Bài 1 :

```java
package bai01;

import java.util.Scanner;

public class Main {

    public static int nhap()
    {
        Scanner input = new Scanner(System.in);
        boolean check= false;
        int n=0;
        while(!check){
            System.out.print(" ");
            try{
                n= input.nextInt();
                check= true;
            }catch(Exception e){
                System.out.println("Ban phai nhap so! hay nhap lai...");
                input.nextLine();
            }
        }
        return (n);
    }
    public static int UCLN(int a, int b){
        while(a!= b){
            if(a>b) a= a-b;
            else b= b-a;
        }
        return (a);
    }
    public static void main(String[] args) {
        System.out.println("Nhap a");
        int a = nhap();
        System.out.println("Nhap b");
        int b= nhap();
        System.out.println("Uoc chung lon nhat cua "+a+" va "+b+" la:
"+UCLN(a,b));
        System.out.println("Boi chung nho nhat cua "+a+" va "+b+" la:
"+((a*b)/UCLN(a,b)));
    }

}
```

Bài 02 :

```java
package bai02;
import java.util.Scanner;
public class Main {

    public static void doiCoSo(int n,int base){
        if(n>=base) doiCoSo(n / base, base);
        if(n % base>9) System.out.printf("%c",n%base+55);
        else
        System.out.print((n % base));
    }
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static void main(String[] args) {
            System.out.println("Nhap n");
                int n= nhap();
                System.out.println("Nhap vao co so can chuyen sang b");
                int b= nhap();
                System.out.println("So " +n+ " chuyen sang co so " +b+ " thanh: ");
                doiCoSo(n,b);
    }

}
```

Bài 03 :

```java
package bai03;

import java.util.Scanner;
```

```java
public class Main {

    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static int tinhTong(long i){
                int sum=0;
                long n;
                while(i!=0){
                        n= i%10;
                        sum+= n;
                        i/=10;
                }
                return (sum);
        }
    public static void main(String[] args){
            System.out.print("Nhap n");
                int n= nhap();
                System.out.println("Tong cua so "+n+" = " +tinhTong(n));
    }

}
```

Bài 04 :

```java
package bai04;
import java.util.Scanner;
public class Main {


    public static void phanTich(int n){
```

```java
                int i=2;
                while(n>1){
                        if(cachamchung.checkSNT(i)){
                                if(n%i==0){
                                        System.out.print(i+".");
                                        n/=i;
                                }
                                else i++;
                        }
                        else i++;
                }
        }
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static void main(String[] args) {
        System.out.print("Nhap n");
                int n= nhap();
                System.out.print("n= " );
                phanTich(n);
    }

}
```

Bài 05 :


```java
package bai05;
import java.util.Scanner;
public class Main {
```

```java
    public static void lietKe(int n){
                System.out.print(" 2");
                for(int i=3;i<n;i+=2){
                        if(cachamchung.checkSNT(i))System.out.print(" "+i);
                }
        }
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static void main(String[] args) {
            System.out.print("Nhap n");
                int n= nhap();
                System.out.println("Cac so nguyen to nho hon "+n+ " ");
                lietKe(n);
    }

}
```

Bài 06 :

```java
package bai06;
import java.util.Scanner;
public class Main {

    public static void lietKe(int n){
                int i=2,count=0;
                while(count<n){
                        if(cachamchung.checkSNT(i)){
                                System.out.print(" "+i);
                                count++;
                        }
```

```java
                                i++;
                }
        }
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static void main(String[] args) {
        System.out.print("Nhap n");
                int n= nhap();
                System.out.println(n+" so nguyen to dau tien la: ");
                lietKe(n);
    }

}
```

Bài 07 :

```java
package bai07;
import java.util.Scanner;
public class Main {


    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
```

```java
                        check= true;
                }catch(Exception e){
                        System.out.println("Ban phai nhap so! hay nhap lai...");
                        input.nextLine();
                }
        }
        return (n);
    }
    public static void main(String[] args) {
        System.out.print("Nhap n");
                int n= nhap();
                int[] f= new int[n+1];
                f[0]= 1; f[1]= 1;
                for(int i=2;i<=n;i++){
                        f[i]= f[i-1]+f[i-2];
                }
                System.out.println("So Fibonanci thu "+n+" la: f["+n+"]= "+f[n]);
    }

}
```

Bài 08 :

```java
package bai08;

public class Main {


    public static boolean testSoThuanNghich(int n){
                StringBuilder xau= new StringBuilder();
                String str= ""+n;
                xau.append(str);
                String check= ""+xau.reverse();
                if(str.equals(check)) return true;
                else return false;
        }
    public static void main(String[] args) {
        int n,count=0;
                for(n=100000 ; n<= 999999 ; n++){
                        if(testSoThuanNghich(n)){
                                System.out.println(n);count++;
                        }
                }
                System.out.println("Co "+count+" so thuan nghich co 6 chu so");
```

```
        }

}
```

Bài 09 :

```java
package bai09;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static void main(String[] args) {
        System.out.println("Nhap n");
                int n= nhap();
                int[] array= new int[n];
                int tich;
                do{
                        tich= 1;
                        //In ra mang va tinh tich cac phan tu trong mang
                        System.out.println("");
                        for(int j=0 ; j<n ; j++){
                                System.out.print(" " +array[j]);
                                tich*= array[j];
                        }
                        int i=n-1;
                        do{
                                if(array[i]==0){
                                        array[i]=1;
```

```
                                    for(int j=n-1 ; j>i ;j--){
                                            array[j]= 0;
                                    }
                                    break;
                            }
                            else i--;
                    }while(i>=0);
            }while(tich!=1);
    }

}
```

Bài 10 :

```
package bai10;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static void result(int a[],int k){
                int i;
                System.out.println();
                for(i=1 ; i<=k ; i++){
                        System.out.print("  "+a[i]);
                }
        }
        public static void try_backTrack(int a[], int n, int k, int i){
                int j;
```

```
                for(j=a[i-1]+1 ; j<=(n-k+i) ; j++){
                        a[i]= j;
                        if(i== k) result(a,k);
                        else try_backTrack(a, n, k, i+1);
                }
        }
    public static void main(String[] args) {
        System.out.println("Nhap n");
                int n= nhap();
                int[] array= new int[n+1];
                int k;
                System.out.println("Liet ke tat ca cac tap con k phan tu cua 1,2,..,"+n+" :
");
                for(k=1 ; k<=n ; k++){
                        System.out.println("\n Tap con "+k+" phan tu: ");
                        try_backTrack(array,n,k,1);
                }
    }

}
```

Bài 11 :

```
package bai11;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static void main(String[] args) {
        System.out.print("Nhap n");
                int n= nhap();
```

```java
int[] array= new int[n+2];
int i,j,k=n-1,temp,check=1;
for(i=0 ; i<n ; i++){
        array[i]= i+1;
}
System.out.println("Cac hoan vi ke la: ");
try{
        i= n-2;
        while(check>0){
                //In ra hoan vi
                System.out.println("   ");
                for(j=0 ; j<n ; j++){
                        System.out.print(" "+array[j]);
                }
                for(i= n-2 ; i>=0 ; i--){
                        check= 1;
                if(array[i] < array[i+1]){
                        if(i==n-2){
                                temp= array[i];
                                array[i]= array[n-1];
                                array[n-1]= temp;
                                break;
                        }
                        else{
                                //Tim so a[k] nho nhat ma >a[i] trong cac so
ben phai a[i]

                                k= i+1;
                                        for(j=i+1 ; j<n ; j++){
                                                if(array[i+1]>array[j] &&
array[j]>array[i]) k=j;


                                        }
                                        //Doi cho a[k] va a[i]
                                        temp= array[i];
                                        array[i]= array[k];
                                        array[k]= temp;
                                //Sap xep lai tu a[i+1] toi a[n]
                                for(j=i+1 ; j<n ; j++){
                                        for(int m= i+1 ; m<n ; m++){
                                                if(array[j]<array[m]){
                                                        temp= array[j];
                                                        array[j]= array[m];
                                                        array[m]= temp;
                                                }
                                        }
                                }
```

```
                                        break;
                            }
                    }
                    else {
                            check=0;
            //          break;
                    }
                    }
                    //if(i==0)check=0;
            }
        }catch(Exception e){}
    }
}
```

Bài 12 :

```java
package bai12;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static void horner(int a[], int n){
                int T=0,i,x;
                System.out.println("\n Nhap x= ");
                x= nhap();
                T= a[n];
                for(i=n ; i>0 ; i--){
                        T= T*x + a[i-1];
```

```
            }
            System.out.println("Gia tri cua da thuc tinh theo cong thuc Horner la:
"+T);
        }
    public static void main(String[] args) {
        int i;
            System.out.println("Nhap bac cua da thuc n= ");
            int n= nhap();
            int[] array= new int[n+1];
            for(i=n ; i>=0 ; i--){
                System.out.print("Nhap he so cua x^"+i+" = ");
                array[i]= nhap();
            }
            horner(array,n);
    }

}
```

Bài 13 :

```
package bai13;
import java.util.Arrays;
import java.util.Scanner;
public class Main {
    public static int nhap(){
            Scanner input= new Scanner(System.in);
            boolean check= false;
            int n=0;
            while(!check){
                System.out.print(" ");
                try{
                    n= input.nextInt();
                    check= true;
                }catch(Exception e){
                    System.out.println("Ban phai nhap so! hay nhap lai...");
                    input.nextLine();
                }
            }
            return (n);
        }
    public static void inArray(int[] a, int begin , int end){
            System.out.println();
            int i;
```

```java
                for(i=begin ; i<end ; i++){
                        System.out.print(" "+a[i]);
                }
                System.out.println();
        }
    public static void themPhanTu(int[] a,int n,int pt){
                a[0]= pt;
                Arrays.sort(a);
        }
    public static void main(String[] args) {
            System.out.println("Nhap n");
                int n= nhap();
                System.out.println("Nhap m");
                int m= nhap();
                int i;
                int[] a= new int[n+m];
                int[] b= new int[m];
                //Nhap vao mang A va sap xep theo thu tu tang dan
                System.out.println("nhap mang A: ");
                for(i=0 ; i<n ; i++){
                        System.out.print("\n Nhap phan tu thu "+i+" = ");
                        a[i]= nhap();
                }
                Arrays.sort(a);
                //Nhap vao mang B va sap xep theo thu tu tang dan
                System.out.println("nhap mang B: ");
                for(i=0 ; i<m ; i++){
                        System.out.print("\n Nhap phan tu thu "+i+" = ");
                        b[i]= nhap();
                }
                Arrays.sort(b);
                //Gop mang b vao mang a
                for(i=0 ; i<m ; i++){
                        themPhanTu(a, n+m+1, b[i]);
                }
                inArray(a, 0, n+m);
    }}
```

Bài 14 :


```java
package bai14;
import java.util.Scanner;
public class Main {
```

```java
public static int nhap(){
            Scanner input= new Scanner(System.in);
            boolean check= false;
            int n=0;
            while(!check){
                   System.out.print(" ");
                   try{
                           n= input.nextInt();
                           check= true;
                   }catch(Exception e){
                           System.out.println("Ban phai nhap so! hay nhap lai...");
                           input.nextLine();
                   }
            }
            return (n);
       }
public static int countElement(int a[], int n, int i){
            int count= 0;
            for(int j=0 ; j<n ; j++){
                   if(a[j]== i)
                   count ++;
            }
            return (count);
       }
public static void main(String[] args) {
    int n,i;
            System.out.println("Nhap n= ");
            n= nhap();
            int[] array= new int[n];
            for(i=0 ; i<n ; i++){
                   System.out.println("Nhap phan tu thu " +(i+1)+" ");
                   array[i]= nhap();
            }
            System.out.print("Cac phan tu trong day xuat hien 1 lan: ");
            for(i=0 ; i<n ; i++){
                   if(countElement(array, n, array[i])==1)
               System.out.print("  "+array[i]);
  }
 }
}
```

Bài 15 :

```java
package bai15;
import java.util.Scanner;
public class Main {


    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }

    public static int countElement(int a[], int n, int i){
                int count= 0;
                for(int j=0 ; j<n ; j++){
                        if(a[j]== i)
                        count ++;
                }
                return (count);
        }
    public static void main(String[] args) {
        int n,i;
                System.out.println("Nhap n= ");
                n= nhap();
                int[] array= new int[n];
                for(i=0 ; i<n ; i++){
                        System.out.println("Nhap phan tu thu " +(i+1)+" ");
                        array[i]= nhap();
                }
                System.out.print("Cac phan tu trong day xuat hien 2 lan: ");
                for(i=0 ; i<n ; i++){
                        if(countElement(array, n, array[i])==2 && countElement(array, i,
array[i])==0){
```

```
                                    System.out.print("  "+array[i]);
                        }

                }
        }

}


```

Bài 16 :

```
package bai16;
import java.util.Scanner;
public class Main {
   public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
   public static int countElement(int a[], int n, int i){
                int count= 0;
                for(int j=0 ; j<n ; j++){
                        if(a[j]== i)
                        count ++;
                }
                return (count);
        }
   public static void main(String[] args) {
      int n,i;
                System.out.println("Nhap n= ");
                n= nhap();
                int[] array= new int[n];
                for(i=0 ; i<n ; i++){
                        System.out.println("Nhap phan tu thu " +(i+1)+" ");
```

```
                    array[i]= nhap();
                }
                for(i=0 ; i<n ; i++){
                        if(countElement(array, i, array[i])==0){
                                System.out.println("Phan tu "+array[i]+ " xuat hien
"+countElement(array, n, array[i])+" lan");
                        }
                }
        }
}
```

Bài 17 :

```
package bai17;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static float nhapFloat(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                float n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
```

```java
                          input.nextLine();
                }
        }
        return (n);
    }
    public static int viTriMinFloat(float a[], int n){
                float min= a[0];
                int key= 0;
                for(int j=0 ; j<n ; j++){
                        if(min>a[j]){
                                min= a[j];
                                key= j;
                        }
                }
                return (key);
        }
    public static float maxFloat(float a[], int n){
                float max= a[0];
                for(int j=0 ; j<n ; j++){
                        if(max<a[j]) max= a[j];
                }
                return (max);
        }
    public static void main(String[] args) {
        int n,i;
                System.out.println("Nhap n= ");
                n= nhap();
                float[] array= new float[n];
                for(i=0 ; i<n ; i++){
                        System.out.println("Nhap phan tu thu " +(i+1)+" ");
                        array[i]= nhapFloat();
                }
                i =0;
                System.out.println("Sap xep theo thu tu tang dan");
                while(i<n){
                        System.out.println(" "+array[viTriMinFloat(array, n)]);
                                array[viTriMinFloat(array, n)]= maxFloat(array, n);
                        i++;
                }
    }
}
```

Bài 18 :

```java
package bai18;
import java.util.*;
public class Main {

    public static void main(String[] args) {
        Scanner input= new Scanner(System.in);
                    System.out.println("Nhap vao 1 xau: ");
                    String str= input.nextLine();
                    StringTokenizer strToken= new StringTokenizer(str, " ");
                    System.out.println("So cac tu trong xau la: "+strToken.countTokens());
    }

}
```

Bài 19 :

```java
package bai19;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                    Scanner input= new Scanner(System.in);
                    boolean check= false;
                    int n=0;
                    while(!check){
                            System.out.print(" ");
                            try{
                                    n= input.nextInt();
                                    check= true;
                            }catch(Exception e){
                                    System.out.println("Ban phai nhap so! hay nhap lai...");
                                    input.nextLine();
                            }
                    }
                    return (n);
        }
    public static boolean checkSNT(int n){
                    if(n>1){
                    for(int i=2;i<=Math.sqrt(n);i++){
                            if(n%i==0) return false;
                    }
                    return true;
```

```
                }
                else return false;
        }
    public static int tongChuSo(int n){
                int T=0;
                while(n>0){
                        T+= n%10;
                        n/= 10;
                }
                return (T);
        }
    public static void main(String[] args) {
        System.out.print("Nhap S= ");
                int s= nhap();
                int i,count=0;
                System.out.println("Cac so nguyen to co tong cac chu so co tong bang
"+s+" la: ");
                for(i=10000 ; i<=99999 ; i++){
                    if(checkSNT(i)){
                        if(tongChuSo(i)== s) {
                            System.out.println(" "+i);
                            count++;
                        }
                        else continue;
                    }
                }
                System.out.println("Co "+count+" so thoa man");
    }

}
```

Bài 20 :

```
package bai20;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
```

```java
                        n= input.nextInt();
                        check= true;
                }catch(Exception e){
                        System.out.println("Ban phai nhap so! hay nhap lai...");
                        input.nextLine();
                }
        }
        return (n);
}
//Ham kiem tra so nguyen to
    public static boolean checkSNT(int n){
            if(n>1){
            for(int i=2;i<=Math.sqrt(n);i++){
                    if(n%i==0) return false;
            }
            return true;
    }
            else return false;
    }
public static void main(String[] args) {
    System.out.print("Nhap n= ");
            int n= nhap();
            int[] f= new int[n];
            f[0]= 1; f[1]= 1;
            int i=1,count=1;
            System.out.print("Cac so Fibonanci nho hon "+n+" la so nguyen to: \n 1");
            while(f[i]<n){
                    if(checkSNT(f[i])){
                            System.out.print(" "+f[i]);
                            count++;
                    }
                    i++;
                    f[i]= f[i-1] + f[i-2];
            }
            System.out.println("\n Co "+count+" so thoa man");
    }

}
```

Bài 21 :

```java
package bai21;
import java.util.Scanner;
public class Main {
    public static int nhap(){
        Scanner input= new Scanner(System.in);
        boolean check= false;
        int n=0;
        while(!check){
            System.out.print(" ");
            try{
                n= input.nextInt();
                check= true;
            }catch(Exception e){
                System.out.println("Ban phai nhap so! hay nhap lai...");
                input.nextLine();
            }
        }
        return (n);
    }
    public static int tongChuSo(int n){
        int T=0;
        while(n>0){
            T+= n%10;
            n/= 10;
        }
        return (T);
    }
    //Ham kiem tra so nguyen to
    public static boolean checkSNT(int n){
        if(n>1){
            for(int i=2;i<=Math.sqrt(n);i++){
                if(n%i==0) return false;
            }
            return true;
        }
        else return false;
    }
    public static void phanTich(int n){
        int i=2;
        while(n>1){
            if(checkSNT(i)){
                if(n%i==0){
```

```
                        System.out.print(i+".");
                                n/=i;
                    }
                        else i++;
                }
                    else i++;
            }
        }
    public static void main(String[] args) {
        System.out.print("Nhap n");
                int n= nhap();
                System.out.print("n= 1" );
                phanTich(n);
                System.out.println("Tong cac chu so cua "+n+" la: "+tongChuSo(n));
    }

}
```

Bài 22 :

```
package bai22;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static boolean checkSNT(int n){
                if(n>1){
                for(int i=2;i<=Math.sqrt(n);i++){
                        if(n%i==0) return false;
                }
```

```java
                    return true;
        }
                    else return false;
        }
    public static void lietKeUoc(int n){
                int count=0;
                System.out.print("\nCac uoc cua "+n+" la:");
                for(int i=1 ; i<=n ; i++){
                    if(n%i==0) {
                            System.out.print(" "+i);
                            count++;
                    }
                }
                    System.out.println("\nCo "+count+" uoc");
        }
        public static void lietKeUocSNT(int n){
                int count=0;
                System.out.print("\nCac uoc cua "+n+" la:");
                for(int i=1 ; i<=n ; i++){
                    if(n%i==0 && (checkSNT(i))) {
                            System.out.print(" "+i);
                            count++;
                    }
                }
                    System.out.println("\nCo "+count+" uoc la so nguyen to");
        }
    public static void main(String[] args) {
        System.out.print("Nhap n");
                int n= nhap();
                lietKeUoc(n);
                lietKeUocSNT(n);
    }

}
```

Bài 23 :

```java
package bai23;
import java.util.Scanner;
public class Main {

    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
```

```java
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
public static boolean checkSNT(int n){
                if(n>1){
                for(int i=2;i<=Math.sqrt(n);i++){
                        if(n%i==0) return false;
                }
                return true;
        }
                else return false;
        }
public static void lietKeSNT(int n){
                int i=1,count=0;
                System.out.println("Cac so nguyen to nho hon "+n+" la: ");
                while(i<n){
                        if(checkSNT(i)){
                                System.out.print(" "+i);
                                count++;
                        }
                        i++;
                }
                System.out.println("\n Co "+count+" so thoa man");
        }
public static void main(String[] args) {
   System.out.print("Nhap n");
                int n= nhap();
                lietKeSNT(n);
                int[] f= new int[n];
                f[0]= 1; f[1]= 1;
                int i=1;
                System.out.print("Cac so Fibonanci nho hon "+n+" la : \n 1");
                while(f[i]<n){
                        System.out.print(" "+f[i]);
                        i++;
                        f[i]= f[i-1] + f[i-2];
```

```
                    }
                    System.out.println("\n Co "+i+" so thoa man");
    }

}


```

Bài 24 :

```
package bai24;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
    public static boolean checkSNT(int n){
                if(n>1){
                for(int i=2;i<=Math.sqrt(n);i++){
                        if(n%i==0) return false;
                }
                return true;
        }
                else return false;
        }
    public static void inMT(int[][] A, int n, int m){
                int i,j;
                for(i=0 ; i<n ; i++){
                        System.out.print("\n");
                        for(j=0 ; j<m ; j++) System.out.print(" "+A[i][j]);
                }
        }
    public static int findMaxMT(int[][] A, int n, int m){
```

```java
                int Max= A[0][0];
                for(int i=0 ; i<n ; i++){
                        for(int j=0 ; j<m ; j++){
                                if(Max<A[i][j]) Max= A[i][j];
                        }
                }
                return (Max);
        }
        //Tim nhung phan tu la SNT
        public static void phanTuSNT(int[][] A, int n, int m){
                int count=0,i,j;
                System.out.println("\nCac phan tu la SNT (nhung phan tu ko la SNT =0):
");
                for(i=0 ; i<n ; i++){
                        System.out.print("\n");
                        for(j=0 ; j<m ; j++){
                                if(checkSNT(A[i][j])){
                                        count++;
                                        System.out.print(" "+A[i][j]);
                                }
                                else System.out.print(" "+0);
                        }
                }
                System.out.println("\n Co "+count+" phan tu la so nguyen to");
        }
        //Sap xep cac cot theo thu tang dan
        public static void sortColum(int[][] A, int n, int m){
                int i,j,temp;
                for(j=0 ; j<m ; j++){
                        for(i=1 ; i<n ; i++){
                                if(A[i-1][j]>A[i][j]){
                                        temp= A[i-1][j];
                                        A[i-1][j]= A[i][j];
                                        A[i][j]= temp;
                                }
                        }
                }
                inMT(A, n, m);
        }
    public static void main(String[] args) {
        System.out.print("Nhap so hang n=");
                int n= nhap();
                System.out.print("Nhap so cot m=");
                int m= nhap();
                int [][] A= new int[n][m];
                int i,j;
```

```java
                for(i=0 ; i<n ; i++){
                        for(j=0 ; j<m ; j++){
                                System.out.println("Nhap phan tu thu
A["+(i+1)+"]["+(j+1)+"]= ");
                                A[i][j]= nhap();
                        }
                }
                System.out.println("Ma tran nhap vao: ");
                inMT(A, n, m);
                for(i=0 ; i<n ; i++){
                        for(j=0 ; j<m ; j++){
                                if(A[i][j]==findMaxMT(A, n,
m))System.out.println("\nPhan tu o hang "+i+" cot "+j+" dat Max: A["+i+"]["+j+"]=
"+A[i][j]);
                        }
                }

                phanTuSNT(A, n, m);
                sortColum(A, n, m);
    }

}
```

Bài 25 :

```java
package bai25;
public class Main {
    public static boolean checkSNT(int n){
                if(n>1){
                for(int i=2;i<=Math.sqrt(n);i++){
                        if(n%i==0) return false;
                }
                return true;
        }
                else return false;
        }
    public static boolean testSoThuanNghich(int n){
                StringBuilder xau= new StringBuilder();
                String str= ""+n;
                xau.append(str);
                String check= ""+xau.reverse();
                if(str.equals(check)) return true;
                else return false;
        }
```

```java
    public static boolean nguyenTo(int n){
                while(n!=0){
                        if(!checkSNT(n%10)) return false;
                        n/= 10;
                }
                return true;
        }
    public static void main(String[] args) {
        int i,count= 0;
                System.out.println("cac so tu 5-7 chu so thoa man dieu kien la: ");
                for(i=22223 ; i<7777777 ; i+=2){
                        if(checkSNT(i) && nguyenTo(i) && testSoThuanNghich(i)){
                                System.out.println(" "+i); count++;
                        }
                }
                System.out.println("\n Co "+count+" so thoa man");
    }

}
```

Bài 26 :

```java
package bai26;

public class Main {
    public static boolean checkSNT(int n){
                if(n>1){
                for(int i=2;i<=Math.sqrt(n);i++){
                        if(n%i==0) return false;
                }
                return true;
        }
                else return false;
        }
    public static boolean testSoThuanNghich(int n){
                StringBuilder xau= new StringBuilder();
                String str= ""+n;
                xau.append(str);
                String check= ""+xau.reverse();
                if(str.equals(check)) return true;
                else return false;
        }
    public static boolean nguyenToTong(int n){
                int T= 0;
```

```java
                while(n!=0){
                        T+= n%10;
                        if(!checkSNT(T)) return false;
                        n/= 10;
                }
                return true;
        }
    public static void main(String[] args) {
        int i,count= 0;
                System.out.println("cac so tu 5-7 chu so thoa man dieu kien la: ");
                for(i=22223 ; i<7777777 ; i+=2){
                        if(checkSNT(i) && nguyenToTong(i) &&
testSoThuanNghich(i)){
                                System.out.println(" "+i); count++;
                        }
                }
                System.out.println("\n Co "+count+" so thoa man");
    }

}
```

Bài 27 :

```java
package bai27;
import java.util.Arrays;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                        System.out.print(" ");
                        try{
                                n= input.nextInt();
                                check= true;
                        }catch(Exception e){
                                System.out.println("Ban phai nhap so! hay nhap lai...");
                                input.nextLine();
                        }
                }
                return (n);
        }
```

```java
    public static int viTriMaxInt(int a[], int n){
            int max= a[0];
            int key= 0;
            for(int j=0 ; j<n ; j++){
                    if(max<a[j]){
                            max= a[j];
                            key= j;
                    }
            }
            return (key);
    }
    public static void inArray(int[] a, int begin , int end){
            System.out.println();
            int i;
            for(i=begin ; i<end ; i++){
                    System.out.print(" "+a[i]);
            }
            System.out.println();
    }
    public static int viTriMax2(int[] a,int n){
            int i,key=0,Max2=0;
            for(i=0 ; i<n ; i++){
                    if(a[i]>Max2 && a[i]!= a[viTriMaxInt(a, n)]){
                            Max2= a[i];key= i;
                    }
            }return (key);
    }
        public static void themPhanTu(int[] a,int n,int pt){
            a[0]= pt;
            Arrays.sort(a);
        }
    public static void main(String[] args) {
        System.out.print("Nhap n= ");
            int n= nhap();
            int[] a= new int[n+1];
            int i;
            for(i=0 ; i<n ; i++){
                    System.out.print("\n Nhap phan tu thu "+i+" = ");
                    a[i]= nhap();
            }
            for(i=0 ; i<n ; i++){
                    if(a[i]== a[viTriMax2(a, n)]) System.out.println(" Phan tu thu
"+i+" lon thu 2 trong mang a["+i+"]= "+a[i]);
            }
            Arrays.sort(a);
            inArray(a,1,n+1);
```

```
                System.out.print("Nhap phan tu muon them pt= ");
                int pt= nhap();
                themPhanTu(a,n+1,pt);
                inArray(a,0,n);
    }

}
```

Bài 28 :

```
package bai28;
import java.util.Scanner;
public class Main {
    public static int nhap(){
                Scanner input= new Scanner(System.in);
                boolean check= false;
                int n=0;
                while(!check){
                    System.out.print(" ");
                    try{
                            n= input.nextInt();
                            check= true;
                    }catch(Exception e){
                            System.out.println("Ban phai nhap so! hay nhap lai...");
                            input.nextLine();
                    }
                }
                return (n);
        }
    public static void inMT(int[][] A, int n, int m){
                int i,j;
                for(i=0 ; i<n ; i++){
                    System.out.print("\n");
                    for(j=0 ; j<m ; j++) System.out.print(" "+A[i][j]);
                }
        }
    public static int findMaxMT(int[][] A, int n, int m){
                int Max= A[0][0];
                for(int i=0 ; i<n ; i++){
                    for(int j=0 ; j<m ; j++){
                            if(Max<A[i][j]) Max= A[i][j];
                    }
                }
                return (Max);
```

```java
        }
    public static void main(String[] args) {
        System.out.print("Nhap so hang n=");
            int n= nhap();
            System.out.print("Nhap so cot m=");
            int m= nhap();
            int [][] A= new int[n][m];
            int i,j;
            for(i=0 ; i<n ; i++){
                for(j=0 ; j<m ; j++){
                    System.out.println("Nhap phan tu thu
A["+(i+1)+"]["+(j+1)+"]= ");
                    A[i][j]= nhap();
                }
            }
            //In ra ma tran nhap vao
            System.out.println("Ma tran nhap vao: ");
            inMT(A, n, m);
            //Tim phan tu max
            for(i=0 ; i<n ; i++){
                for(j=0 ; j<m ; j++){
                    if(A[i][j]==findMaxMT(A, n,
m))System.out.println("\nPhan tu o hang "+i+" cot "+j+" dat Max: A["+i+"]["+j+"]=
"+A[i][j]);
            }
        }
    }
}
}
```

Bài 29 :

```java
package bai29;
import java.util.Scanner;
public class Main {
    public static int nhap(){
            Scanner input= new Scanner(System.in);
            boolean check= false;
            int n=0;
            while(!check){
                System.out.print(" ");
                try{
                    n= input.nextInt();
                    check= true;
                }catch(Exception e){
```

```java
                          System.out.println("Ban phai nhap so! hay nhap lai...");
                          input.nextLine();
                    }
              }
              return (n);
      }
   public static void horner(int a[], int n){
              int T=0,i,x;
              System.out.println("\n Nhap x= ");
              x= nhap();
              T= a[n];
              for(i=n ; i>0 ; i--){
                    T= T*x + a[i-1];
              }
              System.out.println("Gia tri cua da thuc tinh theo cong thuc Horner la:
"+T);
      }
   public static void inDaThuc(int a[], int n){
              int i;
              for(i=n ; i>0 ; i--){
                    System.out.print(" "+a[i]+".x^"+i+" + ");
              }
              System.out.print(" "+a[0]);
      }
       public static void daoHam(int a[],int dh[], int n){
              int i;
              for(i=n ; i>0 ; i--){
                    dh[i-1]= a[i]*i;
              }
              inDaThuc(dh,n-1);
      }
       public static void tongDaThuc(int a[], int n, int b[], int m){
              int i;
              System.out.println("\n Tong cua 2 da thuc A va B la: ");
              if(n>m){
                    for(i=m ; i>=0 ; i--){
                          a[i]+=b[i];
                    }
                    inDaThuc(a,n);
              }
              else
                    for(i=n ; i>=0 ; i--){
                          b[i]+=a[i];
                    }
                    inDaThuc(b,m);
              }
```

```java
    public static void main(String[] args) {
        int i;
                System.out.println("Nhap bac cua da thuc n= ");
                int n= nhap();
                int[] array= new int[n+1];
                for(i=n ; i>=0 ; i--){
                        System.out.print("Nhap he so cua x^"+i+" = ");
                        array[i]= nhap();
                }
                System.out.println("Da thuc A nhap vao la: ");
                inDaThuc(array, n);
                horner(array, n);
                //Tinh dao ham bac 1
                int[] dh= new int[n+1];
                daoHam(array,dh,n);
                //Tinh tong 2 da thuc
                System.out.println("\n Nhap bac cua da thuc m= ");
                int m= nhap();
                int[] array2= new int[m+1];
                for(i=m ; i>=0 ; i--){
                        System.out.print("Nhap he so cua x^"+i+" = ");
                        array2[i]= nhap();
                }
                System.out.println("Da thuc B nhap vao la: ");
                inDaThuc(array2, m);
                tongDaThuc(array, n, array2, m);
    }

}
```

Bài 31 :

```java
import java.util.*;
public class Bai31 {

        public static String chuyenInHoa(String str){
                String s,strOutput;
                s= str.substring(0, 1);
                strOutput= str.replaceFirst(s,s.toUpperCase());
                return (strOutput);
        }
        public static String chuanHoa(String strInput){
                String strOutput="";
                StringTokenizer strToken= new StringTokenizer(strInput," ,\t,\r");
                strOutput+=""+chuyenInHoa(strToken.nextToken());
```

```java
                while(strToken.hasMoreTokens()){
                        strOutput+=" "+chuyenInHoa(strToken.nextToken());
                }
                return(strOutput);
        }
        public static void main(String[] args) {
                // TODO Auto-generated method stub
                Scanner input= new Scanner(System.in);
                System.out.println("Nhap vao 1 xau: ");
                String strInput= input.nextLine();
                System.out.println("Xau duoc chuan hoa la: "+chuanHoa(strInput));
        }

}
```

Bài 32 :

```java
import java.util.*;
public class Bai32 {

        public static void timXauMax(String strInput){
                StringTokenizer strToken= new StringTokenizer(strInput," ,\t,\r");
                int Max,i=1,lengthStr;
                Max= strToken.nextToken().length();
                int viTriMax= i;
                while(strToken.hasMoreTokens()){
                        lengthStr= strToken.nextToken().length();
                        i++;
                        if(Max < lengthStr){
                                Max= lengthStr;
                                viTriMax= i;
                        }
                }
                System.out.println("Do dai xau lon nhat la: "+Max+" o vi tri "+viTriMax);
        }
        public static void main(String[] args) {
                // TODO Auto-generated method stub
                Scanner input= new Scanner(System.in);
                System.out.println("Nhap vao 1 xau: ");
                String strInput= input.nextLine();
                timXauMax(strInput);
        }

}
```

Bài 33 :

```java
import java.util.*;

public class Bai33 {

        public static String doiViTri(String strInput){
                String str= Bai31.chuanHoa(strInput);
                StringTokenizer strToken= new StringTokenizer(str," ");
                String ho    = strToken.nextToken();
                String hoDem = strToken.nextToken();
                String ten   = strToken.nextToken();
                String strOutput= ten+" "+ho+" "+hoDem;
                return(strOutput);
        }
        public static void main(String[] args) {
                // TODO Auto-generated method stub
                Scanner input= new Scanner(System.in);
                System.out.println("Nhap vao ho ten ( ho-ho dem -ten) : ");
                String strInput= input.nextLine();
                System.out.println("Ho va ten duoc sap xep lai (ten- ho - ho dem) :

"+doiViTri(strInput));
        }

}
```