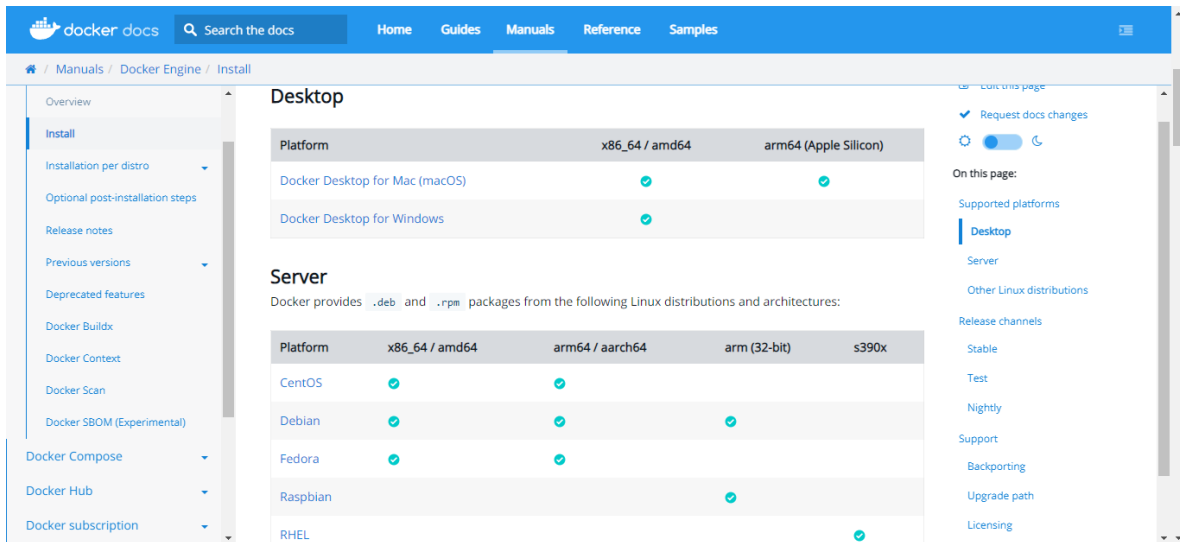
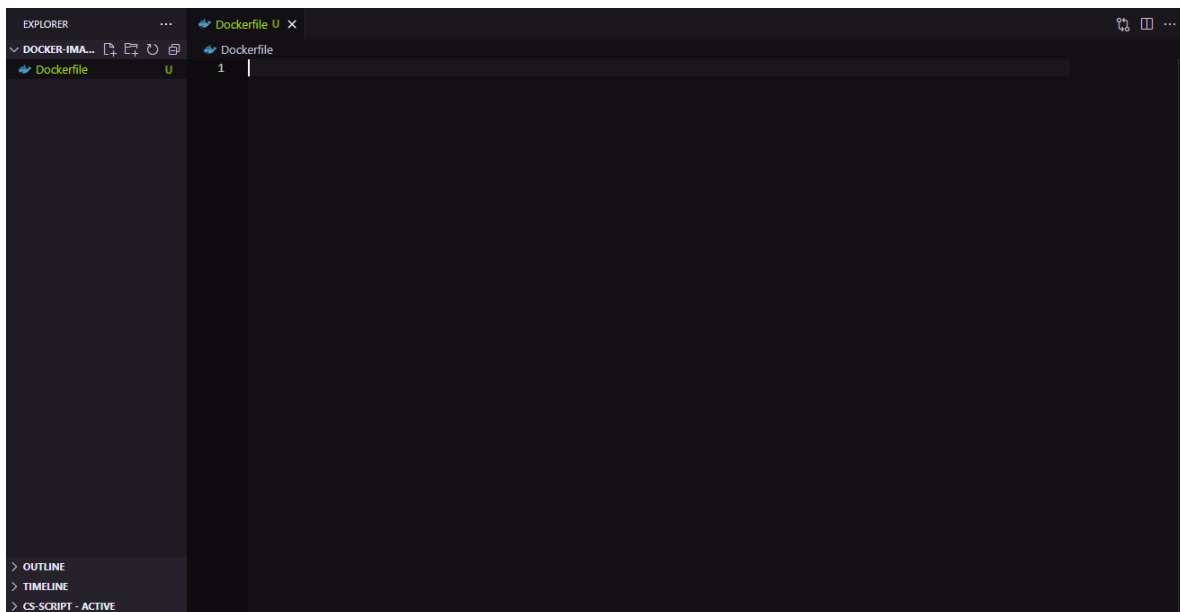


# Creating a Docker image

Install Docker on the local machine. To get the latest build go to <https://docs.docker.com/engine/install/>



Once Docker is installed, create a Dockerfile inside the working directory.



In this case, a Docker image of Jenkins with Python is going to be created. The following is the final Dockerfile which will pull Jenkins LTS image and from there install Python.

```
Dockerfile U X
Dockerfile > ...
1 FROM jenkins/jenkins:lts-jdk11
2 USER root
3 RUN apt-get update
4 RUN apt-get install -y python3-pip
```

Once the Dockerfile is ready, build the docker image using the command

`docker build -t <"tag-of-image"> <path-to-Dockerfile>`

```
C:\Users\57316\Desktop\Bootcamp_Jalasoft\DevOps\docker-image-building>docker build -t "jenkins:python" C:\Users\57316\Desktop\Bootcamp_Jalasoft\DevOps\docker-image-building
[+] Building 41.2s (6/6) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 133B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/jenkins/jenkins:lts-jdk11
=> [1/3] FROM docker.io/jenkins/jenkins:lts-jdk11@sha256:545a48328e879154de809212c2c86273142961ec0583c5bd4c731230e9228fa9
=> => resolve docker.io/jenkins/jenkins:lts-jdk11@sha256:545a48328e879154de809212c2c86273142961ec0583c5bd4c731230e9228fa9
=> => sha256:545a48328e879154de809212c2c86273142961ec0583c5bd4c731230e9228fa9 3.88kB / 3.88kB
=> => sha256:fd576e09d1557d660d171a10e931c7030a20dd9bc71e1c97e611f8a3181027b6 15.56kB / 15.56kB
=> => sha256:714fad1b5f6083590864e480d501e337cc150f68d518f1459fa41b5069800967 45.96kB / 45.96kB
=> => sha256:dbba69284b2786013fe94fefe0c2e66a7d3cecb20f6d691d71dac891ee37be5 54.94MB / 54.94MB
=> => sha256:7a9cfc1d8bc90872e803980de69fb63e7ee6125a813653fe5b72ce05f848ff20 52.76MB / 52.76MB
=> => sha256:1c33b24d149a066db960a284b851070dc68be16ed8c9bd2b10d8c5c05ae52a39 4.06MB / 4.06MB
=> => sha256:ae5685b2891870efa3e8b74114155ac26d625b47af64f7224d7605c55fa5a29a 1.78kB / 1.78kB
=> => sha256:559d6c32b2768ec182b5000e6f76f4ece855eb84db6399f7af4c80ea7ab859c2 187B / 187B
=> => sha256:59d799692e51996be3444a34b69b5f73a9d740ab1348c52101efe8a3eb133e1e 5.59kB / 5.59kB
=> => sha256:37c3ff68dd1f1b168e22b82fddc256760d6b2866a6cfc8582b29b5adb5817e80a 375.41kB / 375.41kB
=> => sha256:0b319955f9116acead5722c88dc93040dbfb3cc86163807cb3c79666d2fbc01d 94.72MB / 94.72MB
=> => sha256:633e98b0c3ff49cf87a8f74dfb8d1a787a2a83c11eea8034cf7fdb8ad0b8bd6 5.71kB / 5.71kB
=> => extracting sha256:dbba69284b2786013fe94fefe0c2e66a7d3cecb20f6d691d71dac891ee37be5
=> => sha256:afdef6b9454b946b911a70c5716260fca9b31eaa06ef4d00a187757d7bb0721b 5.68MB / 5.68MB
=> => sha256:c9fc43dc7764b725c7f3ced7f811b2006019fc855a501781e81e27d66c26516e 76.44MB / 76.44MB
```

Check the created image with `docker images`

```
C:\Users\57316\Desktop\Bootcamp_Jalasoft\DevOps\docker-image-building>docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
jenkins python d90c0cb8b2cd About a minute ago 781MB
```

Run the image using `docker run -p <port>:<port> <image-repository>:<image-tag>`

```
C:\Users\57316\Desktop\Bootcamp_Jalasoft\DevOps\docker-image-building>docker run -p 8080:8080 jenkins:python
Running from: /usr/share/jenkins/jenkins.war
webroot: EnvVars.masterEnvVars.get("JENKINS_HOME")
2022-04-12 21:52:07.359+0000 [id=1] INFO org.eclipse.jetty.util.log.Log#initialized: logging initialized @737ms to org.eclipse.
2022-04-12 21:52:07.473+0000 [id=1] INFO winstone.Logger#logInternal: Beginning extraction from war file
2022-04-12 21:52:08.466+0000 [id=1] WARNING o.e.j.s.handler.ContextHandler#setContextPath: Empty contextPath
2022-04-12 21:52:08.584+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: jetty-9.4.43.v20210629; built: 2021-06-30T11:
27ef3a288e2bef7ea9dd7e8; jvm 11.0.14.1+1
2022-04-12 21:52:09.018+0000 [id=1] INFO o.e.j.w.StandardDescriptorProcessor#visitServlet: NO JSP Support for /, did not find o
et
2022-04-12 21:52:09.092+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManager#doStart: DefaultSessionIdManager workerName=node0
2022-04-12 21:52:09.092+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManager#doStart: No SessionScavenger set, using defaults
2022-04-12 21:52:09.095+0000 [id=1] INFO o.e.j.server.session.HouseKeeper#startScavenging: node0 Scavenging every 660000ms
2022-04-12 21:52:10.029+0000 [id=1] INFO hudson.WebAppMain#contextInitialized: Jenkins home directory: /var/jenkins_home found
KINS_HOME")
2022-04-12 21:52:10.409+0000 [id=1] INFO o.e.j.s.handler.ContextHandler#doStart: Started w.@618ad2aa{Jenkins v2.332.2,/file://0
/var/jenkins_home/war}
```

The image has been built and is now running.

