

**Programing Fundamentals**  
**Lab # 09**  
**List**

**Q1:** Write a program to declare an array of size 10 and initialize the array with the user provided values.

Answer the following:

1. Find the minimum value in the array.
2. Find the maximum value in the array.
3. Find the sum of array.
4. Find the average/mean value of the array.
5. Display the last element of array.
6. Display the value at index 2.
7. Print numbers in reverse order.
8. Count Even and Odd Elements in array.
9. Print the sum of odd indices elements.
10. Count of any common element.

**Q2:** Write a python program to find an element from a list. Each element will be checked. If searched element exists multiple time, then its count will also be shown.

**Output:**

**list = [1,2,3,4,4,5,6,7,8,4]**

**Element 4 found 3 times**

**Q3:** Use list in python to solve the following problem. Read in 25 numbers, each of which is between 10 and 100, inclusive. As each number is read, validate it and store it in the array only if it isn't a duplicate of a number already read. After reading all the values, display only the unique values that the user entered.

**Q4:** Write a program that takes 10 values from user, stores it in list and displays the no of even and odd numbers along with the number.

**Q5:** Write a program that takes the name and password of a person. The password should be passed to a function as an argument. The function should check if the password is fulfilling the following requirements:

- Password must be 8 characters long.
- Password must contain at least one special symbol (% , ! , \* , ^ , & ).
- (Plus, you can further add your restrictions too, recommended but optional). If any of the above-mentioned criteria's is not fulfilling the program must prompt the user to enter a valid password again.
- When all the criteria of the password fulfill, the program asks again to enter the password to display a secret message. If it matches with the information entered by the user previously. The program should display a message "You know what? You can be a great programmer. Keep Coding!". You can display your own funny/customized message too.

**Q6:** Write a program that stores 15 numbers in array by taking input from user and displays the no of unique elements in array along with the number.