# Docker Project

## Part 1: Setting Up the Project Structure

## Part 2: Setting Up the Database
## Part 3: Setting Up the Backend
## Part 4: Setting Up the Frontend
## Part 5: Connecting the Backend and Database

```
 => exporting to image                                                                                    0.0s
 => => exporting layers                                                                                   0.0s
 => => writing image sha256:1cfe6ff8722f48bf2889ab46a727e0e5ed0bf4046b570b920262d21e57ca2275              0.0s
 => => naming to docker.io/library/my-postgres-db                                                         0.0s
einfochips@AHMLPT2608:~/training/day3/my-webapp/database$ cd ..
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker run --name postgres-container --network fullstack-network -v pgdata:/var/lib/postgresql/data -d my-postgres-db
5484i333ae8a4727e8d2b85b78fea1d3b73ea2e195e3d35cd234db450c85f17
einfochips@AHMLPT2608:~/training/day3/my-webapp$ nano node.js
einfochips@AHMLPT2608:~/training/day3/my-webapp$ ls
backend  database  Dockerfile  frontend  index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp$ cd backend
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ ls
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ npm init -y
Command 'npm' not found, but can be installed with:
sudo apt install npm
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ sudo apt install npm
[sudo] password for einfochips:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libwpe-1.0-1 libwpebackend-fdo-1.0-1
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  binutils binutils-common binutils-x86-64-linux-gnu build-essential dpkg-dev fakeroot g++ g++-11 gcc gcc-11 gyp javascript-common
  libalgorithm-diff-perl libalgorithm-diff-xs-perl libalgorithm-merge-perl libasan6 libbinutils libc-ares2 libc-dev-bin libc-devtools
  libc6-dev libcc1-0 libcrypt-dev libctf-nobfd0 libctf0 libdpkg-perl libfakeroot libfile-fcntllock-perl libgcc-11-dev libitm1 libjs-events
  libjs-highlight.js libjs-inherits libjs-is-typedarray libjs-psl libjs-source-map libjs-sprintf-js libjs-typedarray-to-buffer liblsan0
  libnode-dev libnode72 libnsl-dev libssl-dev libstdc++-11-dev libtirpc-dev libtsan0 libubsan1 libuv1-dev linux-libc-dev lto-disabled-list
  make manpages-dev node-abab node-abbrev node-agent-base node-ansi-regex node-ansi-styles node-ansistyles node-aproba node-archy
  node-are-we-there-yet node-argparse node-arrify node-asap node-asynckit node-balanced-match node-brace-expansion node-builtins
  node-cacache node-chalk node-chownr node-clean-yaml-object node-cli-table node-clone node-color-convert node-color-name node-colors
  node-columnify node-combined-stream node-commander node-console-control-strings node-copy-concurrently node-core-util-is node-coveralls
  node-cssom node-cssstyle node-debug node-decompress-response node-defaults node-delayed-stream node-delegates node-depd node-diff
  node-encoding node-end-of-stream node-err-code node-escape-string-regexp node-esprima node-events node-fancy-log node-fetch
  node-foreground-child node-form-data node-fs-write-stream-atomic node-fs.realpath node-function-bind node-gauge node-get-stream node-glob
  node-got node-graceful-fs node-growl node-gyp node-has-flag node-has-unicode node-hosted-git-info node-https-proxy-agent node-iconv-lite
  node-iferr node-imurmurhash node-indent-string node-inflight node-inherits node-ini node-ip node-ip-regex node-is-buffer node-is-plain-obj
  node-is-typedarray node-isarray node-isexe node-js-yaml node-jsdom node-json-buffer node-json-parse-better-errors node-jsonparse
  node-kind-of node-lcov-parse node-lodash-packages node-log-driver node-lowercase-keys node-lru-cache node-mime node-mime-types
  node-mimic-response node-minimatch node-minimist node-minipass node-mkdirp node-move-concurrently node-ms node-mute-stream node-negotiator
  node-nopt node-normalize-package-data node-npm-bundled node-npm-package-arg node-npmlog node-object-assign node-once node-opener
  node-osenv node-p-cancelable node-p-map node-path-is-absolute node-process-nextick-args node-promise-inflight node-promise-retry
  node-pronzard node-psl node-pump node-punycode node-quick-lru node-read node-read-package-json node-readable-stream node-resolve
  node-retry node-rimraf node-run-queue node-safe-buffer node-semver node-set-blocking node-signal-exit node-slash node-slice-ansi
  node-source-map node-source-map-support node-spdx-correct node-spdx-exceptions node-spdx-expression-parse node-spdx-license-ids
  node-sprintf-js node-ssri node-stack-utils node-stealthy-require node-string-decoder node-string-width node-strip-ansi node-supports-color
  node-tap node-tap-mocha-reporter node-tap-parser node-tar node-text-table node-time-stamp node-tmatch node-tough-cookie
  node-typedarray-to-buffer node-unique-filename node-universalify node-util-deprecate node-validate-npm-package-license
  node-validate-npm-package-name node-wcwidth.js node-webidl-conversions node-whatwg-fetch node-which node-wide-align node-wrappy
  node-write-file-atomic node-ws node-yallist nodejs nodejs-doc rpcsvc-proto
Suggested packages:
  binutils-doc debian-keyring g++-multilib g++-11-multilib gcc-11-doc gcc-multilib autoconf automake libtool flex bison gcc-doc
```

```
  node-cssom node-cssstyle node-debug node-decompress-response node-defaults node-delayed-stream node-delegates node-depd node-diff
  node-encoding node-end-of-stream node-err-code node-escape-string-regexp node-esprima node-events node-fancy-log node-fetch
  node-foreground-child node-form-data node-fs-write-stream-atomic node-fs.realpath node-function-bind node-gauge node-get-stream node-glob
  node-got node-graceful-fs node-growl node-gyp node-has-flag node-has-unicode node-hosted-git-info node-https-proxy-agent node-iconv-lite
  node-iferr node-imurmurhash node-indent-string node-inflight node-inherits node-ini node-ip node-ip-regex node-is-buffer node-is-plain-obj
  node-is-typedarray node-isarray node-isexe node-js-yaml node-jsdom node-json-buffer node-json-parse-better-errors node-jsonparse
  node-kind-of node-lcov-parse node-lodash-packages node-log-driver node-lowercase-keys node-lru-cache node-mime node-mime-types
  node-mimic-response node-minimatch node-minimist node-minipass node-mkdirp node-move-concurrently node-ms node-mute-stream node-negotiator
  node-nopt node-normalize-package-data node-npm-bundled node-npm-package-arg node-npmlog node-object-assign node-once node-opener
  node-osenv node-p-cancelable node-p-map node-path-is-absolute node-process-nextick-args node-promise-inflight node-promise-retry
  node-pronzard node-psl node-pump node-punycode node-quick-lru node-read node-read-package-json node-readable-stream node-resolve
  node-retry node-rimraf node-run-queue node-safe-buffer node-semver node-set-blocking node-signal-exit node-slash node-slice-ansi
  node-source-map node-source-map-support node-spdx-correct node-spdx-exceptions node-spdx-expression-parse node-spdx-license-ids
  node-sprintf-js node-ssri node-stack-utils node-stealthy-require node-string-decoder node-string-width node-strip-ansi node-supports-color
  node-tap node-tap-mocha-reporter node-tap-parser node-tar node-text-table node-time-stamp node-tmatch node-tough-cookie
  node-typedarray-to-buffer node-unique-filename node-universalify node-util-deprecate node-validate-npm-package-license
  node-validate-npm-package-name node-wcwidth.js node-webidl-conversions node-whatwg-fetch node-which node-wide-align node-wrappy
  node-write-file-atomic node-ws node-yallist nodejs nodejs-doc npm rpcsvc-proto
Suggested packages:
  binutils-doc debian-keyring g++-multilib g++-11-multilib gcc-11-doc gcc-multilib autoconf automake libtool flex bison gcc-doc
  gcc-11-multilib gcc-11-locales glibc-doc bzr libjs-angularjs libssl-doc libstdc++-11-doc make-doc node-nyc
The following NEW packages will be installed:
  binutils binutils-common binutils-x86-64-linux-gnu build-essential dpkg-dev fakeroot g++ g++-11 gcc gcc-11 gyp javascript-common
  libalgorithm-diff-perl libalgorithm-diff-xs-perl libalgorithm-merge-perl libasan6 libbinutils libc-ares2 libc-dev-bin libc-devtools
  libc6-dev libcc1-0 libcrypt-dev libctf-nobfd0 libctf0 libdpkg-perl libfakeroot libfile-fcntllock-perl libgcc-11-dev libitm1 libjs-events
  libjs-highlight.js libjs-inherits libjs-is-typedarray libjs-psl libjs-source-map libjs-sprintf-js libjs-typedarray-to-buffer liblsan0
  libnode-dev libnode72 libnsl-dev libssl-dev libstdc++-11-dev libtirpc-dev libtsan0 libubsan1 libuv1-dev linux-libc-dev lto-disabled-list
  make manpages-dev node-abab node-abbrev node-agent-base node-ansi-regex node-ansi-styles node-ansistyles node-aproba node-archy
  node-are-we-there-yet node-argparse node-arrify node-asap node-asynckit node-balanced-match node-brace-expansion node-builtins
  node-cacache node-chalk node-chownr node-clean-yaml-object node-cli-table node-clone node-color-convert node-color-name node-colors
  node-columnify node-combined-stream node-commander node-console-control-strings node-copy-concurrently node-core-util-is node-coveralls
  node-cssom node-cssstyle node-debug node-decompress-response node-defaults node-delayed-stream node-delegates node-depd node-diff
  node-encoding node-end-of-stream node-err-code node-escape-string-regexp node-esprima node-events node-fancy-log node-fetch
  node-foreground-child node-form-data node-fs-write-stream-atomic node-fs.realpath node-function-bind node-gauge node-get-stream node-glob
  node-got node-graceful-fs node-growl node-gyp node-has-flag node-has-unicode node-hosted-git-info node-https-proxy-agent node-iconv-lite
  node-iferr node-imurmurhash node-indent-string node-inflight node-inherits node-ini node-ip node-ip-regex node-is-buffer node-is-plain-obj
  node-is-typedarray node-isarray node-isexe node-js-yaml node-jsdom node-json-buffer node-json-parse-better-errors node-jsonparse
  node-kind-of node-lcov-parse node-lodash-packages node-log-driver node-lowercase-keys node-lru-cache node-mime node-mime-types
  node-mimic-response node-minimatch node-minimist node-minipass node-mkdirp node-move-concurrently node-ms node-mute-stream node-negotiator
  node-nopt node-normalize-package-data node-npm-bundled node-npm-package-arg node-npmlog node-object-assign node-once node-opener
  node-osenv node-p-cancelable node-p-map node-path-is-absolute node-process-nextick-args node-promise-inflight node-promise-retry
  node-pronzard node-psl node-pump node-punycode node-quick-lru node-read node-read-package-json node-readable-stream node-resolve
  node-retry node-rimraf node-run-queue node-safe-buffer node-semver node-set-blocking node-signal-exit node-slash node-slice-ansi
  node-source-map node-source-map-support node-spdx-correct node-spdx-exceptions node-spdx-expression-parse node-spdx-license-ids
  node-sprintf-js node-ssri node-stack-utils node-stealthy-require node-string-decoder node-string-width node-strip-ansi node-supports-color
  node-tap node-tap-mocha-reporter node-tap-parser node-tar node-text-table node-time-stamp node-tmatch node-tough-cookie
  node-typedarray-to-buffer node-unique-filename node-universalify node-util-deprecate node-validate-npm-package-license
  node-validate-npm-package-name node-wcwidth.js node-webidl-conversions node-whatwg-fetch node-which node-wide-align node-wrappy
  node-write-file-atomic node-ws node-yallist nodejs nodejs-doc npm rpcsvc-proto
0 upgraded, 227 newly installed, 0 to remove and 16 not upgraded.
Need to get 75.0 MB/75.3 MB of archives.
After this operation, 289 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

```
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker run --name my-webapp-container -d -p 8082:80 my-webapp-image
e932889e849c266b8da34e57eb35563346f9acbae1728dd0aa13e1f6958724ed
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker stop my-nginx my-custom-nginx my-webapp-container
docker rm my-nginx my-custom-nginx my-webapp-container
my-nginx
my-custom-nginx
my-webapp-container
my-nginx
my-custom-nginx
my-webapp-container
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker rmi nginx custom-nginx my-webapp-image
Untagged: nginx:latest
Untagged: nginx@sha256:67682bda769fae1ccf5183192b8daf37b64cae99c6c3302650f6f8bf5f0f95df
Untagged: custom-nginx:latest
Deleted: sha256:065b50532a75abc925eb242a505a260480b1b2506cadda496a1f55ade179141b
Deleted: sha256:b55b61592434c3a161f47a473daad27ec06869fd8c61ac66d3ced95f955cc31
Deleted: sha256:fffffc90d343cbcb01a5032edac86db5998c536cd0a366514121a45c6723765c
Untagged: my-webapp-image:latest
Deleted: sha256:fbfcf94239705421999818d855a1eeb3ef22e687435172fa3500b77675cadd07
einfochips@AHMLPT2608:~/training/day3/my-webapp$
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
einfochips@AHMLPT2608:~/training/day3/my-webapp$ mkdir frontend backend database
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker network create fullstack-network
87e0479838d79819cf5af99becf0244dcc1867d204d8f474c388ce7c22af3ea4
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker volume create pgdata
pgdata
einfochips@AHMLPT2608:~/training/day3/my-webapp$ nano Dockerfile1
einfochips@AHMLPT2608:~/training/day3/my-webapp$ cd database
docker build -t my-postgres-db .
cd ..
[+] Building 0.0s (1/1) FINISHED                                              docker:default
 => [internal] load build definition from Dockerfile                                    0.0s
 => => transferring dockerfile: 2B                                                       0.0s
ERROR: failed to solve: failed to read dockerfile: open Dockerfile: no such file or directory
einfochips@AHMLPT2608:~/training/day3/my-webapp$ ls
backend  database  Dockerfile  Dockerfile1  frontend  index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp$ mv Dockerfile1 database/
einfochips@AHMLPT2608:~/training/day3/my-webapp$ ls
backend  database  Dockerfile  frontend  index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp$ cd database/
einfochips@AHMLPT2608:~/training/day3/my-webapp/database$ ls
Dockerfile1
einfochips@AHMLPT2608:~/training/day3/my-webapp/database$ mv Dockerfile1 Dockerfile
einfochips@AHMLPT2608:~/training/day3/my-webapp/database$ ls
Dockerfile
einfochips@AHMLPT2608:~/training/day3/my-webapp/database$ docker build -t my-postgres-db .
[+] Building 345.0s (5/5) FINISHED                                           docker:default
 => [internal] load build definition from Dockerfile                                    0.0s
 => => transferring dockerfile: 139B                                                     0.0s
 => [internal] load metadata for docker.io/library/postgres:latest                      3.1s
```

```
Setting up g++-11 (11.4.0-1ubuntu1~22.04) ...
Setting up node-copy-concurrently (1.0.5-8) ...
Setting up node-move-concurrently (1.0.1-4) ...
Setting up gcc (4:11.2.0-1ubuntu1) ...
Setting up node-tap-mocha-reporter (3.0.7+ds-2) ...
Setting up node-normalize-package-data (3.0.3+~2.4.1-1) ...
Setting up node-ws (8.5.0+~cs13.3.3-2) ...
Setting up node-cli-table (0.3.11+~cs0.13.3-1) ...
Setting up node-jsdom (19.0.0+~cs90.11.27-1) ...
Setting up g++ (4:11.2.0-1ubuntu1) ...
update-alternatives: using /usr/bin/g++ to provide /usr/bin/c++ (c++) in auto mode
Setting up node-tar (6.1.11+ds1+~cs6.0.6-1) ...
Setting up build-essential (12.9ubuntu3) ...
Setting up node-wide-align (1.1.3-4) ...
Setting up node-tap (12.0.1+ds-4) ...
Setting up node-cacache (15.0.5+~cs13.9.21-3) ...
Setting up node-read-package-json (4.1.1-1) ...
Setting up node-fetch (2.6.7+~2.5.12-1) ...
Setting up node-gauge (4.0.2-1) ...
Setting up node-npmlog (6.0.1+~4.1.4-1) ...
Setting up node-coveralls (3.1.1-1) ...
Setting up node-gyp (8.4.1-1) ...
Setting up npm (8.5.1~ds-1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.8) ...
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ npm init -y
Wrote to /home/einfochips/training/day3/my-webapp/backend/package.json:

{
  "name": "backend",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}


einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ npm install express pg

added 78 packages, and audited 79 packages in 10s

12 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ nano index.js
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ nano Dockerfile
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ docker build -t my-node-app .
[+] Building 876.2s (4/9)                                                    docker:default
```

```
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}

einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ npm install express pg

added 78 packages, and audited 79 packages in 10s

12 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ nano index.js
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ nano Dockerfile
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ docker build -t my-node-app .
[+] Building 876.2s (4/9)                                                              docker:default
 => [internal] load build definition from Dockerfile                                            0.0s
 => => transferring dockerfile: 163B                                                             0.0s
 => [internal] load metadata for docker.io/library/node:latest                                  3.2s
 => [internal] load .dockerignore                                                                0.0s
 => => transferring context: 2B                                                                  0.0s
 => [1/5] FROM docker.io/library/node:latest@sha256:c8a559f733bf1f9b3c1d05b97d9a9c7e5d3647c99abedaf5cdd3b54c9cbb8eff   872.9s
 => => resolve docker.io/library/node:latest@sha256:c8a559f733bf1f9b3c1d05b97d9a9c7e5d3647c99abedaf5cdd3b54c9cbb8eff   0.0s
 => => sha256:58b365fa3e8dc16e70d89fab0e91f5242feb38ae3cfeb6655e654209ea109333 24.05MB / 24.05MB   180.4s
 => => sha256:3dbed71fc5444cf6889a21b002de3e7805e810aa88f91a9ca941b4e3880246d1 64.14MB / 64.14MB   578.7s
 => => sha256:c8a559f733bf1f9b3c1d05b97d9a9c7e5d3647c99abedaf5cdd3b54c9cbb8eff 6.41kB / 6.41kB
 => => sha256:f5ee4e641452e29a0ed1c0dc9ee8eb90796ca1ebd1f439bb130248548ffed06a 2.49kB / 2.49kB
[+] Building 1117.4s (10/10) FINISHED                                                   docker:default  => [internal] load build definition from Dockerfile
                                                                                                0.0s
 => => transferring dockerfile: 163B                                                             0.0s  => [internal] load metadata for docker.io/library/node:latest
                                                                                                3.2s
 => [internal] load .dockerignore                                                               0.0s  => => transferring context: 2B   0.0s
 => [1/5] FROM docker.io/library/node:latest@sha256:c8a559f733bf1f9b3c1d05b97d9a9c7e5d3647c99abedaf5cdd3b54c9cbb8eff   1108.0s  => => resolve docker.io/library/node:latest@sha256:c8a559f733bf1f9b3c1
d05b97d9a9c7e5d3647c99abedaf5cdd3b54c9cbb8eff                                                           180.4s  => => sha256:3dbed71fc5444cf6889a21b002de3e7805e810aa88f91a9ca941b4e38
80246d1 64.14MB / 64.14MB                                                                       578.7s
 => => sha256:c8a559f733bf1f9b3c1d05b97d9a9c7e5d3647c99abedaf5cdd3b54c9cbb8eff 6.41kB / 6.41kB   0.0s  => => sha256:f5ee4e641452e29a0ed1c0dc9ee8eb90796ca1ebd1f439bb130248548
ffed06a 2.49kB / 2.49kB                                                                          0.0s  => => sha256:e9aef93137af6e967e7242f3b3c8ecd8e6f571d1e6fdd9e72db0befee
 => => sha256:cd86d0acabd627e36426b1259849c8ee44f2f800b45e38030eedd5033abadf1d 6.60kB / 6.60kB   0.0s  ae3cf13 49.55MB / 49.55MB
 => => sha256:ae70030af8b64968596022cd9041ce522f0c77eab5419b19e169b53582c69e3f 211.23MB / 211.23MB   1100.5s  => => extracting sha256:e9aef93137af6e967e7242f3b3c8ecd8e6f571d1e6fdd9
e72db0befeeae3cf13                                                                               1.5s
 => => sha256:572e7a55de7f456ea9ae48f2cd37245ab1b21832ae1fa679d0f3a215cc86dab7 3.32kB / 3.32kB   420.6s  => => extracting sha256:58b365fa3e8dc16e70d89fab0e91f5242feb38ae3cfeb6
655e654209ea109333                                                                               0.5s
 => => sha256:9f45a73683ad62471247db5bb99c0df1cfdf1d2d68a03fc06f421e3d6e557f08 53.03MB / 53.03MB   743.1s  => => extracting sha256:3dbed71fc5444cf6889a21b002de3e7805e810aa88f91a
9ca941b4e3880246d1                                                                               1.9s
```

```
Dockerfile  index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker build -t my-nginx-app .
[+] Building 3.3s (7/7) FINISHED                                                          docker:default
 => [internal] load build definition from Dockerfile                                              0.0s
 => => transferring dockerfile: 104B                                                              0.0s
 => [internal] load metadata for docker.io/library/nginx:latest                                  3.2s
 => [internal] load .dockerignore                                                                 0.0s
 => => transferring context: 2B                                                                   0.0s
 => [internal] load build context                                                                 0.0s
 => => transferring context: 189B                                                                 0.0s
 => CACHED [1/2] FROM docker.io/library/nginx:latest@sha256:67682bda769fae1ccf5183192b8daf37b64cae99c6c3302650f6f8bf5f0f95df  0.0s
 => => resolve docker.io/library/nginx:latest@sha256:67682bda769fae1ccf5183192b8daf37b64cae99c6c3302650f6f8bf5f0f95df         0.0s
 => [2/2] COPY index.html /usr/share/nginx/html/index.html                                        0.0s
 => exporting to image                                                                            0.0s
 => => exporting layers                                                                           0.0s
 => => writing image sha256:06e626e8170b87411c15318b09f3a4a8bcbb96babb97c53ca84b305fe4f68a52      0.0s
 => => naming to docker.io/library/my-nginx-app                                                   0.0s
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ cd ..
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker run --name frontend-container --network fullstack-network -p 8080:80 -d my-nginx-app
40f320ac519769f5770f9cd9b0c45c4ea389c21db69f40111013a3f85dd06927
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker exec -it backend-container /bin/bash
root@51f93c524182:/usr/src/app# apt-get update && apt-get install -y postgresql-client
Get:1 http://deb.debian.org/debian bookworm InRelease [151 kB]
Get:2 http://deb.debian.org/debian bookworm-updates InRelease [55.4 kB]
Get:3 http://deb.debian.org/debian bookworm-security InRelease [48.0 kB]
Get:4 http://deb.debian.org/debian bookworm/main amd64 Packages [8788 kB]
Get:5 http://deb.debian.org/debian bookworm-updates/main amd64 Packages [13.8 kB]
Get:6 http://deb.debian.org/debian bookworm-security/main amd64 Packages [168 kB]
Fetched 9224 kB in 26s (359 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  postgresql-client-15 postgresql-client-common
Suggested packages:
  postgresql-15 postgresql-doc-15
The following NEW packages will be installed:
  postgresql-client postgresql-client-15 postgresql-client-common
0 upgraded, 3 newly installed, 0 to remove and 10 not upgraded.
Need to get 1744 kB of archives.
After this operation, 8244 kB of additional disk space will be used.
Get:1 http://deb.debian.org/debian bookworm/main amd64 postgresql-client-common all 248 [35.1 kB]
Get:2 http://deb.debian.org/debian bookworm/main amd64 postgresql-client-15 amd64 15.7-0+deb12u1 [1699 kB]
Get:3 http://deb.debian.org/debian bookworm/main amd64 postgresql-client all 15+248 [10.1 kB]
Fetched 1744 kB in 6s (317 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package postgresql-client-common.
(Reading database ... 23243 files and directories currently installed.)
Preparing to unpack .../postgresql-client-common_248_all.deb ...
Unpacking postgresql-client-common (248) ...
Selecting previously unselected package postgresql-client-15.
Preparing to unpack .../postgresql-client-15_15.7-0+deb12u1_amd64.deb ...
```

```
Need to get 1744 kB of archives.
After this operation, 8244 kB of additional disk space will be used.
Get:1 http://deb.debian.org/debian bookworm/main amd64 postgresql-client-common all 248 [35.1 kB]
Get:2 http://deb.debian.org/debian bookworm/main amd64 postgresql-client-15 amd64 15.7-0+deb12u1 [1699 kB]
Get:3 http://deb.debian.org/debian bookworm/main amd64 postgresql-client all 15+248 [10.1 kB]
Fetched 1744 kB in 6s (317 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package postgresql-client-common.
(Reading database ... 23243 files and directories currently installed.)
Preparing to unpack .../postgresql-client-common_248_all.deb ...
Unpacking postgresql-client-common (248) ...
Selecting previously unselected package postgresql-client-15.
Preparing to unpack .../postgresql-client-15_15.7-0+deb12u1_amd64.deb ...
Unpacking postgresql-client-15 (15.7-0+deb12u1) ...
Selecting previously unselected package postgresql-client.
Preparing to unpack .../postgresql-client_15+248_all.deb ...
Unpacking postgresql-client (15+248) ...
Setting up postgresql-client-common (248) ...
Setting up postgresql-client-15 (15.7-0+deb12u1) ...
update-alternatives: using /usr/share/postgresql/15/man/man1/psql.1.gz to provide /usr/share/man/man1/psql.1.gz (psql.1.gz) in auto mode
Setting up postgresql-client (15+248) ...
root@51f93c524182:/usr/src/app# psql -h postgres-container -U user -d mydatabase -c "SELECT NOW();"
Password for user user:
psql: error: connection to server at "postgres-container" (172.18.0.2), port 5432 failed: FATAL:  password authentication failed for user "user"
root@51f93c524182:/usr/src/app# exit
exit
einfochips@AHMLPT2608:~/training/day3/my-webapp$ docker ps
CONTAINER ID   IMAGE            COMMAND                  CREATED          STATUS          PORTS                                       NAMES
40f320ac5197   my-nginx-app     "/docker-entrypoint…"   4 minutes ago    Up 4 minutes    0.0.0.0:8080->80/tcp, :::8080->80/tcp        frontend-container
51f93c524182   my-node-app      "docker-entrypoint.s…"   10 minutes ago   Up 10 minutes   3000/tcp                                    backend-container
54841332aeb4   my-postgres-db   "docker-entrypoint.s…"   46 minutes ago   Up 46 minutes   5432/tcp                                    postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp$ ls
backend  database  Dockerfile  frontend  index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp$ cd backend
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ cd ..
einfochips@AHMLPT2608:~/training/day3/my-webapp$ nano backend
einfochips@AHMLPT2608:~/training/day3/my-webapp$ cd backend
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ ls
Dockerfile  index.js  node_modules  package.json  package-lock.json
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ nano index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ cd frontend
bash: cd: frontend: No such file or directory
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ cd ..
einfochips@AHMLPT2608:~/training/day3/my-webapp$ cd frontend/
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker build -t my-nginx-app .
[+] Building 2.1s (7/7) FINISHED                                                          docker:default
 => [internal] load build definition from Dockerfile                                              0.0s
 => => transferring dockerfile: 104B                                                              0.0s
 => [internal] load metadata for docker.io/library/nginx:latest                                  2.0s
 => [internal] load .dockerignore                                                                 0.0s
 => => transferring context: 2B                                                                   0.0s
 => [internal] load build context                                                                 0.0s
 => => transferring context: 32B                                                                  0.0s
 => [1/2] FROM docker.io/library/nginx:latest@sha256:67682bda769fae1ccf5183192b8daf37b64cae99c6c3302650f6f8bf5f0f95df  0.0s
```

```
See 'docker run --help'.
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ cd ..
einfochips@AHMLPT2608:~/training/day3/my-webapp$ cd backend/
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ docker run --name frontend-container --network fullstack-network -p 8080:80 -d my-nginx-app
docker: Error response from daemon: Conflict. The container name "/frontend-container" is already in use by container "40f320ac519769f5770f9cd9b0c45c4ea389c21db69f40111013a3f85dd06927". You have to remove (or rena
me) that container to be able to reuse that name.
See 'docker run --help'.
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ docker ps
CONTAINER ID   IMAGE            COMMAND                  CREATED          STATUS          PORTS                                       NAMES
40f320ac5197   my-nginx-app     "/docker-entrypoint.…"   10 minutes ago   Up 10 minutes   0.0.0.0:8080->80/tcp, :::8080->80/tcp      frontend-container
51f93c524182   my-node-app      "docker-entrypoint.s…"   17 minutes ago   Up 17 minutes   3000/tcp                                    backend-container
54841332aeb4   my-postgres-db   "docker-entrypoint.s…"   53 minutes ago   Up 53 minutes   5432/tcp                                    postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ dockder rm 40f
Command 'dockder' not found, did you mean:
  command 'docker' from snap docker (24.0.5)
  command 'docker' from deb podman-docker (3.4.4+ds1-1ubuntu1.22.04.2)
  command 'docker' from deb docker.io (24.0.5-0ubuntu1~22.04.1)
See 'snap info <snapname>' for additional versions.
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ docker rm 40f
Error response from daemon: cannot remove container "/frontend-container": container is running: stop the container before removing or force remove
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ docker rm -f 40f
40f
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ docker run --name frontend-container --network fullstack-network -p 8080:80 -d my-nginx-app
2605f2e2a3c3e0e9ea72a547f29c7882f1e46b54bca9b1d948097db9b056f348
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ docker ps
CONTAINER ID   IMAGE            COMMAND                  CREATED          STATUS          PORTS                                       NAMES
2605f2e2a3c3   my-nginx-app     "/docker-entrypoint.…"   4 seconds ago    Up 3 seconds    0.0.0.0:8080->80/tcp, :::8080->80/tcp      frontend-container
51f93c524182   my-node-app      "docker-entrypoint.s…"   18 minutes ago   Up 18 minutes   3000/tcp                                    backend-container
54841332aeb4   my-postgres-db   "docker-entrypoint.s…"   53 minutes ago   Up 53 minutes   5432/tcp                                    postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ cd ..
einfochips@AHMLPT2608:~/training/day3/my-webapp$ cd frontend/
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ l
Dockerfile  index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ ld
ld: no input files
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ ls
Dockerfile  index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ nano index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker run --name frontend-container --network fullstack-network -p 8080:80 -d my-nginx-app
docker: Error response from daemon: Conflict. The container name "/frontend-container" is already in use by container "2605f2e2a3c3e0e9ea72a547f29c7882f1e46b54bca9b1d948097db9b056f348". You have to remove (or rena
me) that container to be able to reuse that name.
See 'docker run --help'.
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker ps
CONTAINER ID   IMAGE            COMMAND                  CREATED           STATUS             PORTS                                       NAMES
2605f2e2a3c3   my-nginx-app     "/docker-entrypoint.…"   About a minute ago Up About a minute 0.0.0.0:8080->80/tcp, :::8080->80/tcp      frontend-container
51f93c524182   my-node-app      "docker-entrypoint.s…"   19 minutes ago    Up 19 minutes      3000/tcp                                    backend-container
54841332aeb4   my-postgres-db   "docker-entrypoint.s…"   54 minutes ago    Up 54 minutes      5432/tcp                                    postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker rm -f 2605
2605
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker run --name frontend-container --network fullstack-network -p 8080:80 -d my-nginx-app
105888e2afc682034dd3d650c0753406975d2f452864cbdc902bbeaaa34e6dbb
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker ps
CONTAINER ID   IMAGE            COMMAND                  CREATED           STATUS             PORTS                                       NAMES
```

```
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ docker ps
CONTAINER ID   IMAGE            COMMAND                  CREATED          STATUS          PORTS                                       NAMES
2605f2e2a3c3   my-nginx-app     "/docker-entrypoint.…"   4 seconds ago    Up 3 seconds    0.0.0.0:8080->80/tcp, :::8080->80/tcp      frontend-container
51f93c524182   my-node-app      "docker-entrypoint.s…"   18 minutes ago   Up 18 minutes   3000/tcp                                    backend-container
54841332aeb4   my-postgres-db   "docker-entrypoint.s…"   53 minutes ago   Up 53 minutes   5432/tcp                                    postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/backend$ cd ..
einfochips@AHMLPT2608:~/training/day3/my-webapp$ cd frontend/
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ l
Dockerfile  index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ ld
ld: no input files
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ ls
Dockerfile  index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ nano index.html
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker run --name frontend-container --network fullstack-network -p 8080:80 -d my-nginx-app
docker: Error response from daemon: Conflict. The container name "/frontend-container" is already in use by container "2605f2e2a3c3e0e9ea72a547f29c7882f1e46b54bca9b1d948097db9b056f348". You have to remove (or rena
me) that container to be able to reuse that name.
See 'docker run --help'.
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker ps
CONTAINER ID   IMAGE            COMMAND                  CREATED           STATUS             PORTS                                       NAMES
2605f2e2a3c3   my-nginx-app     "/docker-entrypoint.…"   About a minute ago Up About a minute 0.0.0.0:8080->80/tcp, :::8080->80/tcp      frontend-container
51f93c524182   my-node-app      "docker-entrypoint.s…"   19 minutes ago    Up 19 minutes      3000/tcp                                    backend-container
54841332aeb4   my-postgres-db   "docker-entrypoint.s…"   54 minutes ago    Up 54 minutes      5432/tcp                                    postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker rm -f 2605
2605
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker run --name frontend-container --network fullstack-network -p 8080:80 -d my-nginx-app
105888e2afc682034dd3d650c0753406975d2f452864cbdc902bbeaaa34e6dbb
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker ps
CONTAINER ID   IMAGE            COMMAND                  CREATED          STATUS          PORTS                                       NAMES
105888e2afc6   my-nginx-app     "/docker-entrypoint.…"   2 seconds ago    Up 2 seconds    0.0.0.0:8080->80/tcp, :::8080->80/tcp      frontend-container
51f93c524182   my-node-app      "docker-entrypoint.s…"   19 minutes ago   Up 19 minutes   3000/tcp                                    backend-container
54841332aeb4   my-postgres-db   "docker-entrypoint.s…"   55 minutes ago   Up 55 minutes   5432/tcp                                    postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker ps
CONTAINER ID   IMAGE            COMMAND                  CREATED          STATUS          PORTS                                       NAMES
105888e2afc6   my-nginx-app     "/docker-entrypoint.…"   21 seconds ago   Up 21 seconds   0.0.0.0:8080->80/tcp, :::8080->80/tcp      frontend-container
51f93c524182   my-node-app      "docker-entrypoint.s…"   20 minutes ago   Up 20 minutes   3000/tcp                                    backend-container
54841332aeb4   my-postgres-db   "docker-entrypoint.s…"   55 minutes ago   Up 55 minutes   5432/tcp                                    postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker build -t my-nginx-app .~
[+] Building 0.0s (0/0)                                                                                                    docker:default
ERROR: unable to prepare context: path ".~" not found
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker build -t my-nginx-app .
[+] Building 1.7s (7/7) FINISHED                                                                                          docker:default
 => [internal] load build definition from Dockerfile                                                                               0.0s
 => => transferring dockerfile: 104B                                                                                               0.0s
 => [internal] load metadata for docker.io/library/nginx:latest                                                                   1.6s
 => [internal] load .dockerignore                                                                                                  0.0s
 => => transferring context: 2B                                                                                                    0.0s
 => [internal] load build context                                                                                                 0.0s
 => => transferring context: 259B                                                                                                  0.0s
 => CACHED [1/2] FROM docker.io/library/nginx:latest@sha256:67682bda769fae1ccf5183192b0daf37b64cae99c6c3302650f6f8bf5f0f95df       0.0s
 => => resolve docker.io/library/nginx:latest@sha256:67682bda769fae1ccf5183192b0daf37b64cae99c6c3302650f6f8bf5f0f95df              0.0s
 => [2/2] COPY index.html /usr/share/nginx/html/index.html                                                                         0.0s
 => exporting to image                                                                                                             0.0s
```

```
51f93c524182   my-node-app       "docker-entrypoint.s…"   19 minutes ago   Up 19 minutes   3000/tcp                                      backend-container
54841332aeb4   my-postgres-db    "docker-entrypoint.s…"   54 minutes ago   Up 54 minutes   5432/tcp                                      postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker rm -f 2605
2605
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker run --name frontend-container --network fullstack-network -p 8080:80 -d my-nginx-app
105888e2afcc8b2034dd3d650c075340697Sd2f452864cbdc902bbeaaa34e6dbb
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker ps
CONTAINER ID   IMAGE             COMMAND                  CREATED          STATUS          PORTS                                         NAMES
105888e2afc6   my-nginx-app      "/docker-entrypoint.…"   2 seconds ago    Up 2 seconds    0.0.0.0:8080->80/tcp, :::8080->80/tcp         frontend-container
51f93c524182   my-node-app       "docker-entrypoint.s…"   19 minutes ago   Up 19 minutes   3000/tcp                                      backend-container
54841332aeb4   my-postgres-db    "docker-entrypoint.s…"   55 minutes ago   Up 55 minutes   5432/tcp                                      postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker ps
CONTAINER ID   IMAGE             COMMAND                  CREATED          STATUS          PORTS                                         NAMES
105888e2afc6   my-nginx-app      "/docker-entrypoint.…"   21 seconds ago   Up 21 seconds   0.0.0.0:8080->80/tcp, :::8080->80/tcp         frontend-container
51f93c524182   my-node-app       "docker-entrypoint.s…"   20 minutes ago   Up 20 minutes   3000/tcp                                      backend-container
54841332aeb4   my-postgres-db    "docker-entrypoint.s…"   55 minutes ago   Up 55 minutes   5432/tcp                                      postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker build -t my-nginx-app .~
[+] Building 0.0s (0/0)                                                                                            docker:default
ERROR: unable to prepare context: path ".~" not found
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker build -t my-nginx-app .
[+] Building 1.7s (7/7) FINISHED                                                                                  docker:default
 => [internal] load build definition from Dockerfile                                                                        0.0s
 => => transferring dockerfile: 104B                                                                                        0.0s
 => [internal] load metadata for docker.io/library/nginx:latest                                                            1.6s
 => [internal] load .dockerignore                                                                                           0.0s
 => => transferring context: 2B                                                                                            0.0s
 => [internal] load build context                                                                                          0.0s
 => => transferring context: 259B                                                                                          0.0s
 => CACHED [1/2] FROM docker.io/library/nginx:latest@sha256:676@2bda769fae1ccf5183192b8daf37b64cae99c6c3302650f6f8bf5f0f95df 0.0s
 => => resolve docker.io/library/nginx:latest@sha256:676@2bda769fae1ccf5183192b8daf37b64cae99c6c3302650f6f8bf5f0f95df       0.0s
 => [2/2] COPY index.html /usr/share/nginx/html/index.html                                                                  0.0s
 => exporting to image                                                                                                      0.0s
 => => exporting layers                                                                                                     0.0s
 => => writing image sha256:7b715d4e21232f4b42b0e13b1674b056744239f79749aeee322b5bf0545ba12d                                0.0s
 => => naming to docker.io/library/my-nginx-app                                                                             0.0s
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker stop frontend-container
docker rm frontend-container
frontend-container
frontend-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker run --name frontend-container --network fullstack-network -p 8080:80 -d my-nginx-app
b17298cce6bcf37e962f00cbb46adad931b10fa3e34301109ad9b8fc2c5b1550
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ dcoker ps
Command 'dcoker' not found, did you mean:
  command 'docker' from snap docker (24.0.5)
  command 'docker' from deb podman-docker (3.4.4+ds1-1ubuntu1.22.04.2)
  command 'docker' from deb docker.io (24.0.5-0ubuntu1-22.04.1)
See 'snap info <snapname>' for additional versions.
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$ docker ps
CONTAINER ID   IMAGE             COMMAND                  CREATED          STATUS          PORTS                                         NAMES
b17298cce6bc   my-nginx-app      "/docker-entrypoint.…"   8 seconds ago    Up 7 seconds    0.0.0.0:8080->80/tcp, :::8080->80/tcp         frontend-container
51f93c524182   my-node-app       "docker-entrypoint.s…"   21 minutes ago   Up 21 minutes   3000/tcp                                      backend-container
54841332aeb4   my-postgres-db    "docker-entrypoint.s…"   56 minutes ago   Up 56 minutes   5432/tcp                                      postgres-container
einfochips@AHMLPT2608:~/training/day3/my-webapp/frontend$
```

Activities | Firefox Web Browser | Jul 12 11:16

New Tab | Pre Assess | DevOps-EF | Day 2 - Goc | Day 3 - Goc | Day 05 - Go | Server Not | Course: Do | WordPress

localhost:8000/wp-admin/install.php?step=1

# Welcome

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

## Information needed

Please provide the following information. Do not worry, you can always change these settings later.

**Site Title**

**Username**

Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

**Password**

HwU1waIQ)b0Q3Y1Wdg

Strong

Hide

**Important:** You will need this password to log in. Please store it in a secure location.

**Your Email**