

1.

In [4]:

```
print(7**4)
```

2401

2.

In [5]:

```
s="Hi there sam!"
```

In [10]:

```
s.split()
```

Out[10]:

```
['Hi', 'there', 'sam!']
```

3.

In [7]:

```
planet="Earth"  
diameter=12742
```

In [9]:

```
print("The diameter of {} is {} kilometers.".format(planet,12742))
```

The diameter of Earth is 12742 kilometers

4.

In [11]:

```
lst=[1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]
```

In [17]:

```
print(lst[3][1][2][0])
```

hello

5.

In [18]:

```
d={'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
```

In [25]:

```
print(d['k1'][3]["tricky"][3]['target'][3])
```

hello

6.

In [26]:

```
tup=(1,2,3,4,5)
list=[1,2,3,4,5]
'''
tuple is immutable, and list is mutable
'''
```

7.

In [28]:

```
def domainGet(email):
    print("Your domain is: "+ email.split('@')[1])

email = input("Please enter your email: ")
domainGet(email)
```

Please enter your email: >rajveer.kumar2019@vitbhopal.ac.in
Your domain is: vitbhopal.ac.in

8.

In [32]:

```
def findDog(str):
    if 'dog' in str.lower():
        print("True")
    else:
        print("False")
str=input("Enter the String:")
findDog(str)
```

Enter the String:>dhokg
False

9.

In [41]:

```
str=input("Enter the String:")
def countDogs(str):
    count = 0
    for word in str.lower().split():
        if word == 'dog' or word == 'dogs':
            count = count+1
            print(count)
countDogs(str)
```

Enter the String:dog id dog but my dog is mine dog

1
2
3
4

10.

In [48]:

```
print("Please enter the speed(km/hr) \n")
speed = int(input())
print("Please Enter your Birthday: (in DD//MM//YYYY) \n")
birthday = input()

def speeding(speed, birthday):

    if birthday == '16/09/2000':
        speeding = speed - 5
    else:
        speeding = speed

    if speeding > 80:
        return 'Big Ticket'
    elif speeding > 60:
        return 'Small Ticket'
    else:
        return 'No Ticket'
speeding(speed,birthday)
```

Please enter the speed(km/hr)

59

Please Enter your Birthday: (in DD//MM//YYYY)

16/09/2000

Out[48]:

'No Ticket'

In []:

