Steps to Create a Python Package

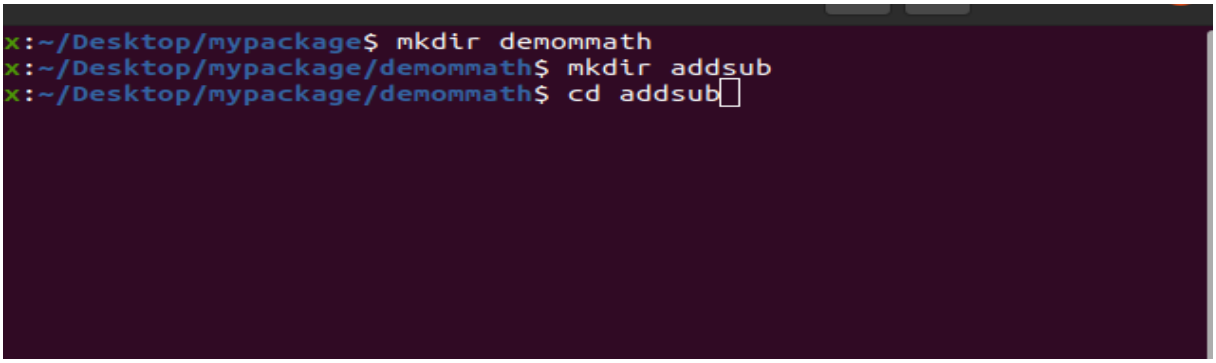
Creating a Python Package

Creating a Python package involves organizing your code into a directory structure and adding special files. Here's a step-by-step guide to help you create a simple Python package:

Step 1: Create the Package Directory

Start by creating a new directory for your package. This directory will contain your package modules and other necessary files.

```bash
mkdir "Name of directory"  #example : mkdir demommath
cd "Name of directory"     # cd demommath
```



##**Step 2:** Create Sub Directory
mkdir "Name of Sub directory"   # mkdir addsub

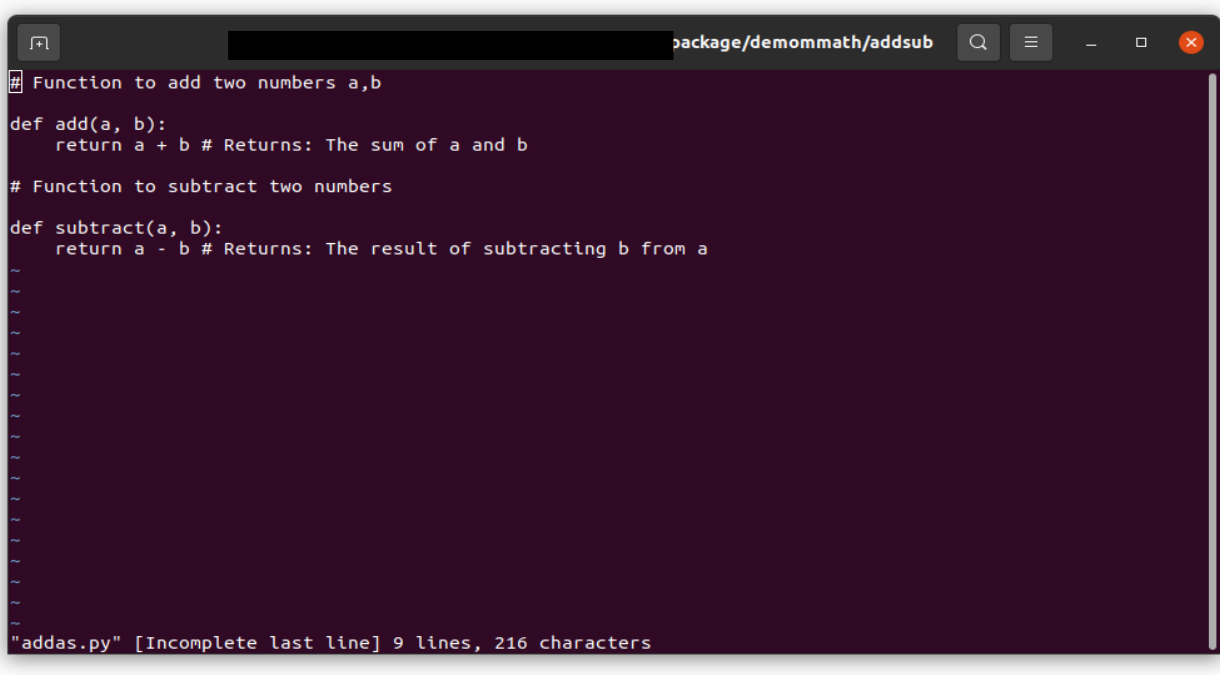
Step 3: Create Modules

Inside your package directory, create Python modules (`.py` files) that will be part of your package. For example:

```python
# demommath/addsub/addas.py
def func1():
    print("Function 1")

# demommath/multidiv/md.py
def func2():
    print("Function 2")
```

```




## **Step 4:** Create `__init__.py`

In the main package directory, create an `__init__.py` file. This file can be empty, or you can use it to initialize your package.

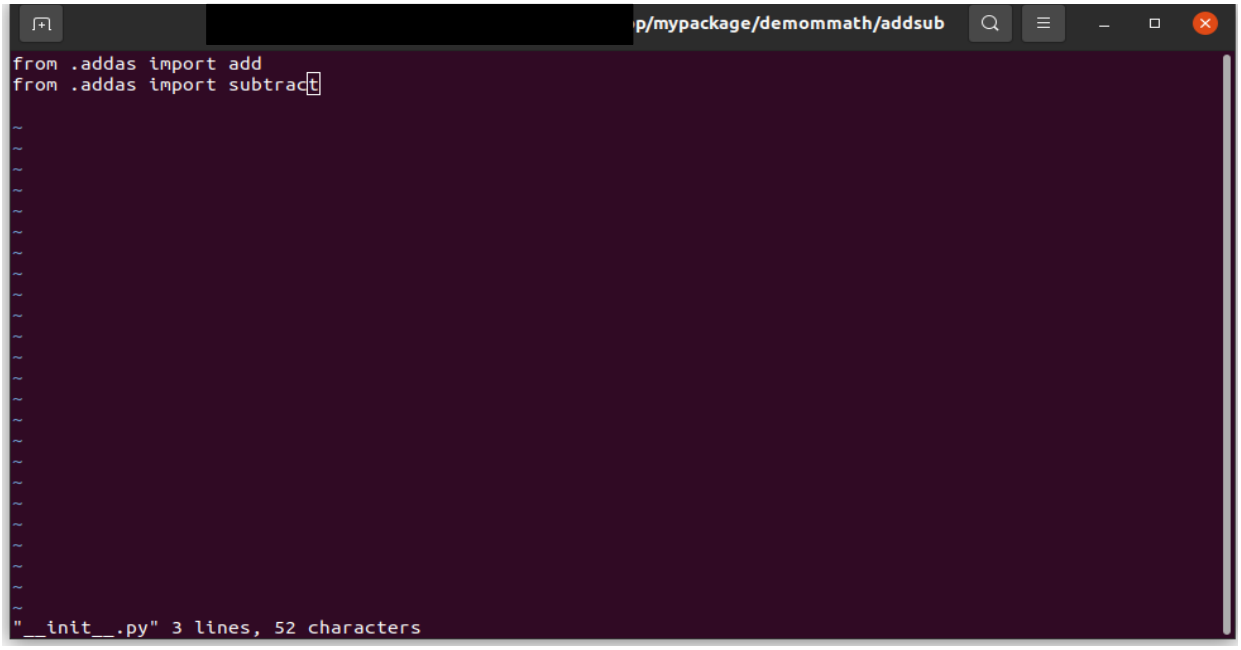
```python
#demommath/__init__.py

In each package sub directory, create an `__init__.py` file. This file can be empty, or you can use it to initialize your package.

# demommath/addsub/__init__.py```

To initialize package in the sub directory

```python
#demommath/addsub/__init__.py
from .addas import add
from .addas import subtract```
```

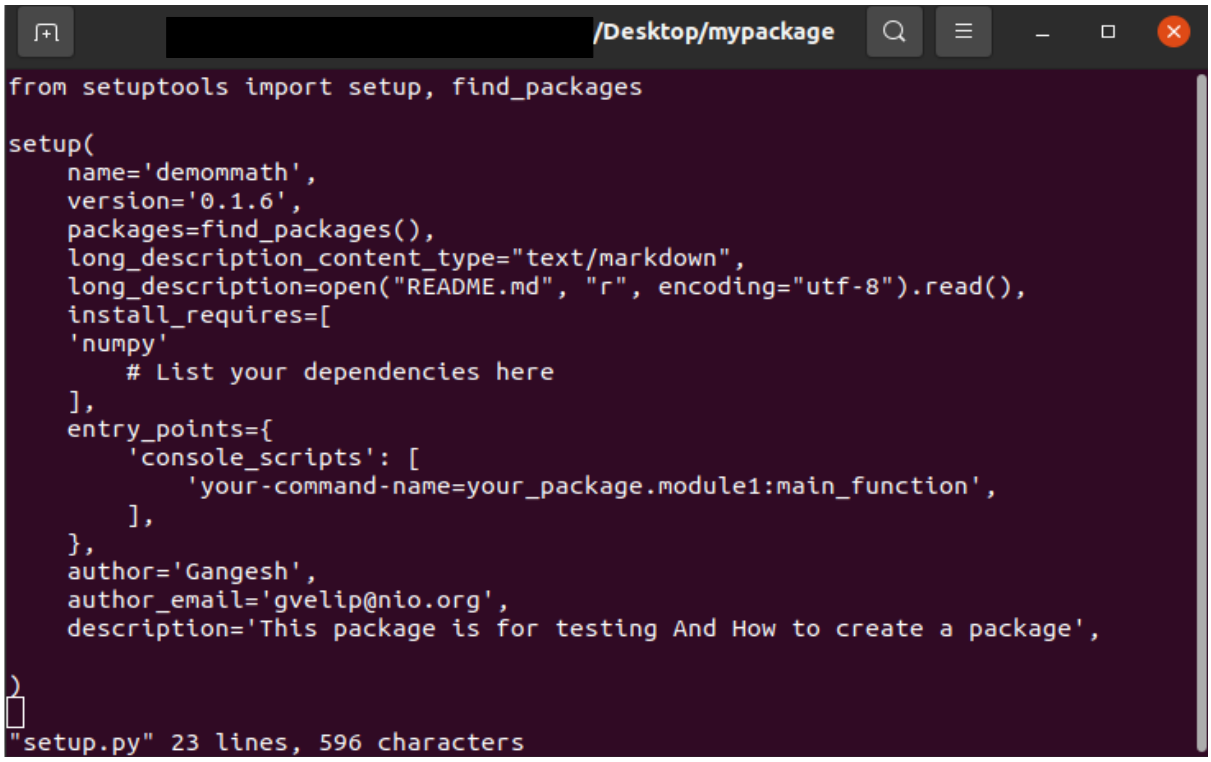


Step 5: Create `setup.py`

Create a `setup.py` file to define metadata about your package, such as its name, version, and dependencies.

```python
# demommath/setup.py
from setuptools import setup, find_packages

setup(
    name='demommath',
    version='0.1',
    packages=find_packages(),
    install_requires=[
        # List your dependencies here
    ],
)
```



Step 6: Install setuptools

If you don't have `setuptools` installed, install it using:

```bash
pip install setuptools
```

Step 7: Create a README.md file

This text file contains all the information about how to use the package.

Step 8: Build and Install the Package

Navigate to the directory containing your `setup.py` file and run the following commands:

```bash
python setup.py sdist
```

This Step creates build and dist directories.

To install locally,

pip install dist/demommath-0.1.4.tar.gz


```

## **Step 9:** Verify

Now, you should be able to import and use your package in other Python scripts or environments:

```python
>>>from demommath import addsub
>>>addsub.add(2,8)
10
```

This is a basic example. Depending on your package's complexity, you may need to add more details to your `setup.py` file. Refer to the [setuptools documentation](https://setuptools.pypa.io/) for more options and customization.

Feel free to customize the package structure and `setup.py` according to your project's requirements.
```