

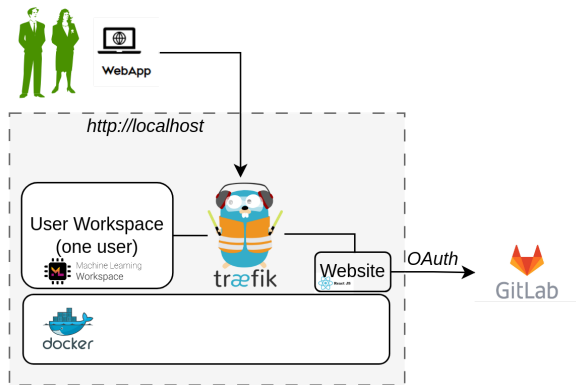
# Install DTaaS on localhost

---

The installation instructions provided in this README are ideal for running the DTaaS on both localhost. This installation is ideal for single users intending to use DTaaS on their own computers.

## Design

An illustration of the docker containers used and the authorization setup is shown here.



## Requirements

The installation requirements to run this docker version of the DTaaS are:

- docker desktop / docker CLI with compose plugin
- User account on <https://gitlab.com>

## Configuration



file pathnames

1. The filepaths shown here follow Linux convention. The installation procedures also work with Windows paths.

2. The description below refers to filenames. All the file paths mentioned below are relatively to the top-level **DTaaS** directory.

## OAuth for Client (OPTIONAL)

This step is needed only if the DTaaS application needs to be linked with your locally hosted gitlab instance.



The frontend website requires authorization. The default authorization configuration works for <https://gitlab.com>. If you desire to use locally hosted gitlab instance, please see the client config file (`deploy/config/client/env.local.js`) needs to be updated.

```
if (typeof window !== 'undefined') {  
  window.env = {  
    REACT_APP_ENVIRONMENT: 'prod',  
    REACT_APP_URL: 'https://foo.com/',  
    REACT_APP_URL_BASENAME: '',  
    REACT_APP_URL_DTLINK: '/lab',  
    REACT_APP_URL_LIBLINK: '',  
    REACT_APP_WORKBENCHLINK_VNCDESKTOP: '/tools/vnc/?password=vncpassword',  
    REACT_APP_WORKBENCHLINK_VSCODE: '/tools/vscode/',  
    REACT_APP_WORKBENCHLINK_JUPYTERLAB: '/lab',  
    REACT_APP_WORKBENCHLINK_JUPYTERNOTEBOOK: '',  
    REACT_APP_CLIENT_ID: '1be55736756190b3ace4c2c4fb19bde386d1dcc748d20b47ea8cfb5935b8446c',  
    REACT_APP_AUTH_AUTHORITY: 'https://gitlab.foo.com/',  
    REACT_APP_REDIRECT_URI: 'https://foo.com/Library',  
    REACT_APP_LOGOUT_REDIRECT_URI: 'https://foo.com/',  
    REACT_APP_GITLAB_SCOPES: 'openid profile read_user read_repository api',  
  };  
};
```

The `REACT_APP_CLIENT_ID` and `REACT_APP_AUTH_AUTHORITY` information comes from the [gitlab OAuth](#) creation help page. These two values need to be updated.

## Docker Compose

The docker compose configuration is in [deploy/docker/.env.local](#); it is a sample file. It contains environment variables that are used by the docker compose files. It can be updated to suit your local installation scenario. It contains the following environment variables.

Edit all the fields according to your specific case.

| URL Path      | Example Value   | Explanation  |
|---------------|---|--|
| DTAAS_DIR     | '/home/Desktop/DTaaS'                                   | Full path to the DTaaS directory. This is an absolute path with no trailing slash. |
| username1     | 'user1'   | Your gitlab username   |
| CLIENT_CONFIG | '/home/Desktop/DTaaS/deploy/config/client/env.local.js' | Full path to env.js file for client  |

 The path examples given here are for Linux OS. These paths can be Windows OS compatible paths as well.

## Create User Workspace

The existing filesystem for installation is setup for [user1](#). A new filesystem directory needs to be created for the selected user.

Please execute the following commands from the top-level directory of the DTaaS project.

```
cp -R files/user1 files/username
```

where *username* is the selected username registered on <https://gitlab.com>.

## Run

The commands to start and stop the application are:

```
docker compose -f compose.local.yml --env-file .env.local up -d
docker compose -f compose.local.yml --env-file .env.local down
```

To restart only a specific container, for example `client`

```
docker compose -f compose.local.yml --env-file .env up -d --force-recreate client
```

## Use

The application will be accessible at: <http://localhost> from web browser. Sign in using your <https://gitlab.com> account.

All the functionality of DTaaS should be available to you through the single page client now.

## Limitations

The [library microservice](#) is not included in the localhost installation scenario.

## References

Image sources: [Traefik logo](#), [ml-workspace](#), [reactjs](#), [gitlab](#)