

# Push the Docker image to GitHub Container Registry

Steps:

1. Create a github repo
2. Clone it
3. Create a shell script file

```
entrypoint.sh
1  #!/bin/bash
2  echo "Hello World!"
```

- 4.
5. Create a docker file for image building

```
Dockerfile > ...
1  FROM alpine
2  RUN apk add --no-cache bash
3  WORKDIR /app
4  COPY entrypoint.sh .
5  RUN chmod +x entrypoint.sh
6  ENTRYPOINT [ "/app/entrypoint.sh" ]
```

- 6.
7. Login to Github container registry to push ur image

```
pranjal.mukharjee@PF3HRQF1:~/github_container_registry$ docker login --username P
ranjal-mukherjee --password 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 ghcr.io
```

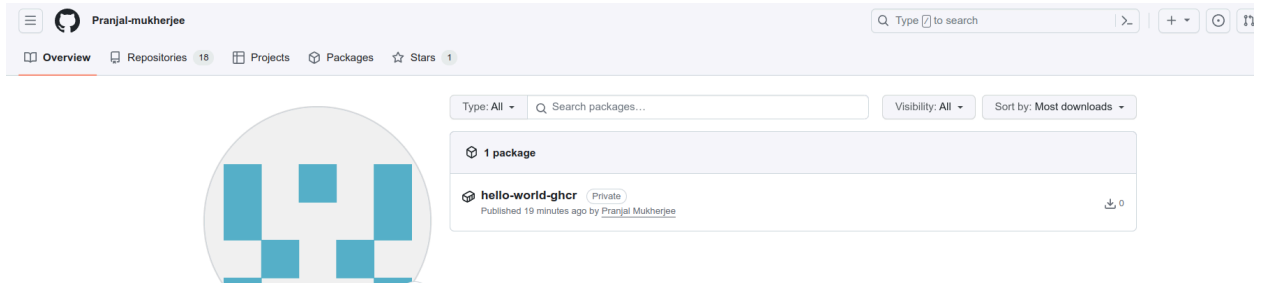
- 8.
9. If we do not mention ghcr.io then it will login to docker container register(docker hub)
10. Build you image using the registry name / author name / image name:tag

```
pranjal.mukharjee@PF3HRQF1:~/github_container_registry$ docker build -t ghcr.io/p
ranjal-mukherjee/hello-world-ghcr:latest .
```

- 11.
12. Author name should be in lowercase
13. Push the image to github container registry

14.

```
pranjal.mukharjee@PF3HRQF1:~/github_container_registry$ docker push ghcr.io/pranjal-mukherjee/hello-world-ghcr:latest
The push refers to repository [ghcr.io/pranjal-mukherjee/hello-world-ghcr]
54bace900d2f: Pushed
705abbde059e: Pushed
a434d59a25a1: Pushed
8050098a2d5a: Pushed
d4fc045c9e3a: Pushed
latest: digest: sha256:db323643c4fb0e012b237caaf982b42ca21bdeec70c652e3894f8852c18c2576 size: 1358
```



15.

16. Now remove the images from ur local and pull them from github

```
pranjal.mukharjee@PF3HRQF1:~/github_container_registry$ docker rmi 17b --force
Untagged: ghcr.io/pranjal-mukherjee/hello-world-ghcr:latest
Untagged: ghcr.io/pranjal-mukherjee/hello-world-ghcr@sha256:db323643c4fb0e012b237caaf982b42ca21bdeec70c652e3894f8852c18c2576
Deleted: sha256:17b4310c1aaf596fc3d5e55c6e665a3f25815c97d3865f4ca1324ab7678b71d4
Deleted: sha256:55a2fec9e91b58e642239e13f9260d888a05ddfaf7707c43a941b68d9df023c1
Deleted: sha256:7f2bdf2edf79c11f264ba0650473be6be4d79fbff5d436ac5a9a6600f3780a7f
Deleted: sha256:1863c8ce63ade455049c69f283ae4c4fd27b1274da8b071b7468053c03836153
Deleted: sha256:a80700a562fba9c9745a5a9a24c2fb02224014d2d5c64b52b12534eef0b188bd
Deleted: sha256:74894c778399f13395a270718c8f63cf8762bb2b722c1f3240d9746d9591ac5b
Deleted: sha256:b7e145a4739562e251164be2ce40490375b16929a8b16596c2f72859a14e0f3c
Deleted: sha256:cd586024d33fd45c404e314b80ebcd6d32ab92ab8a2bbe5203075d9100888780
Deleted: sha256:772452eeefbbb04b28a58a1d3890e09e0cc32edc0975aae4c1ff834c147091b4
```

17.

```
pranjal.mukharjee@PF3HRQF1:~/github_container_registry$ docker container ls
CONTAINER ID   IMAGE      COMMAND                  CREATED         STATUS         PORTS          NAMES
pranjal.mukharjee@PF3HRQF1:~/github_container_registry$ docker container ls -a
CONTAINER ID   IMAGE      COMMAND                  CREATED         STATUS
```

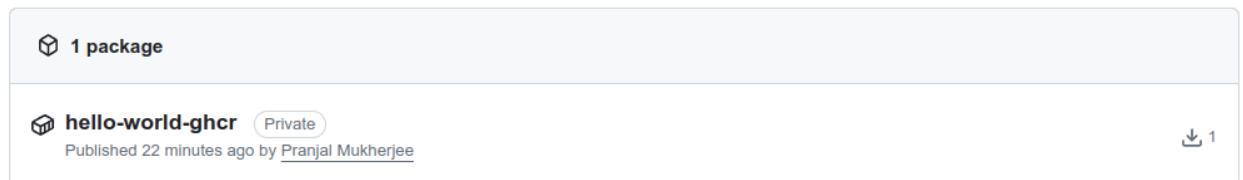
```

pranjal.mukharjee@PF3HRQF1:~/github_container_registry$ docker run ghcr.io/pranjal-mukherjee/hello-world-ghcr:latest
Unable to find image 'ghcr.io/pranjal-mukherjee/hello-world-ghcr:latest' locally
latest: Pulling from pranjal-mukherjee/hello-world-ghcr
4abcf2066143: Already exists
21c079a77f65: Pull complete
92d00488a6d6: Pull complete
eeb358a3a922: Pull complete
a6643b565743: Pull complete
Digest: sha256:db323643c4fb0e012b237caaf982b42ca21bdeec70c652e3894f8852c18c2576
Status: Downloaded newer image for ghcr.io/pranjal-mukherjee/hello-world-ghcr:latest
Hello World!
pranjal.mukharjee@PF3HRQF1:~/github_container_registry$

```

18.

19. Now package has been downloaded for the first time



20.

21. To ensure that we are downloading the correct image we can use the digest key also after the image name like this

22.

Unset

23. `docker pull`

```

ghcr.io/NAMESPACE/IMAGE_NAME@sha256:82jf9a84u29hiasldj289498
uhois8498hjs29hkuhs

```

24. Writing a github actions yml file so that whenever the code for package is changes , new build is triggered

```

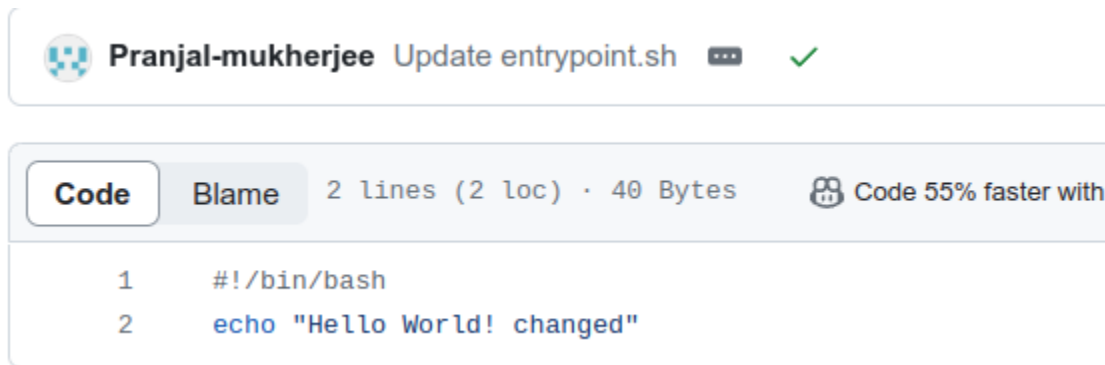
name: Docker Image CI for GHCR
on:
  push
jobs:
  build_and_publish:
    runs-on: ubuntu-latest
    steps:
      - uses: actions/checkout@v3
      - name: Build and push the image
        run: |
          docker login --username Pranjal-mukherjee --password ${secrets.GH_PAT} ghcr.io
          docker build . --tag ghcr.io/pranjal-mukherjee/hello-world-ghcr:latest
          docker push ghcr.io/pranjal-mukherjee/hello-world-ghcr:latest

```

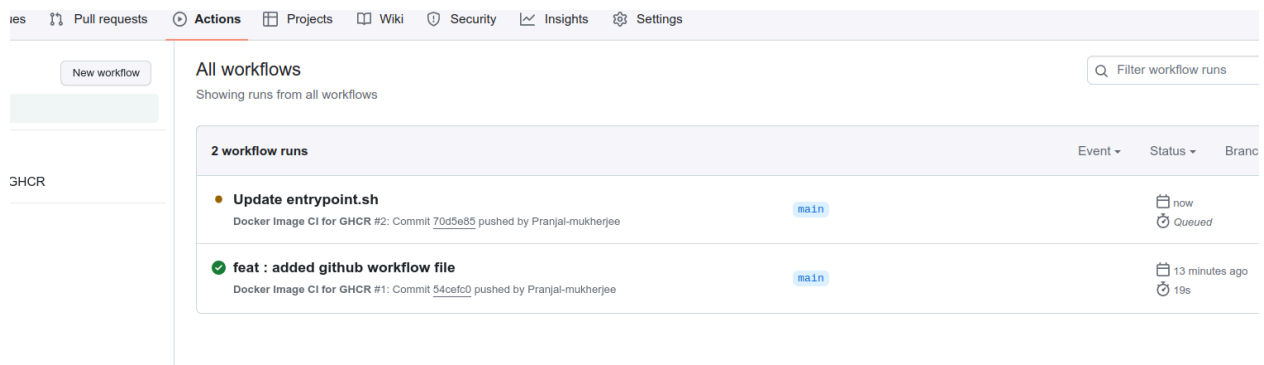
uses: source code of repo is pulled into the actions runner

Now if we change anything in source code and commit the action will trigger everytime and new image will be built for that and will publish in github container automatically

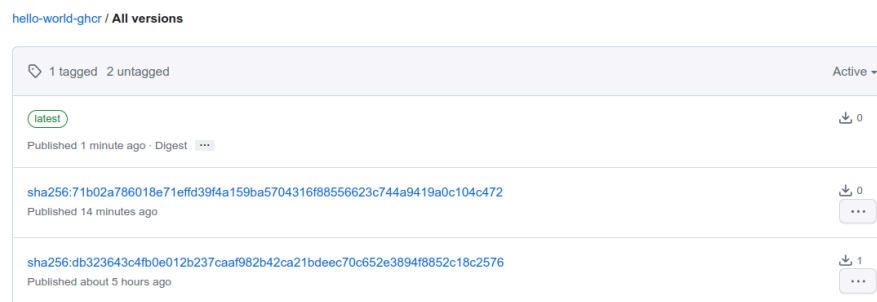
## Changes



## Workflow triggering again



## New version came



Now again I ran docker run command to see the changes

```
pranjal.mukharjee@PF3HRQF1:~/github_container_registry$ docker run ghcr.io/pranjal-mukherjee/hello-world-ghcr:latest
Unable to find image 'ghcr.io/pranjal-mukherjee/hello-world-ghcr:latest' locally
latest: Pulling from pranjal-mukherjee/hello-world-ghcr
4abcf2066143: Already exists
7455d70e98ab: Pull complete
537dd265dccc: Pull complete
868d4d63714a: Pull complete
02ff15a1340b: Pull complete
Digest: sha256:c380c73a3104421e8404bbe31c696d7a04dc5319e3f5bd2a956a70422c41524a
Status: Downloaded newer image for ghcr.io/pranjal-mukherjee/hello-world-ghcr:latest
Hello World! changed
```