1. **def** validateIpAddress(IP):
3. **def** isIPv4(s):
4. **try**: **return** str(int(s)) == s **and** 0 <= int(s) <= 255
5. **except**: **return** False
7. **def** isIPv6(s):
8. **if** len(s) > 4: **return** False
9. **try**: **return** int(s, 16) >= 0 **and** s[0] != '-'
10. **except**: **return** False
12. **if** IP.count(".") == 3 **and** all(isIPv4(i) **for** i **in** IP.split(".")):
13. **return** "IPv4"
14. **if** IP.count(":") == 7 **and** all(isIPv6(i) **for** i **in** IP.split(":")):
15. **return** "IPv6"
16. **return** "Neither"
18. **print**(validateIpAddress(input("Enter IP Address: ")))
19. **def** word\_count(str):
20. words = str.split()
21. d = {}
22. **for** word **in** words:
23. count = words.count(word)
24. d[word] = count
25. **return** d
26. #count = Counter(words)
27. #return count
28. **print**(word\_count('the quick the brown fox jumps over the lazy dog dog.'))
29. **def** avg\_words(sentence):
30. words = (re.sub('['+ string.punctuation + ']','',sentence.lower()).split())
31. ##filtered = ''.join(filter(lambda x: x not in string.punctuation, sentence))
32. ##words = filtered.split()
33. ###average = sum(len(word) for word in words) / len(words)
34. average = sum(map(len,words)) / len(words)
35. **return** average
36. **print**(avg\_words(input("Enter sentence:")))
37. **def** find\_dupes(li):
38. ##    seen = {}
39. ##    dupes = []
40. ##    for x in a:
41. ##        if x not in seen:
42. ##            seen[x] = 1
43. ##        else:
44. ##            if seen[x] == 1:
45. ##                dupes.append(x)
46. ##            seen[x] += 1
47. ##    return dupes
48. dup\_list = []
49. **for** i **in** li:
50. **if** li.count(i)>1 **and** i **not** **in** dup\_list:
51. dup\_list.append(i)
52. **return** dup\_list
53. **print**(find\_dupes([10,20,30,20,10,50,60,40,80,50,40]))
54. **def** rem\_dupes(li):
55. uniq\_list = []
56. **for** i **in** li:
57. **if** i **not** **in** uniq\_list:
58. uniq\_list.append(i)
59. **return** uniq\_list
60. **print**(rem\_dupes([10,20,30,20,10,50,60,40,80,50,40]))
61. **def** count\_substr(s, ss):
62. results = 0
63. ss\_len = len(ss)
64. **for** i **in** range(len(s)):
65. **if** s[i:i+ss\_len] == ss:
66. results += 1
67. **return** results
68. **print**(count\_substr('arunununghhjj','nun'))