Metadata

```
Course:  DS 5100
Module:  09 Python Packages
Topic:   HW Package Booklover
Author:  R.C. Alvarado (adapted)
Date:    7 July 2023 (revised)
```

Student Info

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- URL of this file in GitHub: https://github.com/hyounce/DS5100-ksg8xy/blob/main/lessons/M09/hw09.ipynb

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 [ ]:
```
import os
os.chdir('/Users/hildeyounce/VSCode/ds5100-booklover')
```

In [ ]:
```
!ls -lR
```

```
total 32
-rw-r--r--  1 hildeyounce  staff  1069 Jul  2 12:07 LICENSE
-rw-r--r--  1 hildeyounce  staff    49 Jul  2 12:07 README.md
drwxr-xr-x  5 hildeyounce  staff   160 Jul  2 14:58 booklover
drwxr-xr-x@ 6 hildeyounce  staff   192 Jul  2 12:44 booklover.egg-info
-rw-r--r--  1 hildeyounce  staff  2464 Jul  2 12:13 booklover_test.py
-rw-r--r--  1 hildeyounce  staff   281 Jul  2 12:46 setup.py

./booklover:
total 16
-rw-r--r--  1 hildeyounce  staff    41 Jul  2 12:26 __init__.py
drwxr-xr-x  6 hildeyounce  staff   192 Jul  2 12:43 __pycache__
-rw-r--r--  1 hildeyounce  staff  1169 Jul  2 12:12 booklover.py

./booklover/__pycache__:
total 32
-rw-r--r--  1 hildeyounce  staff   246 Jul  2 12:33 __init__.cpython-311.pyc
-rw-r--r--@ 1 hildeyounce  staff   224 Jul  2 12:43 __init__.cpython-312.pyc
-rw-r--r--  1 hildeyounce  staff  2140 Jul  2 12:40 booklover.cpython-311.py
c
-rw-r--r--@ 1 hildeyounce  staff  2053 Jul  2 12:43 booklover.cpython-312.py
c

./booklover.egg-info:
total 32
-rw-r--r--@ 1 hildeyounce  staff  225 Jul  2 12:44 PKG-INFO
-rw-r--r--@ 1 hildeyounce  staff  231 Jul  2 12:44 SOURCES.txt
-rw-r--r--@ 1 hildeyounce  staff    1 Jul  2 12:44 dependency_links.txt
-rw-r--r--@ 1 hildeyounce  staff   10 Jul  2 12:44 top_level.txt
```

Task 2

(1 point)

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

URL: https://github.com/hyounce/ds5100-booklover

Task 3

(1 point)

Show the results of installing your package.

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

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

```
Obtaining file:///Users/hildeyounce/VSCode/ds5100-booklover
  Preparing metadata (setup.py) ... done
Installing collected packages: booklover
  Attempting uninstall: booklover
    Found existing installation: booklover 1.0.0
    Uninstalling booklover-1.0.0:
      Successfully uninstalled booklover-1.0.0
  Running setup.py develop for booklover
Successfully installed booklover-1.0.0
Note: you may need to restart the kernel to use updated packages.
```

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
```

In [ ]:
```
!python /Users/hildeyounce/Documents/booklover_demo.py
```

```
Welcome to the Booklover module.
Number of books:  1
```