**30.9.20**

**1.** import java.util.\*;

class Student{

private String name,phone;

Student(String na,String ph){

name=na;

phone=ph;

}

String getName(){

return name;

}

String getPhone(){

return phone;

}

public boolean equals(Object second){

return (getName().equals(((Student)second).getName()));

}

}

public class Main {

public static void main(String args[]) {

ArrayList<String> as=new ArrayList<String>();

as.add("adith");

as.add("harish");

as.add("abi");

as.add("jaya");

System.out.println(as);

Iterator<String> itr=as.iterator();

while(itr.hasNext())

System.out.println(itr.next());

int pos=as.indexOf("Bhuvi");

System.out.println("bhuvi position is :"+pos);

for(String nm: as)

System.out.println(nm);

ArrayList<Student> aluser=new ArrayList<Student>();

aluser.add(new Student("sai","77622790"));

aluser.add(new Student("pavan","8876272720"));

Student st1 =new Student("sai pavan","42720");

pos =aluser.indexOf(st1);

System.out.println(aluser);

System.out.println("the object is present at :"+pos);

}

}

**2.** import java.util.\*;

import java.lang.\*;

class Student implements Cloneable{

String name;

double cgpa;

Student(String nm,double gpa){

name = nm;

cgpa = gpa;

}

public Object clone() throws CloneNotSupportedException{

return super.clone();

}

}

public class Main

{

public static void main(String[] args) throws CloneNotSupportedException {

Student s1 = new Student("Adith",99.9999);

Student s2;

s2 = (Student)s1.clone();

System.out.println(s2.name+" "+s2.cgpa);

}

}

**3.**  import java.util.\*;

import java.lang.\*;

import java.io.\*;

public class Main

{

public static void main(String[] args) throws IOException {

StringBuffer sb = new StringBuffer();

System.out.println(sb.capacity());

System.out.println(sb.length());

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

//Scanner s = new Scanner(System.in);

StringBuffer s1 = new StringBuffer(br.readLine());

int count=0;

for(int i=0;i<s1.length();i++){

if(s1.charAt(i) == 'a'|| s1.charAt(i) == 'e'||s1.charAt(i) == 'i'||s1.charAt(i) == 'o'||s1.charAt(i) == 'u'){

count++;

}

}

System.out.println("the count is "+ count);

}

}