**# List Data Type,**

**# In List Data type we can store any type of data**

# e.g,

list = [1,”One”,2.1] # Creating list

print(list)

# o/p,

# [1,”One”,2.1]

**# To access element of list, type index no in square bracket after list name**

# e.g,

print(list[0]) # Accessing elements form list

# o/p,

# 1

**# To access last element of list we can use -1 index no**

# e.g,

Print(list[-1])

# o/p

# 2.1

List1=[1,2,3,4,5,6,7,8]

**# To access multiple elements using index number (in specific range)**

# e.g 1,

print(list1[0:2]

# o/p

# [1,2]

# e.g 2,

print(list1[1,3])

# o/p

# [2,3]

# e.g 3,

print(list1[1:] ) # if can’t find last element of list then use only colon (:) don’t use

# last number of index just leave it empty

# o/p

# [2,3,4,5,6,7,8]

**# To append values in list**

# e.g,

Mything = []

Mything.append(“Laptop”)

**Dictionaries Data Type**

*"""****To Access Keys and Values from Dictionaries*** *"""*

FavoriteSong={'SongName':"nayan ne bandh rakhine",  
 'Singer':"Darshan Raval" ,  
 'Cast':"Darshan Raval & Zaara" ,  
 'SongLang':"Gujrati and Hindi",  
 'SongTiming':03.31,'Likes':721000 ,  
 'RelasedOn':"'DarshanRavalDZ' YouTube

Channel",'RelasedYear':2017 }

for KeysOrValues in FavoriteSong:  
 # print(KeysOrValues) # Prints Keys Only  
 # print(FavoriteSong[KeysOrValues]) # Prints

#Values Only

print(KeysOrValues,":",FavoriteSong[KeysOrValues])

#Prints Keys and Values

# o/p   
# SongName : nayan ne bandh rakhine  
# Singer : Darshan Raval  
# Cast : Darshan Raval & Zaara  
# SongLang : Gujrati and Hindi  
# SongTiming : 3.31  
# Likes : 721000  
# RelasedOn : 'DarshanRavalDZ' YouTube Channel  
# RelasedYear : 2017

*"""****Add And Remove Values into Dictionaries*** *"""*ThingsList = {}  
def AddThingsInList():  
 while True:  
 TakeThings=input("Enter things which you want to

add in List: ")  
 if TakeThings in ThingsList:  
 # if TakeThings !="Want to remove things":  
 ThingsList[TakeThings]+=1  
 print(ThingsList)  
 else:  
 if TakeThings != "-":  
 ThingsList[TakeThings]=1  
 print(ThingsList)  
 if TakeThings == "-":  
 RemoveThingsFromList()  
 print(ThingsList,"\n")  
  
def RemoveThingsFromList():  
 while True:  
 GiveThing=input("Enter Thing which you want to

remove thing: ")  
 if GiveThing in ThingsList:  
 if ThingsList[GiveThing] > 0:  
 ThingsList[GiveThing]-=1  
 print(ThingsList)  
 else:  
 print(f"{GiveThing} is over")  
 print(ThingsList)  
 else:  
 if GiveThing !="+":  
 print(f"You don't havehave{GiveThing} ")  
 print(ThingsList)  
 if GiveThing == "+":  
 AddThingsInList()  
 # print(ThingsList)  
 print(ThingsList)  
  
AddThingsInList()

**# Input and Output Instructions**

age = int(input("Enter age: ")) # age is int for rest of the whole program

print(age+1)

print(str(age)+"1") # age is converted in to string

age1 = input("Enter age: ")

print(int(age1)+1) # age is integer only for this line

*"""****File Input Output Operations*** *"""*# VacationSpots=["London","Paris","New

York","Utah","Iceland"]  
# VacationFile = open("Vacation Places","w")

# "w" to write file  
# e.g 1),  
# for spots in VacationSpots:  
# VacationFile.write(spots +", ") # If there is only

# strings then use direct variable like spotes  
 # else converte it into string using "str()" fun.  
# print("Done")  
# VacationFile.close()  
  
# "r" to Read file  
# e.g 1),  
# If file is small then use this "read()" function.  
# VacationFile=open("Vacation Places","r")  
# TheWholeFile= VacationFile.read()  
# print(TheWholeFile)  
# VacationFile.close()  
  
# e.g 2),  
# If file is Big then read it line by line.  
# VacationFile = open("Vacation Places","r")  
# for line in VacationFile:  
# print(line)  
# VacationFile.close()  
  
# e.g 3),  
# To Read Line by lien  
# VacationFile = open("Vacation Places","r")  
# FirstLine= VacationFile.readline()  
# print(FirstLine,end="")  
# SecondLine= VacationFile.readline()  
# print(SecondLine,end="")  
# VacationFile.close()  
  
# "a" to append text in file (To Add text into the end of

# the file)  
# e.g 1),  
# FinalSpot = "Thailand"  
# VacationFile = open("Vacation place","a")  
# VacationFile.write(FinalSpot)  
# VacationFile.close()  
  
# VacationFile=open("Vacation Places","r") # To read file

# after appending text  
# for spots in VacationFile:  
# print(spots,end="")  
# VacationFile.close()  
  
# Using "with" keyword to open file  
# e.g 1),  
# with open ("Vacation Places","r") as VacationFile: # If

# file is opened in "with" Keyword format then need not

# to close file.  
# for spots in VacationFile:  
# print(spots,end="")