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CCVT – 6th SEM

Submitted To: Mr. Deepak Kumar Sharma
SIGNATURE/REMARKS

FP5.0 Module-1 Project

Batch Name:	Infosys FP5.0 Summer Internship 2018
Enrollment No:	R110215062
SAP ID:	500044606
NAME:	Kanwaljit Singh
Semester:	VI
Branch:	CSE CCVT

Specifications :-

The project is to write a Python program that reads a text file, scrambles the words in the file on following rules and writes the output to a new text file:

- Words less than or equal to 3 characters need not be scrambled
- Don't scramble first and last char, so Scrambling can become Srbrmnacilg or Srbrmnailcg or Snmbracilg , i.e. letters except first and last can be scrambled in any order
- Punctuation at the end of the word to be maintained as is i.e. "Surprising," could become "Spsirnirug," but not "Spsirn,irug"
- Following punctuation marks are to be supported - Comma Question mark, Full stop, Semicolon, Exclamation
- Do this for a file and maintain sequences of lines
- Hint: use random module of Python for scrambling

Solution :-

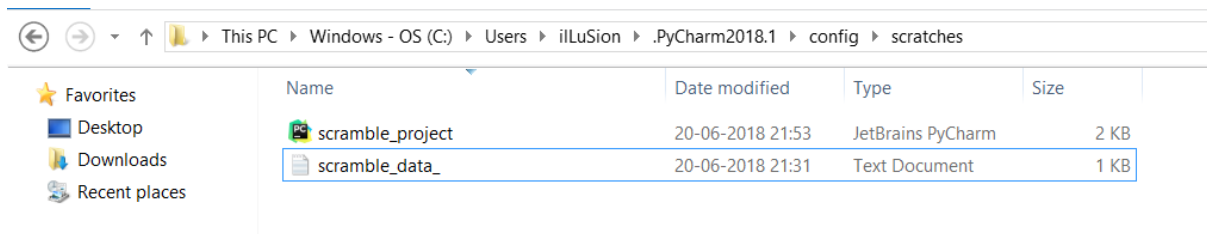
Scramble_Project.py

```
1. from random import randint
2.
3. filename = input("Enter Input File : ")
4. with open(filename) as file:
5.     strings = file.read();
6. words = strings.split(" ");
7. symbols = [",", "?", ".", ";", "!", "'", '"', ":"]
8. output = filename.replace(".txt", "Scrambled.txt")
9. with open(output, "w") as file:
10.     file.write("");
11. for word in words:
12.     temp = word
13.     # Remove Punctuation Marks
14.     for symbol in symbols:
15.         if symbol in temp:
16.             temp = temp.replace(symbol, "")
17.     scrambled_word = temp
18.     if len(temp) > 3:
19.         while scrambled_word == temp:
20.             letters = [letter for letter in temp]
21.             arr = [0 for i in letters]
22.             arr[0] = 1
23.             arr[len(letters) - 1] = 1
24.             scrambled_word = []
25.             scrambled_word.append(letters[0])
26.             while 0 in arr:
27.                 random = randint(1, len(arr) - 1)
28.                 if arr[random] == 0:
29.                     scrambled_word.append(letters[random])
30.                     arr[random] = 1
31.             else:
32.                 continue
33.             scrambled_word.append(letters[len(letters) - 1])
34.             # Add Punctuation Marks
35.             letters = [letter for letter in word]
36.             for letter in letters:
37.                 if letter in symbols:
38.                     scrambled_word.insert(word.index(letter), letter)
39.             scrambled_word = "".join(scrambled_word)
40.
41.     with open(output, "a") as file:
42.         file.write(scrambled_word + " ");
43. else:
44.     with open(output, "a") as file:
45.         file.write(word + " ");
46. print("Scrambled file created and written Successfully\nExiting Program...")
```

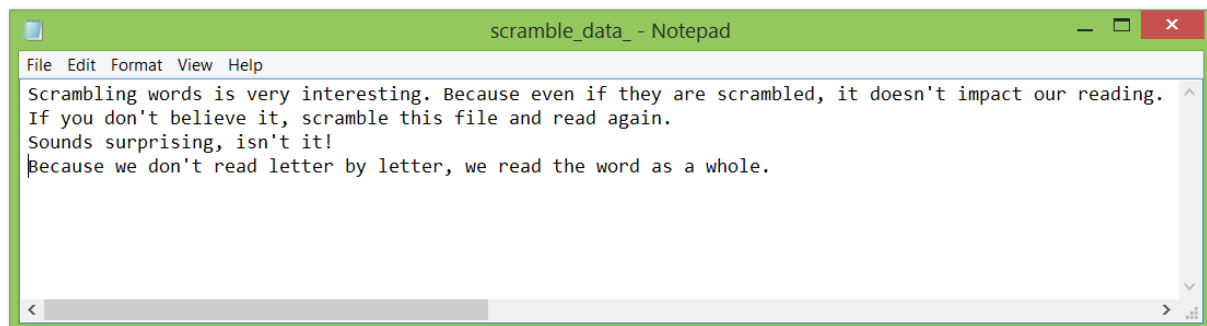
Snapshots :-

Directory Content: 1. **scramble_project.py**

2. **scramble_data_.txt**



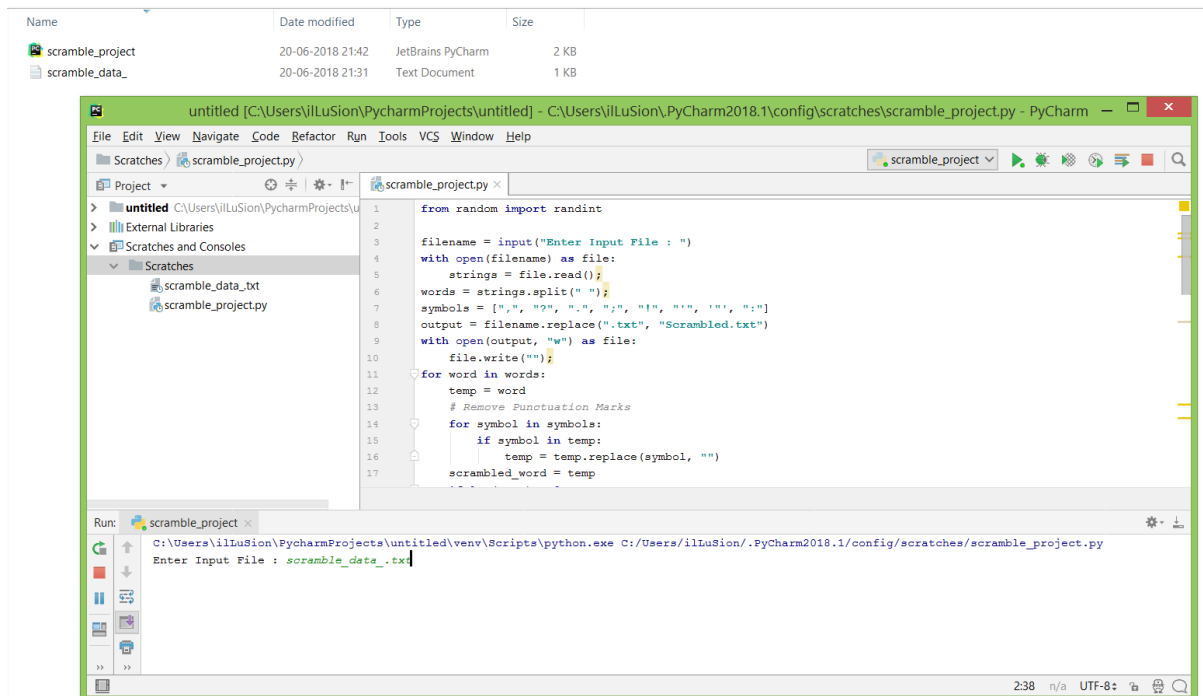
Input File: **scramble_data_.txt**



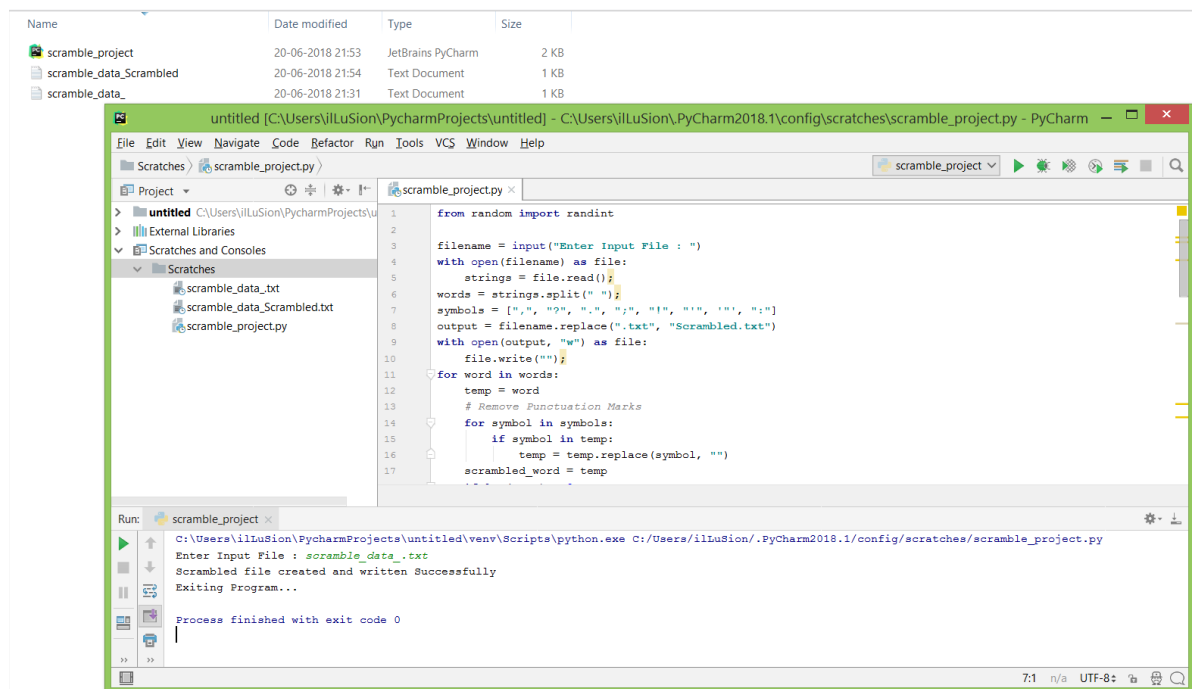
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Execution Environment: Pycharm IDE with scramble_project.py editor



Execution Environment: Scramble Project Execution



Execution Environment: Execution Result Display



```
Run: scramble_project x
C:\Users\ilLuSion\PycharmProjects\untitled\venv\Scripts\python.exe C:/Users/ilLuSion/.PyCharm2018.1/config/scratches/scramble_project.py
Enter Input File : scramble_data_.txt
Scrambled file created and written Successfully
Exiting Program...
Process finished with exit code 0
```

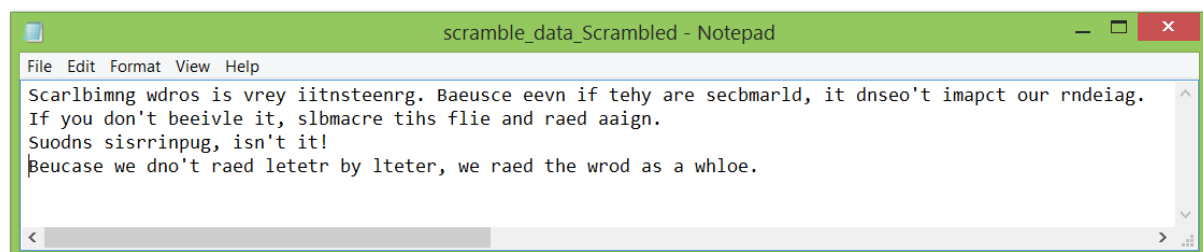
Directory Content (After Execution): 1. scramble_project.py

2. scramble_data_Scrambled.txt

3. Scramble_data_.txt

Name	Date modified	Type	Size
scramble_project	20-06-2018 21:53	JetBrains PyCharm	2 KB
scramble_data_Scrambled	20-06-2018 21:54	Text Document	1 KB
scramble_data_	20-06-2018 21:31	Text Document	1 KB

Output File: scramble_data_Scrambled.txt



****END OF PROJECT****