Assignment-1 CSA-0985 P. venkata Avarth 192311130

1) import java.util.Scanner;

Public class sumofnum{

Public static void main(String[] args){

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the number of elements: ");

int n= scanner.nextInt();

int[] numbers = new int[n];

System.out.println("enter the numbers:");

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

numbers[i]= scanner.nextInt();

}

int sum=0;

for(int number: numbers){

sum+=number;

}

System.out.println(+sum);

scanner.close();

}

}

2) Public static int factorial(int n){

if(n==0){

return 1;

}else{

} return n*factorial(n-1);

3)

```
Public clas ReverseNumber{
    Public static void main(String[] args){
        int number = 12345;
        int reversedNumber = 0;
        while (number != 0){
        Int digit = number%10;
        reversedNumber = reveriedNumber*10+digit;
        Number /= 10;
        }
    System.out.printIn("Reversed Number:" + reversed Number);
}
}
```

4)

```
Public class HappyNumber{
    Public boolean isHappy(int n){
        Set<Integer> seen = new HashSet<>();
        while (n != 1 && !seen.contains(n)){
            seen.add(n);
            n=getNext(n);
        }
        return n== 1;
    }
Private int getNext(int n){
```

```
    int totalsum = 0
    while (n>0){
      int rem = n%10
          totalsum += rem*digit;
    }
    return totalsum
    }
}
```

3)
```
public class SumofNaturalNumbers {
    Public static void main (String[] args) {
        int n=10;
        int sum = (n*(n+1))/2;
        System.out.println ("sum of first "+n" natural number : "+sum);
    }
}
```

6)
```
Public class Palindromnum{
    Public static boolean isPalindrome (int number) {
        int reverseNum=0
        int or_num = num;
        while (n!=0){
        int digit = n%10;
        reversenum= reversenum*10+digit;
        n/=10;
    }
```

```
    return originalNum == reverse num';
}
Public static void main (string[] args) {
    int number = 12321;
    If (ispalindrome (n)) {
        System.out. print In (n+);
    else {
      System out.print-In (num+"is not palindrome");
    }
  }
}
```

7).
```
Public class Main{
    Public static void main( string [] args) {
        int n=25;
      If (n %.5 == 0){
        System.out.print In (n+"divisible)";
      else{
        system.out. print In (n+ "not divisible)";
    }
}
```

```
Public class Main {
    Public static boolean isPrime(int number) {
        If (number<=1) {
            return false;
        }
        for (int i=2; i<=Math.sqrt(number); i++) {
            If(number % i==0) {
                return false
            }
        }
        return true;
    }
}
```

9)

```
Public class Armstrong Numbers{
    Public static void main(String[] args ) {
        int s=100; e=999;
        for (int i= s; i<=e ; i++){
        If (isArmstrong (i)) {
            System.out.PrintIn(i+" is Armstrong");
        }
    }
}
```

```
Public static boolean isArmstrong(int n){
    int temp, digit, sum=0;
     temp=n
      while(temp!=0){
        digit=temp%10;
        sum+=Math.pow(digit,3);
        temp/=10;
      }
     return n==sum;
    }
}
```

10)
```
Public class Bin_Deci convert{
    Public static void main(String[] args){
        String binaryNum="101010";
        int deci_Num=Integer.parseInt(Bin_num,2);
        System.out.println("Binary Number"+bin_num);
        System.out.println("Decimal Number:"+deci_num);
    }
}
```

```
Public class GCD_LCM{
    Public static void main(String[] args){
        int n1 = 24, n2 = 36;
        int gcd = findGCD(n1, n2);
        int lcm = (n1 * n2)/gcd;
        System.out.println("GCD " + n1 "and" + n2 + "is " + gcd);
        System.out.println("LCM of " + n1 "and" n2 "is: " + lcm);
    }
    Public static int findGCD(int a, int b){
        if (b==0){
            return a;
        }
        return findGCD(b, a % b);
    }
}

Public class SumofEven_OddNum{
    Public static void main(String[] args){
        int[] numbers = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};
        int SumEven=0
        int SumOdd=0
        for(int n: n1){
```

```
if (n%==0){
  sumeven+=n;
~~if(n%~~} else {
    sumodd+=number;
  }
}
System.out.println("+sumeven);
System.out.println(+oddsum);
}
}
```

```
Public class Fah to cel{
    Public static void main(string[] args) {
        double fahrenheit = 98.6;
        double Celcius = (fahrenheit - 32) * 5 / 9;
        System.out.println("fahren" + fahrenheit + "->celcius" + celcius);
    }
}

Public class Num {
    Public static void NumtoN(int n){
        for(int i=1; i<=n; i++){
            System.out.println(i);
        }
    }
    Public static void main(string[] args){
        int n=10;
        g.NumtoN(n);
    }
}
```

15) import java.util.Scanner;

```
Public class vowelsconsocount{
    Public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.println("enter a string:");
        string input = scanner.nextLine().toLowerCase();
        int vowels=0; consonants=0;
        for(int i=0; i<input.length(); i++){
            char ch = input.charAt(i);
            if(ch== 'a' || ch=='e'|| ch==';' || ch=='o'
                || ch=='u'){
                vowels++;
            } else if((ch>'a' a' && ch<'z')){
                Consonants++;
            }
        }
        System.out.println(+vowels);
        System.out.println(+consonatts);
    }
}
```

```
Public class Swap {
    Public static void main(string [] args) {
        float f= 1.20f , s= 2.45f;
        System.out.println(+F);
        System.out.println(+s);
        float temp= f ;
        f= s ;
        s= temp;
        system.out.println (+f);
        System.out.println(+s);
    }
}
```

(7)
```
Public class Largest {
    Public static void main(string[] args) {
        double n1= -4.5, n2= 3 , n3= 4
        if (n1>=n2 && n1>=n3)
            system.out.println(n1+ "largest");
        else if (n2>=n1 && n2>=n3)
            system.out.println(n2" is largest");
        else
            Systemout.println(n+ "largest");
    }
```

output : 4 is largest.

18)
```
Public. class Multitable {
    Public static void main (string[] args){
        int n=5
        for (int i=1; i<=10; i++) {
         System.out.println ("%d * %d = %d \n",n,i,n*i);
        }
    }
}
```

19
```
Public class main{
    Public static void main (string[] args){
        int n=60;
       for (int 1=1 ; i<=number; i++ ){
          if (n%i==0) {
           System.out.print (i+" ");
        }
    }
}
```

20
```
class main{
    Public static void main (string[] args){
        int b=3; e=4;
        long result = 1;
        while (e!=0){
```

```
        result *= b;
        e--;
    }
    System.out.println(+result);
}
}
```