**NGINX Application Deployment**

**STEP 1**

**Cloning repository**

Cloned the given repository.

**STEP 2**

**Files creation**

Created the required files, such as:

* Dockerfile
* Docker-compose.yaml file
* Build.sh
* Deploy.sh

(File permissions were set.)

**STEP 3**

**Check the image and container creation (locally)**

Executed the files:

- Docker image was created.

- The container ran successfully.

- Verified that the container is accessible via a browser using the host IP address.

**STEP 4**

**GitHub**

All the files were pushed to the GitHub dev and main branches.

**STEP 5**

**DOCKER HUB**

* Logged in to Docker Hub and created 2 repositories (dev, prod).
* Dev is public repository prod is a private repository

**STEP 6**

**JENKINS**

* Installed Jenkins on Ubuntu and accessed it via the host IP on port 8080.
* The Jenkins file has been created for the pipeline.
* The Jenkins file has been moved to the GitHub repository where I have the source file.
* Installing the Jenkins plugins.
* I configured the environment variables based on my Jenkins files

**STEP 7**

**Creating new pipeline**

* Created an NGINX pipeline
* Configured all the necessary configuration files

**STEP 8**

**Pipeline Construction**

* The pipeline was built successfully.

**STEP 9**

**Checking the pipeline output in Docker Hub**

* When code is fetched from the GitHub main branch, the image is successfully built and pushed to the Docker Hub prod (private) repository.
* When code is fetched from the GitHub dev branch, the image is successfully built and pushed to the Docker Hub dev (public) repository.

**STEP 10**

**Monitoring**

The application is being monitored using a monitoring tool called Prometheus.

**Url and image name**

**GitHub URL** :<https://github.com/vijayjerry/nginx-project.git>

**Docker hub URL**: <https://hub.docker.com/repositories/vijayjerry>

**Image Name**: vijayjerry/prod:latest & vijayjerry/dev:latest