Tasky: Use various data types , list, Tuples and diction - nory in Pxthon Pregramming.

Aim: To use vorious data types, list, tuples and. dictionary in Python programming.

a. You are working on a python project that. requires you to manage and manipulate a. list of numbers your task is to create a Python. program. that demonstrate the following liet. operations.

1. Add elements: Add elements to the list.

- 2. Remove elements: Remove elements from the list.
- 3. Sort elements: sort the list in ascending

and descending order.

- 4. find minimum and maximum: find the minimum. and maximum. elements in the 18st.
- 5. calculate sum and Average: calculate the sum and average of the elements in the list.

## Algorithm:

2. For adding elements to alist first execute a lift with name. "184" and assign the values. within (I brackets, inorder to add a new value are.

3. For removing a specific elements. use "pop. the forction appendu.

(index value)" or "remove (itenname)",

u. Fox menimum sorting the elements are "sorted (184)" faction.

Output:
(10,20,30). [10,30]. Thoras of in Either Description (518, 91151B9189) Pridrow pro 404 w nap serioses Theminimon. value is: 5 The maximum. Value 2:-89.
The Sur V: 156.
The Average is: 26.0. tal of the man stormed a surface stampte to the proportion 20 % +5% / tros strong to free-6 and decemberg order minima ex 6,97 - miniman bio numina bit -101 adt in stramaly morning mo mes alt stationles apperent has me applica Why the strongs salt to spoose but - MANTEROPIA portono tartito o atomina position est Scanned with OKEN Scanner

5. For finding minimum. value are "min (list)" and Pe waxenow. 076 " wax(1571)" 6. for som ose touted "som (194)" and to average we the tornola "Sum/list) / len(1in)" 7. Part the output. g. End. Program! # Add elements: Add elements to the list. [05,01] = till 9-30 list. append (a) (+251) +n84 # Remove flements ; Remove specific elements. from the list. 124. POP(1) # by itemane. Print (1941) # sort elements: sort the list in occerding and. descending order 1=[5,8,9,15,30,89]. Fort (sorted(1)) # Find minimum: Find and marinum elements in the 1st. Print ("The markman value is!", min(1)]. [(1) kon,": I sules veniment and "); + rist # calculate sun and Average. Point (" the som is:", sumi)) Drind ("The Average 12:", ((som 1)) (len (1)))) Result: The use of vanious data types list, tops. and dictionery in Python Programming has successfully Completed.

P.) You are tocked with changed a trithon badgan that showcass obserations on toples toples one. Princitable. sequences, similar to lists but with the key difference that they cannot be changed after Creation, your Program Should Plustrate. the tollowing tople operations.

APM:- TO use vortions data types, 18+ itoples and. distronary by Enthon brodrawing.

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- 2. To create a tople use "tuple-name=(values)"
- 3. To access the elements of a tuple either.
- use the index values (tople -name (index-value)
- or the tuple slicing (tople-name (startierd)).
- 4. To concentrate tuples whe the operator "+"
  - (+017/e1 +"+UPle2).

S. Try to modity the toples elements by. assinging theralus directly like; tuplelinds new -value, will be suit, will in an error as it is

immotable 6. Point the extruit

## 1,-

# create. a tople: Define a tople with elem ents of different data type (100, hello'13.14)

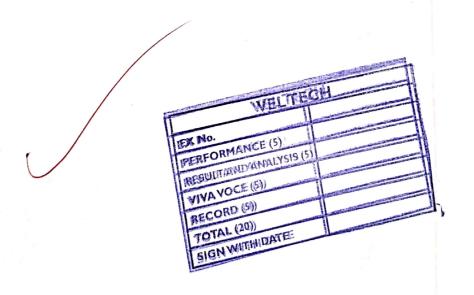
tople = (10, "hello":3114, world")

Print (tuple)-

# Access Elements: Access individual elements and slices of the tuple.

OUTPUTFUL ( 42 1207 30J. testing and or (20 ×30 ]. (3.14. 100x19,) (10, hello - All Julovo At Pripare Mello. 3.14. stodotom. . bl80w ('hello', 3.14. (10, hello) Z.14). - mospost the thete of the 5 6000 40 Eloned (Dir) Estil ches to exemple to 24ms 1 47000 ( Hora's Mississipped ", ord = start -18/40711009 (10 Wati 2002) A :210 man/ + 22020A U . Whole suft do 20 51/2 6 40

for inture: Print(i) Print (tople [1:3]) Down Ctoble [:-1] It concetance tuples: combine two toples to oseale. anew tuple. tz =(5,0.5). tz = tuple + tz Prin+(+3) # immotable nature: Attempt to modify element of the typle and handle the resulting esports tuple (3) ="PI" # errol.



Result: - Thos, various data types, list, toples. and abthanand is bitton beadeaunited man wed and verified successfully.

C) you are tasked with creating a python. program that showaves operations or dictionsries. Dictionaries in Fython one unordered. collections of items, each item is a pain consisting at a key and a value your program Should Fllustrate the following dictionary. functions. opertations.

Aim: - To use various data types, list, tuples. and dictionary in Fython programing.

1. create a dictionage: Define a dictionary with key -value pair of different data types. ( { name ': IAlice', lage': 30). cety': locus youk'}

2. Access values: Access values using keys.

3. modify dictionary: wrelte values, add new.

Key-volue Pairs, and remove existing.

4. Iterate over dictionary use loops to iterate. over Keys or values.

Algorithm:

2. Define a dectionary with key-value pairs of different data types. 3. Retailere values from the dethorary using their corresponding keys. 4. madify dischorary

5. It exate over dictionary

6. Stor the Program.

output: { name!: Alece, 1 Age 1:30 / (1949): 1 New York] Alice { (name!: 'James', 1Age':30 (city': naw)ork? ¿ Iname!: 1-James!, 10ge!:130} Ked : nome Key: Age dict - Ptems ([( hame; 1 James!), ('age, 30]) + si adov- por 一とらくいのブルイン のハスのある3 roubou office woods to be fatheren ich o for a prostitut of the state of Julov - 21.6. X HEST CHOTOH WAS OND WHOST. The start of the second second

Brodraw: # created Distionary: Define adistionary with Key-value raises of different data thes (I have 1411561:14de1:30:1 Coth.: Nom dork & Front (dictionary) # Access Values: Access values using keys Point (dictionary Crame ). Drint (dictionary ['Age']) # modity. Dictionary; sphate value, add new Key-value Pairs, and & emove existing Fairs dictionary (hame') = "James" Prent (distinosy) dection any. pos ('city') Print ( dictionory) # iterate over dictionary: use loops to iterate over koys or values. fork in dethonory Frant ("key," K). Print (dictionary/ Eterns ()). Result: This , various about types, list, toples. and discharanty by that programming was sed and vonitied successfully