Guide for Packaging Python Scripts into a Debian Package
This guide explains how to package a Python script into a .deb package for installation on Debian-based systems like Kali Linux or Ubuntu.

Prerequisites

- A Python script that is ready to be packaged.
- Access to a Debian-based system (e.g., Kali Linux or Ubuntu).

Step 1: Set Up Folder Structure

1. **Create Directories**:
   Run the following commands to create the necessary folder structure for the package:
   mkdir -p myscript/DEBIAN
   mkdir -p myscript/usr/bin
2. **Copy Python Script**:
   Copy your Python script to the usr/bin directory:
   cp /path/to/your/script.py myscript/usr/bin/myscript
3. **Make the Script Executable**:
   Ensure the script has execute permissions by running:
   chmod +x myscript/usr/bin/myscript

Step 2: Create the Control File

1. **Create the control File**:
   Inside the DEBIAN folder, create the control file:
   nano myscript/DEBIAN/control
2. **Add the Following Information**:
   Enter the following content in the control file:

Package: myscript
Version: 1.0
Architecture: all
Maintainer: Your Name <your.email@example.com>
Description: A brief description of your Python script
Depends: python3, python3-pypdf2

3. **Save and Exit**:
   After editing, save and exit by pressing Ctrl + X, then Y to confirm.

Step 3: Build the Package

1. **Build the Debian Package**:
   To build the package, run the following command from the parent directory of myscript:
   dpkg-deb --build myscript

This will generate a .deb file named myscript.deb.

Step 4: Install the Package

1. **Install the Package**:
   To install the package on your system, run:
   sudo dpkg -i myscript.deb

2. **Resolve Dependencies**:
   If you face any issues with missing dependencies, use this command to automatically resolve them:
   sudo apt-get install -f

Step 5: Test the Script

1. **Run the Script**:
   After installation, you can run the script directly by typing its name (without .py extension):
   myscript

This should execute the script.

Step 6: Uninstall the Package

1. **Remove the Package**:
   If you want to remove the package, use the following command:
   sudo dpkg -r myscript
2. **Clean Up**:
   Optionally, you can clean up unused packages and dependencies by running:
   sudo apt-get autoremove

Troubleshooting

- **Script Not Running**:
  Ensure the shebang line (#!/usr/bin/env python3) is at the top of your script, and that it has execute permissions:
  chmod +x /usr/bin/myscript
- **Missing Dependencies**:
  If dependencies are missing, run:
  sudo apt-get install -f to fix them.
- **Script Runs with python3 but Not Directly**:
  If the script works with python3 but not directly, make sure the shebang line in your script is correct:
  #!/usr/bin/env python3