EXAMPLE ARXIV NOTEBOOK

JUPYTER NOTEBOOK REPORT

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ABSTRACT

In this paper, we demonstrate using the `arxiv_notebook` package to convert a Jupyter notebook into a PDF using an arxiv LaTeX style.

[1]:
```
# !pip install pandas numpy matplotlib
```

[2]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from arxiv_notebook import notebook_to_arxiv
from traitlets.config import Config
```

1 Generate example data

In this section, we generate a DataFrame of two sine waves using `pandas` and `matplotlib`.

[3]:
```
# Generate two sine waves.
x = np.linspace(0, 4 * np.pi, 100)

# Create a DataFrame
df = pd.DataFrame({'x': x, 'y1': np.sin(x), 'y2': np.sin(2 * x)}).set_index(x)
df
```

[3]:

	x	y1	y2
0.000000	0.000000	0.000000e+00	0.000000e+00
0.126933	0.126933	1.265925e-01	2.511480e-01
0.253866	0.253866	2.511480e-01	4.861967e-01
0.380799	0.380799	3.716625e-01	6.900790e-01
0.507732	0.507732	4.861967e-01	8.497254e-01
...	...	...	...
12.058638	12.058638	-4.861967e-01	-8.497254e-01
12.185572	12.185572	-3.716625e-01	-6.900790e-01
12.312505	12.312505	-2.511480e-01	-4.861967e-01
12.439438	12.439438	-1.265925e-01	-2.511480e-01
12.566371	12.566371	-4.898587e-16	-9.797174e-16

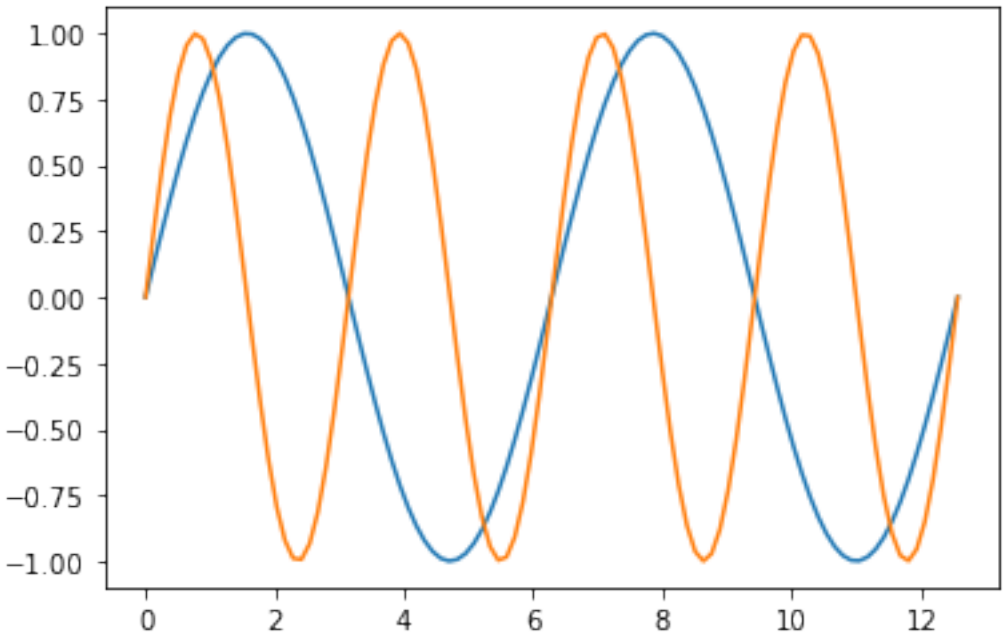
[100 rows x 3 columns]

2 Plot data

In this section we plot the sine waves.

[4]:
```
fig, ax = plt.subplots(1, 1)
df['y1'].plot(ax=ax)
df['y2'].plot(ax=ax)
```

[4]:
```
<AxesSubplot:>
```



[ ]:
```
# By default, notebook will be saved with input prompts included.
notebook_to_arxiv(
    notebook_path='example.ipynb',
    name='example',
    output_path='output',
    title='Example arXiv Notebook',
    authors=[
        {
            'name': 'author 1',
            'first_line': 'organization 1',
            'second_line': 'organization 2',
            'email': 'email1@gmail.com'
        },
        {
            'name': 'author 2',
            'first_line': 'organization 2',
            'second_line': 'organization 3',
            'email': 'email2@gmail.com'
        },
    ],
    under_title='Jupyter Notebook Report',
    header_right='Example Report',
```

```
    header_center=r'Example for \texttt{arxiv\_notebook} package',
    abstract=r'In this paper, we demonstrate using the \texttt{arxiv\_notebook}␣
↪package to convert a Jupyter notebook into a PDF using an arxiv LaTeX style.',
    save_notebook=True
)
```

[ ]:
```
# Using the nbconvert Exporter config kwarg, we can control the configuration of the
# utilized LatexExporter. This example shows excluding input prompts for a no-code
# version of the PDF.

config = Config()
# Equivalent to jupyter nbconvert --no-input flag.
config.TemplateExporter.exclude_output_prompt=True
config.TemplateExporter.exclude_input=True
config.TemplateExporter.exclude_input_prompt=True

notebook_to_arxiv(
    notebook_path='example.ipynb',
    name='example_no_code',
    output_path='output_no_code',
    config=config,
    title='Example arXiv Notebook',
    authors=[
        {
            'name': 'author 1',
            'first_line': 'organization 1',
            'second_line': 'organization 2',
            'email': 'email1@gmail.com'
        },
        {
            'name': 'author 2',
            'first_line': 'organization 2',
            'second_line': 'organization 3',
            'email': 'email2@gmail.com'
        },
    ],
    under_title='Jupyter Notebook Report',
    header_right='Example Report',
    header_center=r'Example for \texttt{arxiv\_notebook} package',
    abstract=r'In this paper, we demonstrate using the \texttt{arxiv\_notebook}␣
↪package to convert a Jupyter notebook into a PDF using an arxiv LaTeX style. This␣
↪version uses the config kwarg to remove all input prompts in the PDF.',
    save_notebook=True
)
```