

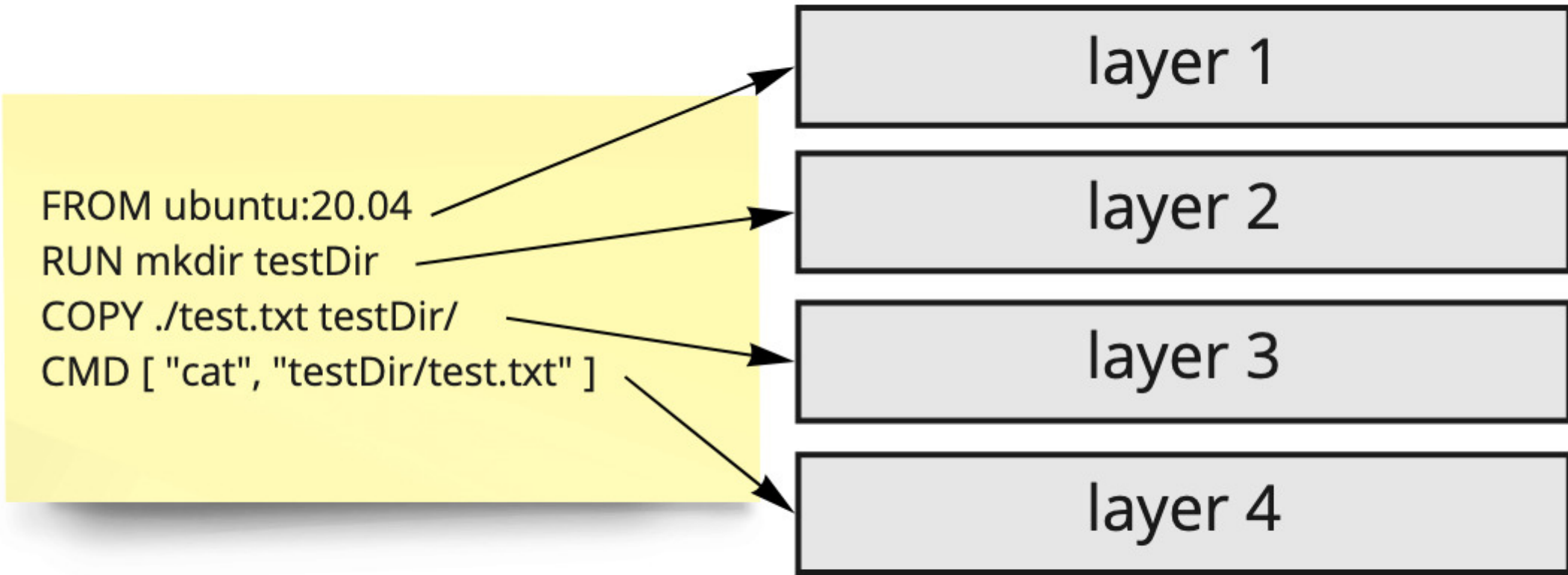
docker



Multi-arch Docker images

```
FROM ubuntu:20.04  
RUN mkdir testDir  
COPY ./test.txt testDir/  
CMD [ "cat", "testDir/test.txt" ]
```

```
FROM ubuntu:20.04  
RUN mkdir testDir  
COPY ./test.txt testDir/  
CMD [ "cat", "testDir/test.txt" ]
```

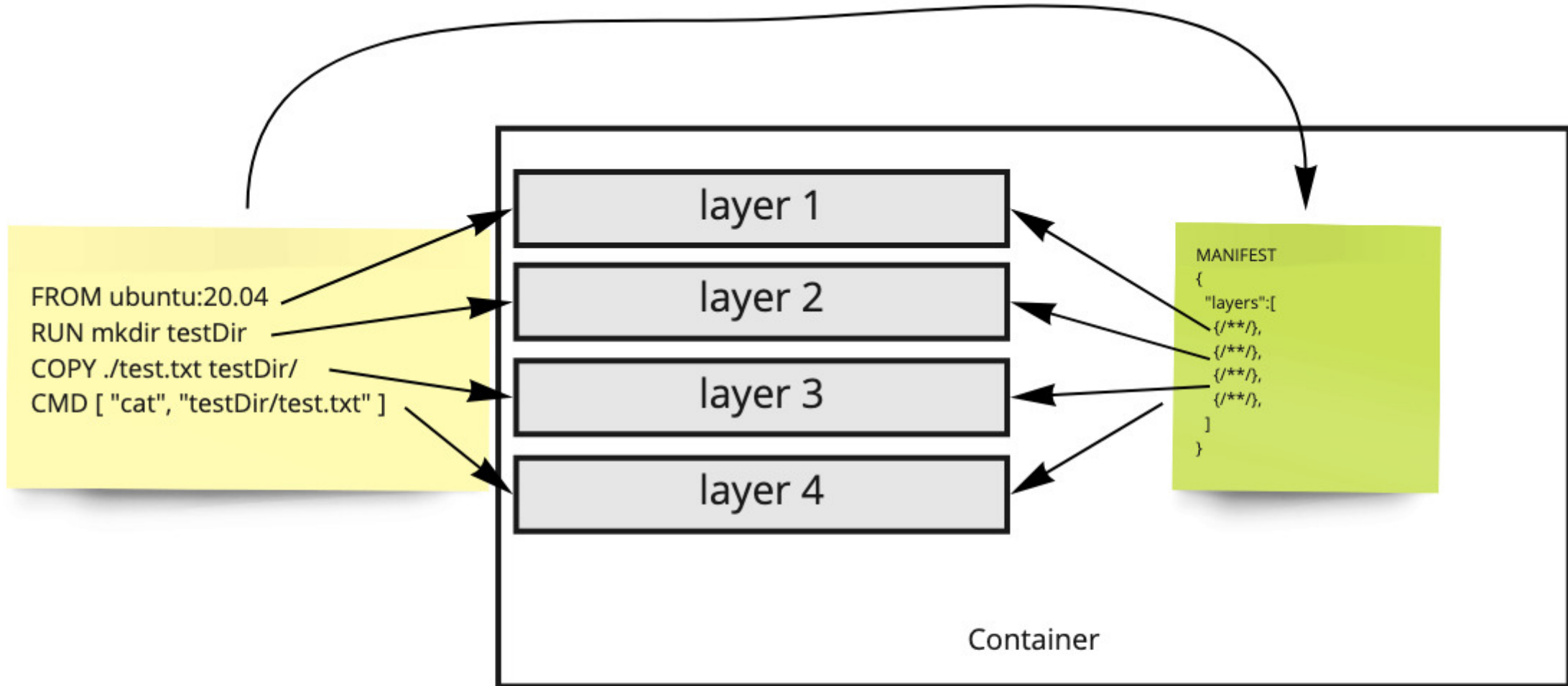


layer 1

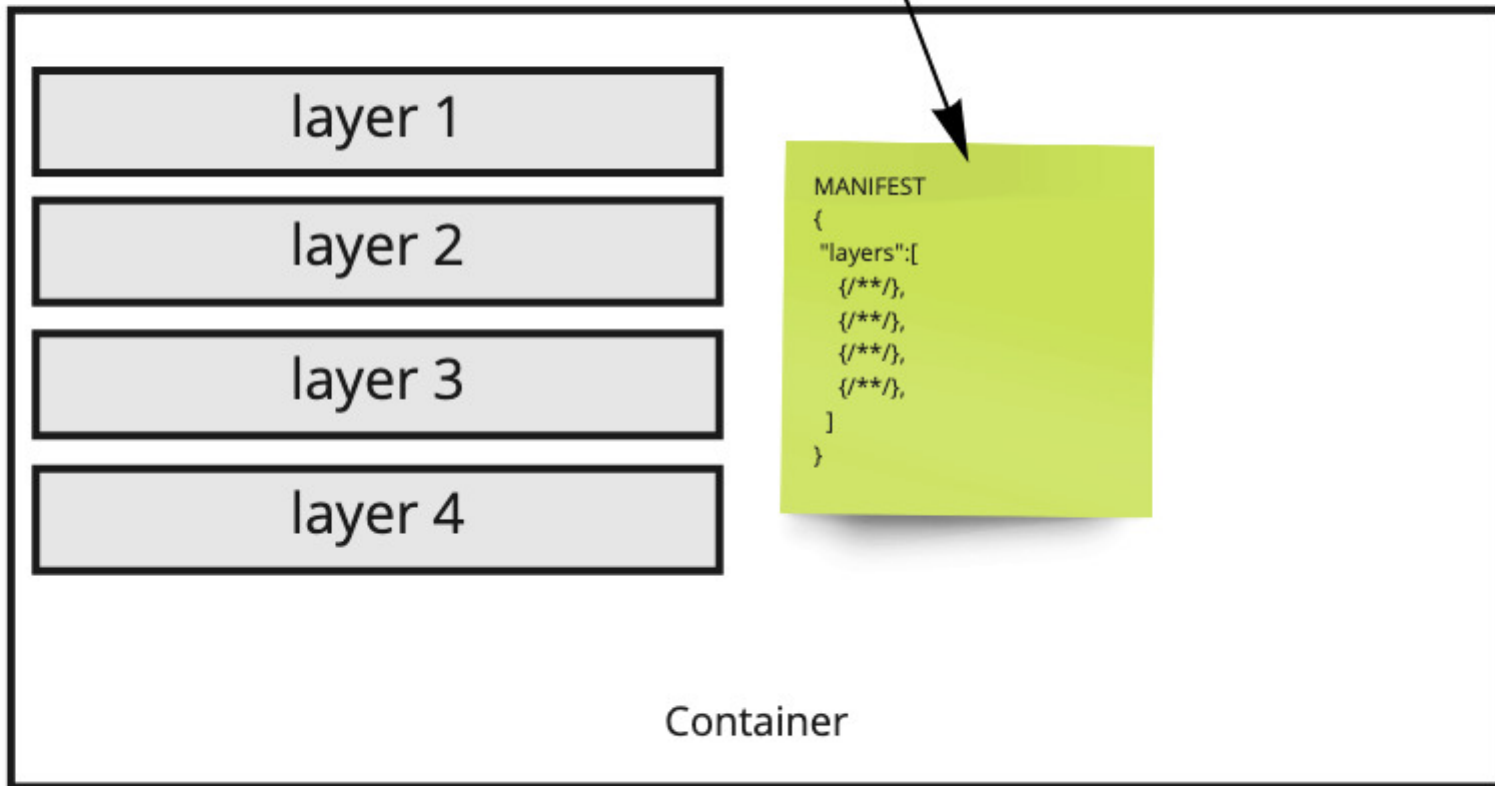
layer 2

layer 3

layer 4



Repository/image name: scottaubrey/testimage
tag: latest



Instead of ...

Repository: scottaubrey/testimage
tag: latest

```
MANIFEST
{
  "layers": [
    {/**/},
    {/**/},
    {/**/},
    {/**/},
  ]
}
```

We have

Repository: scottaubrey/testimage
tag: latest

```
MANIFEST-LIST
{
  "manifests": [
    {
      "platform": "architecture": "amd64",
      "digest":
    }
  ]
}
```

```
MANIFEST
{
  "layers": [
    {/**/},
    {/**/},
    {/**/},
    {/**/},
  ]
}
```

Repository: scottaubrey/testimage
tag: latest

```
MANIFEST-LIST
{
  "manifests": [
    {
      "platform": "architecture: \"amd64\",
      "digest":
    },
    {
      "platform": "architecture: \"arm64\",
      "digest":
    }
  ]
}
```

```
MANIFEST
{
  "layers": [
    {/**/},
    {/**/},
    {/**/},
    {/**/},
  ]
}
```

```
MANIFEST
{
  "layers": [
    {/**/},
    {/**/},
    {/**/},
    {/**/},
  ]
}
```

Demo

Build a multi-arch manifest-list:

1. Build your image for amd64
2. Build your image for arm64
3. build a manifest including both
4. push to docker hub

~~Build a multi-arch manifest-list:~~

~~1. Build your image for amd64~~

~~2. Build your image for arm64~~

~~3. build a manifest-list including
both manifests~~

~~4. push to docker hub~~

Docker
Compose?

~~Docker~~

~~Compose?~~

Moby buildkit /
Docker buildx



"BuildKit is a toolkit for converting source code to build artifacts in an efficient, expressive and repeatable manner."

```
> docker build . \  
-t scottaubrey/testimage:latest
```

```
> docker buildx build .  
-t scottaubrey/testimage:latest
```

```
> docker buildx build .  
-t scottaubrey/testimage:latest  
--load / --push
```

```
> docker buildx build .  
-t scottaubrey/testimage:latest  
--platform linux/amd64,linux/arm64
```

```
> docker buildx build .  
-t scottaubrey/testimage:latest  
--platform linux/amd64,linux/arm64  
--push
```

Buildkit Demo

Final thoughts