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SDK438

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CMPT 353.A1

Part-A:

A1) The *pull* command pulls an image or repository from a registry.

- Example: Here, I am pulling the latest node image from docker hub on my computer.

```
[Sunnys-MBP:docker sunny$ docker pull node:latest
latest: Pulling from library/node
8f04e8168e38: Pull complete
82e5f66f5d0e: Pull complete
c1c8f1c77d66: Pull complete
5095cab27771: Pull complete
ea7fe362a971: Pull complete
9000ed6ad541: Pull complete
79733a3c6015: Pull complete
10da8f37aebc: Pull complete
4641fca333ab: Pull complete
Digest: sha256:8710efa3fc8be1cbce674c646c1c64a993a70ca767bd56bae81e232855261973
Status: Downloaded newer image for node:latest
docker.io/library/node:latest
[Sunnys-MBP:docker sunny$ docker image ls
REPOSITORY TAG IMAGE ID CREATED SIZE
node latest 93f5457b802e 9 days ago 908MB
```

A2) The *build* command creates an image from a Dockerfile.

```
Sunnys-MBP:A1 sunny$ docker build -t sunny/node .
[+] Building 0.5s (5/5) FINISHED
=> [internal] load build definition from Dockerfile 0.0s
=> => transferring dockerfile: 36B 0.0s
=> [internal] load .dockerignore 0.0s
=> => transferring context: 2B 0.0s
=> [internal] load metadata for docker.io/library/node:latest 0.4s
=> CACHED [1/1] FROM docker.io/library/node:latest@sha256:543c034446e58fb3991842e22db7a404f5feb1050cf6126cb551e0 0.0s
=> => resolve docker.io/library/node:latest@sha256:543c034446e58fb3991842e22db7a404f5feb1050cf6126cb551e03cae0e7 0.0s
=> => exporting to image 0.0s
=> => exporting layers 0.0s
=> => writing image sha256:1e30a26ffc6051f16e668ddb6166e8b7c893fb93b066e85f963eda60c62bea 0.0s
=> => naming to docker.io/sunny/node 0.0s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
Sunnys-MBP:A1 sunny$ docker image ls
REPOSITORY TAG IMAGE ID CREATED SIZE
sunny/node latest 1e30a26ffc60 8 days ago 908MB
Sunnys-MBP:A1 sunny$
```

A3) The *run* command creates a container from an image and starts the container with a given command.

```
Sunnys-MBP:A1 sunny$ docker run -p 80:8080 sunny/node
Sunnys-MBP:A1 sunny$
```

Part-B:

```
FROM node:latest

EXPOSE 8080

CMD ["/bin/bash"]
```

Part-C:

```
'use strict';

const express = require('express');
const bodyParser = require('body-parser');
const fs = require('fs');

const PORT = 8080;
const HOST = '0.0.0.0';
const app = express();

app.use(bodyParser.urlencoded({ extended: true }));

app.post('/save', (req, res) => {
  let topic = req.body.topic;
  let name = req.body.name;
  let comment = req.body.comment;

  let feedback = `Topic: ${topic}, Name: ${name}, Comment: ${comment}\n`;

  fs.writeFile('feedback.txt', feedback, { flag: 'a+' }, err => {
    if (err) {
      console.log(err);
      return;
    }
    res.send('Your feedback has been received!');
  });
});
```

```
app.use('/', express.static('pages'));
```

```
app.listen(PORT, HOST);
```

```
console.log("up and running!");
```