Assignment 7th Feb Amitoj Singh

Q1

In [ ]:

In [21]:
```python
a=input("Enter your password : ")
def check_password(a):
    c_upr=c_lwr=c_dig=c_spl=0
    for i in a:
        if(isinstance(i,str) and i.isupper()):
            c_upr=c_upr+1
        elif(isinstance(i,str) and i.islower()):
            c_lwr=c_lwr+1
        elif(isinstance(i,str) and i.isdigit()):
            c_dig=c_dig+1
        else:
            c_spl=c_spl+1
    print(c_upr)
    print(c_lwr)
    print(c_dig)
    print(c_spl)
    if(len(a)>=10):
        if(c_upr>=2 and c_lwr>=2 and c_dig>=1 and c_spl>=3):
            print("Valid Password")
        else:
            print("Invalid Password")
    else:
        print("This is not valid password as it contains less than 10 letters"
```

Enter your password : PwskillsAregood98%#@

In [22]:
```python
check_password(a)
```

```
2
13
2
3
Valid Password
```

In [23]:
```python
check_password("HHmr12")
```

```
2
2
2
0
This is not valid password as it contains less than 10 letters
```

In [24]:
```python
check_password("HHMrr123abc%")
```

```
3
5
3
1
Invalid Password
```

Q2

In [18]:
```python
#check if string starts with particular letter
letter_check = lambda x:x.startswith("E") or x.startswith("e")
n=input("Check please: ")
if letter_check(n):
    print("starts with E or e")
else:
    print("does not start with E or e")
```

```
Check please: Noteven
does not start with E or e
```

In [12]:
```python
#check if the string is numeric
numeric_check = lambda x:x.isdigit()
string = input("Enter: ")
if numeric_check(string):
    print(f"{string} is numeric")
else:
    print(f"{string} is not numeric")
```

```
Enter: 45479
45479 is numeric
```

In [19]:
```python
#sort a list of tuples having fruit names and their quantity
sorting_list = [("mango",99),("orange",80),("grapes",10000)]
sorted_list = sorted(sorting_list, key=lambda x: x[1])

print(sorted_list)
```

```
[('orange', 80), ('mango', 99), ('grapes', 10000)]
```

In [41]:
```python
#squares of numbers from 1 to 10
sq_num=[1,2,3,4,5,6,7,8,9,10]
list(map((lambda x: x**2),sq_num))
```

Out[41]:
```
[1, 4, 9, 16, 25, 36, 49, 64, 81, 100]
```

In [43]:
```python
#squares of numbers from 1 to 10
cb_num=[1,2,3,4,5,6,7,8,9,10]
list(map((lambda x: x*x*x),cb_num))
```

Out[43]: [1, 8, 27, 64, 125, 216, 343, 512, 729, 1000]

In [6]:
```python
#given number even or not
is_even = lambda x: x % 2 == 0

# Test the lambda function
num = int(input("Enter your number:"))
if is_even(num):
    print(f"{num} is even.")
else:
    print(f"{num} is odd.")
```

Enter your number:4
4 is even.

In [53]:
```python
#filter odd num from fiven list
l1=[1,2,3,4,5,6,7,8,9,10]
list(filter((lambda x:x%2!=0),l1))
```

Out[53]: [1, 3, 5, 7, 9]

In [60]:
```python
#sort a list of integers into positive and negative integer list
l2=[1,2,3,4,5,6,-1,-2,-3,-4,-5,0]
negative_num = [x for x in l2 if x<0]
positive_num = [x for x in l2 if x>0]
```

In [61]:
```python
print(negative_num)
print(positive_num)
```

[-1, -2, -3, -4, -5]
[1, 2, 3, 4, 5, 6]

In [ ]: