

In []: #Q1)1. Find the number of unique numbers in your phone number and store it in one List

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In [4]: num =eval(input("enter no "))
n=len(num)
l1 =[]
for i in len(n):
    if i==n[i]:
        l1 = i
        print(i)
```

enter no 123

```
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TypeError                                Traceback (most recent call last)
Cell In[4], line 2
      1 num =eval(input("enter no "))
----> 2 n=len(num)
      3 l1 =[]
      4 for i in len(n):

TypeError: object of type 'int' has no len()
```

In []: #Q2) String=" Hello world" reverse the given string.

```
In [11]: string = "hello world"
for i in reversed('hello world'):
    print(i)
```

d
l
r
o
w

o
l
l
e
h

In []: #Q3)S=" ASjhdbgjhdBFYYJGJYTFJHGghdbhj%%6teyt894yt83yt87yt87ye". find the unique #values in the given string.

```
In [18]: s =" ASjhdbgjhdBFYYJGJYTFJHGghdbhj%%6teyt894yt83yt87yt87ye"
unique= list(set(s))
print("original",s)
print("unique values",unique)
```

original ASjhdbgjhdBFYYJGJYTFJHGghdbhj%%6teyt894yt83yt87yt87ye
unique values ['9', 'A', '6', 'J', '8', ' ', '3', 'j', 'T', 'S', 'b', '%', 'y', 'G', 'H', 'd', 'F', 'h', 'e', 't', '4', '7', 'g', 'Y']

```
In [ ]: #Q4)4. Get the prime numbers from 1 to 100 and store it in list
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```
In [22]: def prime(num):
          if num<2:
              return False
          for i in range(2,int(num**0.5)+1):
              if num%i==0:
                  return False
              return True
          prime=[num for num in range(1,101) if prime(num)]
          print(prime)
```

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In [ ]:
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In [ ]: Q5)
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In [ ]:
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In [ ]:
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In [ ]: #Q8) Difference between mutable and immutable.
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In [13]: # mutable means things can be changed after done also. and immutable means we cant change
          # sting is immutable and list is mutable
          l1 =[100,200,300]
          l1[1]=100
          l1
```

```
Out[13]: [100, 100, 300]
```

```
In [14]: s2="good morning"
          s1[1]=p
          s1
```

NameError

Traceback (most recent call last)

Cell In[14], line 2

```
1 s2="good morning"
----> 2 s1[1]=p
      3 s1
```

NameError: name 'p' is not defined

```
In [15]: #Q7)7. Explain the list and tuple with one basic program. Explain the difference between
          # list is an array of elements ,it allows duplicates,list in list also possible
```

```
l1='hello'
for i in l1:
    print(i)
```

```
h
e
l
l
o
```

```
In [ ]: # tuple is an order consequences of all values.  
        # value can be repeated
```

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In [ ]:
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In [ ]:
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In [ ]:
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In [ ]:
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