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CLASS : BSDS-3A  
ROLL NUMBER : 074  
   
 (1)**  
def luhn(number\_str):

check = int(number\_str[-1])

digits = [int(d) for d in number\_str[:-1]][::-1]

for i in range(len(digits)):

if i % 2 == 0:

digits[i] \*= 2

if digits[i] > 9:

digits[i] -= 9

total = sum(digits) + check

return total % 10 == 0

**(2)**  
  
def remove\_punctuations(s):

import string

return ''.join(ch for ch in s if ch not in string.punctuation)  
  
   
  
  **(3)**  
def sort\_sentence(s):

cleaned = remove\_punctuations(s)

words = cleaned.split()

words.sort(key=lambda w: w.lower())

return ' '.join(words)