16-may-2022 HackerRankProblem-java implementation :

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test1: Fibonnic number:

```
package HacerRankProblems;
import java.util.Scanner;
public class Test1FibonnicSeries {

   public static void main(String[] args)
   {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter the n th value : ");
      int n=scan.nextInt();
      int a=-1,b=1;
      int temp;
      for(int i=0;i<n;i++)
      {
         temp=a+b;
         System.out.println(temp);
         a=b;
         b=temp;
      }


   }

}
```

output :

```
Enter the n th value :
5
0
1
```

```
1
2
3
------------------------------

Test1: primeOrNot
-----------------
package HacerRankProblems;
import java.util.Scanner;
class PrimeCheck
{
   void displayPrime(int num)
   {
      int flag=0;
      for(int i=2;i<Math.sqrt(num);i++)
      {
         if(num%i==0)
         {
            System.out.println(0);
            flag=1;
            break;
         }
      }
      if(flag==0)
      {
         System.out.println(1);
      }

   }
}
public class Test1PrimeOrNot {

   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter the number : ");
```

```
        int num=scan.nextInt();
        PrimeCheck pc=new PrimeCheck();
        pc.displayPrime(num);


    }

}
output:
-------
Enter the number :
77
0
--------------------------------
Test2 : Finding sum of digits of a number until sum becomes single digit
-------
package com.basicjava;
import java.util.Scanner;
class Add
{
    void add(int num)
    {
        int r=0,sum=0,add=0;
        while(num!=0)
        {
            r=num%10;
            sum=sum+r;
            num=num/10;
            if(num==0)
            {
                int j;
                while(sum!=0)
                {
                    j=sum%10;
                    add=add+j;
```

```
                sum=sum/10;
            }
        }
    }
    System.out.println(add);
  }
}
public class SumOfSum {
  public static void main(String[] args) {
    Scanner scan=new Scanner(System.in);
    System.out.println("Enter the number want to sum : ");
    int num=scan.nextInt();
    Add a=new Add();
    a.add(num);


  }

}
output:
1234
1
--------------------------------

Test2 :  Check if a given number is Fibonacci number
-------
package HacerRankProblems;
import java.util.Scanner;

public class Test2CheckNumberIsFibonnicOrNor {

  public static void main(String[] args) {
    Scanner scan=new Scanner(System.in);
    System.out.println("Enter the number to check : ");
    int n = scan.nextInt();
```

```
        int sum = 5 * n * n + 4;
        System.out.println("sum value : " + sum);
        int sumSqu = (int) Math.sqrt(sum);
        System.out.println("square root value of sum is : " + sumSqu);
        int mulOfSumSqu = sumSqu * sumSqu;
        System.out.println("Multipla of sum squqre is : " + mulOfSumSqu);

        int diff = 5 * n * n - 4;
        System.out.println("diff value : " + diff);
        int diffSqu = (int) Math.sqrt(diff);
        System.out.println("square root value of diff is : " + diffSqu);
        int mulOfDiffSqu = diffSqu * diffSqu;
        System.out.println("Multiplay of diff square is : " + mulOfDiffSqu);
        if (sum == mulOfSumSqu || diff == mulOfDiffSqu) {
            System.out.println("Yes");
        } else
            System.out.println("No");
    }

}
output:
-------
Enter the number to check :
11
sum value : 609
square root value of sum is : 24
Multipla of sum squqre is : 576
diff value : 601
square root value of diff is : 24
Multiplay of diff square is : 576
No

Enter the number to check :
2
sum value : 24
```

```
square root value of sum is : 4
Multipla of sum squqre is : 16
diff value : 16
square root value of diff is : 4
Multiplay of diff square is : 16
Yes

------------------------------

Test3:  Remove all occurrences of a character in a string
------
package HacerRankProblems;
import java.util.Scanner;
public class Test3RemovalOfCharacters {

   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter the String : ");
      String a=scan.nextLine();
      char b[]=a.toCharArray();
      System.out.println("Enter the character to remove : ");
      char c=scan.next().charAt(0);
      for(int i=0;i<b.length;i++)
      {
         if(b[i]==c)
         {
            continue;
         }
         else
         {
            System.out.print(b[i]);
         }
      }

   }
```

```
211
212 }
213 output:
214 -------
215 Enter the String :
216 whatsapp
217 Enter the character to remove :
218 a
219 whtspp
220 ------------------------------
221 Test3 :    UpperToLowerCase(Vice-Versa)
222 -------       ------------------------------------------
223 package com.basicjava;
224 import java.util.Scanner;
225 public class AlphabetConversion {
226    public static void main(String args[])
227    {
228       Scanner scan=new Scanner(System.in);
229       String a;
230       System.out.println("enter your name: ");
231       a=scan.nextLine();
232       char b[]=a.toCharArray();
233       int size=a.length();
234       for(int i=0;i<size;i++)
235       {
236          char result = 0;
237          if((b[i]>=97) && (b[i]<=122))
238          {
239             result=(char) ((char)b[i]-32);
240          }
241          else if((b[i]>=65) && (b[i]<=90))
242          {
243             result=(char)(b[i]+32);
244
245          }
```

```
            System.out.print(result);

        }


    }

}
output :
--------
enter your name:
Angel bAbY
aNGEL BaBy
---------------------------------------
22-may-2022       RemovalOFAllDuplicates-String
------------      ----------------------------

package com.basicjava;

import java.util.HashSet;

public class RemoveAllDuplicate {

    public static void main(String[] args) {
        String input="monoonabc3";
        char b[]=input.toCharArray();
        HashSet <Character> hs= new  HashSet <Character>();
        StringBuilder sb=new StringBuilder();
        for(char c : b)
        {
            if(!(hs.add(c)))
            {

                sb.append(c +"|");
                continue;
```

```
        }
      }
      System.out.println("duplicates : " +sb);
      String res=input.replaceAll(sb.toString(), "");
      System.out.println("After removal of Duplicate : " +res);


   }

}

-----------------------------
output :
--------
duplicates : o|o|n|
After removal of Duplicate : mabc3
-------------------------------------------------------------
22-may-2022       RemovalOFAllDuplicates-Number
------------      ------------------------------------------------------------
package HacerRankProblems;
import java.util.Scanner;
import java.util.ArrayList;
import java.util.Arrays;
import java.util.HashSet;
import java.util.List;

public class RemovingAllDuploicatesNumber {

   public static void main(String[] args) {
      Scanner scan=new Scanner (System.in);
      System.out.println("Enter the size : ");
      int size=scan.nextInt();
      List<Integer> inputList = new ArrayList<Integer>();
      for(int i=0;i<size;i++)
      {
```

```
316         inputList.add(scan.nextInt());
317       }
318       HashSet<Integer> hs = new HashSet<Integer>();
319       HashSet<Integer> duplicateValues = new HashSet<Integer>();
320       for (int dupNum : inputList) {
321          if (!(hs.add(dupNum))) {
322
323             duplicateValues.add(dupNum);
324          }
325       }
326       System.out.println("Collected Duplicated numbers are : " +duplicateValues);
327
328       inputList.removeAll(duplicateValues);
329       int size1=inputList.size();
330       System.out.println("The size of list after removing all duplicates : " +size1);
331       System.out.println("After removel of all duplicates are : ");
332         for(int X : inputList)
333         {
334         System.out.print(X +" ");
335         }
336    }
337
338 }
339 ----------------------------------------------
340 output :
341 ---------
342 Enter the size :
343 5
344 1 2 3 2 1
345 Collected Duplicated numbers are : [1, 2]
346 The size of list after removing all duplicates : 1
347 After removel of all duplicates are :
348 3
349  ------------------------------------
350 Test4 :       Test4AlphaNumericarrangement
```

```
******      ************************************

package HacerRankProblems;
import java.util.ArrayList;

public class Test4AlphaNumericarrangement {

   public static void main(String[] args)
   {
      String a="moo10b4n3b5";
      char b[]=a.toCharArray();
      int sum=0;
      ArrayList<Integer> numList=new ArrayList<Integer>();
      ArrayList<Character>charList=new ArrayList<Character>();
      for(char c : b)
      {
         if(Character.isDigit(c))
         {
            sum+=Character.getNumericValue(c);
            numList.add(Character.getNumericValue(c));
         }
         else
         {
            charList.add(c);
         }
      }
      System.out.println("The Sum of Given Integer : " +sum);
      System.out.println("After Separation");
      numList.forEach(System.out::print);
      System.out.println();
      charList.forEach(System.out::print);

   }
}
OuTPut:
```

```
-------
The Sum of Given Integer : 13
After Separation
10435
moobnb
---------------------------------------
Test5:      Amstrong NUMBER
******      ********** *******

package com.basicjava;
import java.util.Scanner;
public class AmstrongNumber {
   public static void main(String args[])
   {
      Scanner scan=new Scanner(System.in);
      int num;
      int count=0;
      int sum=0;
      System.out.println("enter the number : ");
      num=scan.nextInt();
      int a=num;
      int temp = num;
      while(num!=0)
      {
         count++;
         num=num/10;

      }
      while(a!=0)
      {
         int individual=a%10;
         sum=sum+(int)Math.pow(individual,count);
         a=a/10;

      }
```

```
        System.out.println("the num value is : " +sum);
        if(sum==temp)
        {
           System.out.println("Amstrong number");
        }
        else
           System.out.println(" Not Amstrong number");

        scan.close();



    }

}

OUTPUT:
-------
enter the number :
153
the num value is : 153
Amstrong number

enter the number :
234
the num value is : 99
 Not Amstrong number
---------------------------------
test6:      String Manipulation
******      **********************
 Problem Statement :
 ++++++++++++++++++
 add 'ing' at the end of a given string (length should be atleast 3)
.if the given string already end with 'ing' then add 'ly' instead.
If the string length of the given string is less than 3,leave it.
```

```
456
457 INPUT : String is a String used for String
458 OUTPUT : Stringly is a Stringly useding foring
459
460
461 package com.basicjava;
462 import java.util.Scanner;
463 public class StringLyProblem {
464
465    public static void main(String[] args) {
466       Scanner scan=new Scanner(System.in);
467       StringBuilder sb=new StringBuilder ();
468       String a[]=scan.nextLine().split(" ");
469       for(int i=0;i<a.length;i++)
470       {
471          int size=a[i].length();
472          if((size>3) && (a[i].endsWith("ing")))
473          {
474             sb.append(a[i] +"ly" +" ");
475          }
476          else if(size>=3)
477          {
478             sb.append(a[i] +"ing" +" ");
479          }
480          else
481          {
482             sb.append(a[i]  +" ");
483
484          }
485       }
486       System.out.println(sb);
487
488    }
489
490 }
```

```
output:
-------
I am mukesh studing cse
I am mukeshing studingly cseing
------------------------------------------------
Test6        SubString
-----        ==========

package HacerRankProblems;
import java.util.Scanner;
public class Test6SubString {

   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter String 1 :");
      String a=scan.next();
      System.out.println("Enter String 2 : ");
      String b=scan.next();
      if(a.contains(b))
      {
         System.out.println("The index is : "+a.indexOf(b));
      }
      else
      {
         System.out.println(-1);
      }


   }

}

output :
---------
Enter String 1 :
```

```
mukesh123cse
Enter String 2 :
cse
The index is : 9
-----------------------------------------
Test8 :     Palindromic Primes
*******     ******************
package HacerRankProblems;

import java.util.Scanner;

class PaliPrime
{
   boolean Palindrom(String num)
   {

      String temp=num;
      System.out.println("Now the temp value is : " +temp);
      StringBuilder sb=new StringBuilder(temp);
      String rev=sb.reverse().toString();
      System.out.println("Reversed Number is : " +rev);
      if(temp.equals(rev))
        return true;
      else
        return false;



   }
   boolean prime(String  num)
   {
      int n=Integer.parseInt(num);
      boolean isprime=true;
      for(int i=2;i<Math.sqrt(n);i++)
      {
```

```
            if(n%i==0)
            {
                isprime= false;
            }
        }
        if(isprime)
          return true;
        else
            return false;
    }
}
public class Test7PalindromicPrime {

    public static void main(String[] args)
    {
      Scanner scan=new Scanner(System.in);
      System.out.print("Enter the Number : ");
      String num=scan.next();
       PaliPrime pp=new PaliPrime();
       boolean b=pp.Palindrom(num);
       System.out.println("palindrom : " +b);
       boolean b1=pp.prime(num);
       System.out.println("prime : " +b1);
       if(pp.Palindrom(num) && pp.prime(num))
           System.out.println("The number is palindrome prime");
       else
           System.out.println("No it's not a pali prime");

    }

}
output is :
-----------
Enter the Number : 11
Now the temp value is : 11
```

```
Reversed Number is : 11
palindrom : true
prime : true
Now the temp value is : 11
Reversed Number is : 11
The number is palindrome prime

Enter the Number : 10
Now the temp value is : 10
Reversed Number is : 01
palindrom : false
prime : false
Now the temp value is : 10
Reversed Number is : 01
No it's not a pali prime
-----------------------------------------------------
Test9 :       Consonents:
----------    -----------------
package HacerRankProblems;

import java.util.Scanner;

public class Test9Consonents {

   public static void main(String[] args) {
      Scanner scan=new Scanner(System.in);
      System.out.println("Enter the String : ");
      String a=scan.next();
      char b[]=a.toCharArray();
      if(a.contains("aeiou"))
      {
         System.out.println(-1);
      }
      else
      {
```

```
631         for(char c : b)
632         {
633            if((c=='a') || (c=='e') || (c=='i') || (c=='o') || (c=='u') )
634            {
635               continue;
636            }
637            else
638            {
639               System.out.print(c);
640            }
641         }
642       }
643 
644    }
645 
646 }
647 Output:
648 -----------
649 Enter the String :
650 Mukesh
651 Mksh
652 ---------------------------------------------------------------------
653 Test10:      SecondLargestNumberInArray:
654 ********      ***********************************
655 package HacerRankProblems;
656 
657 import java.util.Arrays;
658 import java.util.Scanner;
659 
660 public class Test10SecondLargestNumberInArray {
661 
662    public static void main(String[] args) {
663       Scanner scan=new Scanner(System.in);
664       System.out.print("Enter the array size : ");
665       int size=scan.nextInt();
```

```
        int a[]=new int[size];
        System.out.print("Enter the element side by side : ");
        for(int i=0;i<size;i++)
        {
           a[i]=scan.nextInt();
        }
        Arrays.sort(a);
        System.out.println("The second Largest number in array is : " +a[size-2]);



    }

}

OUTPUT:-
--------------
Enter the array size : 5
Enter the element side by side : 1 2 3 4 5
The second Largest number in array is : 4
--------------------------------------------------------------------------------
Test10 :          PureNumber: module by 3
*********         ****************************

package HacerRankProblems;

import java.util.Scanner;

public class Test10PureNumber {

    public static void main(String[] args) {
        Scanner scan=new Scanner(System.in);
        System.out.print("Enter the Number : ");
        int num=scan.nextInt();
```

```
        int sum=0;
        int r;
        while(num!=0)
        {
           r=num%10;
           sum+=r;
           num=num/10;
        }
        System.out.println("The sum of given number is : " +sum);
        if(sum%3==0)
        {
           System.out.println("yes");
        }
        else
        {
           System.out.println("not");
        }
    }

}

Output:-
-----------
Enter the Number : 15
The sum of given number is : 6
yes
-----------------------------------------------------------------------------------------
```