WAD Assignment 2B

Dockerfile (backend)

```
FROM node:23-alpine

WORKDIR /app

COPY package*.json ./

RUN npm install

COPY . .

EXPOSE 5000

CMD ["node", "index.js"]
```

Dockerfile (Frontend)

```
FROM node:23-alpine AS builder

WORKDIR /app

COPY . .

RUN npm install

RUN npm run build
# Serve with Nginx
FROM nginx:stable-alpine-perl

COPY --from=builder /app/dist /usr/share/nginx/html

COPY nginx.conf /etc/nginx/conf.d/default.conf

EXPOSE 80

CMD ["nginx", "-g", "daemon off;"]
```

Docker-compose.yaml

```
services:
 backend:
  build: ./backend
  env_file:
   - ./backend/.env
  ports:
```

```yaml
      - "5000:5000"

  frontend:

    build: ./frontend/UniversalChemicalsFrontend

    ports:

      - "3000:80"

    restart: always

    depends_on:

      - backend
```
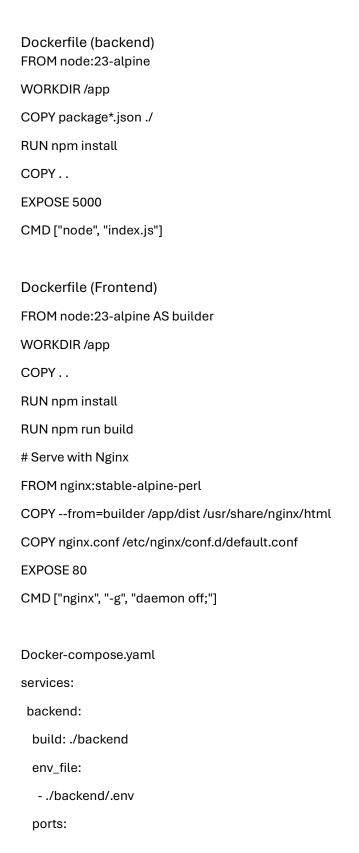
```
PS E:\Website\WAD_project> docker-compose build
Compose can now delegate builds to bake for better performance.
 To do so, set COMPOSE_BAKE=true.
[+] Building 6.8s (23/23) FINISHED                                                                        docker:desktop-linux
 => [backend internal] load build definition from Dockerfile                                                            0.0s
 => => transferring dockerfile: 169B                                                                                    0.0s
 => [frontend internal] load metadata for docker.io/library/node:23-alpine                                             4.9s
 => [backend internal] load .dockerignore                                                                               0.0s
 => => transferring context: 123B                                                                                       0.0s
 => [frontend builder 1/5] FROM docker.io/library/node:23-alpine@sha256:86703151a18fcd06258e013073508c4afea8e19cd7ed451554221dd00aea83fc  0.1s
 => => resolve docker.io/library/node:23-alpine@sha256:86703151a18fcd06258e013073508c4afea8e19cd7ed451554221dd00aea83fc  0.0s
 => [backend internal] load build context                                                                               0.0s
 => => transferring context: 698B                                                                                       0.0s
 => CACHED [frontend builder 2/5] WORKDIR /app                                                                          0.0s
 => CACHED [backend 3/5] COPY package*.json ./                                                                          0.0s
 => CACHED [backend 4/5] RUN npm install                                                                                0.0s
 => CACHED [backend 5/5] COPY . .                                                                                       0.0s
 => [backend] exporting to image                                                                                        0.1s
 => => exporting layers                                                                                                 0.0s
 => => exporting manifest sha256:184c02785f91c528ebb8bee41b164281f7da9d3aa7f4141fc2d4c6b0a93ee6f6                       0.0s
 => => exporting config sha256:c6a3982d4d1b26320901d7d1699cb87a43bf3aaffb9857ae7d2b5fff9bc69b0d                         0.0s
 => => exporting attestation manifest sha256:5a402d22a5fffd1adf2a87a26c4c5090260eed25a9ce918da58a0cbcd8f5802f           0.0s
 => => exporting manifest list sha256:ef26fe4e2f53e517fa9d404f9a18997ff8c852ed379c1d8a384cb75dec8e090d                 0.0s
 => => naming to docker.io/library/wad_project-backend:latest                                                           0.0s
 => => unpacking to docker.io/library/wad_project-backend:latest                                                        0.0s
 => [backend] resolving provenance for metadata file                                                                    0.0s
 => [frontend internal] load build definition from Dockerfile                                                           0.0s
 => => transferring dockerfile: 348B                                                                                    0.0s
 => [frontend internal] load metadata for docker.io/library/nginx:stable-alpine-perl                                   1.6s
 => [frontend internal] load .dockerignore                                                                              0.0s
 => => transferring context: 98B                                                                                        0.0s
 => [frontend internal] load build context                                                                             0.0s
 => => transferring context: 2.73kB                                                                                     0.0s
 => [frontend stage-1 1/3] FROM docker.io/library/nginx:stable-alpine-perl@sha256:0166175f93756885810ef49cad18aeb5262a8f75e1674350f6d59301ba9f  0.0s
 => => resolve docker.io/library/nginx:stable-alpine-perl@sha256:0166175f93756885810ef49cad18aeb5262a8f75e1674350f6d59301ba9f8688  0.0s
 => CACHED [frontend builder 3/5] COPY . .                                                                              0.0s
 => CACHED [frontend builder 4/5] RUN npm install                                                                       0.0s
 => CACHED [frontend builder 5/5] RUN npm run build                                                                     0.0s
 => CACHED [frontend stage-1 2/3] COPY --from=builder /app/dist /usr/share/nginx/html                                  0.0s
 => CACHED [frontend stage-1 3/3] COPY nginx.conf /etc/nginx/conf.d/default.conf                                       0.0s
 => [frontend] exporting to image                                                                                       0.1s
 => => exporting layers                                                                                                 0.0s
 => => exporting manifest sha256:35676d8fd2fbef72690ba4be9327040728a87d9ef0d64fadb9b90c7e1545b73d                       0.0s
 => => exporting config sha256:63cb0329323e641826a077d78816d047f5152a1656ac576a98bc01d3e9d9b0c1                         0.0s
 => => exporting attestation manifest sha256:4ad2b9ac3a058345a2339f8b23ced7d705848eba83f31e4c1c1ee05794e1fbac           0.0s
 => => exporting manifest list sha256:d90fd5b1120d6f69f4a4e5a69a73009e01cde19f772c3bd74de7dfd82a12c548                 0.0s
 => => naming to docker.io/library/wad_project-frontend:latest                                                          0.0s
 => => unpacking to docker.io/library/wad_project-frontend:latest                                                       0.0s
 => [frontend] resolving provenance for metadata file                                                                   0.0s
[+] Building 2/2
 ✓ backend    Built                                                                                                     0.0s
 ✓ frontend   Built                                                                                                     0.0s
```

```
PS E:\Website\WAD_project> docker-compose up
[+] Running 3/3
 ✓ Network wad_project_default      Created
 ✓ Container wad_project-backend-1  Created
 ✓ Container wad_project-frontend-1 Created
Attaching to backend-1, frontend-1
frontend-1  | /docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
frontend-1  | /docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
frontend-1  | /docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
frontend-1  | 10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
frontend-1  | 10-listen-on-ipv6-by-default.sh: info: /etc/nginx/conf.d/default.conf differs from the packaged version
frontend-1  | /docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolvers.envsh
frontend-1  | /docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
frontend-1  | /docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
frontend-1  | /docker-entrypoint.sh: Configuration complete; ready for start up
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: using the "epoll" event method
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: nginx/1.26.3
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: built by gcc 13.2.1 20240309 (Alpine 13.2.1_git20240309)
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: OS: Linux 5.15.167.4-microsoft-standard-WSL2
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker processes
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 29
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 30
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 31
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 32
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 33
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 34
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 35
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 36
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 37
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 38
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 39
frontend-1  | 2025/04/10 09:42:53 [notice] 1#1: start worker process 40
backend-1   | (node:1) [MONGODB DRIVER] Warning: useNewUrlParser is a deprecated option: useNewUrlParser has no effect since Node.js Driver version 4.0.0 and will be removed in the next major version
backend-1   | (Use `node --trace-warnings ...` to show where the warning was created)
backend-1   | (node:1) [MONGODB DRIVER] Warning: useUnifiedTopology is a deprecated option: useUnifiedTopology has no effect since Node.js Driver version 4.0.0 and will be removed in the next major version
backend-1   | App is Running at the 3000
backend-1   | DB ka Connection is Successful
```

localhost:3000

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