Build Docker Image with different context

Build Docker Image with URL

1 **Clone a GitHub directory on host**

```
$ docker build
https://github.com/cerulean-
canvas/nginx.git -t nginx-git
```

2 **List out Docker images on host**

```
$ docker image ls
```

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Build Docker Image with -

1 Change PWD to cloned nginx dir.

```
$ cd nginx
```

2 Build image with -

```
$ docker build - < Dockerfile -t
nginx-stdin
```

3 List out Docker images on host

```
$ docker image ls
```

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Build Docker Image with tarball

1 **Create a tarball file of Dockerfile**

```
$ tar -zcvf nginx.tar.gz Dockerfile
```

2 **Build docker image from tarball**

```
$ docker build - < nginx.tar.gz -t
nginx-tarball
```

3 **List out Docker images on host**

```
$ docker image ls
```

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Build Docker Image with .dockerignore

1 Create a .dockerignore file

```
$   nano .dockerignore

   *.tar.gz
   /nginx-v1

   # ignore files with .tar.gz from the
   build context
```

2 Add RUN instruction to Dockerfile

```
$ nano Dockerfile

   RUN ulimit -n > /tmp/ulimit.txt
```

3 Build Docker Image

```
$ docker build \
   --iidfile nginx-ids.txt \
   --label app-trial \
   --pull \
   --ulimit nofile=65535:90000 \
   -t nginx-custom .
```

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4 Run a container nginx-custom image

```
$ docker run -d --name custom -P
nginx-custom
```

5 List out containers

```
$ docker ps -a
```

6 List out contents of nginx directory

```
$ ls

$ cat nginx-ids.txt
```

7 Display contents of ulimit.txt

```
$ docker exec custom cat
/tmp/ulimit.txt
```

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Build Docker Image with BuildKit

1 **Set DOCKER_BUILDKIT env.**

```
$ DOCKER_BUILDKIT=1 docker build -t
nginx-buildkit .
```

2 **List out Docker images on host**

```
$ docker image ls
```

3 **Build image without image cache.**

```
$ DOCKER_BUILDKIT=1 docker build --
progress=plain --no-cache .
```

4 **List out Docker images on host**

```
$ docker image ls
```

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5 Set BuildKit as default image builder

```
$ sudo su -

  nano /etc/docker/daemon.json

    {
       "features":
          {
             "buildkit": true
          }
    }

# Save and exit the daemon.json file
```

6 Restart Docker Service

```
$ systemctl restart docker

$ systemctl status docker
```

7 Build Docker Image

```
$ docker build -t nginx-buildtest .
```

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