# Contributing to Voilà

Voilà is a subproject of Project Jupyter and subject to the [Jupyter governance](https://github.com/jupyter/governance) and [Code of conduct](https://github.com/jupyter/governance/blob/master/conduct/code\_of\_conduct.md).

## General Guidelines

For general documentation about contributing to Jupyter projects, see the [Project Jupyter Contributor Documentation](https://jupyter.readthedocs.io/en/latest/contributor/content-contributor.html).

## Community

The Voilà team organizes public video meetings. The schedule for future meetings and minutes of past meetings can be found on our [team compass](https://voila-dashboards.github.io/).

## Setting up a development environment

First, you need to fork the project. Then setup your environment:

```bash

# create a new conda environment

conda create -n voila -c conda-forge notebook nodejs

conda activate voila

# download voila from your GitHub fork

git clone https://github.com/<your-github-username>/voila.git

# install JS dependencies and build js assets

cd voila/js

npm install

cd ..

# install voila in editable mode

python -m pip install -e .

```

## Run Voilà

To start Voilà, run:

```bash

voila

```

or

```bash

python -m voila

```

This will open a new browser tab at [http://localhost:8866/](http://localhost:8866/).

When making changes to the frontend side of Voilà, open a new terminal window and run:

```bash

cd js/

npm run watch

```

Then reload the browser tab.

## Extensions

### Server extension

To manually enable the classic notebook server extension:

```bash

jupyter serverextension enable voila --sys-prefix

```

For Jupyter Server:

```bash

jupyter extension enable voila --sys-prefix

```

This makes Voilà available as a server extension: [http://localhost:8888/voila/tree](http://localhost:8888/voila/tree).

### Notebook extension

To install the notebook extension:

```bash

jupyter nbextension install voila --sys-prefix --py

jupyter nbextension enable voila --sys-prefix --py

```

### JupyterLab extension

Node.js is required and can be installed with conda:

```bash

conda install -c conda-forge nodejs

```

The JupyterLab extension requires the server extension to be enabled. This can be done by running:

```bash

jupyter serverextension enable voila --sys-prefix

```

You can verify if the server extension is enabled by running:

```bash

jupyter serverextension list

```

To install the JupyterLab extension locally:

```bash

cd ./packages/jupyterlab-voila

jlpm

jlpm run build

jupyter labextension install @jupyter-widgets/jupyterlab-manager . --debug

# start in watch mode to pick up changes automatically

jupyter lab --watch

```

## Running the examples

A few additional libraries can be installed to run the example notebooks:

```bash

conda install -c conda-forge ipywidgets ipyvolume bqplot scipy

```

The examples can then be served with:

```bash

cd notebooks/

voila

```

## Tests

Install the test dependencies

```bash

python -m pip install -e ".[test]"

```

Enable the Jupyter server extension:

```bash

jupyter extension enable voila --sys-prefix

```

Running the tests locally also requires the `test\_template` to be installed:

```bash

python -m pip install ./tests/test\_template

```

Finally, to run the tests:

```bash

python -m pytest

```

## Editing templates

The default template files are located in the folder `share/jupyter/voila/templates/default`. They are automatically picked up when running Voilà in development mode.

Alternatively, there is a Voila template cookiecutter available to give you a running start. [Link](https://github.com/voila-dashboards/voila-template-cookiecutter).

This cookiecutter contains some docker configuration for live reloading of your template changes to make development easier.