

2/08/25 Um Sa Sa Kan
① Write a program to determine largest command line input

```
import sys
```

```
argu = sys.argv
```

```
if len(argu) == 1:
```

```
    print("pls send inputs")
```

```
    sys.exit()
```

```
inputs = argu[1:]
```

```
converted = []
```

```
all-number = True
```

```
all-string = True
```

```
for item in inputs:
```

```
    try
```

```
        num = float(item)
```

```
        converted.append(num)
```

```
        all-strings = False
```

```
    except ValueError:
```

```
        converted.append(item)
```

```
        all-numbers = False
```

```
if not all-numbers and not all-strings
```

```
    print("Inputs cannot be number and string")
```

```
    sys.exit()
```

```
if all-numbers:
```

```
    largest = max(converted)
```

```
    print("largest command line input is:", largest)
```

```
else:
```

```
    largest = max(converted)
```

```
    print("largest command line input is:", repr(largest))
```

- ② Write a program to determine command line argument number or odd number:

```
import sys
if len(sys.argv) != 2:
    print("pls send an integer input")
    sys.exit()
input_val = sys.argv[1]
try:
    num = int(input_val)
    if num % 2 == 0:
        print("Even number")
    else:
        print("odd number")
except ValueError:
    print("pls send an integer input")
```

- ③ Write a program to determine average of command line input

```
import sys
argu = sys.argv
if len(argu) == 1:
    print("pls send number inputs")
    sys.exit()
a = []
for val in argu[1:]:
    if val == 'True':
        a.append(True)
    elif val == 'False':
        a.append(False)
    else:
        try:
            num = float(val)
            if num.is_integer():
                a.append(int(num))
            else:
                a.append(num)
```

```
a.append(int(num))
```

```
else:
```

```
a.append(num)
```

```
except ValueError:
```

```
print("pls send number inputs")
```

- ④ Write a program to sort command line inputs in ascending order and descending order

```
Import sys
```

```
argu = sys.argv[1:]
```

```
print("What is argu? -->", sys.argv)
```

```
try:
```

```
a = [float(x) for x in argu]
```

```
print("What is list. a? -->", a)
```

```
asc = sorted(a)
```

```
print("list sorted in ascending order -->", asc)
```

```
desc = sorted(a, reverse=True)
```

```
print("List sorted in descending order -->", desc)
```

```
except ValueError:
```

```
print("pls don't send number and string inputs together")
```

- ⑤ find outs

```
print('green' in 'Hud is green city') # True
```

```
print('dau' in 'Sankar dayal saima') # True
```

```
print('Green' in 'Hdu is green city') # False 'F' 'f'
```

```
print('d is' in 'Hud is green city') # True
```

```
print('dis' in 'Hud is green city') # False
```

```
print('iniv' in 'Srinivas') # False
```

```
print('iniv' not in 'Srinivas') # True
```


(6)	0	1	2	3	4	5	6	7
	R	a	m	o		R	a	o
	-8	-7	-6	-5	-4	-3	-2	-1

a = 'Rama Rao'

print(a[:7:2]) # from index 0 to 6 (step 2): 'R', 'm', '' → 'Rm'

print(a[:7]) # from beginning to index 6: 'Rama Ra'

print(a[2:4]) # from index 2 to 3: 'm', 'a' → 'ma'

print(a[2:]) # from index 2 to end: 'ma Rao'

print(a[:4]) # Index 0 to 3: 'Rama'

print(a[::2]) # Every 2nd char 'R', 'm', '', 'o' → 'Rmao'

print(a[-6:-1]) # from index -6 to -2: 'm', 'a', '', 'R', 'a' → 'ma-Ra'

print(a[-6:]) # from -6(m) to end: 'ma Rao'

print(a[: -4 : -1]) # Reverse from end to -5: index -1 to -4 → 'o', 'a', 'R', 'a' → 'oaRa'

print(a[-3: -1]) # Index -3 to -2: 'R', 'a' → 'Ra'

print(a[-3:]) # from -3 to end: 'Rao'

print(a[:]) # full string 'Rama Rao'

print(a[:]) # full string 'Rama Rao'

print(a[::-1]) # full string reversed → 'oaRa mR'

print(a[: :-2]) # Every second char from end: 'a', 'a', ' ', 'm', 'R' → 'aa mR'

print(a[-2: :-2]) # a[-2: -4: -2] → 'a mR'

print(a[2:8]) # Index 2 to 7: 'ma Rao'

print(a[2:8:-1]) # empty string ''

print(a[: -6 : -1]) # from -1 to -6, reverse: 'a', 'a' → 'oa'

print(a[2: -3]) # Index 2 to -4: 'm', 'a', '' → 'ma'

print(a[1:6:2]) # Index 1, 3, 5: 'a', 'a', 'R' → 'aaR'

print(a[: -5 : -5]) # from -1 to -5, step -5: only a[-1] → 'o'

print(a[2: -5]) # from index 2 to 2: empty

print(a[2: -5: 2]) # from index 2 to 2: empty

print(a[:0:-1]) from -1 to 1, reverse 'a', 'o', 'k', ' ', 'o', 'm' → 'oakom'

⑦ Write a program to concatenate two strings separated by space but swap first two

```
str1 = input("Enter first string: ")
```

```
str2 = input("Enter second string: ")
```

```
if len(str1) < 2 or len(str2) < 2:
```

```
    print("Input should be a min of 2-char string")
```

```
else:
```

```
    new-str1 = str2[:2] + str1[2:]
```

```
    new-str2 = str1[:2] + str2[2:]
```

```
    result = new-str1 + " " + new-str2
```

```
    print("Result:", result)
```

⑧ Write a program to print first two and the last two character of the string

print an empty string if string has less than four characters

```
s = input("Enter a string: ")
```

```
if len(s) < 4:
```

```
    print("")
```

```
else:
```

```
    result = s[:2] + s[-2:]
```

```
    print(result)
```

⑨ Write a program to print characters of the string in forward and reverse directions without slice

0	1	2	3	4
U	A	m	s	l
-5	-4	-3	-2	-1

```
s = input("Enter a string: ")
```

- forward

```
for i in range(len(s)):
```

```
    print(f"character at index {i} : {s[i]}")
```

reverse

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

```
    print(f"character at index {i} : {s[i]}")
```

- ⑩ Write a program to print characters at even and odd indexes without slice.

0	1	2	3	4	5	6	7	
R	a	m	a		R	a	O	
-8	-7	-6	-5	-4	-3	-2	-1	

```
s = input("Enter any string: ")
```

```
even = ""
```

```
odd = ""
```

```
for i in range(len(s)):
```

```
    if i % 2 == 0:
```

```
        even += s[i]
```

```
    else:
```

```
        odd += s[i]
```

```
print("String at even indexes : ", even)
```

```
print("String at odd indexes : ", odd)
```

- ⑪ Write a program to print characters at even

let input be A 4 B 3 C 2 \$ 5

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

```
s = input("Enter any string with alternate characters and digit:")
```

```
if len(s) % 2 != 0:
```

```
    print("String should have alternate character and digit")
```

```
else:
```

```
    result = ""
```



```
for i in range(0, len(s), 2):
```

```
    char = s[i]
```

```
    digit = s[i+1]
```

```
    if not digit.isdigit():
```

```
        print("string should have alternate character and digit")
```

```
        break
```

```
        result += char * int(digit)
```

```
    else:
```

```
        print("Result:", result)
```

⑫ Write a program to merge two strings to form a new string.

```
a = input("Enter first string: ")
```

```
b = input("Enter second string: ")
```

```
c = ""
```

```
i = 0
```

```
while i < len(a) and i < len(b):
```

```
    c += a[i] + b[i]
```

```
    i += 1
```

```
c += a[i:] + b[i:]
```

```
print("Result:", c)
```

⑬ Write a program to remove duplicate characters of the string without using set.

```
s = input("Enter any string: ")
```

```
out = ""
```

```
for ch in s:
```

```
    if ch not in out:
```

```
        out += ch
```

```
print("Result:", out)
```

len() function

```
print(len('Hud')) # 3
print(len('Rama Rao')) # 8
print(len('9247')) # 4
print(len('t-$')) # 3
print(len('')) # 0
print(len('A2#')) # 3
(ii) print(len(' ')) # 1
print(len('3456')) # 5
print('Sec'.len()) # Error
```

converts digits, convert to string
syntax error: cannot be used here

chr() function

```
print(chr(65)) # A (upper case A)
print(chr(90)) # Z
print(chr(122)) # a (lower case a)
print(chr(48)) # 0
print(chr(49)) # 1
print(chr(57)) # 9
print(chr(36)) # $ (dollar sign)
print(chr(32)) # ' ' (space)
```

ord() function

```
(i) print(ord('A')) # 65
print(ord('Z')) # 90
print(ord('a')) # 97
print(ord('2')) # 50
print(ord('0')) # 48
print(ord('9')) # 57
print(ord('$')) # 36
print(ord(' ')) # 32
```


16) let input be A4M3Z5D2

0	1	2	3	4	5	6	7
A	4	M	3	Z	5	D	2

```
S = input("Enter any string with alternate character and digit:")
```

```
if len(s)%2 != 0:
```

```
    print("pls enter string with alternate char and digit")
```

```
else:
```

```
    out = ""
```

```
    for i in range(0, len(s), 2):
```

```
        ch = s[i]
```

```
        num = s[i+1]
```

```
        if not num.isdigit():
```

```
            print("pls enter string with alternate char and digit")
```

```
            break
```

```
        out += ch + chr(ord(ch) + int(num))
```

```
    else:
```

```
        print("Result: ", out)
```