ASSIGNMENT 8

1. Odd String Difference

def f(w):

def g(s):

l = []

for i in range(len(s) - 1):

l.append(ord(s[i + 1]) - ord(s[i]))

return l

d = {}

for s in w:

k = tuple(g(s))

if k in d:

d[k].append(s)

else:

d[k] = [s]

for k, v in d.items():

if len(v) == 1:

return v[0]

w = input("Enter the list of words separated by spaces: ").split()

print(f(w))

OUTPUT:

2. Words Within Two Edits of Dictionary

def h(q, d):

def i(a, b):

c = 0

for x, y in zip(a, b):

if x != y:

c += 1

return c

r = []

for a in q:

for b in d:

if i(a, b) <= 2:

r.append(a)

break

return r

q = input("Enter the list of query words separated by spaces: ").split()

d = input("Enter the list of dictionary words separated by spaces: ").split()

print(h(q, d))

OUTPUT:

3. Destroy Sequential Targets

def j(n, s):

p = {}

for x in n:

t = x % s

if t in p:

p[t].append(x)

else:

p[t] = [x]

m = 0

v = float('inf')

for k, a in p.items():

if len(a) > m:

m = len(a)

v = min(a)

elif len(a) == m:

v = min(v, min(a))

return v

n = [1, 2, 3, 4, 5, 6]

s = 3

print(j(n, s))

OUTPUT:

4. Next Greater Element IV

def k(n):

l = [-1] \* len(n)

for i in range(len(n)):

m = -1

for j in range(i + 1, len(n)):

if n[j] > n[i]:

if m == -1:

m = n[j]

elif n[j] > m:

l[i] = n[j]

break

return l

n = [int(x) for x in input("Enter the list of numbers separated by space: ").split()]

print(k(n))

OUTPUT:

5. Average Value of Even Numbers That Are Divisible by Three

def o(n):

s = [x for x in n if x % 6 == 0]

if not s:

return 0

return sum(s) // len(s)

n = [int(x) for x in input("Enter the list of numbers separated by space: ").split()]

print(o(n))

OUTPUT:

6. Minimum Addition to Make Integer Beautiful

def p(n, t):

def q(x):

return sum(int(d) for d in str(x))

m = 0

while q(n) > t:

n += 1

m += 1

return m

n = int(input("Enter the initial number: "))

t = int(input("Enter the target sum: "))

print(p(n, t))

OUTPUT:

7. Most Popular Video Creator

def r(c, i, v):

w = {}

for x in range(len(c)):

if c[x] in w:

w[c[x]][0] += v[x]

if v[x] > w[c[x]][1]:

w[c[x]][1] = v[x]

w[c[x]][2] = i[x]

elif v[x] == w[c[x]][1]:

w[c[x]][2] = min(w[c[x]][2], i[x])

else:

w[c[x]] = [v[x], v[x], i[x]]

m = max([v[0] for v in w.values()])

return [[k, v[2]] for k, v in w.items() if v[0] == m]

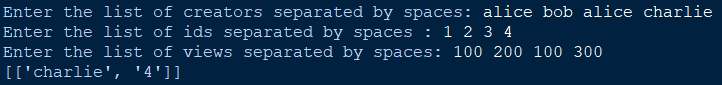
c = input("Enter the list of creators separated by spaces: ").split()

i = input("Enter the list of ids separated by spaces : ").split()

v = [int(x) for x in input("Enter the list of views separated by spaces: ").split()]

print(r(c, i, v))

OUTPUT:



8. Split Message Based on Limit

def s(m, l):

def t(n):

return sum(len(str(x)) + 3 for x in range(1, n + 1))

def u(m, l):

for x in range(1, len(m) + 1):

if t(x) + len(m) <= x \* l:

return x

return -1

a = u(m, l)

if a == -1:

return []

r = []

b = 0

for x in range(1, a + 1):

if x == a:

r.append(m[b:] + f'<{x}/{a}>')

else:

r.append(m[b:b + l - len(f'<{x}/{a}>')] + f'<{x}/{a}>')

b += l - len(f'<{x}/{a}>')

return r

m = input("Enter the message: ")

l = int(input("Enter the limit: "))

print(s(m, l))

OUTPUT:

