**Name- Eshant Das**

**Reg Number - 12002058**

**Java Assignments**

**Q1. Write a Java program to sort a numeric array and a string array**

**Ans.**

1. **public** **class** SortAsc {
2. **public** **static** **void** main(String[] args) {

**int** [] arr = **new** **int** [] {5, 2, 8, 7, 1};

1. **int** temp = 0;
2. System.out.println("Elements of original array: ");
3. **for** (**int** i = 0; i < arr.length; i++) {
4. System.out.print(arr[i] + " ");
5. }
7. //Sort the array in ascending order
8. **for** (**int** i = 0; i < arr.length; i++) {
9. **for** (**int** j = i+1; j < arr.length; j++) {
10. **if**(arr[i] > arr[j]) {
11. temp = arr[i];
12. arr[i] = arr[j];
13. arr[j] = temp;
14. }
15. }
16. }
18. System.out.println();

21. System.out.println("Elements of array sorted in ascending order: ");
22. **for** (**int** i = 0; i < arr.length; i++) {
23. System.out.print(arr[i] + " ");
24. }
25. }
26. }

**Sorting a String Array**

1. **import** java.util.Arrays;
2. **public** **class** SortStringArrayExample1
3. {
4. **public** **static** **void** main(String args[])
5. {
6. //defining an array of type String
7. String[] countries = {"Zimbabwe", "South-Africa", "India", "America", "Yugoslavia", " Australia", "Denmark", "France", "Netherlands", "Italy", "Germany"};
8. **int** size = countries.length;
9. //logic for sorting
10. **for**(**int** i = 0; i<size-1; i++)
11. {
12. **for** (**int** j = i+1; j<countries.length; j++)
13. {
14. //compares each elements of the array to all the remaining elements
15. **if**(countries[i].compareTo(countries[j])>0)
16. {
17. //swapping array elements
18. String temp = countries[i];
19. countries[i] = countries[j];
20. countries[j] = temp;
21. }
22. }
23. }
24. //prints the sorted array in ascending order
25. System.out.println(Arrays.toString(countries));

**Q2. Write a Java program to sum values of an array.**

**Ans**

public class Sum\_Array

{

public static void main(String[] args) {

int arr[]={1,43,12,50,30};

int s=0;

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

s+=arr[i];

System.out.println(s);

}

}

**Q3.**  Write a Java program to print the following grid.

Ans.

**public class Grid**

**{**

**public static void main(String[] args) {**

**for(int i=1;i<=10;i++)**

**{**

**for(int j=1;j<=10;j++)**

**{**

**System.out.print('-');**

**}**

**System.out.println();**

**}**

**}**

**}**

**Q4.** Write a Java program to calculate the average value of array elements.

Ans.

**public class Average**

**{**

**public static void main(String[] args) {**

**int arr[]={1,43,12,50,30};**

**int s=0;**

**float a;**

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

**s+=arr[i];**

**a=s/arr.length;**

**System.out.println(a);**

**}**

**}**

**Q5.** Write a Java program to test if an array contains a specific value.

Ans.

**public class Element\_search**

**{**

**public static void main(String[] args) {**

**int arr[]={1,43,12,50,30};**

**int e=43; //specific value to find**

**boolean f=false;**

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

**{**

**if(arr[i]==e)**

**{**

**f=true;**

**break;**

**}**

**}**

**if(f)**

**System.out.println("Element is present");**

**else**

**System.out.println("Element not present");**

**}**

**}**

**Q6.**  **Write a Java program to find the index of an array element.**

**Ans.**

**public class Index\_element**

**{**

**public static void main(String[] args) {**

**int arr[]={1,43,12,50,30};**

**int e=43; //specific value to find**

**int f=-1;**

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

**{**

**if(arr[i]==e)**

**{**

**f=i;**

**break;**

**}**

**}**

**if(f==-1)**

**System.out.println("Element is not present");**

**else**

**System.out.println("Element is present in index " + f);**

**}**

**}**

**Q7.**  Write a Java program to remove a specific element from an array.

Ans.

**public class Delet\_Element**

**{**

**static int deleteElement(int arr[], int n, int x)**

**{**

**if (arr[n-1] == x)**

**return (n-1);**

**int prev = arr[n-1], i;**

**for (i=n-2; i>=0 && arr[i]!=x; i--)**

**{**

**int curr = arr[i];**

**arr[i] = prev;**

**prev = curr;**

**}**

**// If element was not found**

**if (i < 0)**

**return 0;**

**// Else move the next element in place of x**

**arr[i] = prev;**

**return (n-1);**

**}**

**public static void main(String[] args) {**

**int arr[] = {11, 15, 6, 8, 9, 10};**

**int n = arr.length;**

**int x = 6;**

**// Delete x from arr[]**

**n = deleteElement(arr, n, x);**

**System.out.println("Modified array is");**

**for (int i = 0; i < n; i++)**

**System.out.print(arr[i]+" ");**

**}**

**}**

**Q** 8. Write a Java program to copy an array by iterating the array

Ans

**public class Main**

**{**

**public static void main(String args[])**

**{**

**int arr[]={1,43,45,67};**

**int n=arr.length;**

**int arr2[]=new int[n];**

**for (int i=0;i<n;i++)**

**arr2[i]=arr[i];**

**for(int i=0;i<n;i++)**

**System.out.print(arr2[i] + " ");**

**}**

**}**

**Q** **10. Write a Java program to find the maximum and minimum value of an array.**

**Ans**

**import java.util.Arrays;**

**public class MAX\_MIN**

**{**

**public static void main(String args[])**

**{**

**int arr[]={1,43,45,67,-34,100,0,459};**

**int n=arr.length;**

**Arrays.sort(arr);**

**int max=arr[n-1];**

**int min=arr[0];**

**System.out.println("MAX = " + max + " and MIN = " + min);**

**}**

**}**

**Q11. Write a Java program to reverse an array of integer values.**

**Ans**

**public class Reverse**

**{**

**public static void main(String args[])**

**{**

**int arr[]={1,43,45,67,-34,100,0,459};**

**int high=arr.length-1,low=0,t;**

**while(low<high)**

**{**

**t=arr[low];**

**arr[low]=arr[high];**

**arr[high]=t;**

**high--;**

**low++;**

**}**

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

**System.out.print(arr[i]+" ");**

**}**

**}**