ASSIGNED ON: 1ST JAN 2023

DEADLINE: 15TH JAN 2023

PYTHON 101 | LISTS | TASKS-4

- 1. Write a program that takes a list of integers and returns the sum of the integers.
- 2. Write a program that takes a list of strings and returns a new list with all strings in uppercase.
- 3. Write a program that takes a list of numbers and returns a new list with only the even numbers.
- 4. Write a program that takes a list of words and returns the longest word in the list.
- 5. Write a program that takes a list of integers and returns the smallest integer.
- 6. Write a program that takes a list of integers and returns True if the list is sorted in ascending order, False otherwise.
- 7. Write a program that takes a list of integers and returns a new list with the integers sorted in ascending order.
- 8. Write a program that takes a list of strings and a string. The program should return the index at which the string is found in the list, or -1 if the string is not in the list.
- 9. Write a program that takes a list of integers and returns the average of the integers.
- 10. Write a program that takes a list of strings and returns a new list with all strings that have a length of at least 5 characters.
- 11. Write a program that takes a list of integers and returns the median value.
- 12. Write a program that takes a list of integers and returns the range (the difference between the largest and smallest integers).
- 13. Write a program that takes a list of strings and returns a new list with all strings that start with the letter 'a'.
- 14. Write a program that takes a list of integers and returns a new list with the first and last elements swapped.
- 15. Write a program that takes a list of integers and returns True if the list contains any duplicates, False otherwise.
- 16. Write a program that takes a list of integers and returns a new list with all duplicates removed.
- 17. Write a program that takes a list of strings and returns a new list with all strings that are palindromes (words that are spelled the same forwards and backwards).
- 18. Write a program that takes a list of integers and returns the product of all the integers.
- 19. Write a program that takes a list of strings and returns a new list with all strings reversed.
- 20. Write a program that takes a list of integers and returns the sum of the integers that are divisible by 3.
- 21. Write a program that takes a list of strings and returns the longest string that is a palindrome.
- 22. Write a program that takes a list of integers and returns the mode (the integer that occurs most frequently).
- 23. Write a program that takes a list of integers and returns a new list with only the prime numbers.
- 24. Write a program that takes a list of strings and returns a new list with all strings sorted alphabetically.
- 25. Write a program that takes a list of integers and returns the sum of the squares of the integers.
- 26. Write a program that takes a list of strings and returns a new list with all strings that contain the letter 'e'.
- 27. Write a program that takes a list of integers and returns a new list with only the odd numbers.
- 28. Write a program that takes a list of strings and returns the shortest string in the list.
- 29. Write a program that takes a list of integers and returns the sum of the absolute values of the integers.
- 30. Write a program that takes a list of integers and returns a new list with the integers in reverse order.

