Python Assignments

The assignment code can be given in zip format.

1. Create a python module that demonstrate below requirements

a. create a module called **models directory**, that should have \_\_init\_\_.py file

b. Create Order class in order.py and Invoice class in invoice.py inside the models directory

c. \_\_init\_\_.py should export modules from models

d. The user application should able to import Order and Invoice classes from models module

File Structure

models

\_\_init\_\_.py

order.py

invoice.py

2. Write a python program that reads a CSV file called “employees.csv” that consists of name, gender, salary, email columns, and sort the data by salary in descending order, write the resultant csv [sorted by salary descending order] to an output csv file called “employees-sorted.csv” file

3. Write a python program that calculate average rating of movies using ratings.csv [download from <https://files.grouplens.org/datasets/movielens/ml-100k.zip>]. Find the average rating of movies and the average rating of movies should be sorted by descending order, written to a csv file as ouput with columns movieId, avg\_rating

4. Write a Python class to find validity of a string of parentheses, '(', ')', '{', '}', '[' and ']. These brackets must be close in the correct order, for example "()" and "()[]{}" are valid but "[)", "({[)]" and "{{{" are invalid.

5. Write a Python class to get all possible unique subsets from a set of distinct integers.

Example:  
Input : [4, 5, 6]  
Output : [[], [6], [5], [5, 6], [4], [4, 6], [4, 5], [4, 5, 6]]