1stAnswer23JulyComplete.java

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```java

//1st answer


import java.util.*;

 // Compiler version JDK 11.0.2

 class Dcoder
 {
   public static void main(String args[])
   {


     Scanner sc=new Scanner(System.in);

     System. out. println("author:P.Hemanth\nsap.id

     while(true){

       System. out. println("if you want to check w
       System. out. println("if you want to know th
    System.out.println("enter any choice:");
      int choice=sc.nextInt();

    switch(choice){
      case 1:
        System. out. println("desarium number or nc
        between();
        break;

      case 2: System. out. println("no.of desarium
             desarium();
           break;
      default: System. out. println("enter only abc


       }
    }
    }
    public static void between(){
      int n,a,d,s=0,cnt=0;
  Scanner sc=new Scanner(System.in);

  System.out.println("Enter the no.to check whether
  n=sc.nextInt();
  a=n;
  while(a>0)
  {
    a=a/10;
```

```
    public static void between(){
        int n,a,d,s=0,cnt=0;
  Scanner sc=new Scanner(System.in);

  System.out.println("Enter the no.to check whether
  n=sc.nextInt();
  a=n;
  while(a>0)
  {
    a=a/10;
    ++cnt;
  }
  a=n;
  while(a>0)
  {
    d=a%10;
    a=a/10;
    s=s+(int)(Math.pow(d,cnt));
    cnt--;
  }
  if(s==n)
    System.out.println("The number is a Disarium nu
  else
    System.out.println("The number is not a Disariu
   }

    public static int desarium(int n){
        int length = 0;
        while(n != 0){
            length = length + 1;
            n = n/10;
        }
        return length;
    }

    //sumOfDigits() will calculates the sum of digi
    public static int sumOfDigits(int num){
        int sum = 0, rem = 0;
        int len = desarium(num);

        while(num > 0){
            rem = num%10;
            sum = sum + (int)Math.pow(rem,len);
            num = num/10;
            len--;
        }
        return sum;
    }


}
```

```java
//2nd answer
import java.util.*;
 // Compiler version JDK 11.0.2

class Segregation{


    // function to segregate 0s and 1s
    static void segregate0and1(int arr[], int n)
    {
        int count = 0; // counts the no of zeros in


        for (int i = 0; i < n; i++) {
            if (arr[i] == 0)
                count++;
        }


        // loop fills the arr with 0 until count
        for (int i = 0; i < count; i++)
            arr[i] = 0;


        // loop fills remaining arr space with 1
        for (int i = count; i < n; i++)
            arr[i] = 1;
    }
```

2ndAnswer23july.java

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```
        // loop fills remaining arr space with 1
        for (int i = count; i < n; i++)
            arr[i] = 1;
    }

    // function to print segregated array
    static void print(int arr[], int n)
    {
        System.out.print("Array after segregation i
        for (int i = 0; i < n; i++)
            System.out.print(arr[i] + " ");
    }

    public static void main(String[] args)
    {
      Scanner sc=new Scanner(System.in);
        System. out. println("author:P.Hemanth\nsap
        System. out. println("enter the size of the
            int size=sc.nextInt();
            int arr[]= new int[size];
        System. out. println("enter "+size+" elemen
           for(int i=0;i<size;i++){
             arr[i]=sc.nextInt();
           }
        int n = arr.length;
        segregate0and1(arr, n);
        print(arr, n);
```

Terminal

```
author:P.Hemanth
sap.id:51834553
enter the size of the array
4
enter 4 elements:
0
0
1
0
Array after segregation is 0 0 0 1
Process finished.
```

3rdAnswer23july.java

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```java

// 3rd answer
import java.util.*;

 // Compiler version JDK 11.0.2


class ReplaceDigits
{

static int replaceDigit(int number , int d1,

                                int d2)
{

    int result = 0, multiply = 1;


    while (number % 10 > 0)

    {


        // Take remainder of number

        // starting from the unit

        // place digit

        int remainder = number % 10;


        // check whether it is equal

        // to the digit to be replaced.

        // if yes then replace

        if (remainder == d1)

            result = result + d2 * multiply;


        else // else remain as such

            result = result + remainder * multiply;
```

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```
        // if yes then replace
        if (remainder == d1)
            result = result + d2 * multiply;


        else // else remain as such
            result = result + remainder * multiply;


        // Update and move forward
        // from unit place to
        // hundred place and so on.
        multiply *= 10;
        number = number / 10; // update the value
    }
    return result;
}

// Driver code
public static void main(String[] args)
{
   Scanner sc=new Scanner(System.in);
     System. out. println("author:P.Hemanth\nsap.id
     System. out. println("enter the number:");
       int number=sc.nextInt();

     System. out. println("enter the digit present
       int d1=sc.nextInt();

     System. out. println("enter the digit to repla
       int d2=sc.nextInt();

    System.out.println(replaceDigit(number, d1, d2)
}
}
```

Terminal

```
author:P.Hemanth
sap.id: 51834553
enter the number:
73636
enter the digit present in the above number:
7
enter the digit to replace:
3
output
33636

Process finished.
```

5thAnswer23July.java

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```java
//5th answer

import java.util.*;

// Compiler version JDK 11
class StringSearch{


    // Returns index of x if it is present in arr[]

    // else return -1

    static int binarySearch(String[] arr, String x)

    {

        int l = 0, r = arr.length - 1;

        while (l <= r) {

            int m = l + (r - l) / 2;


            int res = x.compareTo(arr[m]);


            // Check if x is present at mid

            if (res == 0)

                return m;


            // If x greater, ignore left half

            if (res > 0)

                l = m + 1;


            // If x is smaller, ignore right half

            else

                r = m - 1;
```

5thAnswer23July.java

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```
            else

                r = m - 1;

        }


        return -1;

    }


    // Driver method to test above

    public static void main(String []args)

    {
       Scanner sc=new Scanner(System.in);
          System. out. println("enter the size of t
           int size=sc.nextInt();
           String arr[]=new String[size];
          System. out. println("enter "+size+" elem
            for(int i=0;i<size;i++){
              arr[i]=sc.nextLine();
            }

          System. out. println("enter the word to s
             String x=sc.nextLine();


        int result = binarySearch(arr, x);


        if (result == -1)

            System.out.println("Element not present

        else

            System.out.println("Element found at "

                               + "index " + result);

    }
}
```