


Kubernetes Installation

19 November 2025 10:58

**Kubernetes**
<https://kubernetes.io>
Kubernetes
The Kubernetes community is a global community of developers, operators, and users who are passionate about container orchestration, deployment, scaling, and management of containerized applications. It groups containers that make up an ...

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Never outgrow
Whether testing locally or running a global enterprise, Kubernetes flexibility grows with you to deliver your applications consistently and easily no matter how complex your need is.

**Run K8s anywhere**
Kubernetes is open source giving you the freedom to take advantage of on-premises, hybrid infrastructure, letting you effortlessly move workloads to where it matters to you.
To download Kubernetes, visit the [download](#) section.

[kubect1](#) [reference documentation](#).

kubect1 is installable on a variety of Linux platforms, macOS and Windows. Find your preferred operating system below.

- [Install kubect1 on Linux](#)
- [Install kubect1 on macOS](#)
- [Install kubect1 on Windows](#)


Install kubect1 on Windows
The following methods exist for installing kubect1 on Windows:

- [Install kubect1 binary on Windows \(via direct download or curl\)](#)
- [Install on Windows using Chocolatey, Scoop, or Winget](#)

Install kubect1 binary on Windows (via direct download or curl)

- You have two options for installing kubect1 on your Windows device
 - Direct download:

Configure kubect1
[Install kubect1](#) [convert plug](#)
[What's next](#)



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NOTE

Please inspect <https://community.chocolatey.org/install.ps1> prior to running any of these scripts to ensure safety. We already know it's safe, but you should verify the security and contents of *any* script from the internet you are not familiar with. All of these scripts download a remote PowerShell script and execute it on your machine. We take security very seriously. [Learn more about our security protocols.](#)

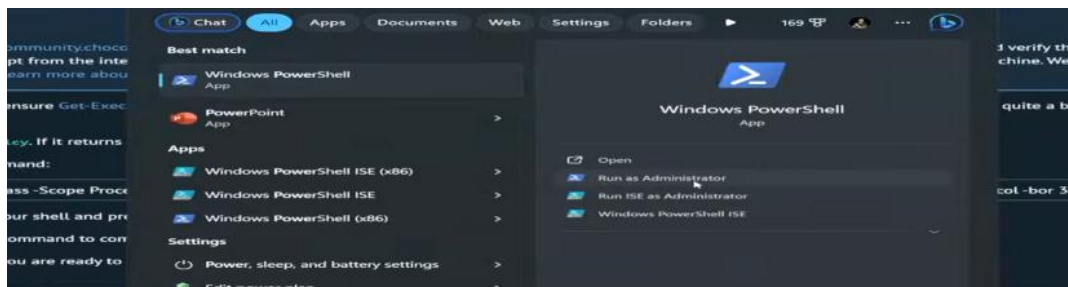
With PowerShell, you must ensure [Get-ExecutionPolicy](#) is not Restricted. We suggest using `Bypass` to bypass the policy to get things installed or `AllSigned` for quite a bit more security.

- Run `Get-ExecutionPolicy`. If it returns `Restricted`, then run `Set-ExecutionPolicy AllSigned` or `Set-ExecutionPolicy Bypass -Scope Process`.

Now run the following command:

```
> Set-ExecutionPolicy Bypass -Scope Process -Force; [System.Net.ServicePointManager]::SecurityProtocol = [System.Net.ServicePointManager]::SecurityProtocol -bor 3072; iex ((New-Object System.Net.WebClient).DownloadString('https://community.chocolatey.org/install.ps1'))
```

3. Paste the copied text into your shell and press Enter



```
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

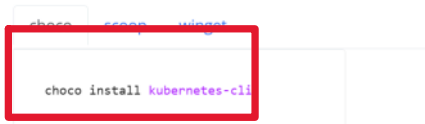
PS C:\WINDOWS\system32> Set-ExecutionPolicy Bypass -Scope Process -Force; [System.Net.ServicePointManager]::SecurityProtocol = [System.Net.ServicePointManager]::SecurityProtocol -bor 3072; iex ((New-Object System.Net.WebClient).DownloadString('https://community.chocolatey.org/install.ps1'))
WARNING: 'choco' was found at 'C:\ProgramData\chocolatey\bin\choco.exe'.
WARNING: An existing Chocolatey installation was detected. Installation will not continue. This script will not overwrite existing installations.
If there is no Chocolatey installation at 'C:\ProgramData\chocolatey', delete the folder and attempt the installation again.

Please use choco upgrade chocolatey to handle upgrades of Chocolatey itself.
If the existing installation is not functional or a prior installation did not complete, follow these steps:
- Backup the files at the path listed above so you can restore your previous installation if needed.
- Remove the existing installation manually.
- Rerun this installation script.
- Reinstall any packages previously installed, if needed (refer to the lib folder in the backup).

Once installation is completed, the backup folder is no longer needed and can be deleted.
PS C:\WINDOWS\system32>
```

Install on Windows using Chocolatey, Scoop, or winget

1. To install kubectl on Windows you can use either [Chocolatey](#) package manager, [Scoop](#) command-line installer, or [winget](#) package manager.



2. Test to ensure the version you installed is up-to-date:

```
C:\Windows\System32>choco install kubernetes-cli
chocolatey v2.2.2
Installing kubernetes-cli
By installing, you accept licenses for the packages.
Progress: Downloading kubernetes-cli 1.28.2... 100%

kubernetes-cli v1.28.2 [Approved]
kubernetes-cli package files install completed. Performing other installation steps.
The package kubernetes-cli wants to run 'chocolateyInstall.ps1'.
Note: If you don't run this script, the installation will fail.
Note: To confirm automatically next time, use '-y' or consider:
choco feature enable -n allowGlobalConfirmation
Do you want to run the script?([Y]es/[A]ll - yes to all/[N]o/[P]rint):
```

```
C:\Users\DELL>kubectl version --client
Client Version: v1.32.2
Customize Version: v5.5.0

C:\Users\DELL>
```

What's next

- [Install Minikube](#)
- See the [getting started guides](#) for more about creating clusters.
- [Learn how to launch and expose your application.](#)
- If you need access to a cluster you didn't create, see the [Sharing Cluster Access](#) document.
- Read the [kubectl reference docs](#)

Click on the buttons that describe your target platform. For other architectures, see [the release page](#) for a complete list of minikube binaries.

Operating system	Linux	macOS	Windows
Architecture	x86-64		
Release type	Stable		
Installer type	.exe download	Windows Package Manager	Chocolatey

To install the latest minikube **stable** release on **x86-64 Windows** using **Chocolatey**:

If the **Chocolatey Package Manager** is installed, use the following command:

```
choco install minikube
```

```
C:\Windows\System32>choco install minikube
Chocolatey v2.5.1
Installing the following packages:
minikube
By installing, you accept licenses for the packages.
Minikube v1.37.0 already installed.
Use --force to reinstall, specify a version to install, or try upgrade.

Chocolatey installed 0/1 packages.
See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).

Warnings:
- Minikube - Minikube v1.37.0 already installed.
Use --force to reinstall, specify a version to install, or try upgrade.

C:\Windows\System32>
C:\Windows\System32>
```

2 Start your cluster

From a terminal with administrator access (but not logged in as root), run:

```
minikube start
```

If minikube fails to start, see the [drivers page](#) for help setting up a compatible container or virtual-machine manager.

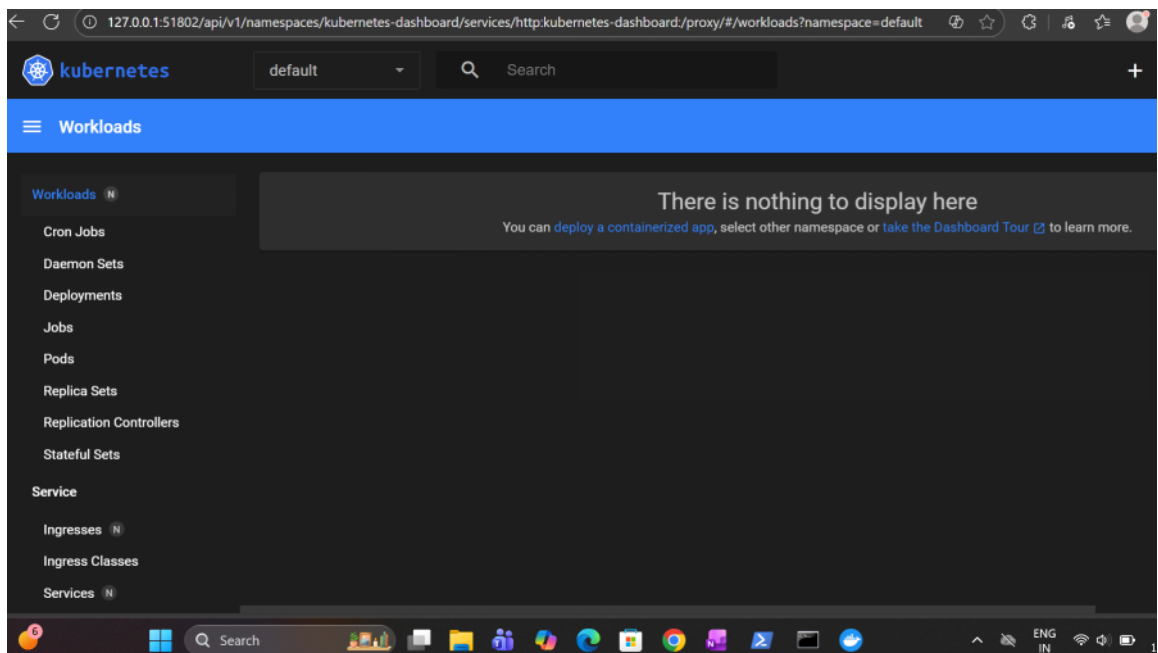
3 Interact with your cluster

```
C:\Windows\System32>minikube start
minikube v1.37.0 on Microsoft Windows 11 Pro 22H2.26200.7171 Build 26200.7171
* Using the docker driver based on existing profile
* Starting "minikube" primary control-plane node in "minikube" cluster
* Pulling base image v0.0.48 ...
* Restarting existing docker container for "minikube" ...
! Failing to connect to https://registry.k8s.io/ from inside the minikube container
* To pull new external images, you may need to configure a proxy: https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
* Preparing Kubernetes v1.34.0 on Docker 28.4.0 ...
* Verifying Kubernetes components...
  - Using image docker.io/kubernetes/metrics-scraper:v1.0.8
  - Using image docker.io/kubernetes/dashboard:v2.7.0
  - Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Some dashboard features require the metrics-server addon. To enable all features please run:
    minikube addons enable metrics-server
* Enabled addons: storage-provisioner, default-storageclass, dashboard
! C:\Program Files\Docker\Docker\resources\bin\kubectl.exe is version 1.32.2, which may have incompatibilities with Kubernetes 1.34.0.
  - Want kubectl v1.34.0? Try 'minikube kubectl -- get pods -A'
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS
bb39b30f6977	gcr.io/k8s-minikube/kicbase:v0.0.48	"/usr/local/bin/entr..."	4 weeks ago	Up About a min
1:55298->22/tcp,	127.0.0.1:55300->2376/tcp,	127.0.0.1:55296->5000/tcp,	127.0.0.1:55299->8443/tcp,	127.0.0.1:55299->8443/tcp,
/tcp	minikube			

```
C:\Windows\System32>docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS
3b39b30f6977   gcr.io/k8s-minikube/kicbase:v0.0.48 "/usr/local/bin/entr..." 4 weeks ago    Up About a minute 127.0.0.1:55298->22/tcp, 127.0.0.1:55300->2376/tcp, 127.0.0.1:55296->5000/tcp, 127.0.0.1:55299->8443/tcp, 127.0.0.1:55297->32443/tcp
minikube

C:\Windows\System32>minikube dashboard
* Launching proxy ...
* Verifying proxy health ...
* Opening http://127.0.0.1:51802/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in your default browser...
```



```
C:\Windows\System32>minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
```

```
Microsoft Windows [Version 10.0.20200.711]
(c) Microsoft Corporation. All rights reserved.

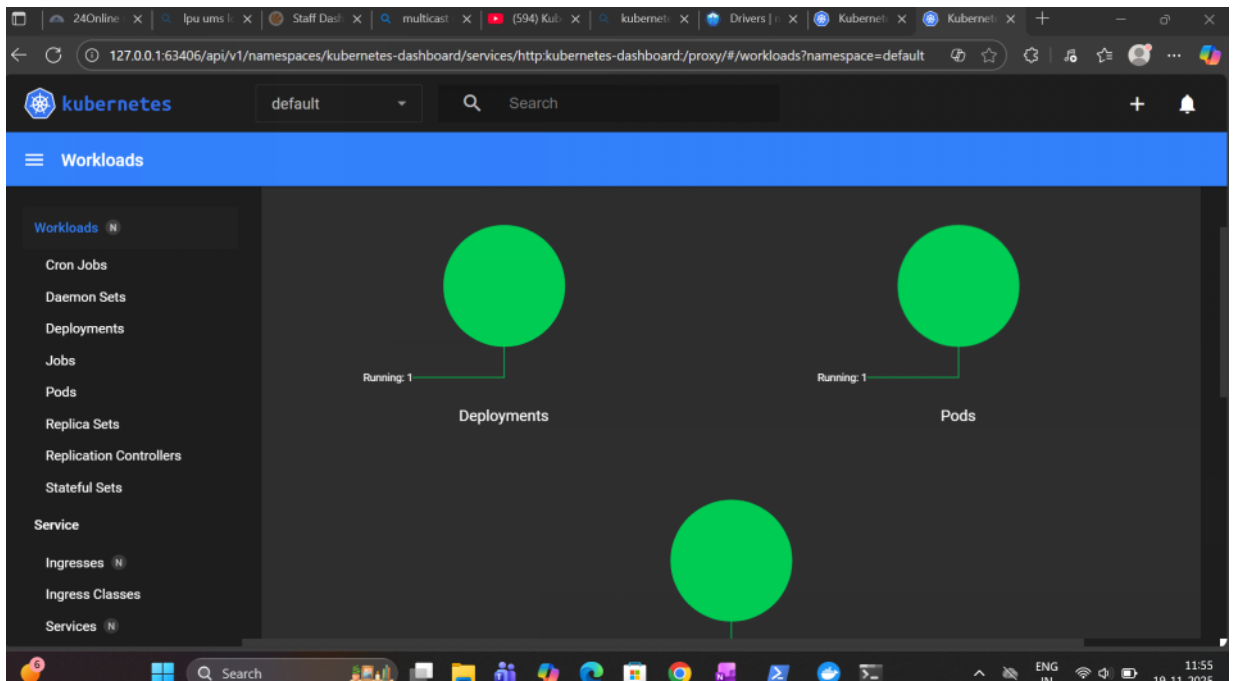
C:\Users\DELL>kubectl get services
NAME         TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
kubernetes   ClusterIP   10.96.0.1    <none>        443/TCP    27d

C:\Users\DELL>kubectl create deployment my-nginx --image=nginx
deployment.apps/my-nginx created

C:\Users\DELL>kubectl get deployments
NAME        READY   UP-TO-DATE   AVAILABLE   AGE
my-nginx    0/1     1             0           13s

C:\Users\DELL>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
my-nginx-54fc6798c5-s56t2          1/1     Running   0           54s

C:\Users\DELL>minikube dashboard
* Verifying dashboard health ...
* Launching proxy ...
* Verifying proxy health ...
* Opening http://127.0.0.1:63406/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in your default browser...
```



```
C:\Users\DELL>kubectl expose deployment my-nginx --port=80 --type=LoadBalancer
service/my-nginx-exposed

C:\Users\DELL>kubectl get services
NAME         TYPE          CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
kubernetes   ClusterIP     10.96.0.1     <none>         443/TCP          28d
my-nginx     LoadBalancer 10.107.159.46 <pending>      80:30698/TCP     23s

C:\Users\DELL>minikube service my-nginx
```

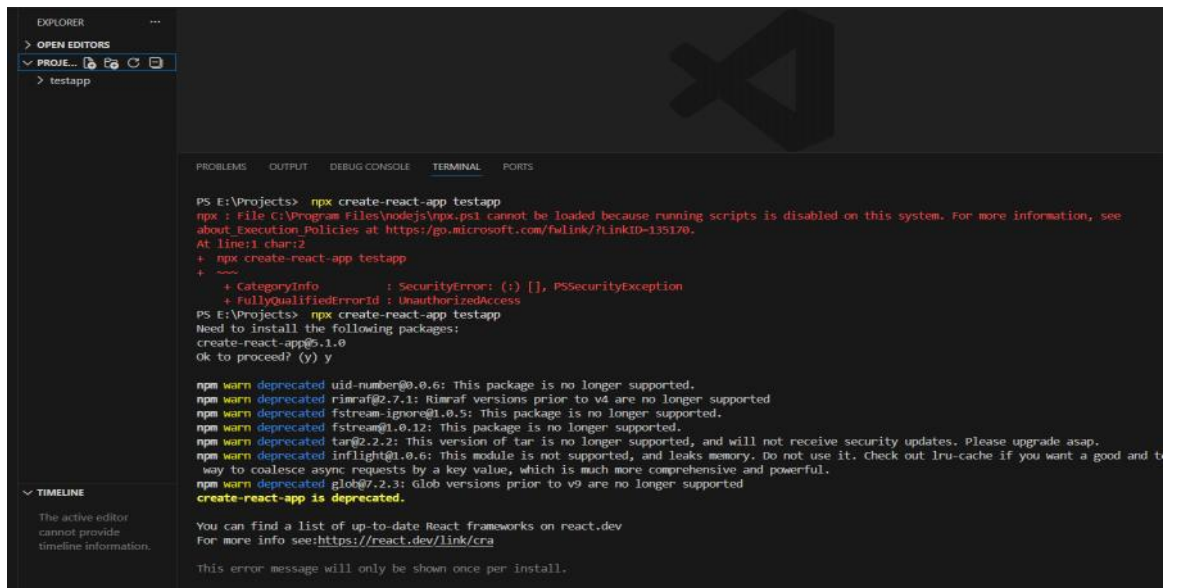
NAMESPACE	NAME	TARGET PORT	URL
default	my-nginx	80	http://192.168.49.2:30698

```
* Starting tunnel for service my-nginx.
* Starting tunnel for service my-nginx.
* Opening service default/my-nginx in default browser...
! Because you are using a Docker driver on windows, the terminal needs to be open to run it.
```



Kubernetes Basics Modules

1. Create a Kubernetes cluster
2. Deploy an app
3. Explore your app
4. Expose your app publicly
5. Scale up your app
6. Update your app

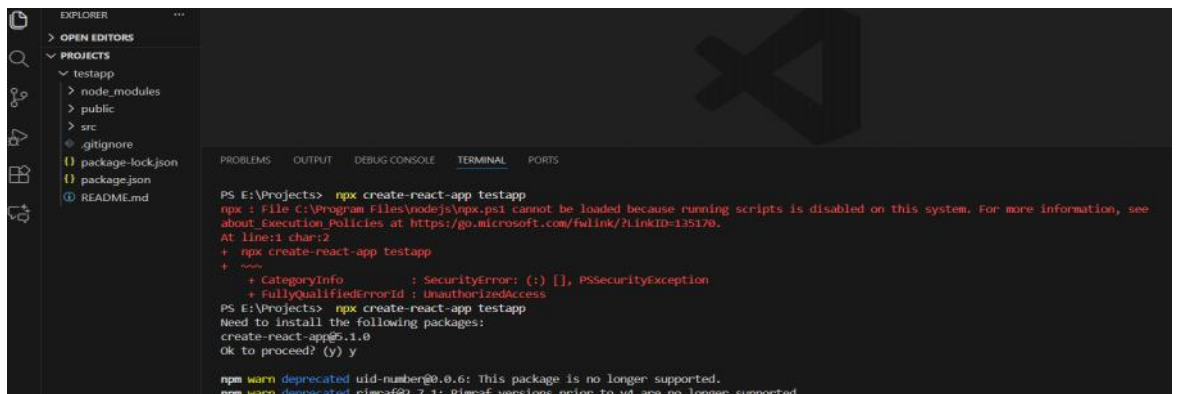


```
PS E:\Projects> npx create-react-app testapp
npx : File C:\Program Files\nodejs\npx.ps1 cannot be loaded because running scripts is disabled on this system. For more information, see
about Execution_Policies at https://go.microsoft.com/fwlink/?linkID=135170.
At line:1 char:2
+ npx create-react-app testapp
+ ~~~~
+ CategoryInfo          : SecurityError: (i) [], PSException
+ FullyQualifiedErrorId : UnauthorizedAccess
PS E:\Projects> npx create-react-app testapp
Need to install the following packages:
create-react-app@5.1.0
Ok to proceed? (y) y

npm warn deprecated uid-number@0.0.6: This package is no longer supported.
npm warn deprecated rimraf@2.7.1: Rimraf versions prior to v4 are no longer supported.
npm warn deprecated fstream-ignore@1.0.5: This package is no longer supported.
npm warn deprecated fstream@1.0.12: This package is no longer supported.
npm warn deprecated tar@2.2.2: This version of tar is no longer supported, and will not receive security updates. Please upgrade asap.
npm warn deprecated inflight@1.0.6: This module is not supported, and leaks memory. Do not use it. Check out lru-cache if you want a good and t
way to coalesce async requests by a key value, which is much more comprehensive and powerful.
npm warn deprecated glob@7.2.3: Glob versions prior to v9 are no longer supported
create-react-app is deprecated.

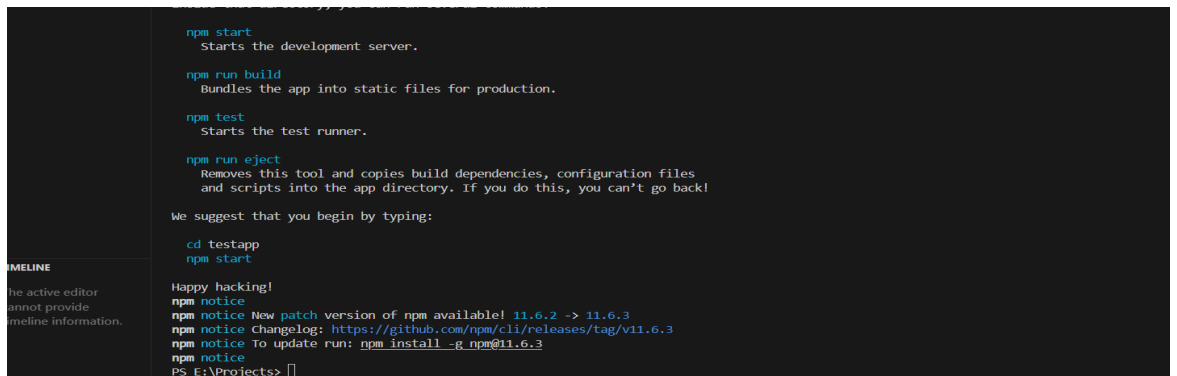
You can find a list of up-to-date React frameworks on react.dev
For more info see:https://react.dev/link/cra

This error message will only be shown once per install.
```



```
PS E:\Projects> npx create-react-app testapp
npx : File C:\Program Files\nodejs\npx.ps1 cannot be loaded because running scripts is disabled on this system. For more information, see
about Execution_Policies at https://go.microsoft.com/fwlink/?linkID=135170.
At line:1 char:2
+ npx create-react-app testapp
+ ~~~~
+ CategoryInfo          : SecurityError: (i) [], PSException
+ FullyQualifiedErrorId : UnauthorizedAccess
PS E:\Projects> npx create-react-app testapp
Need to install the following packages:
create-react-app@5.1.0
Ok to proceed? (y) y

npm warn deprecated uid-number@0.0.6: This package is no longer supported.
npm warn deprecated rimraf@2.7.1: Rimraf versions prior to v4 are no longer supported
```



```
npm start
Starts the development server.

npm run build
Bundles the app into static files for production.

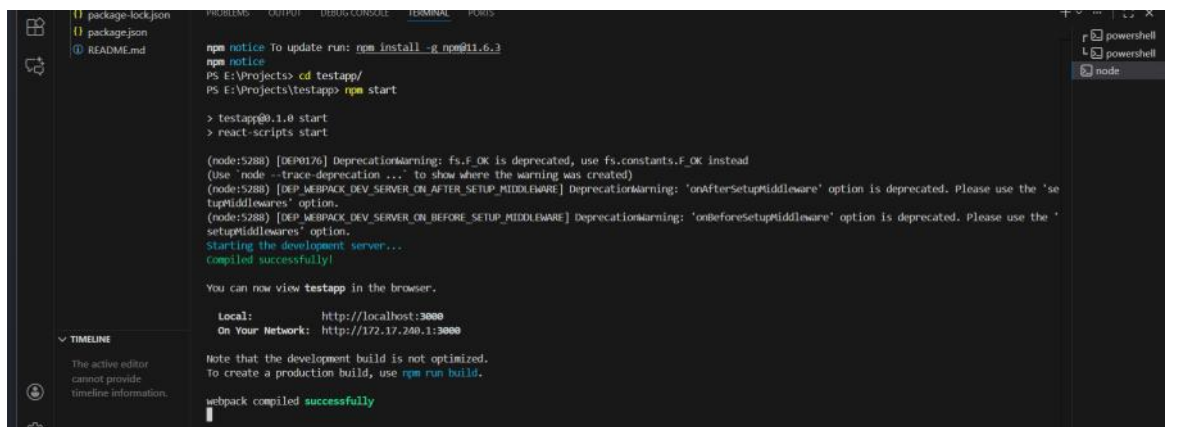
npm test
Starts the test runner.

npm run eject
Removes this tool and copies build dependencies, configuration files
and scripts into the app directory. If you do this, you can't go back!

We suggest that you begin by typing:

cd testapp
npm start

Happy hacking!
npm notice
npm notice New patch version of npm available! 11.6.2 -> 11.6.3
npm notice Changelog: https://github.com/npm/cli/releases/tag/v11.6.3
npm notice To update run: npm install -g npm@11.6.3
npm notice
PS E:\Projects> []
```



```
npm notice To update run: npm install -g npm@11.6.3
npm notice
PS E:\Projects> cd testapp/
PS E:\Projects\testapp> npm start

> testapp@0.1.0 start
> react-scripts start

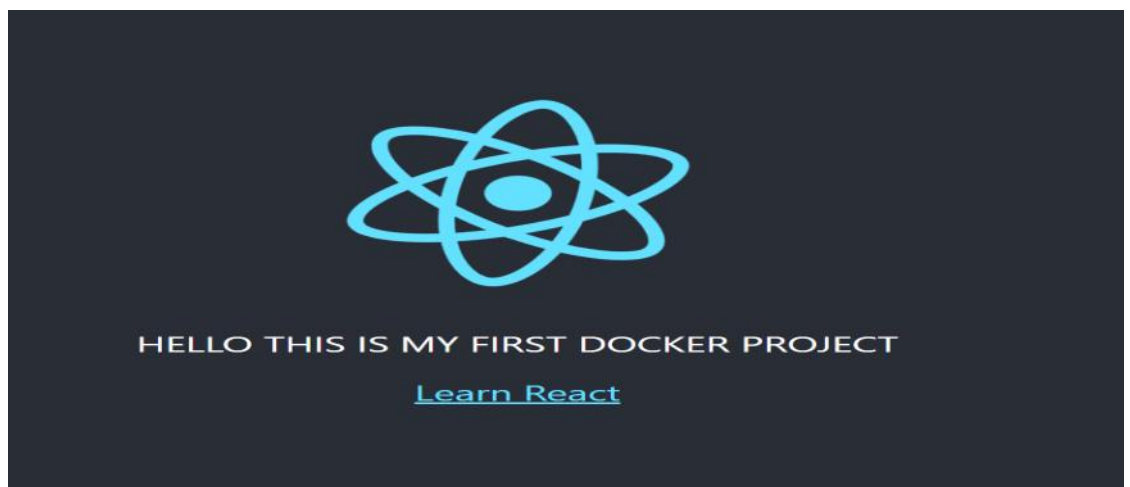
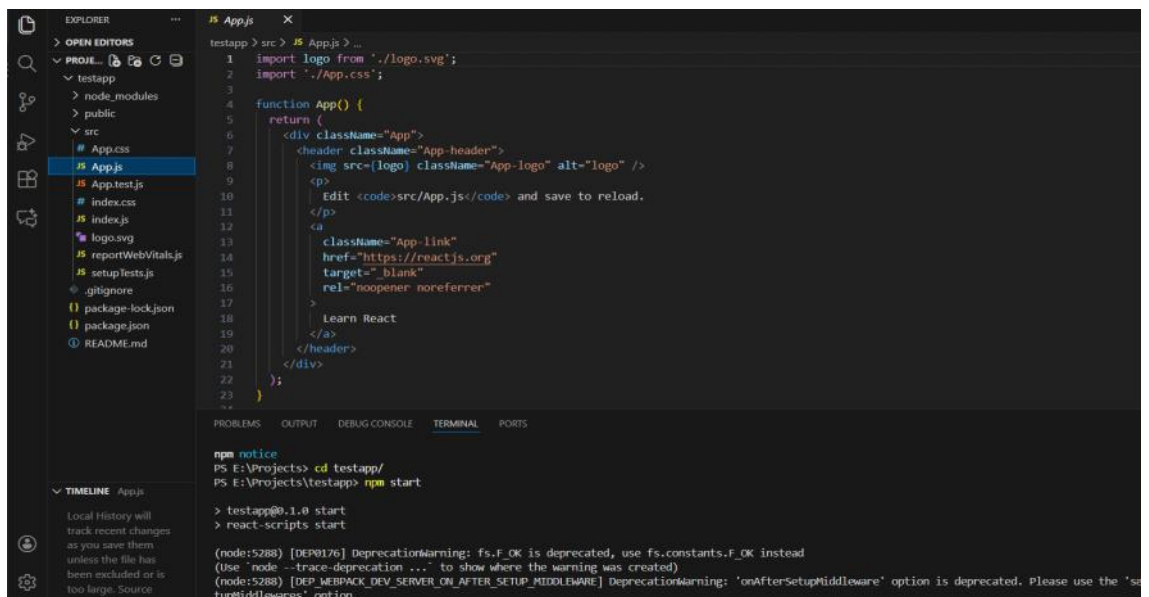
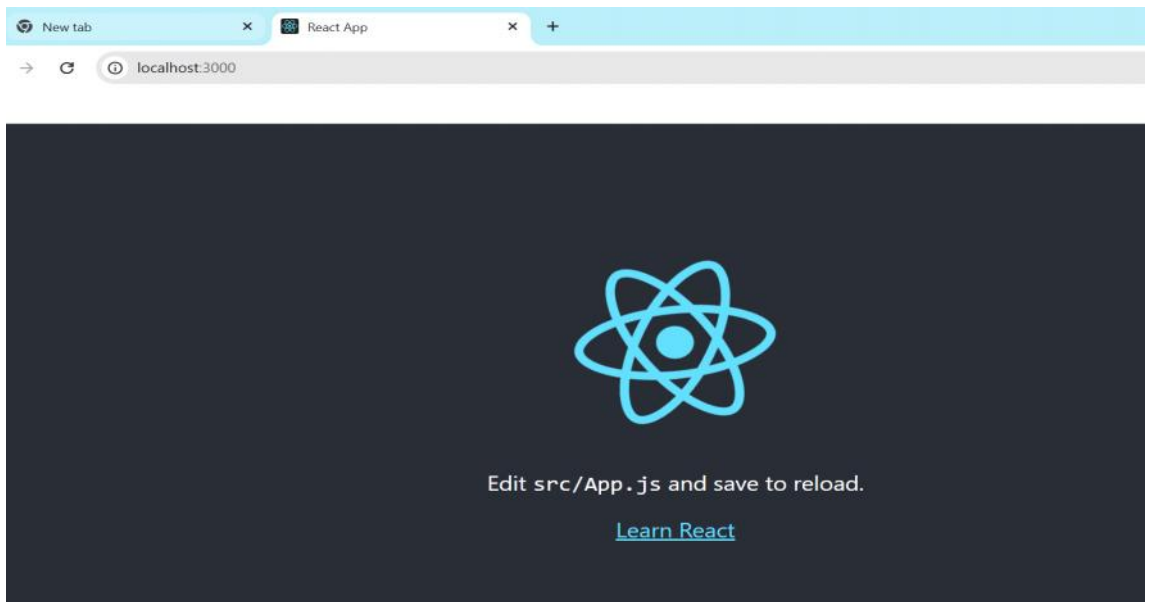
(node:5288) [DEP0176] DeprecationWarning: fs.F_OK is deprecated, use fs.constants.F_OK instead
(Use 'node --trace-deprecation ...' to show where the warning was created)
(node:5288) [DEP_WEBPACK_DEV_SERVER_ON_AFTER_SETUP_MIDDLEWARE] DeprecationWarning: 'onAfterSetupMiddleware' option is deprecated. Please use the 'se
tupMiddlewares' option.
(node:5288) [DEP_WEBPACK_DEV_SERVER_ON_BEFORE_SETUP_MIDDLEWARE] DeprecationWarning: 'onBeforeSetupMiddleware' option is deprecated. Please use the '
setMiddlewares' option.
Starting the development server...
Compiled successfully!

You can now view testapp in the browser.

Local:      http://localhost:3000
On Your Network:  http://172.17.240.1:3000

Note that the development build is not optimized.
To create a production build, use npm run build.

webpack compiled successfully
```

```
> node_modules
> public
> src
  App.css
  App.js
  App.test.js
  index.css
  index.js
  logo.svg
  reportWebVitals.js
  setupTests.js
  .gitignore
  package-lock.json
  package.json
  README.md

function App() {
  return (
    <div className="App">
      <header className="App-header">
        <img src={logo} className="App-logo" alt="logo" />
        <p>
          HELLO THIS IS MY FIRST DOCKER PROJECT
        </p>
        <a
          className="App-link"
          href="https://reactjs.org"
          target="_blank"
          rel="noopener noreferrer"
        >
          Learn React
        </a>
      </header>
    </div>
  );
}
```

```
PS E:\Projects> cd testapp
PS E:\Projects\testapp> docker images
error during connect: Head "http://x2f2f.2f2fpipe2f2fdockerDesktopLinuxEngine/_ping": open //.:pipe/dockerDesktopLinuxEngine: The system cannot find the file specified.

PS E:\Projects\testapp> docker images
REPOSITORY          TAG                 IMAGE ID            CREATED            SIZE
nginx                alpine             b3c656d55d7a       3 weeks ago       79.8MB
mysql                latest             569c4128dfa6       4 weeks ago       1.27GB
mysql                8.0               f37951fc3753       4 weeks ago       1.07GB
alpine               latest             4b7ce07002c6       6 weeks ago       12.8MB
ubuntu               latest             6646d557b25        7 weeks ago       117MB
gcr.io/k8s-minikube/kicbase <none>             7171c97a5162       2 months ago      1.84GB
gcr.io/k8s-minikube/kicbase v0.0.48            41454ef774d0       2 months ago      1.84GB
hello-world          latest             f7931603f70e       3 months ago      20.3KB
docker/desktop-kubernetes kubernetess-v1.32.2-cni-v1.6.0-critools-v1.31.1-cri-dockerd-v0.3.16-1-debian fdd1722efdcc       9 months ago      596MB
registry.k8s.io/kube-apiserver v1.32.2            c47449f3e751       9 months ago      129MB
registry.k8s.io/kube-scheduler v1.32.2            45710d74cfd5       9 months ago      93.5MB
registry.k8s.io/kube-controller-manager v1.32.2            399aa50f4d13       9 months ago      119MB
registry.k8s.io/kube-proxy v1.32.2            83c025f0faa6       9 months ago      42MB
busybox              latest             e3652a00a2fa       14 months ago     6.70MB
```

```
PS E:\Projects\testapp> docker build -t bilalbashir136/demorepository:01 .
[+] Building 156.3s (9/9) FINISHED
=> [internal] load build definition from Dockerfile
=> transferring Dockerfile: 13B
=> [internal] load metadata for docker.io/library/node:latest
=> [internal] load .dockerignore
=> transferring context: 2B
=> [1/4] FROM docker.io/library/node:latest@sha256:7478f3725ef76ce6ba257a6818ea43c5eb7eb5bd424fec3df3a80ff77203305e
=> resolve docker.io/library/node:latest@sha256:7478f3725ef76ce6ba257a6818ea43c5eb7eb5bd424fec3df3a80ff77203305e
=> sha256:73d85704c819d129f8e90efc40ced3580c8a2f4fa073f2856a8627275be0b0 447B / 447B
=> sha256:29d8662fc17dd9a1d4907978c65a9134787d9ea0bf3b82e63dc7a7f21190c15 1.25MB / 1.25MB
=> sha256:435cbcd6a09726bcb9f8d22a300b973c2104aaf7f0406a121864e9e5beb 56.10MB / 56.10MB
=> sha256:78c780840163e5719547f99e490ef7427b034f544ebd153c7e16183406 3.33MB / 3.33MB
=> sha256:a1208d53eb0667932460017a5ef3960c5ed2a6a0143d32b083abe2f893ce0b9a 211.46MB / 211.46MB
=> sha256:078b2eece9b24f61752af986bd4dd04f977e3e7d6fe15a908a584147bc6ba05 64.40MB / 64.40MB
=> sha256:8cdf261ed5cee6fd4e729e08c2831a0ab0c7c017569ab45df12240b0c3712d 24.03MB / 24.03MB
=> sha256:708274aafe49b02dddc66f97a5c45bb0b8fc481ce0b43705b1f787fdae1b 48.40MB / 48.40MB
=> extracting sha256:708274aafe49b02dddc66f97a5c45bb0b8fc481ce0b43705b1f787fdae1b
=> extracting sha256:8cdf261ed5cee6fd4e729e08c2831a0ab0c7c017569ab45df12240b0c3712d
=> extracting sha256:078b2eece9b24f61752af986bd4dd04f977e3e7d6fe15a908a584147bc6ba05
=> extracting sha256:a1208d53eb0667932460017a5ef3960c5ed2a6a0143d32b083abe2f893ce0b9a
```

```
PS E:\Projects\testapp> docker build -t bilalbashir136/demorepository:01 .
=> unpacking to docker.io/bilalbashir136/demorepository:01

PS E:\Projects\testapp> docker images
REPOSITORY          TAG                 IMAGE ID            CREATED            SIZE
bilalbashir136/demorepository 01                 e21b6c0d123c       53 seconds ago    2.15GB
nginx                alpine             b3c656d55d7a       3 weeks ago       79.8MB
mysql                latest             569c4128dfa6       4 weeks ago       1.27GB
mysql                8.0               f37951fc3753       4 weeks ago       1.07GB
alpine               latest             4b7ce07002c6       6 weeks ago       12.8MB
ubuntu               latest             6646d557b25        7 weeks ago       117MB
gcr.io/k8s-minikube/kicbase <none>             7171c97a5162       2 months ago      1.84GB
gcr.io/k8s-minikube/kicbase v0.0.48            41454ef774d0       2 months ago      1.84GB
hello-world          latest             f7931603f70e       3 months ago      20.3KB
docker/desktop-kubernetes kubernetess-v1.32.2-cni-v1.6.0-critools-v1.31.1-cri-dockerd-v0.3.16-1-debian fdd1722efdcc       9 months ago      596MB
registry.k8s.io/kube-apiserver v1.32.2            c47449f3e751       9 months ago      129MB
registry.k8s.io/kube-controller-manager v1.32.2            45710d74cfd5       9 months ago      93.5MB
registry.k8s.io/kube-proxy v1.32.2            83c025f0faa6       9 months ago      42MB
registry.k8s.io/kube-scheduler v1.32.2            399aa50f4d13       9 months ago      119MB
busybox              latest             e3652a00a2fa       14 months ago     6.70MB
registry.k8s.io/etcd v3.5.16-0          66a8d11cc50b       14 months ago     211MB
registry.k8s.io/coredns/coredns v1.11.3            9cabb16230b        15 months ago     85.1MB
registry.k8s.io/pause 3.10               ee6521f20802       18 months ago     1.00MB
docker/desktop-vpnkit-controller dc311cb22850be0cd597c842cfcfa44a1f6e 7ecf567ea070       2 years ago       47MB
```

```
testapp 2 - Dockerfile 2
10 CMD ["npm", "start"]

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS E:\Projects\testapp> docker images
java 6b38
PS E:\Projects\testapp> docker push bilalbashir136/demorepository:01
The push refers to repository [docker.io/bilalbashir136/demorepository]
68e5d1deefe9: Already exists
9801632b789d: Layer already exists
85bfc91a1c5b: Layer already exists
a1208d53eb06: Layer already exists
078b2eece9b2: Layer already exists
708274aafe49: Layer already exists
435cbcd6a03: Layer already exists
8cdf261ed5c: Layer already exists
29dd662fc17f: Layer already exists
78c780840163: Layer already exists
f03805a7be07: Layer already exists
72d86704dc819: Layer already exists
01: digest: sha256:e21b6c0d323cf15995bcb0b484c56ea54ace3e943acfd0fb9a217f952f067de8 size: 856
PS E:\Projects\testapp>
```



```
JS reportWebVitals.js
JS setupTests.js
.gitignore
Dockerfile
package-lock.json
package.json
README.md

73d86704c819: Layer already exists
01: digest: sha256:e21b6c9d323cfd15995bc0b484c56ea54ace3e943acfd9b9a217f952f067de8 size: 856
PS E:\Projects\testapp> minikube status
minikube
type: Control Plane
host: Stopped
kubelet: Stopped
apiserver: Stopped
kubeconfig: Stopped

PS E:\Projects\testapp> minikube start
minikube v1.37.0 on Microsoft Windows 11 Pro 10.0.26200.7171 Build 26200.7171
Using the docker driver based on existing profile
Starting "minikube" primary control-plane node in "minikube" cluster
Pulling base image v0.0.48 ...
Restarting existing docker container for "minikube"
Restarting existing docker container for "minikube"
Restarting existing docker container for "minikube"
Restarting existing docker container for "minikube"
Restarting existing docker container for "minikube"
Restarting existing docker container for "minikube"
Restarting existing docker container for "minikube"
Restarting existing docker container for "minikube"
Restarting existing docker container for "minikube"
```

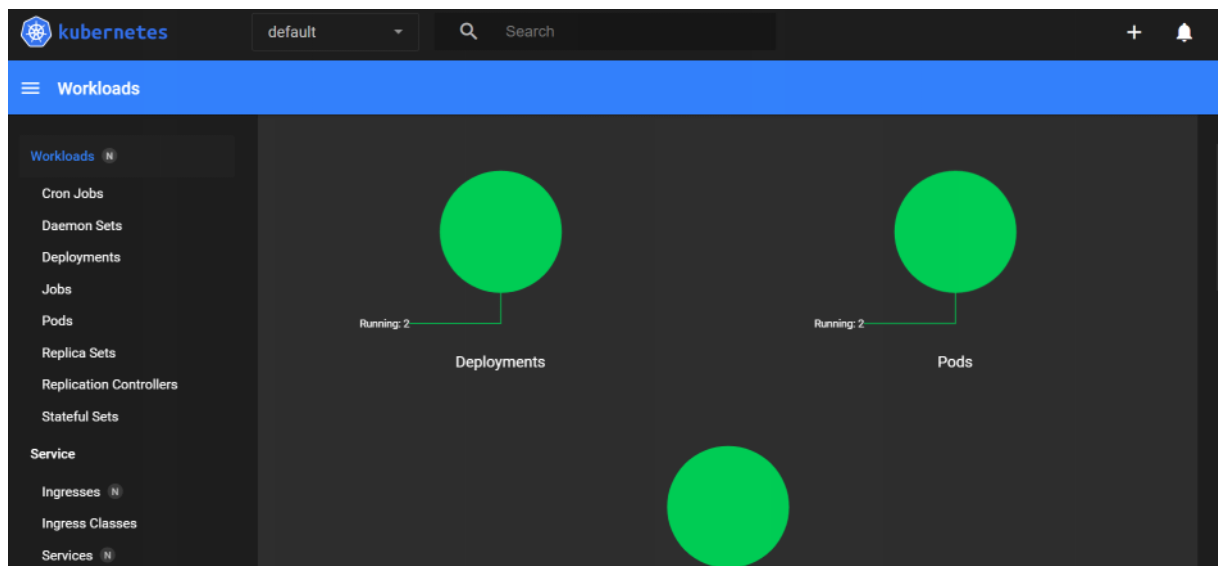
```
+ minikube status
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (minikube:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

PS E:\Projects\testapp> minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured

PS E:\Projects\testapp> kubectl create deployment my-webapp --image=bilalbashir136/demorepository:01
error: unknown flag: --image
See 'kubectl create --help' for usage.
PS E:\Projects\testapp> kubectl create deployment my-webapp --image=bilalbashir136/demorepository:01
deployment.apps/my-webapp created
PS E:\Projects\testapp>
```

```
.gitignore
Dockerfile
package-lock.json
package.json
README.md

error: unknown flag: --image
See 'kubectl create --help' for usage.
PS E:\Projects\testapp> kubectl create deployment my-webapp --image=bilalbashir136/demorepository:01
deployment.apps/my-webapp created
PS E:\Projects\testapp> kubectl get deployment
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
my-nginx      1/1     1            1           3d3h
my-webapp     0/1     1            0           91s
PS E:\Projects\testapp> kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
my-nginx-54fc6798c5-s56t2          1/1     Running   2 (5m15s ago)   3d3h
my-webapp-55dfd64f8f-k6m1t         1/1     Running   0             2m12s
PS E:\Projects\testapp> minikube dashboard
Verifying dashboard health ...
Launching proxy ...
Verifying proxy health ...
Opening http://127.0.0.1:55016/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in your default browser...
```

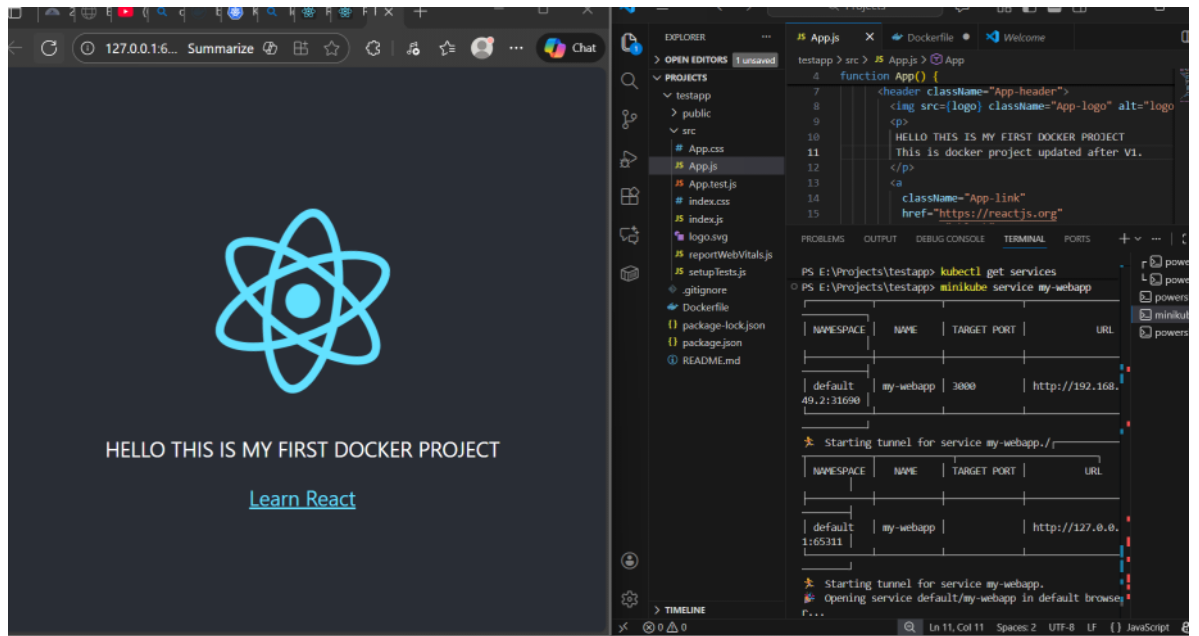


```
Dockerfile
package-lock.json
package.json
README.md

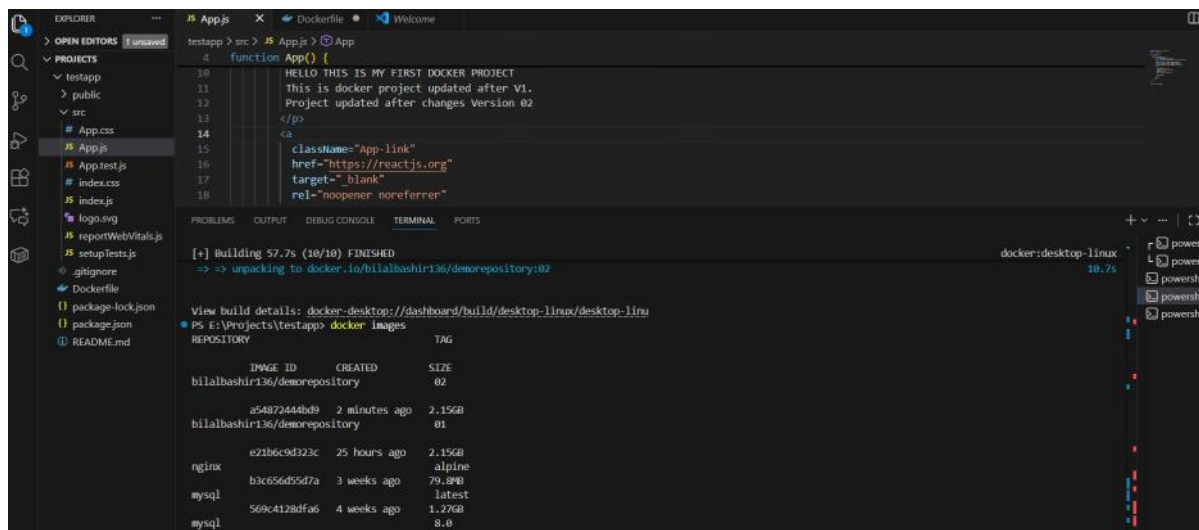
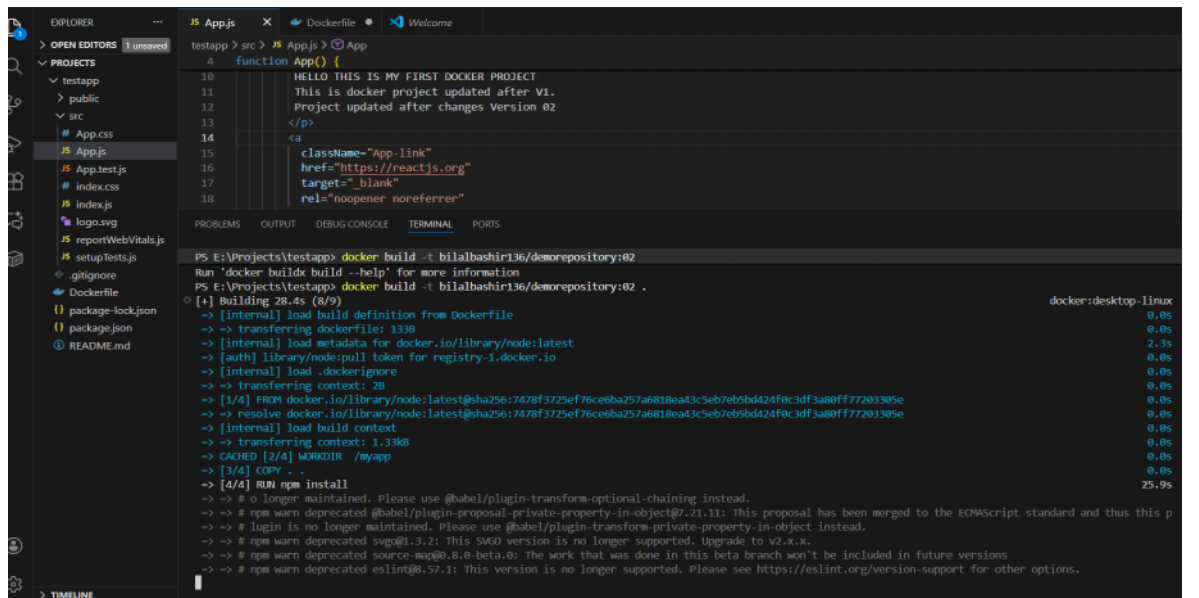
my-webapp LoadBalancer 10.106.142.60 <pending> 3000:31690/TCP 6m30s
PS E:\Projects\testapp> minikube service my-webapp
NAME      TARGET PORT  URL
default  my-webapp    3000      http://192.168.49.2:31690

Starting tunnel for service my-webapp.
NAME      TARGET PORT  URL
default  my-webapp    http://127.0.0.1:54133

Starting tunnel for service my-webapp.
Opening service default/my-webapp in default browser...
! Because you are using a Docker driver on windows, the terminal needs to be open to run it.
PS E:\Projects\testapp> kubectl expose deployment my-webapp --type=LoadBalancer --port=3000
Error from server (AlreadyExists): services "my-webapp" already exists
PS E:\Projects\testapp> kubectl get services
NAME      TYPE          CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
kubernetes ClusterIP   10.96.0.1     <none>         443/TCP          31d
my-nginx  LoadBalancer 10.107.159.46 <pending>      80:30698/TCP     3d2h
my-webapp LoadBalancer 10.106.142.60 <pending>      3000:31690/TCP   7m44s
PS E:\Projects\testapp>
```



Updating project in live environment :update source file,then create docker file and upload



Push the images

```
docker/desktop-storage-provisioner v2.0 115d77ef6e2 4 years ago 59.2MB
java 6b38 de9769e93b34 8 years ago 657MB
PS E:\Projects\testapp> docker push bilalbashir136/demorepository:02
The push refers to repository [docker.io/bilalbashir136/demorepository]
73d6b704d819: Layer already exists
0d682fb92663: Pushed
8cdf261ed5c: Layer already exists
4f1458c55d54: Pushed
93c809e49200: Pushed
29dd662fc17f: Layer already exists
85bfc19a1c5b: Layer already exists
78c780840163: Layer already exists
435b61d6a03: Layer already exists
788274aaf649: Layer already exists
a1208d53eb06: Layer already exists
078b2eece9b2: Layer already exists
02: digest: sha256:a54872444bd9d6493e0b2273bae8b7be85bbf713996a51b5f808cf0f69c6bd7a size: 856
PS E:\Projects\testapp>
```

https://hub.docker.com/repository/docker/bilalbashir136/demorepository/tags

Sort by Newest Filter tags Delete

Notifications

Billing Usage Pulls Storage

TAG 02 Last pushed 1 minute by bilalbashir136

docker pull bilalbashir136/demorepository:02

Digest	OS/ARCH	Last pull	Compressed size
fbdb5d51edca	linux/amd64	less than 1 day	474.56 MB

TAG 01 Last pushed about 1 hour by bilalbashir136

docker pull bilalbashir136/demorepository:01

Digest	OS/ARCH	Last pull	Compressed size
acba1c8e3d09	linux/amd64	less than 1 day	474.57 MB

```
11 This is docker project updated after v1.
12 Project updated after changes Version 02
13 </p>
14 <a
15   className="App-link"
16   href="https://reactjs.org"
17   target="_blank"
18   rel="noopener noreferrer"
19 >
20 </a>
21 </div>
22 </div>
23 </div>
24 </div>
25 </div>
26 </div>
27 </div>
28 </div>
29 </div>
30 </div>
31 </div>
32 </div>
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95 </div>
96 </div>
97 </div>
98 </div>
99 </div>
100 </div>
```

PS E:\Projects\testapp> docker images

PS E:\Projects\testapp> kubectl get deployment

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
my-nginx	1/1	1	1	34dh
my-webapp	1/1	1	1	46m

PS E:\Projects\testapp> kubectl get pods

NAME	READY	STATUS	RESTARTS	AGE
my-nginx-54fc6798c5-s56t2	1/1	Running	2 (49m ago)	34dh
my-webapp-55df6d4f8f-ksalt	1/1	Running	0	46m

PS E:\Projects\testapp> kubectl set image deployment my-webapp demorepository-bilalbashir136/demorepository:02

deployment.apps/my-webapp image updated

PS E:\Projects\testapp> kubectl get pods

NAME	READY	STATUS	RESTARTS	AGE
my-nginx-54fc6798c5-s56t2	1/1	Running	2 (56m ago)	34dh
my-webapp-55df6d4f8f-ksalt	1/1	Running	0	53m
my-webapp-57654c56db-omhqv	0/1	ContainerCreating	0	7s

App updated older pod delted automatically

```
14      className="App-link"
15      href="https://reactjs.org"
16      target="_blank"
17      rel="noopener noreferrer"
18    </a>
  
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS E:\Projects\testapp> docker images
PS E:\Projects\testapp> kubectl set image deployment my-webapp
PS E:\Projects\testapp> minikube dashboard
  Verifying dashboard health ...
  Launching proxy ...
  Verifying proxy health ...
  Opening http://127.0.0.1:356352/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard/proxy/ in your default browser...
PS E:\Projects\testapp> kubectl set image deployment my
  kubectl set image deployment my
PS E:\Projects\testapp> kubectl set image deployment my-webapp demorepository-bilalbashir136/demorepository:02
deployment.apps/my-webapp image updated
PS E:\Projects\testapp> kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
my-nginx-54fc6798c5-s56t2           1/1     Running   2 (56m ago) 3d4h
my-webapp-5d6f6d4af-knalt           1/1     Running   0           53m
my-webapp-57654c56db-6mbxv          0/1     ContainerCreating 0           7s
PS E:\Projects\testapp> kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
my-nginx-54fc6798c5-s56t2           1/1     Running   2 (57m ago) 3d4h
my-webapp-57654c56db-6mbxv          1/1     Running   0           78s
PS E:\Projects\testapp> kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
my-nginx-54fc6798c5-s56t2           1/1     Running   2 (57m ago) 3d4h
my-webapp-57654c56db-6mbxv          1/1     Running   0           90s
PS E:\Projects\testapp>
  
```

kubernetes default Search

Workloads > Pods > my-webapp-57654c56db-6mbxv

Containers

demorepository

Image
bilalbashir136/demorepository:02

Status

Ready	Started	Started At
true	true	2025-11-22T10:59:09Z

Mounts

Name	Read Only	Mount Path	Sub Path	Source Type	Source
kube-api-access-cdqct	true	/var/run/secrets/kubernetes.io/serviceaccount		Projected	

PROJECTS

- testapp
 - public
 - src
 - App.css
 - App.js
 - App.test.js
 - index.css
 - index.js
 - logo.svg
 - reportWebVitals.js
 - setupTests.js
 - gitignore
 - Dockerfile
 - package-lock.json
 - package.json
 - README.md

```
function App() {
  return (
    <div>
      <p>HELLO THIS IS MY FIRST DOCKER PROJECT</p>
      <p>This is docker project updated after V1.</p>
      <p>Project updated after changes Version 02</p>
    </div>
  )
}
  
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS E:\Projects\testapp> minikube service my-webapp
NAMESPACE   NAME   TARGET PORT   URL
default     my-webapp   3000          http://192.168.49.2:31690

Starting tunnel for service my-webapp.
NAMESPACE   NAME   TARGET PORT   URL
default     my-webapp   3000          http://127.0.0.1:55423

Starting tunnel for service my-webapp.
Opening service default/my-webapp in default browser
f...
! Because you are using a Docker driver on windows, the terminal needs to be open to run it.
  
```

HELLO THIS IS MY FIRST DOCKER PROJECT This is docker project updated after V1. Project updated after changes Version 02

[Learn React](#)