Python assignments

1. Write a menu driven program to practice String functions
   Design following meu
   a. display characters from even position
   b. display characters from odd position
   c. display length of a string
   d. add a at the end of string length times
   e. exit

2. Write a program to accept a string from user.
   Accept a second string from user to search and find all occurrences of in the given string.
   e.g
   s1=This is string
   check=is
   is-2
   is-5
   count=2

   s1="this is cat and cat is cute, where is your cat?"
   check=cat
   cat-8
   cat-16
   cat-43
   count=3

3. Write a menu driven program to practice List functions. Validate input data wherever required.
   Display following menu:
   1. Accept Data
      a) add at last position
      b) add at given position
   2. Delete data by value
      display message deleted successfully
      or not found
   3. delete data by position
      a) delete last element
      b) delete from particular position
   4. sort
      a) ascending
      b) descending
   5. reverse
   6. Print in sorted order without changing original list
   7. print in reverse order without changing original list
   8. display data
      a) normal
      b) numbered

4. Create two lists to store cities and locations by accepting values from user.
   Display 1st city and 1st location
   then 2nd city and 2nd location ..... (zip function)

5. Create a list and exchange the values as index and index as values.
   lst=[12, 1, 3, 7, 8, 5, 8]
   0 1 2 3 4 5 6

   Output should be as follows.
   lst1=[-1 ,1, -1, 2, -1, 5, -1, 3, 6, -1, -1, -1, 0]

6. Write a menu driven program to practice Set functions.
   Write a program to accept names from users and store it in a set.
   Display the following menu:

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print("""1. delete element if exists otherwise
    do not show any errr""")
print("2. add a elemet")
print("3. create one more set")
print("4. union of 2 sets")
print("4. intersection of 2 sets")
print("5. difference of 2 sets")
print("6. convert set into frozenset")
print("6. exit")
```

7. Generate a list of lists (NOTE: List should get generated dynamically)
   Accept a number from user and check last digit of the number.
   If it is 1 then add it in the list at 1st position.
   If 0 then it should get added at list in 0th position.
   e.g list should look as follows
   [[10],[51],[52]]
   [[10,30,20,40],[11,31,41,31],[22,32,42]....]

   if user enters 15 then the resultant list should be

   [[10,30,20,40],[11,32,41,31],[22,32,42],[],[],[15]]

8. Create a list to store strings in a list in following manner list
   [dxz,axz,bat,rat,cat,pat,bbc,bbm,cbm,....] pat axz

   All list with same character at second position should be consecutive.
   If user adds sat, then the resultant list will be:
   [bat,rat,cat,sat,bbc,bbm,cbm,....]
   If user adds pick, then it should be added at
   [bat,rat,cat,bbc,bbm,cbm,pick]