

Pre-ILP Exercise Set

- 1) Write a program to find out the number of palindromes in a sentence.
- 2) Write a program that would find the count of occurrence of largest digit in the input number:
E.g. For an input 86420852, output should be 2.
- 3) Write a program that would find the n^{th} term of a geometric progression, given the value of first term and common ratio. Any inbuilt function that the language provides for calculating exponent should not be used.
- 4) Write a program to print n terms of Fibonacci series using recursion and using iteration
- 5) Write a program that accepts an array of numbers and find the average of all elements in the array.
- 6) Write a program that accepts an array of numbers and a number, and return a string "Yes" if the number is found in the array, "No" if the number is not found in the array.
- 7) Write a program that accepts an array of numbers, and two numbers (an element and a position in the array) and inserts the given element into n^{th} position of the array.
- 8) Write a program that accepts an array of numbers and a number (position in the array) and deletes the element at n^{th} position of the array.
- 9) Write a program that accepts an array of numbers, and two numbers (an element and a position in the array) and replaces n^{th} element of an array with given element.
- 10) Write a program that accepts an array of numbers, and two other numbers (a lower limit and an upper limit) and returns an array with numbers that fall in between the limits.
- 11) Write a program which consumes array of numbers(reading element by element) and returns each element of the array and it's number of occurrences in the array
Say if the input array is A[1 2 3 4 3 5 2 1 6]
Output will be
1 two occurrences
3 two occurrences
4 one occurrence
5 one occurrence
6 one occurrence
- 12) Write a program which accepts array of numbers and will return the numbers(of the input array) which are in the Fibonacci series starting with 1.
Say if the input array is A[2 6 9 11 21 33]
The output should be 2, 21

- 13) Write a program which consumes a array of numbers(of even length) , sort the first half of elements in ascending order and second half of the elements in descending order and return the merged array
- 14) Write a program which builds the multidimensional array of customers (Customer_Number, Current_Balance) . This program should accepts the Customer_Number ,Transaction_Amount and Transaction_Type(can be Deposit or Withdrawal).
If the Transaction type is Deposit, then add the Transaction_Amount to the Current_Balance of the input Customer_Number and returns the Final_Balance. If the Customer_number is not present in the multidimensional array then print "Customer doesn't exists"
- 15) Write a program which consumes two array of numbers and prints the common numbers that are present in both the arrays
- 16) Write a program which consumes an array of numbers and returns the value of (Sum of squares of all even numbers of the array + Square of sum of all odd number in the array)
- 17) Write a program which consumes a sentence and prints the word of the sentence whose number of occurrences in the sentence is maximum. (Always one word of the given sentence will have maximum recurrence)
- 18) Write a program which consumes a customer's name (Customer's name will be of the format Firstname Lastname, Say: Ashutosh Kumar) and phonenumber(say 987654391) and should return AK- 987654391 (Concatenating First letter of first name, first letter of last name , "- ",phone number)
- 19) Write a program which consumes a customer name and returns the password as per the below logic
Concatenate (Length of name *2), Last letter,First letter, (Length of the name -5),((Length of name *2) + (Length of the name -5))
Say if the input customer name is Arvind Kumar
output will be 24rA731
- 20) Write a program which consumes the name and displays the alphabets which are not in the given name