**Code:**

import java.util.\*;

class string

{

String s;

//CONSTRUCTOR

string(String v)

{

s=v;

}

boolean checkVowel(char ch)

{

if(ch == 'a' || ch == 'e' || ch == 'i'

|| ch == 'o' || ch == 'u') {

return true;

}

return false;

}

//helper method

int CountVowels(String s,int i,int n)

{

if(i==n)return 0;

char ch = s.charAt(i);

if(checkVowel(ch)){

//System.out.println(ch);

return CountVowels(s,i+1,n)+1;

}

return CountVowels(s,i+1,n);

}

//method to count vowels

public int CountVowels()

{

return CountVowels(s.toLowerCase(),0,s.length());

}

//helper method

int CountConsonants(String s, int i, int n)

{

if(i==n)return 0;

char ch = s.charAt(i);

if((!checkVowel(ch)) &&((ch >= 'a'&& ch <= 'z')))

return CountConsonants(s,i+1,n)+1;

return CountConsonants(s,i+1,n);

}

//method to count consonants

int CountConsonants()

{

return CountConsonants(s.toLowerCase(),0,s.length());

}

}

public class Main

{

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

while(true)

{

System.out.print("Enter a string:");

String ob = sc.nextLine();string s = new string(ob);

while(true)

{

System.out.println("Menu:\n1:Count number of vowels\n2:Count number of consonants\n3:Count both vowels and consonants\n4:Enter another string\n5:Exit program\nEnter your choice:");

int c = sc.nextInt();

if(c==1)

System.out.println("Count of vowels :"+s.CountVowels());

else if(c==2)

System.out.println("Count of consonants :"+s.CountConsonants());

else if(c==3)

{System.out.println("Count of vowels :"+s.CountVowels());

System.out.println("Count of consonants :"+s.CountConsonants());

}

else if(c==4)break;

else if(c==5)return;

else System.out.println("Invalid input");

}

String b = sc.nextLine();

}

}

}

**OUTPUT:**

