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Link to Github repository:

https://github.com/tanboonji/OTOT_Assignment/tree/main/OTOT_Task_A1

Instructions on how to run the Docker container:

1. Open cmd, navigate your directory to the `OTOT_Task_A1` folder.

```
D:\Project Folder\OTOT>cd OTOT_Task_A1
D:\Project Folder\OTOT\OTOT_Task_A1>
```

2. Start the reverse proxy and nginx web servers by using the command `docker-compose up` and wait for the images to build and run.
(Ensure you have Docker running on your computer)

```
D:\Project Folder\OTOT\OTOT_Task_A1>docker-compose up_
```

3. Once `taska1_reverse-proxy`, `taska1_nginx-1` and `taska1_nginx-2` are up and running

```
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
[+] Running 4/4
 - Network otot_task_a1_default      Created      0.0s
 - Container taska1_reverse-proxy    Created      0.1s
 - Container taska1_nginx-2          Created      0.2s
 - Container taska1_nginx-1          Created      0.1s
Attaching to taska1_nginx-1, taska1_nginx-2, taska1_reverse-proxy
taska1_reverse-proxy | /docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
taska1_reverse-proxy | /docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
taska1_reverse-proxy | /docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
taska1_reverse-proxy | 10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
taska1_reverse-proxy | 10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
taska1_reverse-proxy | /docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
taska1_reverse-proxy | /docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
taska1_reverse-proxy | /docker-entrypoint.sh: Configuration complete; ready for start up
taska1_nginx-2 | /docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
taska1_nginx-2 | /docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
taska1_nginx-2 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
taska1_nginx-2 | 10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
taska1_nginx-2 | 10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
taska1_nginx-2 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
taska1_nginx-2 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
taska1_nginx-2 | /docker-entrypoint.sh: Configuration complete; ready for start up
taska1_nginx-1 | /docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
taska1_nginx-1 | /docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
taska1_nginx-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
taska1_nginx-1 | 10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
taska1_nginx-1 | 10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
taska1_nginx-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
taska1_nginx-1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
taska1_nginx-1 | /docker-entrypoint.sh: Configuration complete; ready for start up
```

Open your web browser, and go to either:

- 1) <http://localhost:80/client>
- 2) <http://localhost:80/server>

Any sub domain of <http://localhost:80/client> will direct you to nginx-1 web server, while any sub domain of <http://localhost:80/server> will direct you to nginx-2 web server.

Any other sub domains on <http://localhost:80/> other than the two stated above, the reverse-proxy will return you a default 404 Not Found static HTML page.

Any other relevant learnings:

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