To create image and container and run the image in docker

- **Create a new directory for the project, e.g., `simple-website`:**

```
C:\Users\simran>mkdir simple-website
```

- **Inside the `simple-website` directory, create an `index.html` file with the following content:**

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Simple Website</title>
    <style>
        body { font-family: Arial, sans-serif; text-align: center; margin-top: 50px; }
        h1 { color: #4CAF50; }
        p { color: #555; }
    </style>
</head>
<body>
    <h1>Welcome to My Simple Website</h1>
    <p>This is a basic HTML website running in a Docker container.</p>
</body>
</html>
```

- **In the `simple-website` directory, create a file named `Dockerfile` with the following content**

```
# Use an official Nginx image as the base
FROM nginx:alpine

# Copy the HTML file to the default Nginx location
COPY index.html /usr/share/nginx/html/index.html

# Expose port 80 to the outside world
EXPOSE 80

# Start Nginx when the container starts
CMD ["nginx", "-g", "daemon off;"]
```

- **Run the following command to build the Docker image and name it `simple-website`**

```
C:\Users\simran\simple-website>docker build -t simple-website .
[+] Building 10.5s (7/7) FINISHED                          docker:desktop-linux
 => [internal] load build definition from Dockerfile                       0.0s
 => => transferring dockerfile: 334B                                       0.0s
 => [internal] load metadata for docker.io/library/nginx:alpine            3.9s
 => [internal] load .dockerignore                                          0.1s
 => => transferring context: 2B                                            0.0s
 => [internal] load build context                                          0.0s
 => => transferring context: 546B                                          0.0s
 => [1/2] FROM docker.io/library/nginx:alpine@sha256:d44ffb126f474dfb       5.6s
 => => resolve docker.io/library/nginx:alpine@sha256:d44ffb126f474dfb       0.0s
 => => sha256:d213b2a02ef4e7ec85882e8955343cdd08ab49d 2.50kB / 2.50kB       0.0s
 => => sha256:a5967740120f9a30029392fe9c47961962888 11.25kB / 11.25kB       0.0s
 => => sha256:da9db072f522755cbeb85be2b3f84059b70571b 3.62MB / 3.62MB       1.0s
 => => sha256:795a89dcc4f004d517a7834a19e066200cda1a9 3.15MB / 4.04MB       6.4s
 => => sha256:d44ffb126f474dfbe8b729d4a984d8d79811063 9.07kB / 9.07kB       0.0s
 => => sha256:9ad567d3b8a2ca8d6e3cbd00b3b78feafbb1c7e7e2c 629B / 629B       0.9s
 => => sha256:85e8836903ab0b0428bee291efed146b37ed4aee8b3 955B / 955B       1.3s
 => => extracting sha256:da9db072f522755cbeb85be2b3f84059b70571b22951       0.1s
 => => sha256:276e8818f0df64d1efab55dcac66a8ab3073b584adc 404B / 404B       1.4s
 => => sha256:20212ccf8a7aa043bba568bf8ade4778a089543 1.21kB / 1.21kB       1.6s
 => => sha256:3917e8bc7be0dd282c01911e9c34a9931f7ddcd 1.40kB / 1.40kB       1.8s
 => => sha256:bcf46b1b1b1496b4acea36cb4fa9d9cef6576 15.10MB / 15.10MB       4.6s
 => => extracting sha256:795a89dcc4f004d517a7834a19e066200cda1a9d8258       0.1s
 => => extracting sha256:9ad567d3b8a2ca8d6e3cbd00b3b78feafbb1c7e7e2ce       0.0s
 => => extracting sha256:85e8836903ab0b0428bee291efed146b37ed4aee8b37       0.0s
 => => extracting sha256:276e8818f0df64d1efab55dcac66a8ab3073b584adc8       0.0s
 => => extracting sha256:20212ccf8a7aa043bba568bf8ade4778a0895439cbe7       0.0s
 => => extracting sha256:3917e8bc7be0dd282c01911e9c34a9931f7ddcd78d3a       0.0s
 => => extracting sha256:bcf46b1b1b1496b4acea36cb4fa9d9cef6576a3ead79       0.6s
 => [2/2] COPY index.html /usr/share/nginx/html/index.html                 0.7s
 => exporting to image                                                     0.1s
 => => exporting layers                                                    0.0s
 => => writing image sha256:5cd9d7dbf17e8ccccdeba507f58debe3663f569b6      0.0s
 => => naming to docker.io/library/simple-website                          0.0s

What's next:
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ut quickview
```

- **Run the following command to start a container from the `simple-website` image and forward port 80 from the container to port 8080 on your host:**

```
C:\Users\simran\simple-website>docker run -d -p 8080:80 simple-website
4de0f3ce75bcfd72b2917afe4f241d5ced24c19954e24984b1c338f268d6dc0e
```