Metadata

```
Course:  DS 5100
Module:  09 Python Packages
Topic:   HW Package Booklover
Author:  R.C. Alvarado (adapted)
Date:    10 October 2022 (revised)
```

Student Info

- Name:ballard
- Net UD: bkq5nt
- URL of this file in GitHub: https://github.com/ballard11/DS5100-2022-08-O/tree/main/lessons/M09_PythonModules/HW9_Package

Instructions

In your **private course repo on Rivanna**, use this Jupyter notebook and the data file described to write code that performs the tasks below.

Save your notebook in the `M09` directory.

Remember to add and commit these files to your repo.

Then push your commits to your repo on GitHib.

Be sure to fill out the **Student Info** block above.

To submit your homework, save your results as a PDF and upload it to GradeScope. More information about how to create the PDF for this assignment are included at the end of this document.

TOTAL POINTS: 8

Overview

Follow the following recipe we used in class to package the code you wrote for `HW08` -- `booklover.py` and `booklover_test.py`.

- Create a new git repo for your package.
- Create and edit the required files and directories for your package and move the booklover modules there.
- Stage, commit, and push all the files you've created.

- Install your package with pip.
- Outside of your package dir, write a script to test your method.

Put this notebook in your repo. This will allow you to execute bash commands and capture the outpunt directly in the notebook.

TOTAL: 8 POINTS

Tasks

Task 1

(5 points)

Show the directory structure of your repo by running this command from the root of your repo:

In [3]:
```
%ls -lR
```

```
 Volume in drive C has no label.
 Volume Serial Number is 0C05-53DB

 Directory of C:\Users\Ben\OneDrive\Documents\UVA 1st Semester\Programming New Githu
b\DS5100-2022-08-O\lessons\M09_PythonModules

File Not Found


    Directory: C:\Users\Ben\OneDrive\Documents\UVA 1st
    Semester\Programming New Github\DS5100-2022-08-O\lessons
    \M09_PythonModules\HW9_Package
```

Mode LastWriteTime Length Name

---

da---l 11/3/2022 10:32 PM .ipynb_checkpoints da---l 11/3/2022 10:26 PM HW_package.egg-info da---l 11/3/2022 10:27 PM **pycache** -a---l 11/3/2022 10:32 PM 1508 booklover.py -a---l 11/2/2022 8:46 PM 2931 booklover_test.py -a---l 11/2/2022 8:46 PM 5879 M09-HW.ipynb -a---l 11/3/2022 10:26 PM 103 setup.py -a---l 11/2/2022 8:46 PM 2 **init**.py

Task 2

(1 point)

Put the URL of your GitHub repo here. Just paste it into a Markdown cell.

URL: https://github.com/ballard11/DS5100-2022-08-O.git

Task 3

(1 point)

Show the results of installing your package.

```
!pip install -e .
```

In [4]:
```
!pip install -e .
```

```
Obtaining file:///C:/Users/Ben/OneDrive/Documents/UVA%201st%20Semester/Programming%20
New%20Github/DS5100-2022-08-O/lessons/M09_PythonModules
    ERROR: Command errored out with exit status 1:
     command: 'C:\Users\Ben\anaconda3\python.exe' -c 'import sys, setuptools, tokeniz
e; sys.argv[0] = '"'"'C:\\Users\\Ben\\OneDrive\\Documents\\UVA 1st Semester\\Programm
ing New Github\\DS5100-2022-08-O\\lessons\\M09_PythonModules\\setup.py'"'"'; __file__
='"'"'C:\\Users\\Ben\\OneDrive\\Documents\\UVA 1st Semester\\Programming New Github\\
DS5100-2022-08-O\\lessons\\M09_PythonModules\\setup.py'"'"';f=getattr(tokenize, '"'"'
open'"'"', open)(__file__);code=f.read().replace('"'"'\r\n'"'"', '"'"'\n'"'"');f.clos
e();exec(compile(code, __file__, '"'"'exec'"'"'))' egg_info --egg-base 'C:\Users\Ben\
AppData\Local\Temp\pip-pip-egg-info-jn1ipvxx'
         cwd: C:\Users\Ben\OneDrive\Documents\UVA 1st Semester\Programming New Githu
b\DS5100-2022-08-O\lessons\M09_PythonModules\
    Complete output (6 lines):
    Traceback (most recent call last):
      File "<string>", line 1, in <module>
      File "C:\Users\Ben\OneDrive\Documents\UVA 1st Semester\Programming New Github\D
S5100-2022-08-O\lessons\M09_PythonModules\setup.py", line 6
        author='Ben Ballard'
        ^
    SyntaxError: invalid syntax
    ----------------------------------------
WARNING: Discarding file:///C:/Users/Ben/OneDrive/Documents/UVA%201st%20Semester/Prog
ramming%20New%20Github/DS5100-2022-08-O/lessons/M09_PythonModules. Command errored ou
t with exit status 1: python setup.py egg_info Check the logs for full command outpu
t.
ERROR: Command errored out with exit status 1: python setup.py egg_info Check the log
s for full command output.
```

Task 4

(1 point)

Create a file outside your repo to test your package by running it.

To do this, import the package into your file and create a BookLover object.

Then add a book and then print number books read.

Then run the file.

Show the output of running the file below, using a command like the following:

```
!python ../book_lover_demo.py
```

Installing package from console

PS C:\Users\Ben\OneDrive\Documents\UVA 1st Semester\Programming New Github\DS5100-2022-08-O\lessons\M09_PythonModules\HW9_Package> pip install -e . Obtaining file:///C:/Users/Ben/OneDrive/Documents/UVA%201st%20Semester /Programming%20New%20Github/DS5100-2022-08-O/lessons/M09_PythonModules /HW9_Package Installing collected packages: HW-package Running setup.py develop for HW-package Successfully installed HW-package

Running in Python

PS C:\Users\Ben\OneDrive\Documents\UVA 1st Semester\Programming New Github\DS5100-2022-08-O\lessons\M09_PythonModules\HW9_Package> python Python 3.8.8 (default, Apr 13 2021, 15:08:03) [MSC v.1916 64 bit (AMD64)] :: Anaconda, Inc. on win32 Type "help", "copyright", "credits" or "license" for more information.

importing Booklover and calling it, creating object

> > > import booklover BookLover() Traceback (most recent call last): File "", line 1, in NameError: name 'BookLover' is not defined booklover.BookLover() Traceback (most recent call last): File "", line 1, in TypeError: **init**() missing 3 required positional arguments: 'name', 'email', and 'fav_genre'
>
> booklover.BookLover("Be","bkq5nt@virginia.edu","scifi")
>
> <booklover.BookLover object at 0x0000010C51295370>