

1. Write a Python program to get a string made of the first 2 and the last 2 chars from a given string. If the string length is less than 2, return instead an empty string.

Sample String : Neurobiology

Expected Result : 'Negy'

Sample String : 'w3'

Expected Result : 'w3w3'

Sample String : 'w'

Expected Result : Empty String

2. Write a Python program to remove the element which have odd index values of a given list. Can you do this to a tuple as well?

3. Write a Python program to remove duplicates from a list. E.g.

[10,20,30,20,10,50,60,40,80,50,40]

4. Write a Python program to convert a list of multiple integers into a single integer.

Sample list: [11, 33, 50]

Expected Output: 113350

5. Write a Python program to combine values in python list of dictionaries.

Sample data: [{'item': 'item1', 'amount': 400}, {'item': 'item2', 'amount': 300}, {'item': 'item1', 'amount': 750}]

Expected Output: Counter({'item1': 1150, 'item2': 300})

6. Write a Python program to write a list, a string, a dictionary and a tuple to a file. First write to a txt file, then to a pkl file (with pickle) and a json file (with json).

7. Read the files you created from exercise 6.

9. Mini project: Rock-Paper-Scissor game, part 1

Write a Rock-Paper-Scissor game program, in which the player plays against the computer. For each game, ask the player to make a choice (Rock, Paper or Scissor), and for the AI, randomly generate a choice as well. Then compare the two choices to decide the outcome. Record the player choice, AI choice and outcome in a file.

