

## Build and Test NodeJS Source Code

**Objective:** You wanted to create a new CI CD workflow for performing build and test cases execution for NodeJS based projects.

**Tools required:** GitHub Actions

**Prerequisites:** None

Steps to be followed:

1. Log in to GitHub.com.
2. Create a new workflow file to perform build and test case automation.

### Step 1: Log in to GitHub.com

- 1.1 Sign in to the GitHub portal at <https://github.com>
- 1.2 Navigate to your repository main page where we are going to create a workflow file.
- 1.3 In case the repository is not available fork below mentioned repository in your GitHub account.

<https://github.com/Simplilearn-Edu/SonarQubeNodeJS>

### Step 2: Create a new workflow file to perform build and test case automation.

- 2.1 Once you are on GitHub's main repository page, we can get started with creating a new Workflow file.
- 2.2 Create a **.github/workflows** directory in your repository in case the directory does not exist.
- 2.3 In the workflow directory, create a new workflow file with the name **node-ci.yml**.
- 2.4 Add below workflow content in the above created file.

**name:** NodeJS CI workflow

**on:**

**workflow\_dispatch:**

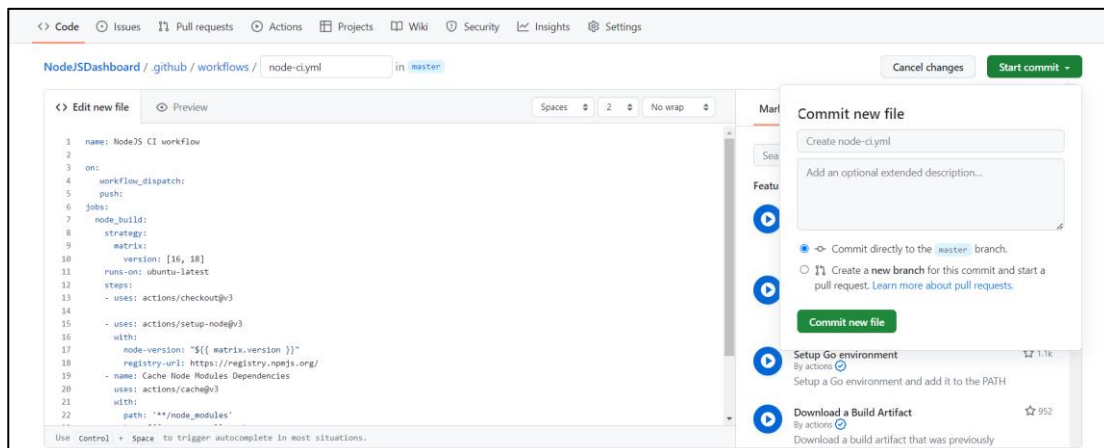
```

push:
jobs:
  node_build:
    strategy:
      matrix:
        version: [16, 18]
    runs-on: ubuntu-latest
    steps:
      - uses: actions/checkout@v3

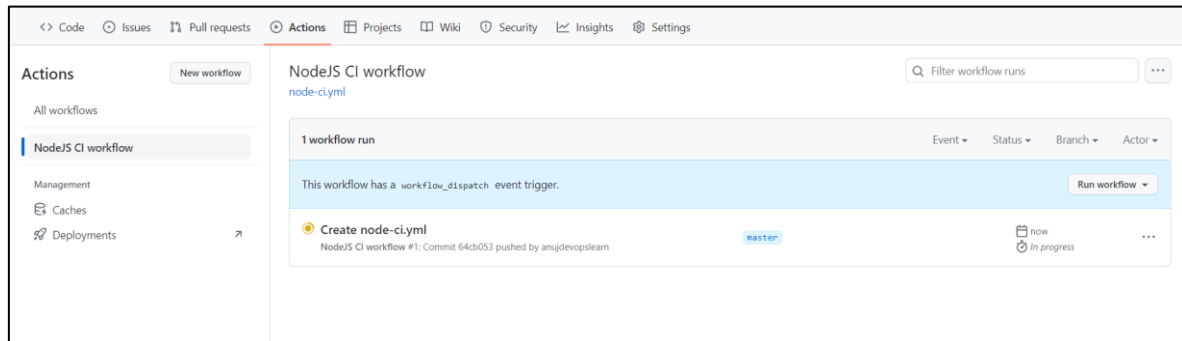
      - uses: actions/setup-node@v3
        with:
          node-version: "${{ matrix.version }}"
          registry-url: https://registry.npmjs.org/
      - name: Cache Node Modules Dependencies
        uses: actions/cache@v3
        with:
          path: '**/node_modules'
          key: ${{ runner.os }}-cache
      - name: NodeJS Build Process
        run: |
          npm install
          npm run build --if-present
          npm run test

```

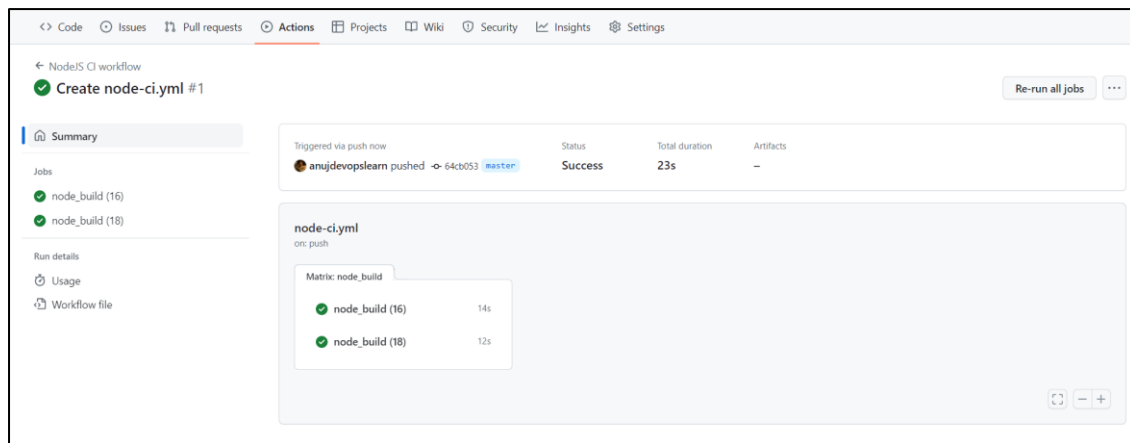
2.5 Once the file is created, click on **Commit new file** to save the workflow file in your code repository.



2.6 Next navigate to the **Actions** tab on your repository to access the workflow execution page as below:



2.7 Next click on the **latest execution** to access execution detailed logs.



**node\_build (18)**  
succeeded 2 minutes ago in 14s

↺
⚙

>	Set up job	2s
>	Run actions/checkout@v3	0s
>	Run actions/setup-node@v3	2s
>	Cache Node Modules Dependencies	0s
>	NodeJS Build Process	6s
>	Post Cache Node Modules Dependencies	0s
>	Post Run actions/setup-node@v3	0s
>	Post Run actions/checkout@v3	0s
>	Complete job	0s

**node\_build (16)**  
succeeded 3 minutes ago in 16s

↺
⚙

>	Set up job	2s
>	Run actions/checkout@v3	1s
>	Run actions/setup-node@v3	1s
>	Cache Node Modules Dependencies	2s
>	NodeJS Build Process	6s
>	Post Cache Node Modules Dependencies	1s
>	Post Run actions/setup-node@v3	0s
>	Post Run actions/checkout@v3	0s
>	Complete job	0s