**Compulsory Programs:**

| Sl. No | Programs |
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| 1 | Write a python program to print the following pattern.  abcd  bcd  cd  d  s = ('abcd')  res = ""  for i in range(len(s)):  s1= s[i:]  print(s1)  res += s1 |
| 2 | Write a program to print the following pattern.  1  2 2  3 3 3  4 4 4 4  rows = int(input("Enter the number of rows: "))  for i in range(rows+1):  for j in range(i):  print(i, end=" ")  print(" ") |
| 3 | Write a Program to Swap the First and Last Value of a List  sample input:  l=[11,22,33,44,55,66]  sample output:  l=[66,22,33,44,55,11]  l=[11,22,33,44,55,66]  n=6  print("the old list is",l)  temp=l[0]  l[0]=l[n-1]  l[n-1]=temp  print("New list is:")  print(l) |
| 4 | Write a program to find the difference between successive elements of a list  fall\_of\_wickets = [10, 50, 100, 145, 150, 175]  n = len(fall\_of\_wickets)  partnership = []  # do n - 1 times  for i in range(n - 1) :  partnership.append(fall\_of\_wickets[i + 1] - fall\_of\_wickets[i])  print("fall of wickets ")  for fall in fall\_of\_wickets:  print(fall, end = " ")  print()  print("partnerships ")  for score in partnership:  print(score, end = " ")  print() |
| 5 | With a given integral number n, write a program to generate a dictionary that contains (i, i\*i) such that is an integral number between 1 and n (both included). And then the program should print the dictionary.  Suppose the following input is supplied to the program: 8  Then, the output should be:  {1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}  n=int(input("enter the numbers"))  d=dict()  for i in range(1,n+1):  d[i]=i\*i  print (d) |
| **6** | Write a program to find the frequency of words in a given string using dictionary.  Example:  string = "how much wood would a wood chuck chuck if a wood chuck could chuck wood"  output : {'how': 1, 'much': 1, 'wood': 4, 'would': 1, 'a': 2, 'chuck': 4, 'if': 1, 'could': 1} """  n="how much wood would a wood chuck chuck if a wood chuck could chuck wood"  words = n.split()  count = {}  for word in words:  if word not in count:  count[word] = 0  count[word] += 1  print(count) |
|  | all = """sanskrit kalidasa shakuntalaenglish r\_k\_narayan malgudi\_dayskannada kuvempu ramayanadarshanamsanskrit bhasa swapnavasavadattakannada kuvempu malegalalli\_madumagaluenglish r\_k\_narayan dateless\_diarykannada karanta chomanadudisanskrit baana harshacharitakannada karanta sarasatammana\_Samadhisanskrit kalidasa malavikagnimitrasanskrit kalidasa raghuvamshasanskrit baana kadambarisanskrit bhasa pratijnayogandhararayana"""# find the # of booksprint("# of books : ", len(all.split('\n')))#for l in enumerate(all.split('\n')) :# print(l)#print(l)# find the number of languageslangset = set()for line in all.split('\n'):#print(line.split()[0])langset.add(line.split()[0])#print(langset)print("# of lang : ", len(langset))# count the number of books in each languagelang\_book\_count = {}for line in all.split('\n'):lang = line.split()[0]#print(lang)if lang not in lang\_book\_count :lang\_book\_count[lang] = 0lang\_book\_count[lang] += 1for lang in lang\_book\_count :print(lang, " => ", lang\_book\_count[lang]) |
| 7 | Write a program to create a set of all even numbers between 1 and 20 that are not divisible by 4.n = 20s = set(range(2, n + 1, 2)) - set(range(4, n + 1, 4))print(s) |