1. **Sara's mother taught her about reversing numbers, and now Sara needs to reverse a given number. Help Sara write a Python program to reverse the integer input.**
2. **Ravi needs to organize library books by name and unique volume count, removing duplicates using a loop; input: number of books and their name-volume pairs, output: a dictionary with books having unique volumes.**
3. **Maya is playing a string game and needs to count the frequency of each character in the string. Write a Python program to assist her using a dictionary.**
4. **Emma needs to manage an employee database in Python. Write code to store employee names and salaries in a dictionary, converting salaries from rupees to dollars. Output the result as a dictionary.**
5. **Write a function to check if two strings, a and b, are anagrams (same characters, same frequencies, case-insensitive). Return True if they are anagrams, otherwise False.**
6. **The Professor tasked students with replacing consecutive duplicate characters in a string with their repetition count. Input: "aabcccdeee" Output: "a2b1c3d1e3"**
7. **Write a Python function filter\_temp(readings, threshold) that takes a list of temperature readings in Celsius and a threshold value. Using list comprehension, return a list of temperatures in Fahrenheit that are above the threshold in Celsius.**
8. **Write a Python function process\_expenses(expenses) that uses map(), filter(), and reduce() to analyze a list of daily expenses and income. The function should (1) filter out expenses (negative values), (2) apply a 10% tax deduction to each expense, and (3) calculate the total net balance including all adjusted expenses and income.**
9. **Aman is learning lists and tuples. He needs to write a code that multiplies the values of a tuple, with input taken via a list.**
10. **Aryan is working with tuples in Python and needs to remove duplicates, displaying the result as a list. Input: Number of items and tuple values. Output: The original tuple and a list of unique values.**
11. **Alisha's mother recently taught her the concept of reversal. To ensure that Alisha understood the concept, her mother gave her a list of integers and asked her to reverse the list. Help Alisha write a Python program that takes the integer as input and reverses it.**
12. **Ravi has learned about tuples. Now, he needs to display a string as a reversed tuple. Write a Python code to help him.**
13. **Calculate the sum of coins located on the borders of a 2D matrix representing the game grid. The border includes elements in the first and last rows, and the first and last columns.**
14. **In a grid-based game, where a player collects coins in a 2D matrix, find the maximum number of coins in each column of the grid. Given m rows and n columns, followed by m \* n integers as cell values, write a function to return a list of the largest values from each column.**
15. **Given a 2D list where each row represents a student's scores across subjects, write a function to calculate the total score for each student. The function should return a list where each element is the sum of scores for each student.**
16. **Calculate the row sums of a jagged array with varying numbers of integers per row and return the maximum row sum.**
17. **Given a string s and two indices start and end, print the substring from start to end - 1. Use the String class for this task.**
18. **Given an integer n, divide it into the sum of k positive integers (where k >= 2) to maximize their product. Return the highest possible product.**
19. **Find the length of the longest common subsequence (LCS) between two strings, S1 and S2. If no common subsequence exists, return 0.**
20. **Maya is playing a string game and needs to count the frequency of each character in the string. Write a Python program to assist her using a dictionary.**