Practical Session 2
Date: 16/07/2025

Solve the following problems using Jupyter Notebook. Please write the following for each of the programming assignments.

1. The problem statement
2. The entire program
3. The sample input
4. The sample output

Please get the program report signed by the instructor.

Introducing Lists

1. Store the names of a few of your friends in a list called **names**. Print each person's name by accessing each element in the list, one at a time.
2. Start with the list you used in **Q.No. 1**, but instead of just printing each person's name, print a message to them. The text of each message should be the same, but each message should be personalized with the person's name.
3. If you could invite anyone, living or deceased, to dinner, who would you invite? Make a list that includes at least three people you'd like to invite to dinner. Then use your list to print a message to each person, inviting them to dinner.
4. You just heard that one of your guests can't make the dinner, so you need to send out a new set of invitations. You'll have to think of someone else to invite.
    a. Start with your program from **Q. No. 3.** Add a print statement at the end of your program stating the name of the guest who can't make it.
    b. Modify your list, replacing the name of the guest who can't make it with the name of the new person you are inviting.
    c. Print a second set of invitation messages, one for each person who is still in your list.
5. You just found a bigger dinner table, so now more space is available. Think of three more guests to invite to dinner.
    a. Start with your program from **Q. No. 3** or **Q. No. 4.** Add a print statement to the end of your program informing people that you found a bigger dinner table.
    b. Use **insert()** to add one new guest to the beginning of your list.

c. Use **insert()** to add one new guest to the middle of your list.
d. Use **append()** to add one new guest to the end of your list. Print a new set of invitation messages, one for each person in your list.

6. You just found out that your new dinner table won't arrive in time for the dinner, and you have space for only two guests.
    a. Start with your program from **Q. No. 5.** Add a new line that prints a message saying that you can invite only two people for dinner.
    b. Use **pop()** to remove guests from your list one at a time until only two names remain in your list. Each time you pop a name from your list, print a message to that person letting them know you're sorry you can't invite them to dinner.
    c. Print a message to each of the two people still on your list, letting them know they're still invited.
    d. Use **del** to remove the last two names from your list, so you have an empty list. Print your list to make sure you actually have an empty list at the end of your program.
7. Think of at least five places in the world you'd like to visit.
    a. Store the locations in a list. Make sure the list is not in alphabetical order.
    b. Print your list in its original order. Don't worry about printing the list neatly, just print it as a raw Python list.
    c. Use **sorted()** to print your list in alphabetical order without modifying the actual list.
    d. Show that your list is still in its original order by printing it.
    e. Use **sorted()** to print your list in reverse alphabetical order without changing the order of the original list.
    f. Show that your list is still in its original order by printing it again.
    g. Use **reverse()** to change the order of your list. Print the list to show that its order has changed.
    h. Use **reverse()** to change the order of your list again. Print the list to show it's back to its original order.
    i. Use **sort()** to change your list so it's stored in alphabetical order. Print the list to show that its order has been changed.
    j. Use **sort()** to change your list so it's stored in reverse alphabetical order. Print the list to show that its order has changed.