

Python Laboratory - 3

1. Write a python Program to find the second highest number in a list.
2. Write a program to find the transpose of a matrix.
3. Write a python program to print the sum of the ASCII value of all characters of the input string.
4. Write a program to slice a string into 3 equal parts. Input string contains a single word. Display each slice of the original string.
5. Write a python program to read an input string from the user. Remove the white spaces from the input string and display it. Also retrieve the characters at the odd index from this string and form a new string and display it.
6. You have x no. of 5 rupee coins and y no. of 1 rupee coins. You want to purchase an item for amount z. The shopkeeper wants you to provide exact change. You want to pay using minimum number of coins. How many 5 rupee coins and 1 rupee coins will you use? If exact change is not possible then display -1.
7. Write a python program to find and display the product of three positive integer values based on the rule mentioned below: It should display the product of the three values except when one of the integer value is 7. In that case, 7 should not be included in the product and the values to its left also should not be included. If there is only one value to be considered, display that value itself. If no values can be included in the product, display -1.
8. An organization has decided to provide salary hike to its employees based on their job level. Employees can be in job levels 3, 4 or 5. Hike percentage based on job levels are given below:

Job level	Hike Percentage (applicable on current salary)
3	15
4	7
5	5

In case of invalid job level, consider hike percentage to be 0.

Given the current salary and job level, write a python program to find and display the new salary of an employee.

9. FoodCorner home delivers vegetarian and non-vegetarian combos to its customer based on order.

A vegetarian combo costs Rs.120 per plate and a non-vegetarian combo costs Rs.150 per plate. Their non-veg combo is really famous that they get more orders for their non-vegetarian combo than the vegetarian combo. Apart from the cost per plate of food, customers are also charged for home delivery based on the distance in kms from the restaurant to the delivery point. The delivery charges are as mentioned below:

Distance in kms	Delivery charge in Rs. Per kms
For first 3kms	0
For next 3kms	3
For the remaining	6

Given the type of food, quantity (no. of plates) and the distance in kms from the restaurant to the delivery point, write a python program to calculate the final bill amount to be paid by a customer.

The below information must be used to check the validity of the data provided by the customer:

- Type of food must be 'V' for vegetarian and 'N' for non-vegetarian.
- Quantity ordered should be minimum 1.
- Distance in kms must be greater than 0.

If any of the input is invalid, the bill amount should be considered as -1