

1)

```
r = ["string", 10, 14.6, 12j, 15, "zoo", 5.8, 38j, 6, 28]
```

2)

```
#Write a function that accepts a string and prints the number of uppercase
letters and lowercase letters.Sample input: "abcSdefPghijQkl"

def upperlowerv(stn):
    no = 0
    lo = 0
    for i in stn:
        if i.isupper():
            no = no + 1
        elif i.islower():
            lo = lo + 1
    print(" no of uppercase letters are: {} \n no of lowercase letters are:
    {}".format(no, lo))

st = "abcSdefPghijQkl"
upperlowerv(st)
```

Output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject2>python task2.py
no of uppercase letters are: 3
no of lowercase letters are: 12
```

3)

```
def unique_list(numbers):
    unique = []
    for item in numbers:
        if item not in unique:
            unique.append(item)
    return unique

p = int(input("enter the no elements : "))
k = []
for i in range(p):
    t = int(input("Enter an element : "))
    k.append(t)
print(unique_list(k))
```

Output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment22.py
enter the no elements : 8
Enter an element : 13
Enter an element : 4
Enter an element : 5
Enter an element : 2
Enter an element : 45
Enter an element : 2
Enter an element : 9
Enter an element : 5
[13, 4, 5, 2, 45, 9]
```

4)

```
n = input("enter sequence of words")
n = n.split("-")
h = []
for i in n:
    h.append(i)
    h.sort()
print('-'.join(h))
```

output:

```
enter sequence of wordstiger-cat-lion-dog
cat-dog-lion-tiger
```

```
5) lines = []
while True:
    s = input()
    if s:
        lines.append(s.upper())
    else:
        break

for sentence in lines:
    print(sentence)
```

Output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment22
.py
Hello world Practice makes man perfect

HELLO WORLD PRACTICE MAKES MAN PERFECT
```

6)

```
def calculate(a, b):
    s = int(a) + int(b)
    return s

num1 = "10"
num2 = "20"
sm = calculate(num1, num2)
print("sum: ", sm)
```

output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment2
.py
sum: 30
```

7)

```
def string_comparision(s1, s2):
    len1 = len(s1)
    len2 = len(s2)
    if len1 > len2:
        print(s1)
    elif len2 > len1:
        print(s2)
    else:
        print(s1)
        print(s2)

y = input("enter string1: ")
x = input("enter string 2: ")
string_comparision(y, x)
```

output:

```
enter string1: red
enter string 2: blue
blue
```

```
.py
enter string1: yellow
enter string 2: yellow
yellow
yellow
```

8)

```
def sqr(n):
    list1 = []
```

```
for i in range(1, n):  
    a = i * i  
    list1.append(a)  
print(tuple(list1))
```

```
sqr(20)
```

output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment22.py  
(1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225, 256, 289, 324, 361)
```

9)

```
def showNumber(limit):  
    for i in range(0, limit):  
        if i == 0:  
            print(i, end=" ")  
            print("EVEN")  
        elif i % 2 == 0:  
            print(i, end=" ")  
            print("EVEN")  
        else:  
            print(i, end=" ")  
            print("ODD")  
  
print(showNumber(3))
```

OUTPUT:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment22.py  
0 EVEN  
1 ODD  
2 EVEN  
None
```

10)

```
l1 = range(1, 21)  
c = list(filter(lambda x: x % 2 == 0, l1))  
print(c)
```

output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment22.py
[2, 4, 6, 8, 10, 12, 14, 16, 18, 20]
```

11)

```
1 lst = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
2 r = list(filter(lambda t: t % 2 == 0, lst))
3 p = list(map(lambda x: x*x, r))
4 print("squares of even elements is : ", p)
5
```

Output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject2>python task2.py
squares of even elements is : [4, 16, 36, 64, 100]
```

12)

Output:

13)

```
p = [1, 2, 3, 4, 5, 6, 7]
p = str(p).split(',')
s = ""
for item in p:
    s += item
print(s)
```

output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject2>python task2.py
[1 2 3 4 5 6 7]
```

14)

```
p = [2, 4, 24, 86, 998, 2456, 131, 9, 7, 27, 28, 21]
k = list(filter(lambda x: x % 3 != 0 and x % 7 == 0, p))
print(k)
```

Output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject2>python task2.py
[7, 28]
```

15)

```
t = [2, 4, 1, 6, 8]

def mul(no):
    sqr = no * no
    return sqr

y = list(map(mul, t))
print(y)
```

Output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject2>python task2.py
[4, 16, 1, 36, 64]
```

16)

i)Output: 2

ii) Name Error :

File "C:\Users\Vaishnavi\PycharmProjects\pythonProject2\task2.py", line 3

, in a

f(x, 4)

NameError: name 'f' is not defined