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Practical No: 9

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Aim: Learn Docker File Instructions, build an image for a sample application using Docker File.

fizzbuzz.js

```
console.log("FizzBuzz Docker Container Starting...\n");

for (let i = 1; i <= 100; i++) {
  if (i % 3 === 0 && i % 5 === 0) {
    console.log(i + " ==> FizzBuzz (divisible by 3 and 5)");
  }
  else if (i % 3 === 0) {
    console.log(i + " ==> Fizz (divisible by 3)");
  }
  else if (i % 5 === 0) {
    console.log(i + " ==> Buzz (divisible by 5)");
  }
  else {
    console.log(i + " ==> Regular number");
  }
}

console.log("\nFizzBuzz completed!");
```

package.json

```
{
  "name": "fizzbuzz-docker",
  "version": "1.0.0",
  "description": "FizzBuzz application in Docker",
  "main": "fizzbuzz.js",
  "scripts": {
    "start": "node fizzbuzz.js"
  },
  "keywords": [
    "fizzbuzz",
```

```

    "docker",
    "javascript"
  ],
  "author": "qarq90",
  "license": "MIT"
}

```

```

MINGW64 /d/Degree/SEM 5/DOP/Experiments/EXP9
Abdurrahman Qureshi@DESKTOP-H2RVSMQ MINGW64 /d/Degree/SEM 5/DOP/Experiments/EXP9 (master)
$ docker build -t fizzbuzz-docker .
[+] Building 19.1s (11/11) FINISHED
=> [internal] load build definition from Dockerfile
=> transferring dockerfile: 150B
=> [internal] load metadata for docker.io/library/node:18-alpine
=> [auth] library/node:pull token for registry-1.docker.io
=> [internal] load .dockerignore
=> transferring context: 2B
=> [1/5] FROM docker.io/library/node:18-alpine@sha256:8d6421d663b4c28fd3ebc498332f249011d118945588d0a35cb9bc4b8ca09d9e
=> resolve docker.io/library/node:18-alpine@sha256:8d6421d663b4c28fd3ebc498332f249011d118945588d0a35cb9bc4b8ca09d9e
=> sha256:25ff2da83641908f65c3a74d80409d6b1b62ccfaab220b9ea70b80df5a2e0549 446B / 446B
=> sha256:1e5a4c89cee5c0826c540ab06d4b6b491c96eda01837f430bd47f0d26782d6e3 1.26MB / 1.26MB
=> sha256:dd71dde834b5c203d162902e0b8994cb2399ae049a0eabc4efea161b2b5a3d9e 40.01MB / 40.01MB
=> sha256:f10232174bc91741fd3da96d85011092101a032a93a380b79a99e69c2d5c870 3.64MB / 3.64MB
=> extracting sha256:f10232174bc91741fd3da96d85011092101a032a93a380b79a99e69c2d5c870 0.35s
=> extracting sha256:dd71dde834b5c203d162902e0b8994cb2399ae049a0eabc4efea161b2b5a3d9e 1.5s
=> extracting sha256:1e5a4c89cee5c0826c540ab06d4b6b491c96eda01837f430bd47f0d26782d6e3 0.15s
=> extracting sha256:25ff2da83641908f65c3a74d80409d6b1b62ccfaab220b9ea70b80df5a2e0549 0.08s
=> [internal] load build context
=> transferring context: 1.08kB
=> [2/5] WORKDIR /usr/src/app
=> [3/5] COPY package*.json ./
=> [4/5] RUN npm install
=> [5/5] COPY . .
=> exporting to image
=> exporting layers
=> exporting manifest sha256:3c6bf58b2099d6923290d7786a3261aa6662884630b272f05bb7e7e1805685dd
=> exporting config sha256:21c82f84214578cb9ab572ac9cac15196dd8ebecaa7ebfab7ab4cae5d9a90c01
=> exporting attestation manifest sha256:d75dcb447d17d560b37511c359927fc65e4055f4bf85f8a9a4951b90c24f0880
=> exporting manifest list sha256:3857cf85c1eb3b28842c1b9b7b92ca5d8ab8a9c7a8a8d775b0130b00cb5bcbf2
=> naming to docker.io/library/fizzbuzz-docker:latest
=> unpacking to docker.io/library/fizzbuzz-docker:latest

Abdurrahman Qureshi@DESKTOP-H2RVSMQ MINGW64 /d/Degree/SEM 5/DOP/Experiments/EXP9 (master)
$ docker run fizzbuzz-docker

```

## Building the docker image

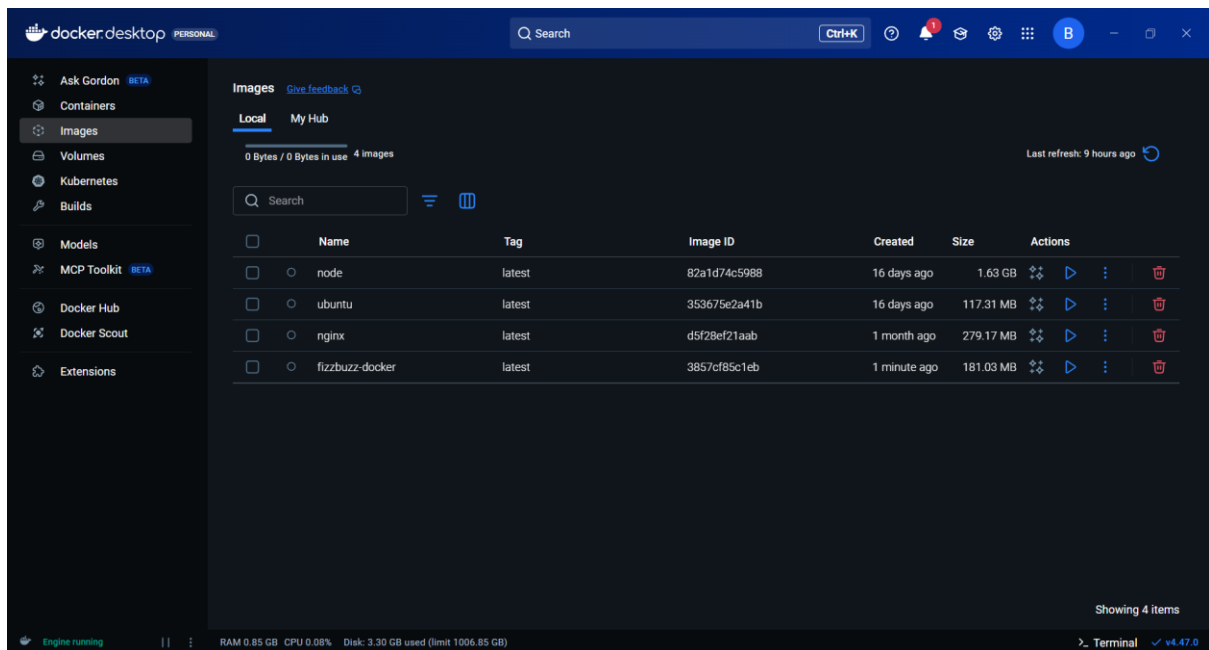


Image 'fizzbuzz-docker' created in docker desktop

```
MINGW64/d/Degree/SEM 5/DOP/Experiments/EXP9

=> => naming to docker.io/library/fizzbuzz-docker:latest      0.0s
=> => unpacking to docker.io/library/fizzbuzz-docker:latest    0.1s

Abdurrahman Qureshi@DESKTOP-H2RVSMQ MINGW64 /d/Degree/SEM 5/DOP/Experiments/EXP9 (master)
$ docker run fizzbuzz-docker

> fizzbuzz-docker@1.0.0 start
> node fizzbuzz.js

FizzBuzz Docker Container Starting...

1 ==> Regular number
2 ==> Regular number
3 ==> Fizz (divisible by 3)
4 ==> Regular number
5 ==> Buzz (divisible by 5)
6 ==> Fizz (divisible by 3)
7 ==> Regular number
8 ==> Regular number
9 ==> Fizz (divisible by 3)
10 ==> Buzz (divisible by 5)
11 ==> Regular number
12 ==> Fizz (divisible by 3)
13 ==> Regular number
14 ==> Regular number
15 ==> FizzBuzz (divisible by 3 and 5)
16 ==> Regular number
17 ==> Regular number
18 ==> Fizz (divisible by 3)
19 ==> Regular number
20 ==> Buzz (divisible by 5)
21 ==> Fizz (divisible by 3)
22 ==> Regular number
23 ==> Regular number
24 ==> Fizz (divisible by 3)
25 ==> Buzz (divisible by 5)
26 ==> Regular number
27 ==> Fizz (divisible by 3)
```

Executing the image locally on terminal

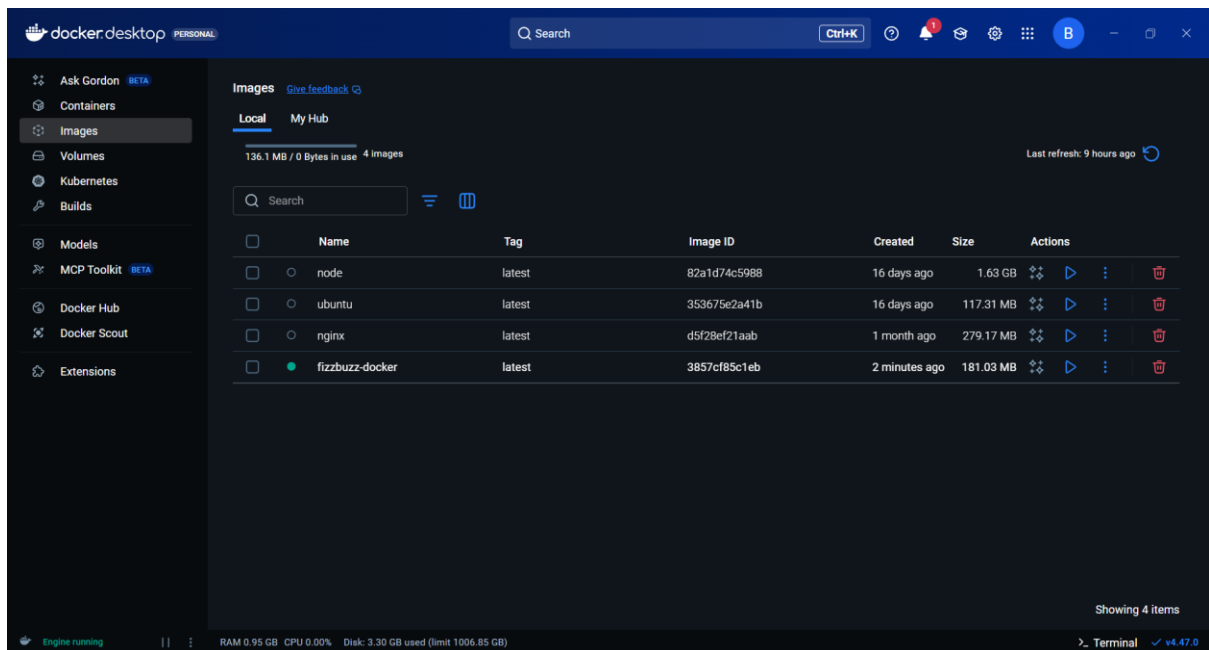
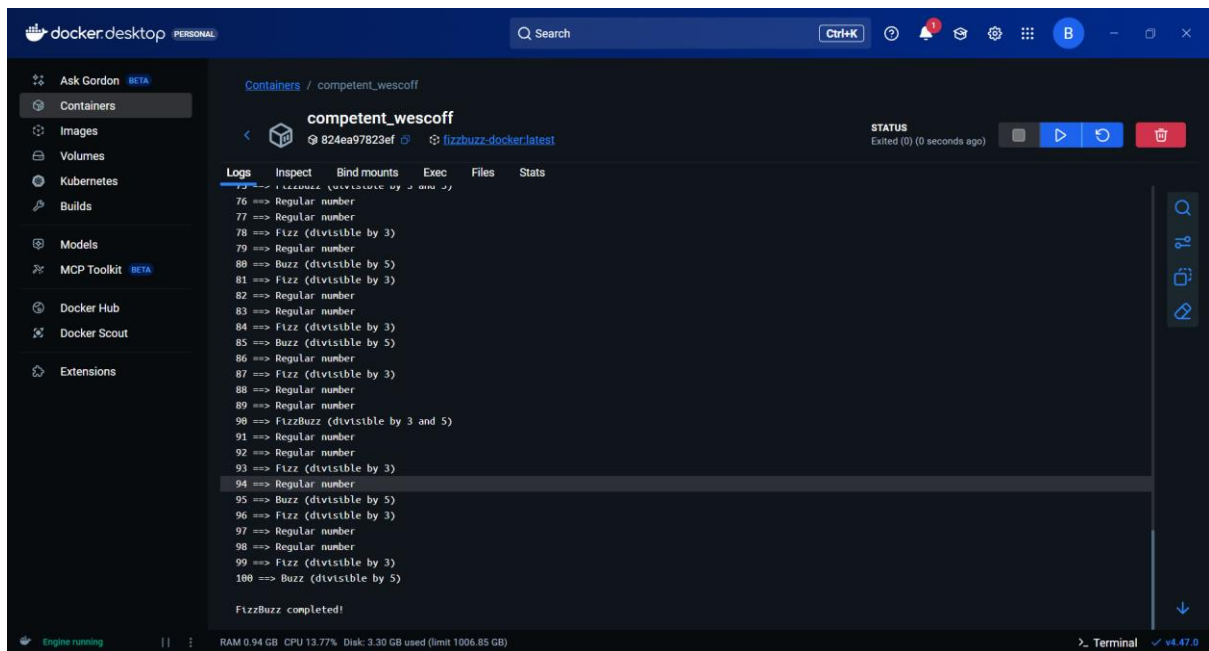
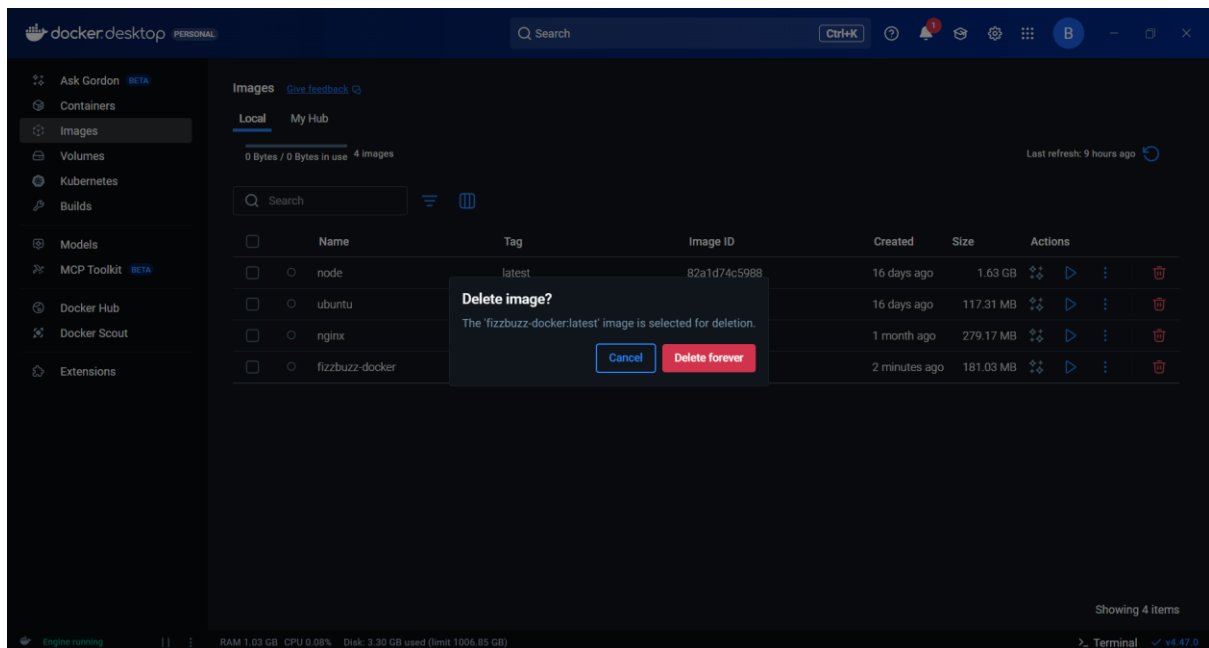


Image status running shown in docker desktop



Executing the image from docker desktop



Deleting the image and container