigger
5d48d27 Create Jenkinsfile
12f07b9 Create react app

C:\Users\nisha\Projects\devops\jenkins-react-app>git push origin main
Enumerating objects: 10, done.
Counting objects: 100% (10/10), done.
Delta compression using up to 8 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 683 bytes | 341.00 KiB/s, done.
Total 6 (delta 4), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (4/4), completed with 4 local objects.
To https://github.com/nishavak/jenkins-react-app.git
  0a6e66f..4bcec53  main -> main

C:\Users\nisha\Projects\devops\jenkins-react-app>
```

## Changes pushed to GitHub



The screenshot shows a GitHub repository page for 'nishavak/jenkins-react-app'. The repository is public and contains 1 branch and 0 tags. The 'Code' tab is selected, showing a list of files and their last commit times. Recent commits include 'Modify Jenkinsfile to run Jest test' (4 commits, 40 minutes ago) and 'Create react app' (2 days ago). The repository has 0 stars and 1 fork. The 'About' section indicates no description, website, or topics are provided. The 'Releases' section shows no releases published, with a link to 'Create a new release'. The 'Packages' section shows no packages published, with a link to 'Publish your first package'.

File	Commit Message	Time Ago
public	Create react app	2 days ago
src	Modify Jenkinsfile to run Jest test	40 minutes ago
.gitignore	Create react app	2 days ago
Jenkinsfile	Modify Jenkinsfile to run Jest test	40 minutes ago
LICENSE	Create react app	2 days ago
package.json	Modify Jenkinsfile to run Jest test	40 minutes ago
yarn.lock	Create react app	2 days ago

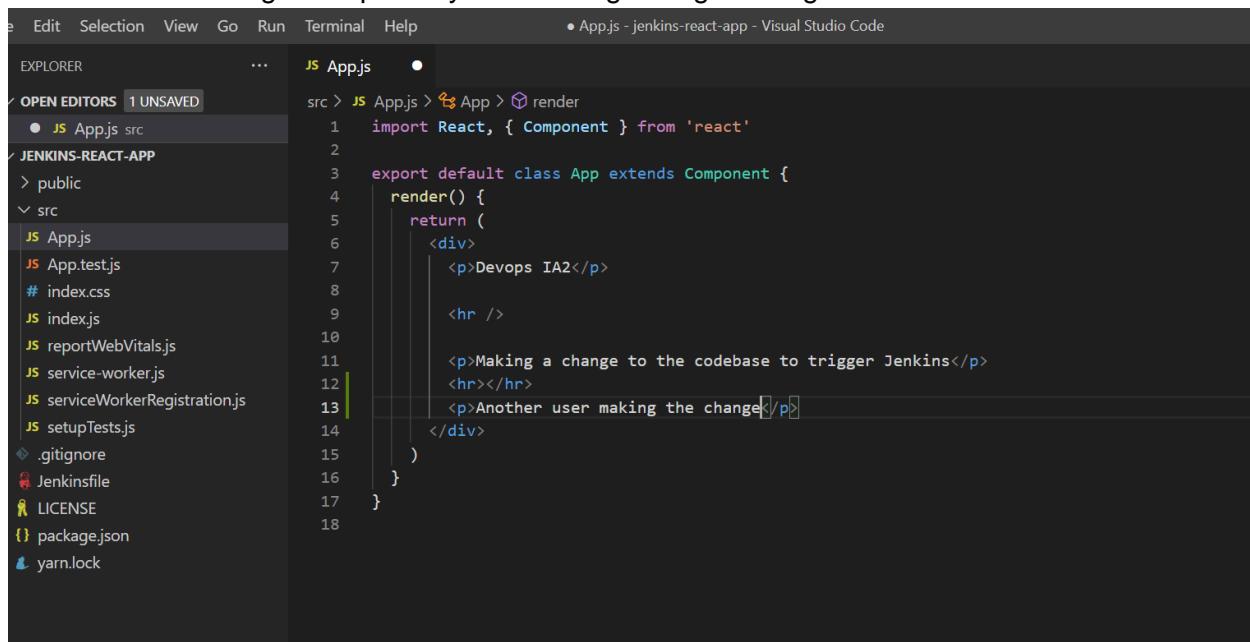
## Build complete

The screenshot shows the Jenkins Pipeline Jenkins-react-app dashboard. On the left, a sidebar contains links for Dashboard, Status, Changes, Build Now, Configure, Delete Pipeline, Full Stage View, Rename, Pipeline Syntax, and GitHub Hook Log. The main area is titled "Pipeline Jenkins-react-app" and "Stage View". It displays a timeline of stages: Declarative: Checkout SCM (509ms), Install (19s), Test (8s), Build (15s), and Deploy (677ms). A tooltip for the first stage shows "Nov 10 14:41 No Changes". Below the timeline, a "Permalinks" section lists the last five builds: #6 (20 sec ago), #2 (17 hr ago), #2 (17 hr ago), #1 (17 hr ago), and #1 (17 hr ago). At the bottom, there are links for "Atom feed for all" and "Atom feed for failures".

## Another user forking repository

The screenshot shows the GitHub repository page for VIGINIGI/jenkins-react-app. The repository is public and was forked from nishavak/jenkins-react-app. The page includes tabs for Code, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The Code tab is selected, showing the main branch (1 branch, 0 tags). The repository contains files: public (Create react app), src (Modify Jenkinsfile to run Jest test), .gitignore (Create react app), Jenkinsfile (Modify Jenkinsfile to run Jest test), LICENSE (Create react app), package.json (Modify Jenkinsfile to run Jest test), and yarn.lock (Create react app). On the right, there are sections for About (No description, website, or topics provided), Releases (No releases published, Create a new release), Packages (No packages published, Publish your first package), and Languages (JavaScript 82.5%, HTML 14.4%, CSS 3.1%). A note at the bottom encourages adding a README.

Another user cloning the repository and making changes using a code editor



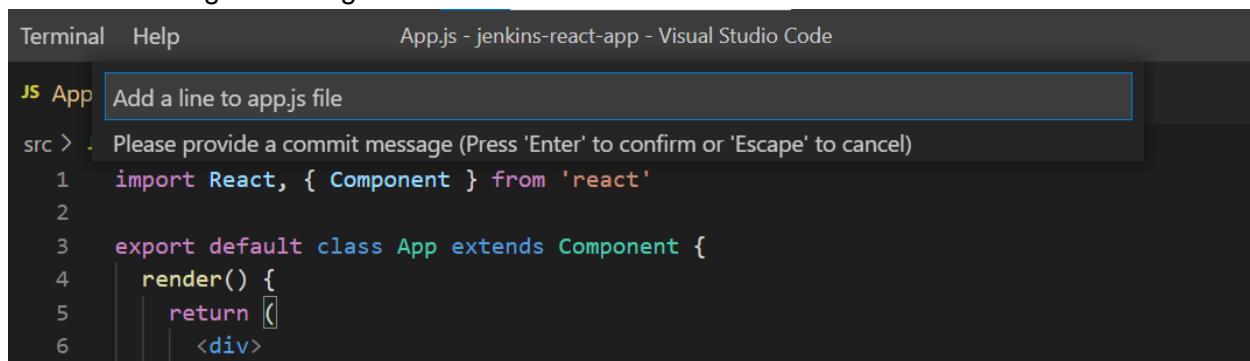
The screenshot shows a Visual Studio Code interface with the following details:

- File Explorer:** Shows the project structure under "JENKINS-REACT-APP". The "src" folder contains "App.js", "App.test.js", "index.css", "index.js", "reportWebVitals.js", "service-worker.js", "serviceWorkerRegistration.js", and "setupTests.js".
- Code Editor:** The "App.js" file is open. The code is as follows:

```
src > JS App.js > App > render
1 import React, { Component } from 'react'
2
3 export default class App extends Component {
4   render() {
5     return (
6       <div>
7         <p>Devops IA2</p>
8
9         <hr />
10
11         <p>Making a change to the codebase to trigger Jenkins</p>
12         <hr></hr>
13         <p>Another user making the change</p>
14       </div>
15     )
16   }
17 }
18
```

- Terminal:** Shows the command "App.js - jenkins-react-app - Visual Studio Code".

User committing the changes

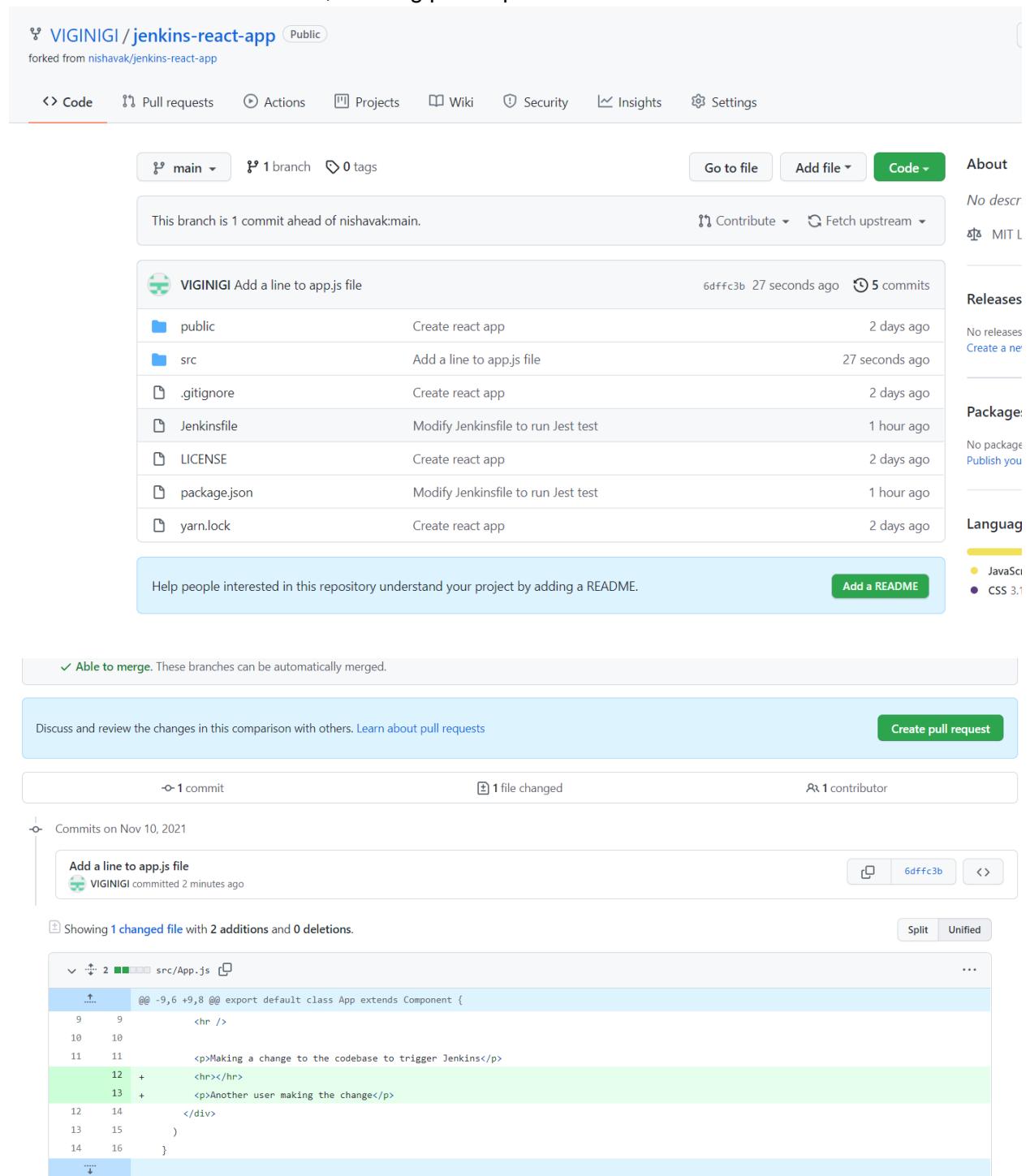


The screenshot shows a Visual Studio Code interface with the following details:

- Terminal:** Shows the command "App.js - jenkins-react-app - Visual Studio Code".
- Input Field:** A modal window titled "JS App" with the sub-titile "Add a line to app.js file". It contains the text "Please provide a commit message (Press 'Enter' to confirm or 'Escape' to cancel)".
- Code Editor:** The "App.js" file is partially visible with the following code:

```
src > JS App > Add a line to app.js file
1 import React, { Component } from 'react'
2
3 export default class App extends Component {
4   render() {
5     return (
6       <div>
```

## User's forked branch is ahead; creating pull request

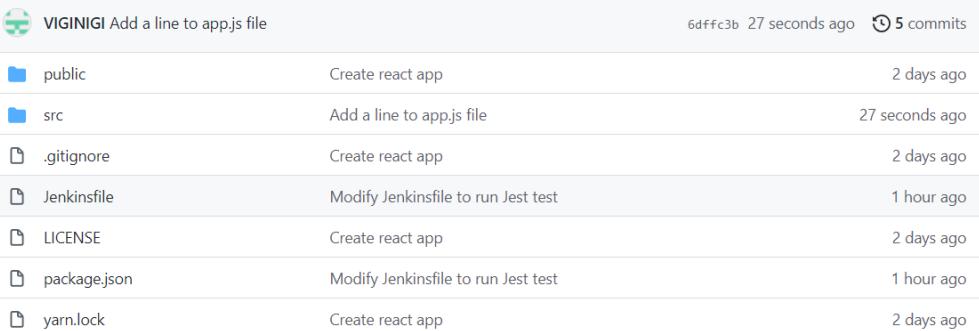


VIGINIGI / jenkins-react-app Public  
forked from nishavak/jenkins-react-app

[Code](#) [Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

[main](#) [1 branch](#) [0 tags](#) [Go to file](#) [Add file](#) [Code](#) [About](#)

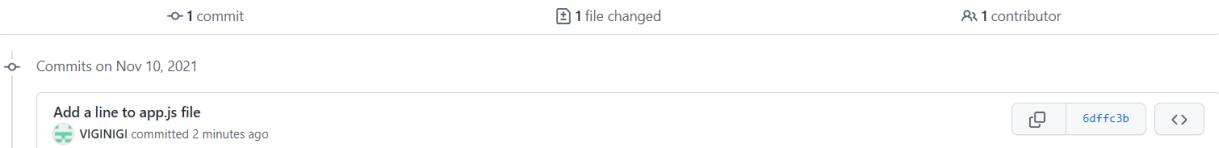
This branch is 1 commit ahead of nishavak:main. [Contribute](#) [Fetch upstream](#)

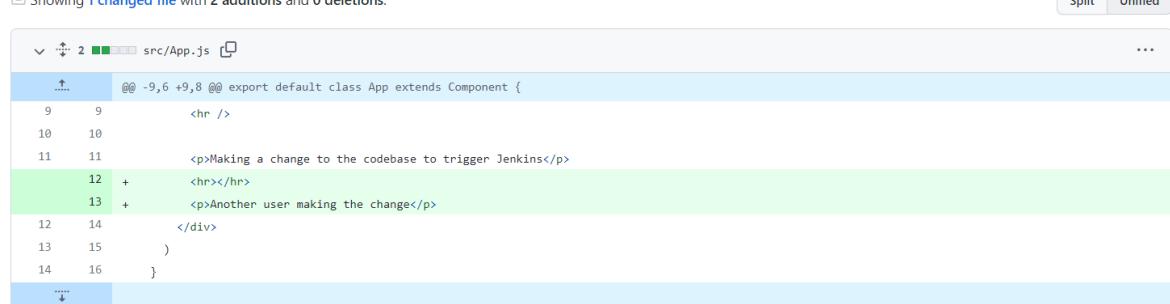
  
VINIGINI Add a line to app.js file 6dfffc3b 27 seconds ago 5 commits  
public Create react app 2 days ago  
src Add a line to app.js file 27 seconds ago  
.gitignore Create react app 2 days ago  
Jenkinsfile Modify Jenkinsfile to run Jest test 1 hour ago  
LICENSE Create react app 2 days ago  
package.json Modify Jenkinsfile to run Jest test 1 hour ago  
yarn.lock Create react app 2 days ago

Help people interested in this repository understand your project by adding a README. [Add a README](#)

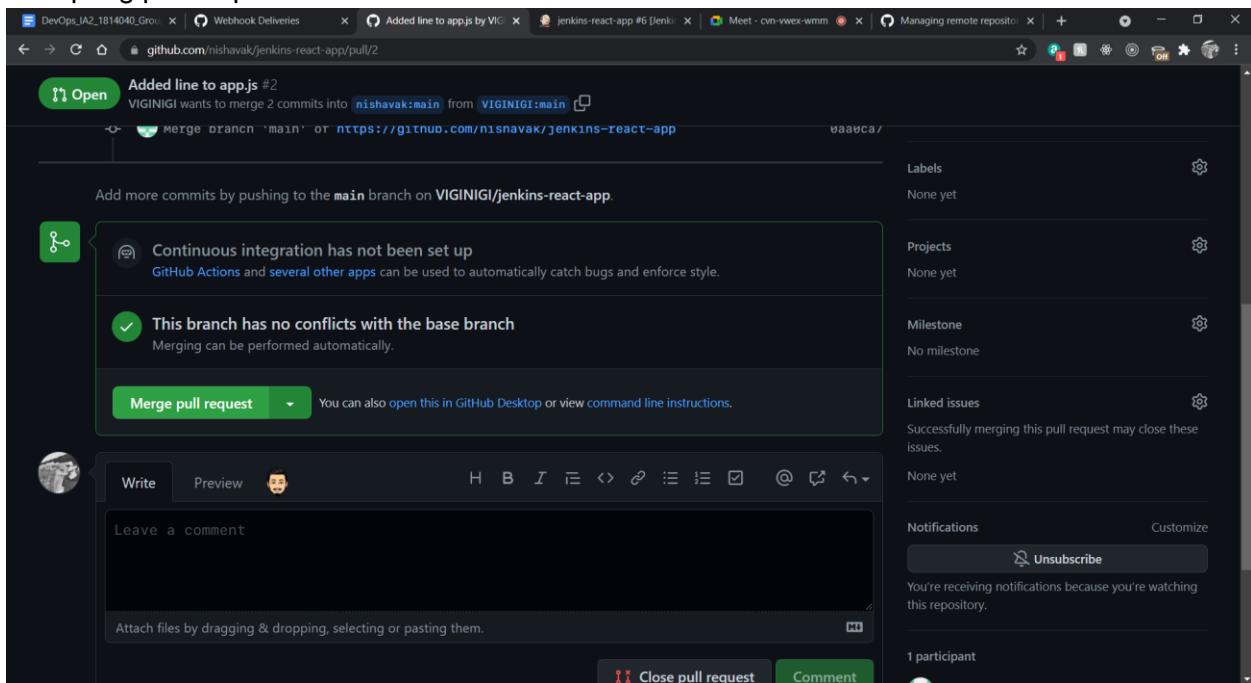
 Able to merge. These branches can be automatically merged.

Discuss and review the changes in this comparison with others. [Learn about pull requests](#) [Create pull request](#)

  
1 commit 1 file changed 1 contributor  
Commits on Nov 10, 2021  
Add a line to app.js file 6dfffc3b  
VINIGINI committed 2 minutes ago

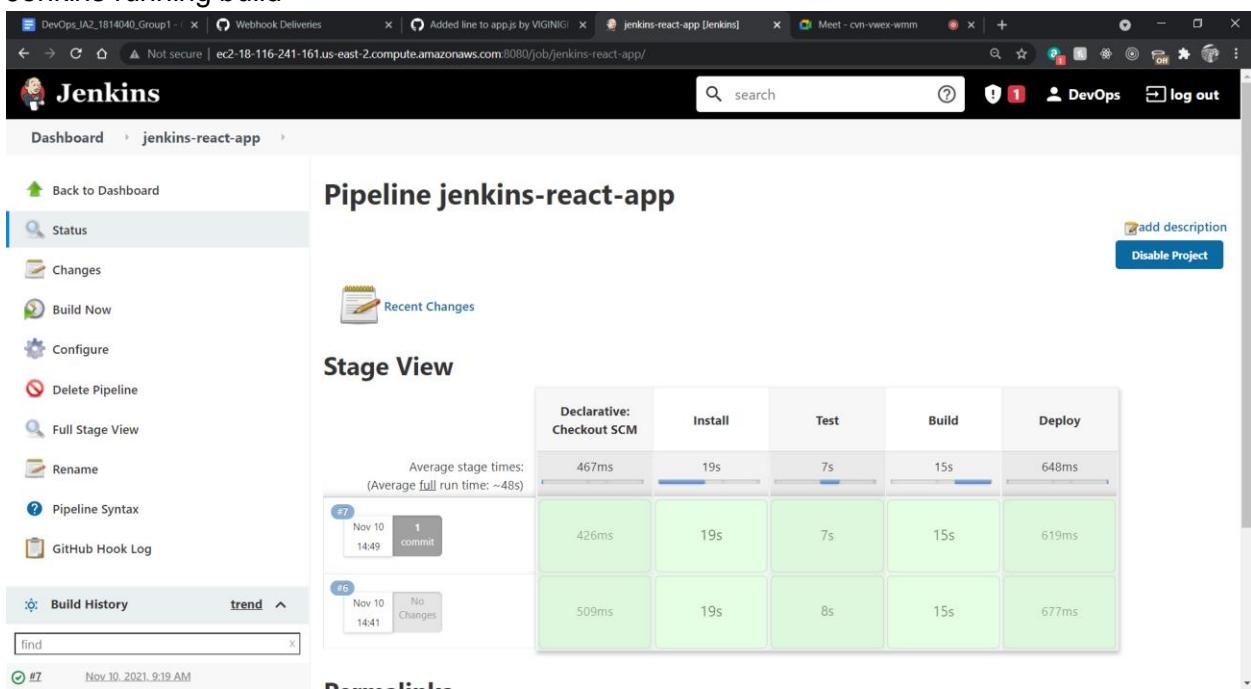
  
Showing 1 changed file with 2 additions and 0 deletions. [Split](#) [Unified](#)  
src/App.js ...  
@@ -9,6 +9,8 @@ export default class App extends Component {  
 9 9 <hr />  
 10 10  
 11 11 <p>Making a change to the codebase to trigger Jenkins</p>  
 12 + <hr></hr>  
 13 + <p>Another user making the change</p>  
 14 14 </div>  
 15 15 )  
 16 16 }  
 ...

## Accepting pull request



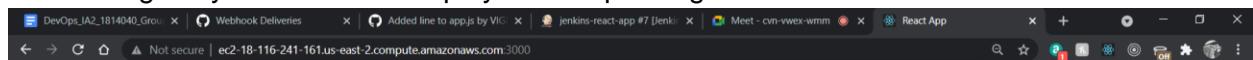
The screenshot shows a GitHub pull request page for a repository named 'jenkins-react-app'. The pull request has been merged into the 'main' branch. The status bar at the top indicates 'Added line to app.js #2'. The main content area shows a green 'Merge branch "main"' button and a note that the branch has no conflicts with the base branch. On the right side, there are sections for Labels (None yet), Projects (None yet), Milestone (None), Linked issues (None yet), and Notifications (1 participant, with an 'Unsubscribe' button). Below the main content, there is a comment input field with 'Write' and 'Preview' buttons, and a 'Comment' button at the bottom right.

## Jenkins running build



The screenshot shows the Jenkins Pipeline interface for a project named 'jenkins-react-app'. The main view is titled 'Pipeline jenkins-react-app' and displays a 'Stage View' table. The table has columns for 'Declarative: Checkout SCM', 'Install', 'Test', 'Build', and 'Deploy'. The first row shows data for build #7, with an average stage time of 467ms. The second row shows data for build #6, with an average stage time of 509ms. The table also includes a 'Recent Changes' section with a 'Recent Changes' button. On the left side, there is a sidebar with various Jenkins management options like 'Status', 'Changes', 'Build Now', 'Configure', 'Delete Pipeline', 'Full Stage View', 'Rename', 'Pipeline Syntax', and 'GitHub Hook Log'. A 'Build History' section is also present, showing the most recent build (#7) from Nov 10, 14:49. The bottom of the page shows a search bar and a 'trend' button.

## New changes by another user displayed after passing the tests



### Deployed application:

<http://ec2-3-129-14-164.us-east-2.compute.amazonaws.com:3000/>

### GitHub repository:

<https://github.com/nishavak/jenkins-react-app>

### References

1. [Tutorial: Setting Up NGINX and NGINX Plus as a Web Server and Reverse Proxy in AWS](#)
2. [Tutorial: Setting Up Node.js on an Amazon EC2 Instance - AWS SDK for JavaScript](#)
3. [Getting Started – React](#)
4. [Connect to your Linux instance using SSH - Amazon Elastic Compute Cloud](#)
5. [Jenkins on AWS](#)
6. [Git - Book](#)
7. [Getting Started - Jest](#)