Date: 03-01-2024 Day:30

------------------Task 1-------------------------

import java.util.Scanner;

 //Task-1-Date-03-01-2024-Day-30

    //Task 1: Write a Java program to print even numbers from the array.

public class EvenNumberOfArray {

  public static void main(String[] args) {

    //Printintg the Details

System.out.println("Task-1-Date-03-01-2024-Day-30");

System.out.println("Task 1: Write a Java program to print even numbers from the array.");

    Scanner sc = new Scanner(System.in);

    // To Take the size of the array

    System.out.println("Enter the number of elements you want in array : ");

    int n = sc.nextInt();

    // To Initialize the array and to store the even number and

    int arr[] = new int[n];

    int even[] = new int[n];

    int eveo = 0;

    System.out.println("Enter " + n + " numbers :");

    // To get the array

    for (int i = 0; i < n; i++) {

      arr[i] = sc.nextInt();

      if (arr[i] % 2 == 0)

        even[i] = arr[i];

    }

    // To check the array has the even number or not

    for (int i = 0; i < n; i++) {

      if (even[i] != 0) {

        eveo = even[i];

        System.out.println(even[i]);

      }

    }

    // To check the array has the even number or not

    if (eveo == 0) {

      System.out.println("There is no even number in the array");

    } else {

      System.out.println("Even numbers in the array: " + eveo);

      sc.close(); // Closing the Scanner resource

    }

  }

}

------------------Task 2-------------------------

import java.util.Scanner;

 //Task-2-Date-03-01-2024-Day-30

    //Task 2: Write a Java program to find the maximum value of an array.

public class MazNumofArray {

  public static void main(String[] args) {

        //Printintg the Details

System.out.println("Task-2-Date-03-01-2024-Day-30");

System.out.println("Task 2: Write a Java program to find the maximum value of an array.");

    Scanner sc = new Scanner(System.in);

    int[] arr = new int[6];

    System.out.println("Enter the elements of the array: ");

    int max = 0;

    for (int i = 0; i < 5; i++) {

      arr[i] = sc.nextInt();

    }

    for (int i = 0; i < 5+1; i++) {

        if (arr[i] >= max) {

          max = arr[i];

      }

    }

    System.out.println("The Maximum value of the array is: "+max);

    // System.out.println(isSorted(arr));

  }

}

/\*

 \* boolean isSorted(int[] arr){

 \* for(int i=0;i<arr.length-1;i++){

 \* if(arr[i]>arr[i+1])return false;

 \* }

 \* return true;

 \* }

 \*/

------------------Task 3-------------------------

import java.util.Scanner;

 //Task-3-Date-03-01-2024-Day-30

 //Task 3: Write a Java program to sort the array elements.

public class SortheArrayElement {

   public static void main(String[] args){

 //Printintg the Details

 System.out.println("Task-3-Date-03-01-2024-Day-30");

 System.out.println("Task 3: Write a Java program to sort the array elements.");

     Scanner sc = new Scanner(System.in);

     int [] arr = new int[5];

     int temp;

     System.out.println("Enter the arrray elements:");

      for (int i=0; i<5; i++){

        arr[i]=sc.nextInt();

      }

       for (int i = 0; i < arr.length; i++) {

           for (int j = i + 1; j < arr.length; j++) {

               if (arr[i] > arr[j]) {

                   temp = arr[i];

                   arr[i] = arr[j];

                   arr[j] = temp;

               }

           }

       }

      System.out.println("The After sorting this is in  ascending order");

       for (int i = 0; i < arr.length; i++) {

           System.out.println(arr[i]);

       }

   }

}

------------------Task 4-------------------------

import java.util.Scanner;

 //Task-4-Date-03-01-2024-Day-30

 //Task 4: Write a Java program to print prime numbers from the array.

public class PrimeNumFromArray {

  public static void main(String[] args) {

      //Printintg the Details

      System.out.println("Task-4-Date-03-01-2024-Day-30");

      System.out.println("Task 4: Write a Java program to print prime numbers from the array.");

      Scanner sc = new Scanner(System.in);

    System.out.println("Enter the array element:");

    int[] arr = new int[5];

    int[] primeNumbers=new int[5];

     for (int i = 0; i < 5; i++) {

      arr[i] = sc.nextInt();

      if (isPrime(arr[i])) {

          primeNumbers[i] = arr[i];

      }

    }

    System.out.println("Prime numbers in the array are:");

   for(int i=0;i<5;i++){

    System.out.println(primeNumbers[i]);

   }

  }

  // To check arrays are prime or not

  public static boolean isPrime(int num){

    if(num<=1){

      return false;

    }

    for(int i=2;i<num;i++){

       if(num %i ==0){

         System.out.println(num+" "+i);

         return false;

       }

    }

      return true;

  }

}

------------------Task 5-------------------------import java.util.Scanner;

 //Task-5-Date-03-01-2024-Day-30

 //Task 5: Write a Java program to find the average of the array.

public class AverageOFArray {

  public static void main(String[] args) {

//Printintg the Details

System.out.println("Task-5-Date-03-01-2024-Day-30");

System.out.println("Task 5: Write a Java program to find the average of the array.");

    Scanner sc = new Scanner(System.in);

    System.out.println("Enter the number of elements you want in array : ");

    int n = sc.nextInt();

    int a[] = new int[n];

    int sum = 0;

    float Average;

    System.out.println("Enter the Array elemenst");

    for (int i = 0; i < n; i++) {

      a[i] = sc.nextInt();

      sum += a[i];

    }

      Average = sum % a.length+1;

  System.out.println("Sum of the array elements: " + sum+" "+Average);

  }

}

------------------Task 6-------------------------

public class AddOfTwoMatrix {

   //Task-6-Date-03-01-2024-Day-30

 //Task 6: Write a Java program to Perform addition of two matrices.

  public static void main(String[] args) {

//Printintg the Details

System.out.println("Task-6-Date-03-01-2024-Day-30");

System.out.println("Task 6: Write a Java program to Perform addition of two matrices. ");

    int[][] matrix1 = { { 1, 3 }, { 7, 9 } };

    int[][] matrix2 = { { 2, 4 }, { 8, 10 } };

    int[][] matrix3 = new int[2][2];

    int[][] matrix5 = new int[2][2];

    // Printing the 2nd 2d matrix

    System.out.println("The First matrix is:");

    for (int i = 0; i < matrix1.length; i++) {

      for (int j = 0; j < matrix1[i].length; j++) {

        System.out.print(matrix1[i][j] + " ");

      }

      System.out.println();

    }

    System.out.println();

    // Printing the 2nd 2d matrix

    System.out.println("The Second matrix is: ");

    for (int i = 0; i < matrix2.length; i++) {

      for (int j = 0; j < matrix2[i].length; j++) {

        System.out.print(matrix2[i][j] + " ");

      }

      System.out.println();

    }

    System.out.println();

    // Addition of Two Matrix

    System.out.println("Addition of Two Matrices");

    // Add matrices and store the result in matrix3

    matrix3 = addMatrices(matrix1, matrix2, matrix5);

  }

  // Method to add two matrices

  private static int[][] addMatrices(int[][] matrix1, int[][] matrix2, int[][] matrix5) {

    for (int i = 0; i < matrix1.length; i++) {

      for (int j = 0; j < matrix2[i].length; j++) {

        matrix5[i][j] = matrix1[i][j] + matrix2[i][j];

        System.out.print(matrix5[i][j] + " ");

      }

      System.out.println();

    }

    // Return the resulting matrix

    return matrix5;

  }

}

------------------Task 7-------------------------

import java.util.Scanner;

 //Task-7-Date-02-29-2024-Day-29.docx

 //Task 7: Write a Java program to perform multiplication of two matrices.

public class MultiplOftwoMatrix {

  public static void main(String[] args) {

      //Printintg the Details

      System.out.println("Task-7-Date-02-29-2024-Day-29.docx");

      System.out.println("Task 7: Write a Java program to perform multiplication of two matrices.");

    Scanner sc = new Scanner(System.in);

    // Initialize the Array to store the matrix

    int mat1[][] = new int[2][2];

    int mat2[][] = new int[2][2];

    int result[][] = new int[2][2];

    // input elements of first 1st matrix

    System.out.println("\nInput Elements of First Matrix :");

    for (int i = 0; i < mat1.length; i++) {

      for (int j = 0; j < mat1.length; j++) {

        mat1[i][j] = sc.nextInt();

      }

    }

    // input elements of Sencond 2nd matrix

    System.out.println("\nInput Elements of Second Matrix :");

    for (int i = 0; i < mat2.length; i++) {

      for (int j = 0; j < mat2.length; j++) {

        mat2[i][j] = sc.nextInt();

      }

    }

    // To Multipye two matrices

    for (int i = 0; i < mat1.length; i++) {

      for (int j = 0; j < mat2.length; j++) {

        result[i][j] = mat1[i][j] \* mat2[i][j];

      }

    }

    System.out.println("The mutiplicaton of two meaticx are: ");

    // To Display the result

    for (int i = 0; i < result.length; i++) {

      for (int j = 0; j < result.length; j++) {

        System.out.print(result[i][j] + " ");

      }

      System.out.println("");

    }

    sc.close(); // Closing the Scanner resource

  }

}

Evening

------------------Task 3-------------------------

import java.util.Scanner;

//3. WAJP to concatenate given two strings.

public class ConcattwoString {

  public static void main(String[] args) {

  //Printintg the Details

System.out.println("Task-7-Date-02-29-2024-Day-29.docx");

System.out.println("Task 7: Write a Java program to print the reverse of a given string. ");

    Scanner sc = new Scanner(System.in);

    // Taking the first string input

    System.out.println("Enter the first sting");

    String a = sc.next();

    // Taking the second string input

    System.out.println("Enter the Second string");

    String b = sc.next();

    String output = concatenation(a, b);

    // Printing the result

    System.out.println("The concatenated string is: " + output);

  }

  private static String concatenation(String a, String b) {

    // Concatenating the two strings

    String result = a.concat(b);

    return result;

  }

}

------------------Task 2-------------------------

import java.util.Scanner;

//evening

//2. WAJP to check given string is a palindrome or not

public class Palindrome {

  public static void main(String[] args) {

    Scanner sc = new Scanner(System.in);

    System.out.println("Enter a word");

    String word = sc.nextLine();

    // Calling the method to reverse the word

    String reversed = Reverse(word);

    System.out.println(reversed);

    // Calling the method to check palindrome or not

    boolean isPalindrome = checkPalindrome(word, reversed);

    // Printing the result

    System.out.println(isPalindrome);

  }

  private static String Reverse(String word) {

    String reverse = "";

    for (int i = word.length() - 1; i >= 0; i--) {

      reverse += word.charAt(i);

    }

    return reverse;

  }

  private static boolean checkPalindrome(String word, String reversed) {

    if (word.equals(reversed)) {

      System.out.println("The word is a palindrome");

    } else {

      System.out.println("The word is not a palindrome");

    }

    return false;

  }

}

------------------Task 5-------------------------

import java.util.Scanner;

//5. WAJP to print repeated chars from the String.

//S=&quot;abcda&quot;

//o/p: &quot;a&quot;

public class RepeatedString {

  public static void main(String[] args) {

    Scanner sc = new Scanner(System.in);

    System.out.println("Enter the string");

    String str = sc.nextLine();

    checkRepeatedchar(str);

  }

  private static void checkRepeatedchar(String str) {

    System.out.println("The repeat the strings are:");

    for (int i = 0; i < str.length(); i++) {

      char currentChar = str.charAt(i);

      for (int j = i + 1; j < str.length(); j++) {

        if (currentChar == str.charAt(j)) {

          System.out.println(currentChar);

        }

      }

    }

  }

}

------------------Task 5-------------------------

import java.util.Scanner;

// 5. WAJP to print the reverse of the String.

public class ReversofString {

  public static void main(String[] args) {

    Scanner sc = new Scanner(System.in);

    System.out.println("Enter a word");

    String word = sc.nextLine();

    // Calling the method to reverse the word

    String reversed = Reverse(word);

    System.out.println(reversed);

  }

  private static String Reverse(String word) {

    String reverse = "";

    for (int i = word.length() - 1; i >= 0; i--) {

      reverse += word.charAt(i);

    }

    return reverse;

  }

}

------------------Task 4-------------------------

import java.util.Scanner;

/\*

4. WAJP to check if the given string can contain the

given substring.

S=&quot;Mite@1234&quot;, sb=&quot;Mite&quot;

o/p: true

 \*/

public class Substring{

  public static void main(String[] args){

    Scanner sc = new Scanner(System.in);

    System.out.println("Enter the string");

    String str = sc.next();

    System.out.println("Enter the Second index");

    String sub = sc.next();

     boolean contains = str.contains(sub);

    System.out.println(contains);

  }

}