**Arrays**

**Chapter I**

1. Insert & Display the below elements in the array (use both compile time & run time initialization)
   1. 139 , 12 , 34 , 5 , 566 , 7
   2. ‘c’ , ’3’ , ’(‘ , ’?’
   3. “hello”, ”all”, ”good” , ”Morning” , ”453” , ”?<>|+\_”
   4. true , false , true , false , true , true
2. Find the length of all the above arrays
3. Using for- each loop Display the above array
4. Find the length of all the above arrays without using method length
5. 12 , 56 , 34 , 23 ,67 , 76 , 32 , 75 , 90 , 345
   1. Print the above array in reverse order
   2. Divide the array into two equal halves
      1. Print the First half in reverse order and print the whole array
      2. Print the Second half in reverse order and print the whole array
   3. Print only even indexed elements
   4. Print only odd indexed elements
   5. Print the elements which are divisible by 4
   6. Print the indices which are divisible by 3
6. Swap the adjacent elements in the array
7. Sort the array elements both in ascending and descending order
8. Divide the array into two equal halves
   1. First half in ascending order, second half in descending order
9. Sort the odd indexed arrays in ascending order and even indexed arrays in descending order

**Chapter II**

* 1. Write a program to copy all the elements in ‘A’ array into ‘B’ array
  2. Write a program to copy all the elements in ‘A’ array into ‘B’ array in reverse order
  3. Write a program to copy all the even indexed elements in ‘A’ array into ‘B’ array
  4. Write a program to copy all the odd indexed elements in ‘A’ array into ‘B’ array
  5. Divide the array into two equal halves
     1. Copy the First half of the array in B array, in reverse order and print the whole array
     2. Copy the Second half of the array in B array, in reverse order and print the whole array.
  6. Write a program to copy all the even elements in ‘A’ array into ‘B’ array
  7. Write a program to copy all the odd elements in ‘A’ array into ‘B’ array
  8. Write a program to print all the even indexed elements in ascending order and odd indexed elements in descending order

**Chapter III**

1. Ten numbers are entered from the keyboard into an array. The number to be searched is entered through the keyboard by the user. Write a program to find if the number to be searched is present in the array and if it is present, display the number of times it appears in the array.
2. Ten-five numbers are entered from the keyboard into an array. Write a program to find out how many of them are positive, how many are negative, how many are even and how many odd.
3. Write a program to find the sum of all the elements in the array
4. Write a program to find the minimum and maximum element in the array
5. Write a program to find the unique elements in the array
6. Write a program to print the duplicate elements in array
7. Write a program to print the frequency of all the elements in the array
8. Write a program to remove the duplicate elements in the array.

**Chapter IV**

* 1. Right Rotate the array for 5 times using Nested loops(time complexity O(n2)
  2. Right Rotate the array for 5 times using 1 loop(time complexity O(n)
  3. Left Rotate the array for 5 times using Nested loops(time complexity O(n2)
  4. Left Rotate the array for 5 times using 1 loop(time complexity O(n)
  5. Insert an element=67 in the position=5 for the below array
     1. 10 20 30 40 50 60 70 80 90 100
  6. Delete an element=40 in the below array
     1. 10 20 30 40 50 60 70 80 90 100
  7. Sort the below String using any sorting technique(both ascending & descending)
     1. “Hello “ ,”all” , “good” , “ Morning”, “Have” , “a” , “nice” ,”day”
  8. Sort only even indexed elements (both ascending & descending)
     1. “Hello “ ,”all” , “good” , “ Morning”, “Have” , “a” , “nice” ,”day”
  9. Sort only odd indexed elements(both ascending & descending)
     1. “Hello “ ,”all” , “good” , “ Morning”, “Have” , “a” , “nice” ,”day”

**Chapter V**

1. Write a java Program to find the second largest & smallest number in the array(use sorting)
2. Write a Java Program to find the second largest & smallest number in the array(without using sorting)
3. Write a Java program to insert and display elements in a 2 Dimensional array
4. Write a Java program to find the sum , subtraction of two matrices
5. Write a Java Program to find the multiplication of two matrices
6. Write a Java program to fine the sum of diagonal elements in the array(for both the diagonals)
7. Write a Java program to find the Transpose of a matrix

**Strings**

1. Write a Java program to find the length of a String .
2. Write a Java Program to print a string in reverse order
3. Write a Java program to create two strings using new and without new keyword
4. Write a java program to compare two strings(use both .equals and ==)(you should get the same output to when u use .equals and ==)
5. Write a Java Program to print the characters in a String using charAt().
6. Write a Java program to concatenate two Strings by using concat() and + operator
7. Write a Java Program to check whether a String is mutable or not
8. Write a Java program to find the length of a String without using length() method
9. Write a Java Program to find how many Uppercase letters , lowercase letter , symbols & numbers are present in a String
10. Write a Java program to find the number of characters, number of words & number of lines in a String.
11. Write a Java program to find the number of vowels and consonants in a String
12. Write a Java program to find the duplicate characters in a String
13. Write a java program to sort a string both in Ascending and Descending (use both charAt() &toCharArray())
14. Write a Java program to Create String arrat and display them.
15. Using split() to convert a string into String array
16. Write a Java program to delete spaces in starting and ending of a string
17. Write a Java program to compare two String using compareToIgnoreCase()
18. Write a Java Program to find a String is Palindrome or not
19. Write a Java Program to find two Strings are Anagram or not
20. Write a Java Program to delete duplicate characters in a String
21. Write a java program to reverse alternative words in a String array
22. Write a Java program to delete duplicate words in a String array
23. Write a java program to convert a string to integer
24. Write a Java program to find the sum of integers in String
    1. A1B2C3=>1+2+3 = 6
25. Write a Java program to count the repeated words in a String
26. Write a Java program to create a String Using String Buffer and String Builder
27. String Buffers & String Builder are mutable..Prove
28. Write a Java program to replace a specific word by “codinghub” in the given array
29. Write a Java program to swap corner words and reverse middle character of a string
    1. Input : Hello this is codinghub user

Output : User codinghub eth is siht Hello

1. Write a Java program to print the following output
   1. Input :A1B2C3

Output : ABBCCC

1. Write a Java program to find the largest and smallest word in a String array and String
2. Write a Java program to count the unique words in a String