Numpy Assignment
Instructions

Overview

In this assignment, you will be completing a Jupyter Notebook from a starter file that we have provided. The data to be analyzed have a similar structure to those data that we analyzed in the tutorial video for this assignment. We have also included a copy of the Jupyter Notebook that was created during the tutorial. The data to be analyzed in this assignment relate to basketball team ticket sales.

Tools

You are expected to use the tools that are demonstrated in the tutorial video: Anaconda, PyCharm, and Jupyter. While Jupyter Notebooks can be created without using PyCharm, PyCharm may make it considerably easier. In any case, you must submit a PyCharm project so that we may easily grade it using PyCharm.

Tool Versions

Use the versions of tools that we installed during Week 1 of the course. When working on this assignment, you should use the Anaconda virtual env that we created named *e4_trainor_python_course.*

Starter Files

The starter files for this assignment can be downloaded from a link in the Weekly Schedule for this assignment. The download file is named *numpy_starter.zip*. This .ZIP file includes a PyCharm project named *numpy_assignment_starter*. The project includes program files that are helpful for following along with the tutorial video as well as a starter file for the program that you will complete during this assignment. Included files:

- numpy_assignment_starter.ipynb
- numpy_tutorial.ipynb
- numpy_tutorial_starter.ipynb
- sales_generator_easy.py
- sales_generator.py
- tickets_generator_easy.py

Assignment Details

Create a properly named PyCharm project (see details below for naming conventions).

Copy the Jupyter Notebook starter file to your project:

- numpy_assignment_starter.ipynb

Rename this file to:

- numpy_assignment.ipynb

Using the same approach as shown in the tutorial video, complete the Jupyter Notebook by placing the proper code in cells containing *# Insert code here.*

Please note that we have intentionally not included the expected output in these instructions. As shown in the tutorial video, you are expected to use the test data to assure yourself that your code is working properly. Then, switch to the actual data to produce the actual results.

Exercises
This assignment is divided into 2 exercises:

Exercise 1 (Regular)
Place code into all but the last 2 code cells.

Exercise 2 (Challenge)
Place code into the last 2 code cells. These are the cells labeled *Challenge*.

Code Deliverables
You are expected to submit a properly organized PyCharm project that is ready to be tested using Anaconda, PyCharm, and Jupyter. Please refer to the tutorial video for details.

File and Directory Naming
Please name your Python program files as instructed in each tutorial video. Please use the following naming scheme for naming your PyCharm project:

    surname_givenname_numpy_assignment

If this were my own project, I would name my PyCharm project as follows:

    trainor_kevin_numpy_assignment

Use a zip utility to create one zip file that contain the PyCharm project directory. The zip file should be named according to the following scheme:

    surname_givenname_numpy_assignment.zip

If this were my own project, I would name the zip file as follows:

    trainor_kevin_numpy_assignment.zip

Due By
Please submit this assignment by the date and time shown in the Weekly Schedule.

Last Revised
2024-02-10