**Week 5- Programs on Iterative constructs, Lists and Tuples**

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| Program 1 | Separate the following list to different lists based on following criteria   1. starts with 'pizza' 2. Ends with 'puri' 3. Ends with 'dosa'   Input: l=['pani puri','dosa','bhel puri','masala dosa','dahi puri','rava dosa','pizza topings','pizza mania'] |
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| Program 2 | 1. Print the given data in the string as formal letter, with one sentence in each line. 2. display given list of data as mac address. mac=['00','11','23','45','67','70'] 3. send festival greetings to friends all friends in the list 4. Given , Srn’s as strings each separated by space, replace PESU in place of PE in first 3 srn’s. also find if user given srn is present or not. |
|  | 1. s='Respected sir,\n I am here By enlisting all the proramming languages \   we teach\n Problem solving using python\n object oriented programming with C++\n java and jee \n R programming \n Thanking You \n Team Programming Languages '  hint:title()  **b)** mac=['00','11','23','45','67','70']  **OutPut:**  **00:11:23:45:67:70**  **Hint:join with ‘:’**  c)  frnd=['ram',' sita',' raj',' joy',' joe',' ']    hint: join with ‘happy festival’  **d)**  srn = "PE01 PE02 PE03 PE04 PE05 PE06 PE07 PE08 PE09 PE10"  hint: replace()  find()  s='aaavvvvvv aaabbbh aaannn'  >>> s.replace('aaa','xxx',2)  'xxxvvvvvv xxxbbbh aaannn'  **str='aaa bbb'**  **>>> x=str.find('bbb')**  **>>> x**  **4**  **>>> y=str.find('x')**  **>>> y**  **-1**  **>>>**  **Sample output:**  **Before replace: PE01 PE02 PE03 PE04 PE05 PE06 PE07 PE08 PE09 PE10**  **After Replace: PESU01 PESU02 PESU03 PE04 PE05 PE06 PE07 PE08 PE09 PE10**  **enter the srn to be searchPE05**  **is found at index 26** |
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| Program 3 | 1. given list of captains and teams(in respective order) assign them to IPL Teams. 2. Given list of tuples, where each tuple takes pattern (name,marks) of a student, display only names. |
|  | **>>> x1=['aa','bb','cc']**  **>>> x2=[23,34,45]**  **>>> x3=list(zip(x1,x2))**  **>>> x3**  **[('aa', 23), ('bb', 34), ('cc', 45)]**  **>>>**  **>>> x4=list(zip(\*x3))**  **>>> x4**  **[('aa', 'bb', 'cc'), (23, 34, 45)]**  **>>> print(x4[0])**  **('aa', 'bb', 'cc')**  **>>>**  **a)cap\_list = ['Koli','Doni','RohitS',]**  **team\_list = ['RCB', 'CSK', 'MI']**  **output:**  **[('Koli', 'RCB'), ('Doni', 'CSK'), ('RohitS', 'MI')]**  **b)**  **score = [("akash", 85), ("arind", 80), ("asha",95), ('bhavana',90), ('bhavik',87)]**  **output:**  **('akash', 'arind', 'asha', 'bhavana', 'bhavik')** |
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| Program 4 | 1. Given mohanDas Karamchand gandhi' print i)"m K gandhi" ii) M K GANDHI iii) M K Gandhi iv) Mohandas Karamchand Gandhi 2. **Given s = "bad python bad teacher bad lecture"** 3. **Replace all occurrences of bad to good** 4. **Replace first occurrence of bad to good** 5. **find the leftmost bad** 6. **find the second bad from left** 7. **Replace the second bad to worst and display from that point of string and also display the whole string** |
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| Program 5 | 1. String encoding 2. the first letter of each word is printed at the end. 3. In the second case, after each character, a p is printed.   b)reverse a string  **input:**  **nice place to study is library**  **output:**  **library is study to place nice** |
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|  | **Practice programs for students( source Team Python)** |
| Program 1 | **Program to print oddlength and even length words from a sentence and store it in two separate sets.**  **Solution:**  **Input:**  I love python scripts  Output:  set1 having even length string is= {'love', 'python'}  set2 having odd length string is= {'I', 'scripts'} |
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| Program 2 | **Write a Python program to check if a set is a subset of another set.**  **Solution:**  set1 = set(["apple", "mango","banana","kiwi"])  set2 = set(["mango", "banana","orange"])  set3 = set(["orange","kiwi"])  **Output:**  1: {'mango', 'banana', 'apple', 'kiwi'}  2: {'mango', 'orange', 'banana'}  3: {'kiwi', 'orange'}  Is set1 is subset of set2  False  set1= {'mango', 'banana', 'apple', 'kiwi'}  set2= {'mango', 'orange', 'banana'}  Is set2 is subset of set1  False  set2= {'mango', 'orange', 'banana'}  set1= {'mango', 'banana', 'apple', 'kiwi'}  Is set2 is subset of set3  False  set2= {'mango', 'orange', 'banana'}  set3= {'kiwi', 'orange'}  Is set3 is subset of set2  False  set3= {'kiwi', 'orange'}  set2= {'mango', 'orange', 'banana'} |
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