

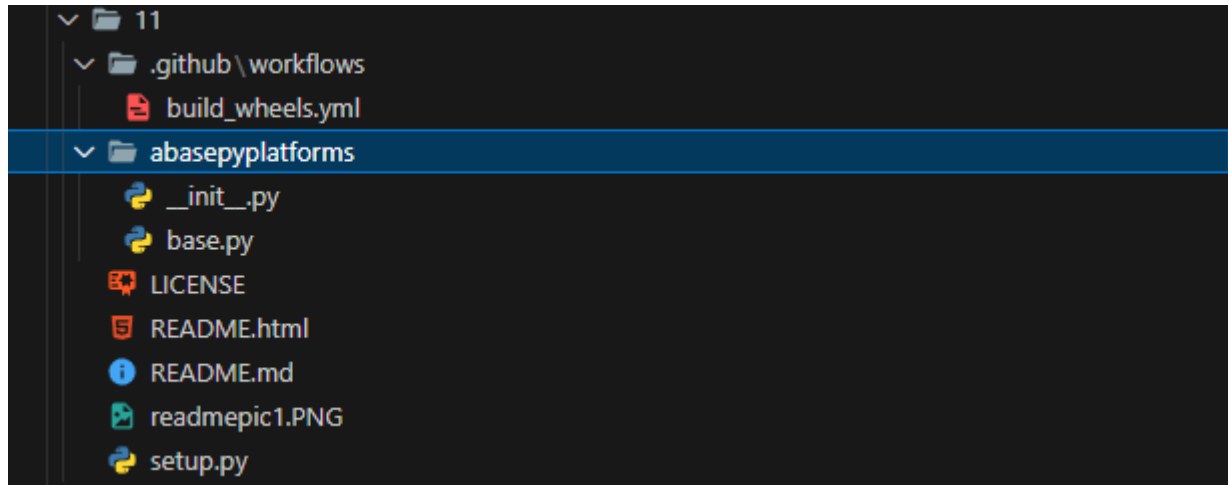
# Platform Specific Wheel

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## package used to build wheels

- cibuildwheel

## Steps to reproduce



- copy this into setup.py file

```
import os

from os.path import join

from setuptools import setup, Extension

from Cython.Build import cythonize

directory_path = os.path.dirname(

os.path.abspath(__file__)

)

ext_data = {

'PACKAGE-NAME-HERE':{

'sources':[join(directory_path, 'FOLDER-NAME', 'base.py')]

}

}

extensions = []

for name,data in ext_data.items():

sources = data['sources']
```

```

include = data.get('include',[])
obj = Extension(
    name,
    sources=sources,
    include_dirs=include
)
extensions.append(obj)
setup(
    name="PUT-PACKAGE-NAME-HERE",
    version="0.0.1",
    install_requires=[
        "pip","setuptools","langchain","sqlalchemy","pymysql"
    ],
    ext_modules=cythonize(extensions)
)

```

- *replace package-name with name of your package*
- create github action by .github\workflows\build\_wheels.yml
- copy this , you can refer to cibuildwheel docs for more info  
<https://cibuildwheel.readthedocs.io/en/stable/>

```

name: Build
on: [push, pull_request]
jobs:
  build_wheels:
    name: Build wheels on ${ matrix.os }
    runs-on: ${ matrix.os }
    strategy:
      matrix:
        os: [ubuntu-20.04, windows-2019, macos-11]
    steps:

      - uses: actions/checkout@v4
      - name: Build wheels
        uses: pypa/cibuildwheel@v2.16.2
      env:
        CIBW_BEFORE_BUILD: python -m pip install Cython
      - uses: actions/upload-artifact@v3
    with:
      path: ./wheelhouse/*.whl

```

- **CIBW\_BEFORE\_BUILD** line is important , it tells cibuildwheel to install Cython before compiling the package
- now make a github repo and add these files
- on pushing , a github workflow will start creating wheels

- at the end you will be given with artifacts which contains wheel for specific platforms

## setup.py

This files convert py code into .pyd format . it also contains dependencies needed for installation

## build\_wheels.yml

This is Github Actions workflow file needed for cibuildwheel

## Notes

- Check the cibuildwheel docs for further updates
- i added wheels for almost all platforms , you can add more by editing build\_wheels.yml file
- you can tweak things as you wish in build\_wheels.yml file and push to github for workflow to work
- don't remove **CIBW\_BEFORE\_BUILD** line in build\_wheels.yml file

## Reference

- <https://medium.com/@xpl/protecting-python-sources-using-cython-dcd940bb188e>
- <https://iscinumpy.dev/post/overview-of-cibuildwheel/> -> cibuildwheel docs
- <https://cibuildwheel.readthedocs.io/en/stable/setup/#configure-a-ci-service> -> cibuildwheel docs for configuring build\_wheels.yml
- <https://www.youtube.com/watch?v=53l4HApVUKU&t=547s> -> video referred to convert python code to pyd (setup.py) codes are referenced from this video