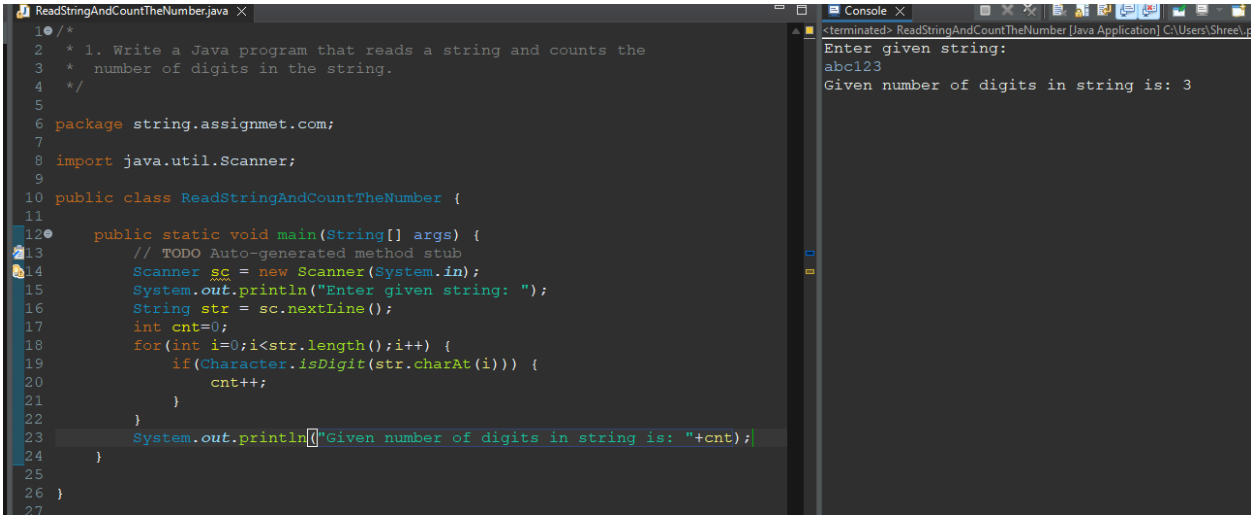
Assignment No:-31

Name:-Suryawanshi Sangramsingh Sambhaji

Batch: - Delta - DCA (Java) 2024 Date:-19/6/2024

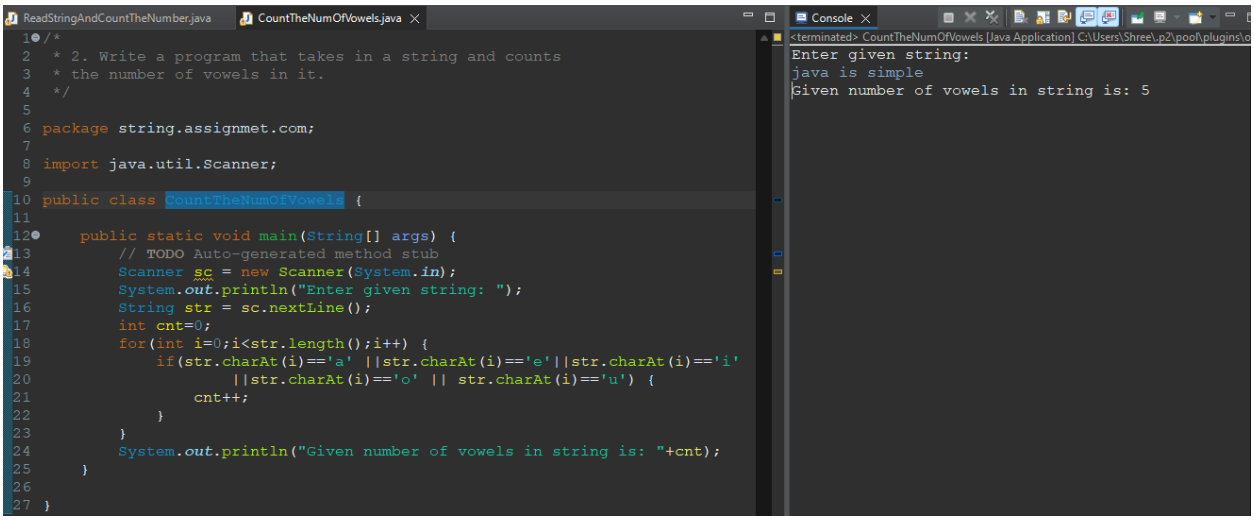
1. Write a Java program that reads a string and counts the number of digits in the string.



```java
/*
 * 1. Write a Java program that reads a string and counts the
 *  number of digits in the string.
 */

package string.assignmet.com;

import java.util.Scanner;

public class ReadStringAndCountTheNumber {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        int cnt=0;
        for(int i=0;i<str.length();i++) {
            if(Character.isDigit(str.charAt(i))) {
                cnt++;
            }
        }
        System.out.println("Given number of digits in string is: "+cnt);
    }

}
```

```
Enter given string:
abc123
Given number of digits in string is: 3
```

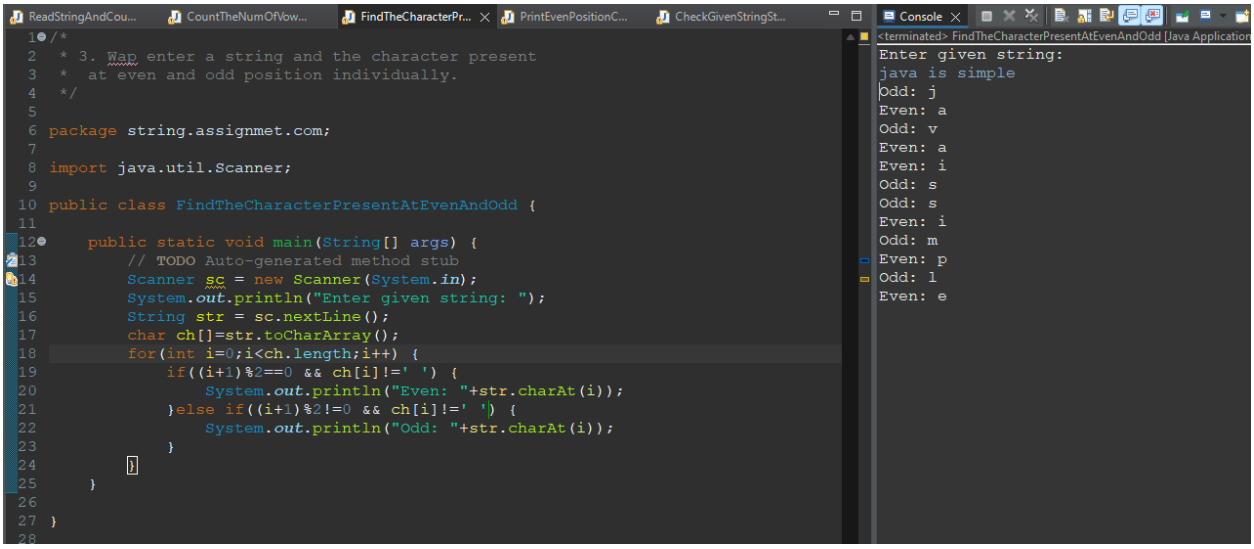
2. Write a program that takes in a string and counts the number of vowels in it.



```java
/*
 * 2. Write a program that takes in a string and counts
 * the number of vowels in it.
 */

package string.assignmet.com;

import java.util.Scanner;

public class CountTheNumOfVowels {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        int cnt=0;
        for(int i=0;i<str.length();i++) {
            if(str.charAt(i)=='a' ||str.charAt(i)=='e'||str.charAt(i)=='i'
                    ||str.charAt(i)=='o' || str.charAt(i)=='u') {
                cnt++;
            }
        }
        System.out.println("Given number of vowels in string is: "+cnt);
    }

}
```

```
Enter given string:
java is simple
Given number of vowels in string is: 5
```

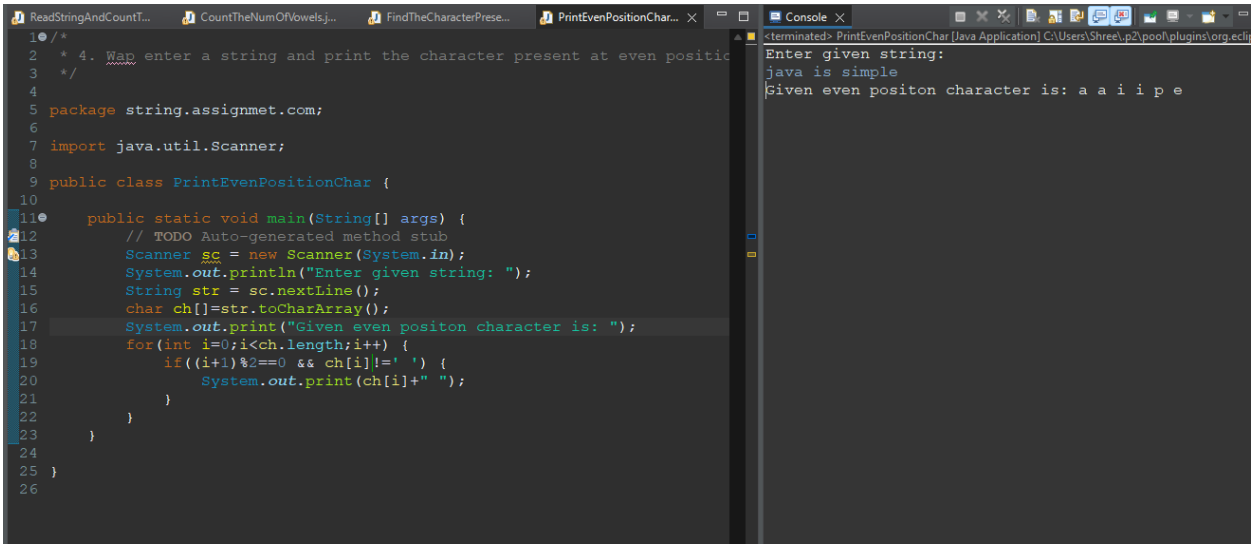
3. Wap enter a string and the character present at even and odd position individually.



```java
/*
 * 3. Wap enter a string and the character present
 *  at even and odd position individually.
 */

package string.assignmet.com;

import java.util.Scanner;

public class FindTheCharacterPresentAtEvenAndOdd {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        char ch[]=str.toCharArray();
        for(int i=0;i<ch.length;i++) {
            if((i+1)%2==0 && ch[i]!=' ') {
                System.out.println("Even: "+str.charAt(i));
            }else if((i+1)%2!=0 && ch[i]!=' ') {
                System.out.println("Odd: "+str.charAt(i));
            }
        }
    }

}
```

```
Enter given string:
java is simple
Odd: j
Even: a
Odd: v
Even: a
Even: i
Odd: s
Odd: s
Even: i
Odd: m
Even: p
Odd: l
Even: e
```

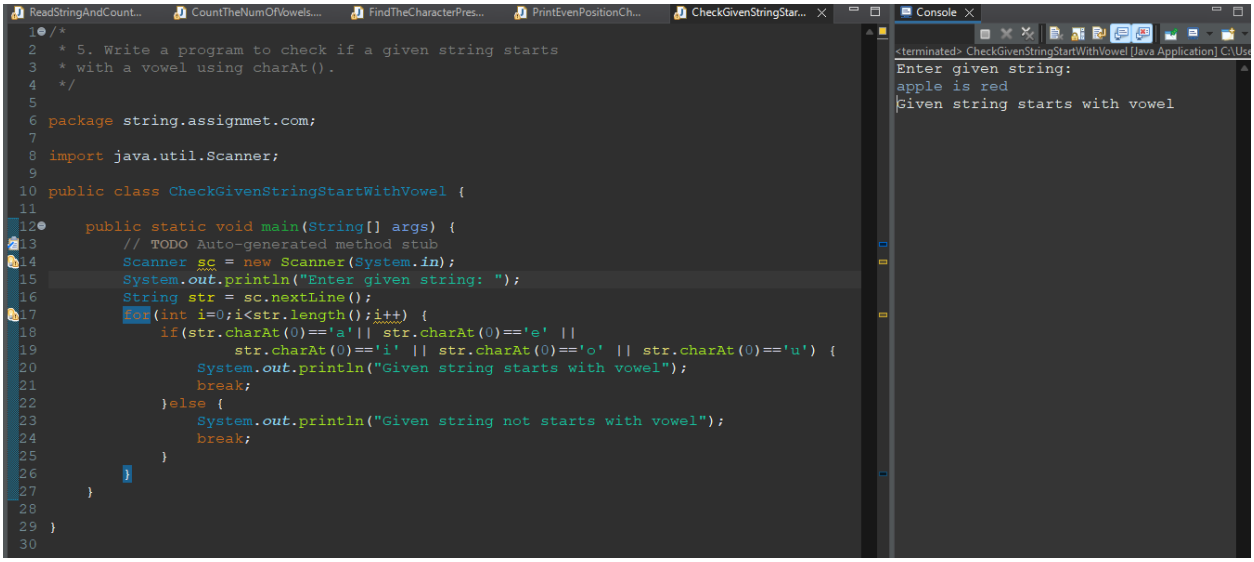
4. Wap enter a string and print the character present at even position.



```java
/*
 * 4. Wap enter a string and print the character present at even positic
 */

package string.assignmet.com;

import java.util.Scanner;

public class PrintEvenPositionChar {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        char ch[]=str.toCharArray();
        System.out.print("Given even positon character is: ");
        for(int i=0;i<ch.length;i++) {
            if((i+1)%2==0 && ch[i]!=' ') {
                System.out.print(ch[i]+" ");
            }
        }
    }

}
```

```
Enter given string:
java is simple
Given even positon character is: a a i i p e
```

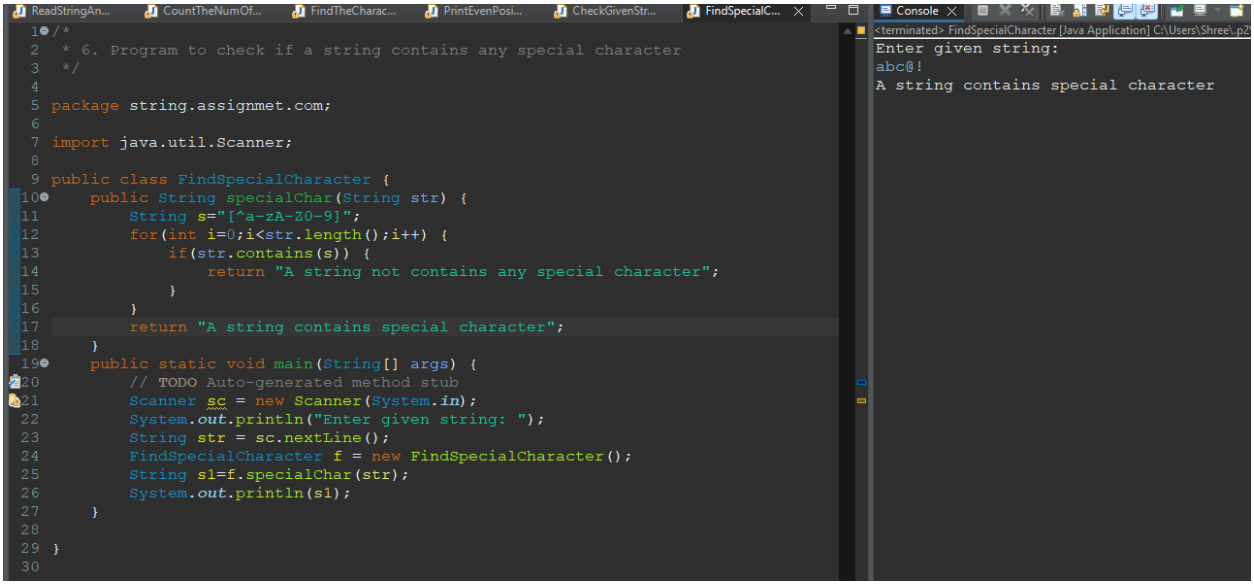
5. Write a program to check if a given string starts with a vowel using charAt().



```java
/*
 * 5. Write a program to check if a given string starts
 * with a vowel using charAt().
 */

package string.assignmet.com;

import java.util.Scanner;

public class CheckGivenStringStartWithVowel {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        for(int i=0;i<str.length();i++) {
            if(str.charAt(0)=='a'|| str.charAt(0)=='e' ||
                    str.charAt(0)=='i' || str.charAt(0)=='o' || str.charAt(0)=='u') {
                System.out.println("Given string starts with vowel");
                break;
            }else {
                System.out.println("Given string not starts with vowel");
                break;
            }
        }
    }

}
```

```
Enter given string:
apple is red
Given string starts with vowel
```

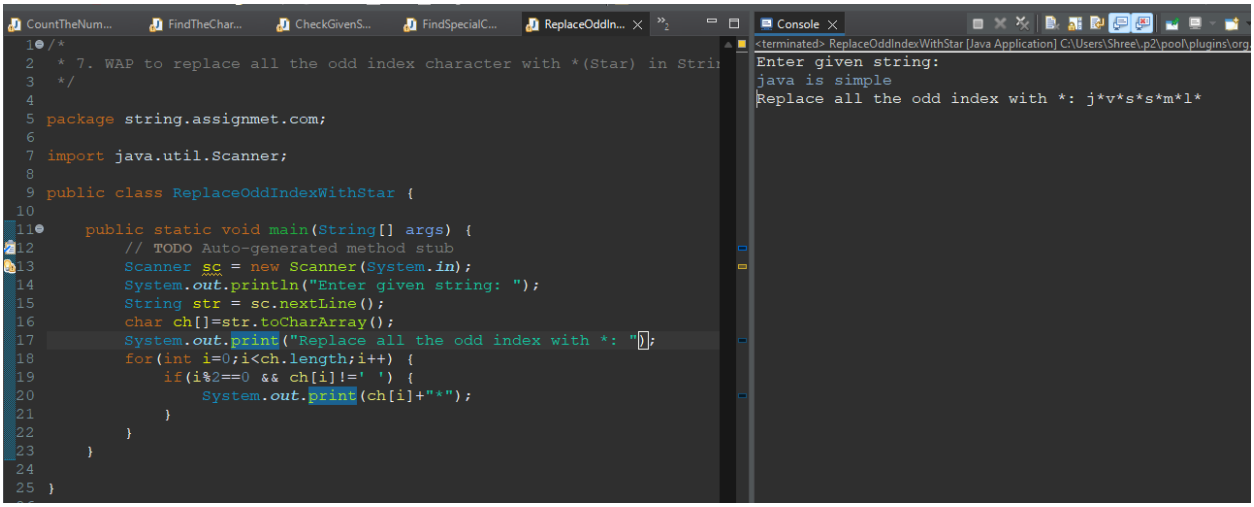
6. Program to check if a string contains any special character



```java
/*
 * 6. Program to check if a string contains any special character
 */

package string.assignmet.com;

import java.util.Scanner;

public class FindSpecialCharacter {
    public String specialChar(String str) {
        String s="[^a-zA-Z0-9]";
        for(int i=0;i<str.length();i++) {
            if(str.contains(s)) {
                return "A string not contains any special character";
            }
        }
        return "A string contains special character";
    }
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        FindSpecialCharacter f = new FindSpecialCharacter();
        String s1=f.specialChar(str);
        System.out.println(s1);
    }

}
```

```
Enter given string:
abc@!
A string contains special character
```

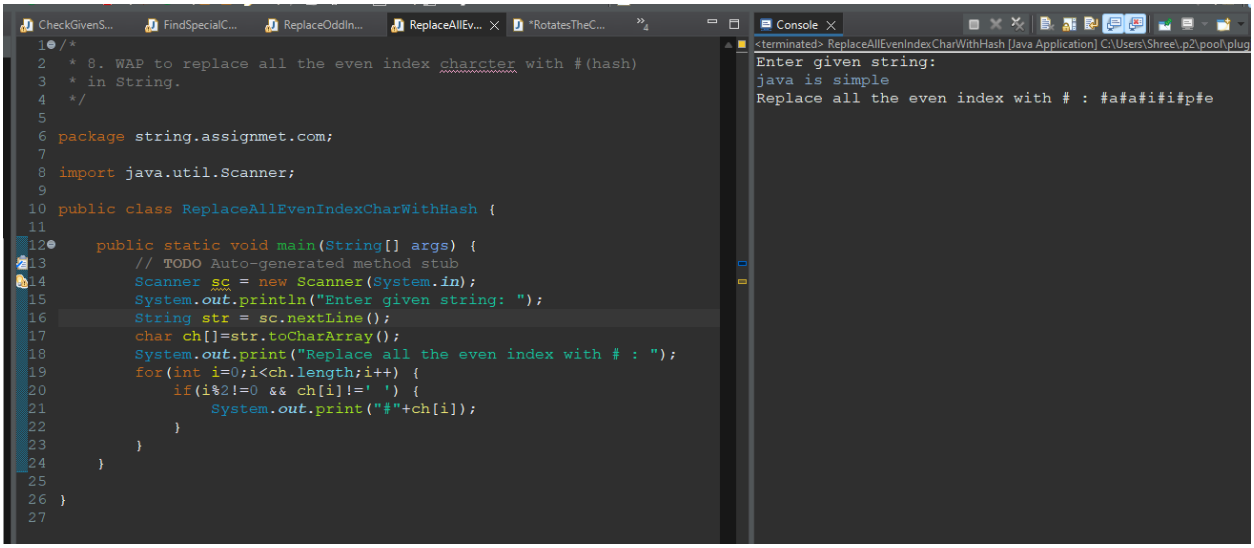
7. WAP to replace all the odd index character with *(Star) in String.



```
/*
 * 7. WAP to replace all the odd index character with *(Star) in Stri
 */

package string.assignmet.com;

import java.util.Scanner;

public class ReplaceOddIndexWithStar {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        char ch[]=str.toCharArray();
        System.out.print("Replace all the odd index with *: ");
        for(int i=0;i<ch.length;i++) {
            if(i%2==0 && ch[i]!=' ') {
                System.out.print(ch[i]+"*");
            }
        }
    }

}
```

```
<terminated> ReplaceOddIndexWithStar [Java Application] C:\Users\Shree\.p2\pool\plugins\org
Enter given string:
java is simple
Replace all the odd index with *: j*v*s*s*m*l*
```

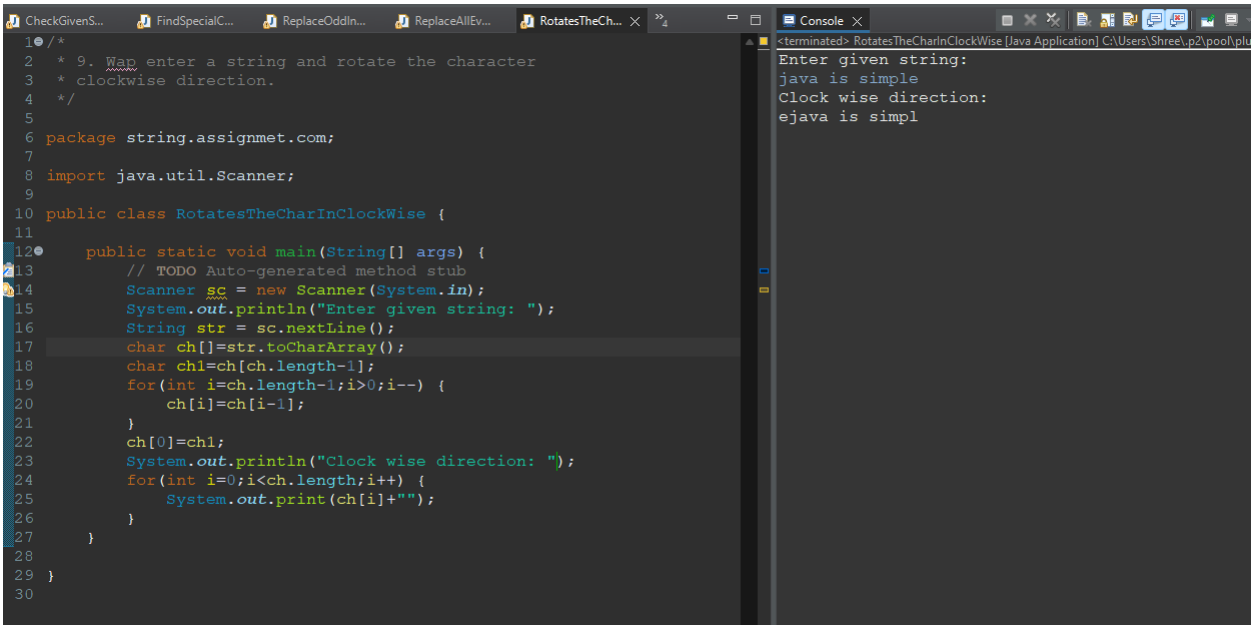
8. WAP to replace all the even index charcter with #(hash) in String.



```
/*
 * 8. WAP to replace all the even index charcter with #(hash)
 * in String.
 */

package string.assignmet.com;

import java.util.Scanner;

public class ReplaceAllEvenIndexCharWithHash {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        char ch[]=str.toCharArray();
        System.out.print("Replace all the even index with # : ");
        for(int i=0;i<ch.length;i++) {
            if(i%2!=0 && ch[i]!=' ') {
                System.out.print("#"+ch[i]);
            }
        }
    }

}
```

```
<terminated> ReplaceAllEvenIndexCharWithHash [Java Application] C:\Users\Shree\.p2\pool\plug
Enter given string:
java is simple
Replace all the even index with # : #a#a#i#i#p#e
```

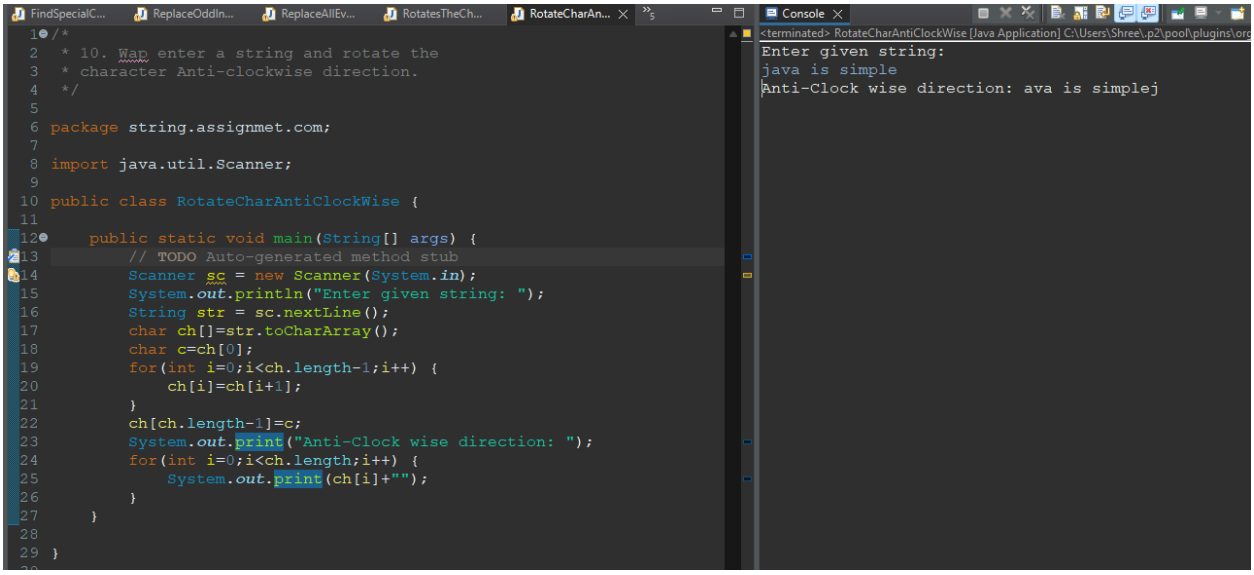
9. Wap enter a string and rotate the character clockwise direction.



```java
/*
 * 9. Wap enter a string and rotate the character
 * clockwise direction.
 */

package string.assignmet.com;

import java.util.Scanner;

public class RotatesTheCharInClockWise {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        char ch[]=str.toCharArray();
        char ch1=ch[ch.length-1];
        for(int i=ch.length-1;i>0;i--) {
            ch[i]=ch[i-1];
        }
        ch[0]=ch1;
        System.out.println("Clock wise direction: ");
        for(int i=0;i<ch.length;i++) {
            System.out.print(ch[i]+"");
        }
    }

}
```

```
Enter given string:
java is simple
Clock wise direction:
ejava is simpl
```

10. Wap enter a string and rotate the character Anti-clockwise direction.



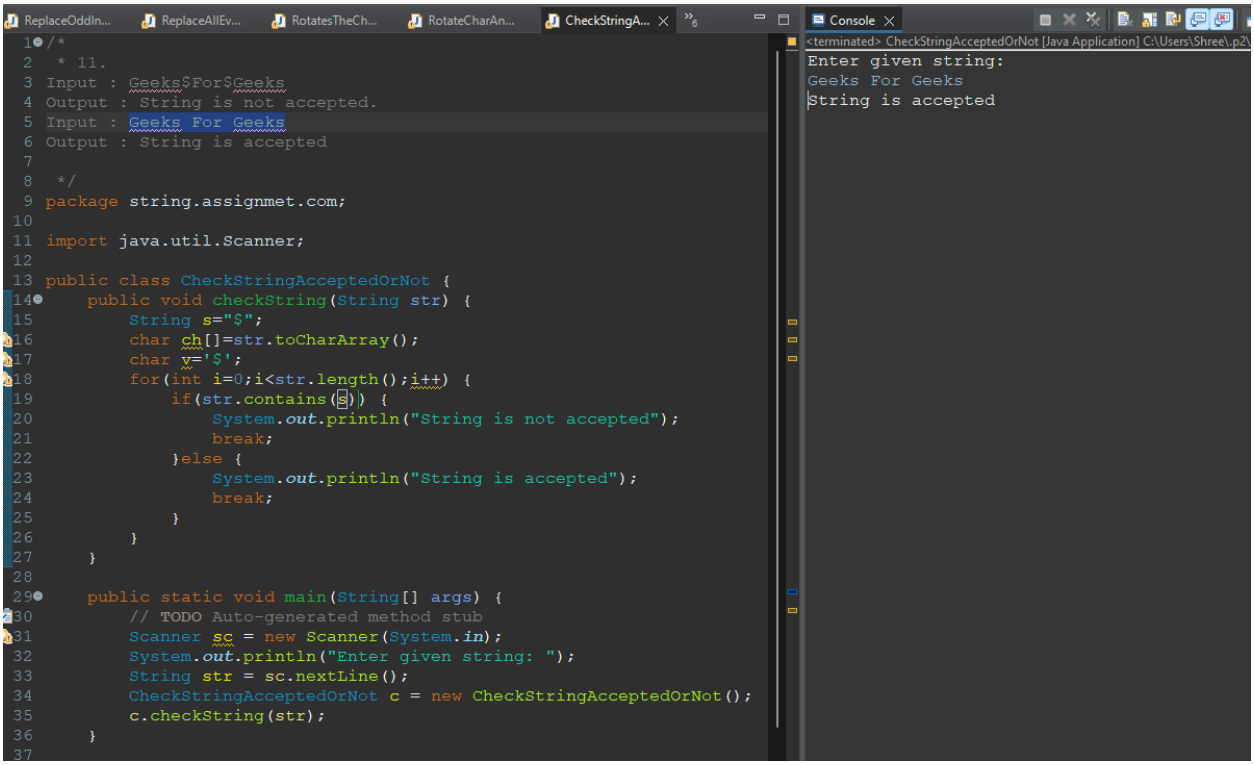
```java
/*
 * 10. Wap enter a string and rotate the
 * character Anti-clockwise direction.
 */

package string.assignmet.com;

import java.util.Scanner;

public class RotateCharAntiClockWise {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        char ch[]=str.toCharArray();
        char c=ch[0];
        for(int i=0;i<ch.length-1;i++) {
            ch[i]=ch[i+1];
        }
        ch[ch.length-1]=c;
        System.out.print("Anti-Clock wise direction: ");
        for(int i=0;i<ch.length;i++) {
            System.out.print(ch[i]+"");
        }
    }

}
```

```
Enter given string:
java is simple
Anti-Clock wise direction: ava is simplej
```

11. Input : GeeksForGeeks Output : String is not accepted.

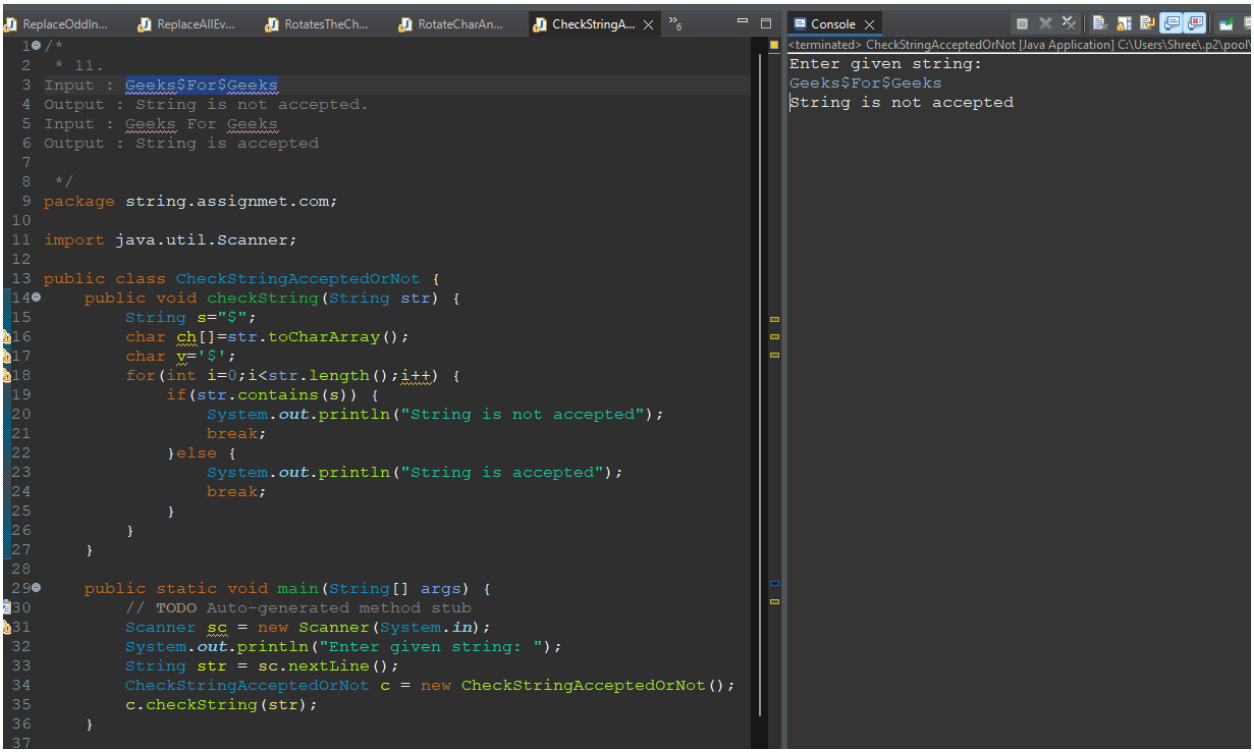
Input : Geeks For Geeks

Output : String is accepted



```
/*
 * 11.
Input : Geeks$For$Geeks
Output : String is not accepted.
Input : Geeks For Geeks
Output : String is accepted

 */
package string.assignmet.com;

import java.util.Scanner;

public class CheckStringAcceptedOrNot {
    public void checkString(String str) {
        String s="$";
        char ch[]=str.toCharArray();
        char v='$';
        for(int i=0;i<str.length();i++) {
            if(str.contains(s)) {
                System.out.println("String is not accepted");
                break;
            }else {
                System.out.println("String is accepted");
                break;
            }
        }
    }

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        CheckStringAcceptedOrNot c = new CheckStringAcceptedOrNot();
        c.checkString(str);
    }

```

```
Console
<terminated> CheckStringAcceptedOrNot [Java Application] C:\Users\Shree\.p2\
Enter given string:
Geeks For Geeks
String is accepted
```

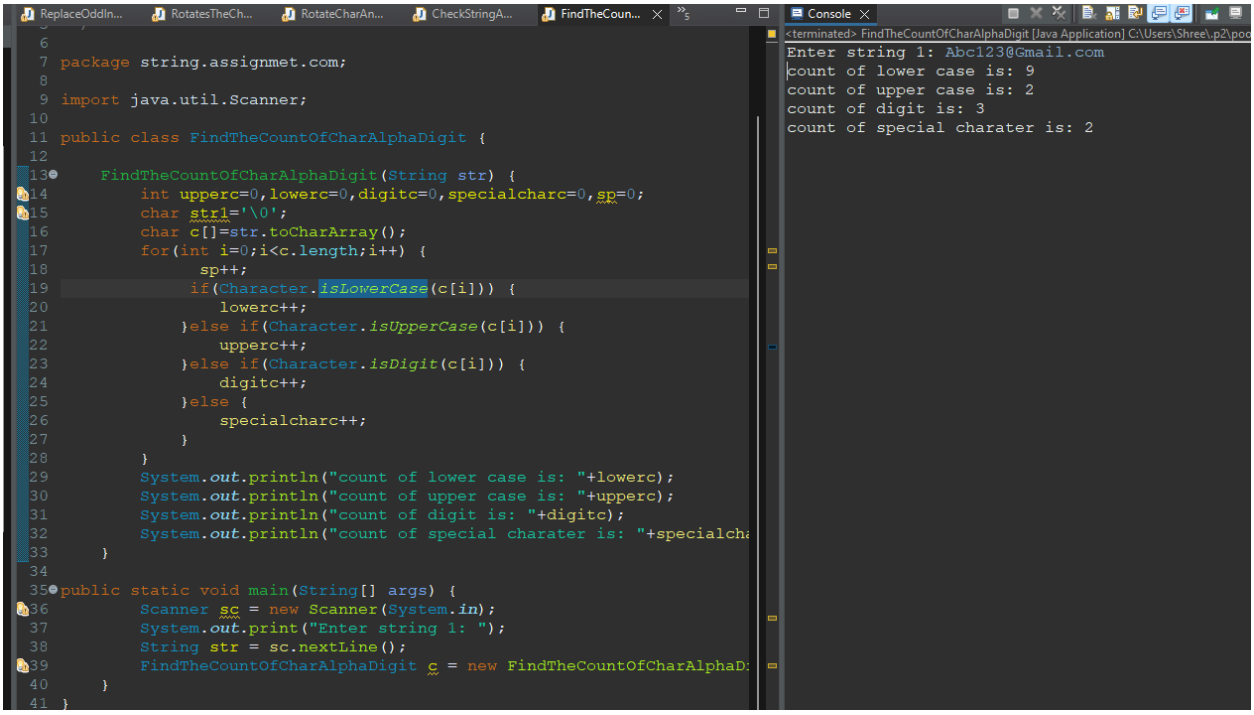


```
/*
 * 11.
Input : Geeks$For$Geeks
Output : String is not accepted.
Input : Geeks For Geeks
Output : String is accepted

 */
package string.assignmet.com;

import java.util.Scanner;

public class CheckStringAcceptedOrNot {
    public void checkString(String str) {
        String s="$";
        char ch[]=str.toCharArray();
        char v='$';
        for(int i=0;i<str.length();i++) {
            if(str.contains(s)) {
                System.out.println("String is not accepted");
                break;
            }else {
                System.out.println("String is accepted");
                break;
            }
        }
    }

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter given string: ");
        String str = sc.nextLine();
        CheckStringAcceptedOrNot c = new CheckStringAcceptedOrNot();
        c.checkString(str);
    }

```

```
Console
<terminated> CheckStringAcceptedOrNot [Java Application] C:\Users\Shree\.p2\pool
Enter given string:
Geeks$For$Geeks
String is not accepted
```

Q12.Wap enter a string and find the count of uppercase, lowercase, digits and special characters in a string.

The program should output the total count of digits found in the input string.



```
package string.assignmet.com;

import java.util.Scanner;

public class FindTheCountOfCharAlphaDigit {

    FindTheCountOfCharAlphaDigit(String str) {
        int upperc=0,lowerc=0,digitc=0,specialcharc=0,sp=0;
        char str1='\0';
        char c[]=str.toCharArray();
        for(int i=0;i<c.length;i++) {
             sp++;
            if(Character.isLowerCase(c[i])) {
                lowerc++;
            }else if(Character.isUpperCase(c[i])) {
                upperc++;
            }else if(Character.isDigit(c[i])) {
                digitc++;
            }else {
                specialcharc++;
            }
        }
        System.out.println("count of lower case is: "+lowerc);
        System.out.println("count of upper case is: "+upperc);
        System.out.println("count of digit is: "+digitc);
        System.out.println("count of special charater is: "+specialcha
    }

public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter string 1: ");
        String str = sc.nextLine();
        FindTheCountOfCharAlphaDigit c = new FindTheCountOfCharAlphaD
    }
}
```

```
<terminated> FindTheCountOfCharAlphaDigit [Java Application] C:\Users\Shree\.p2\poo
Enter string 1: Abc123@Gmail.com
count of lower case is: 9
count of upper case is: 2
count of digit is: 3
count of special charater is: 2
```

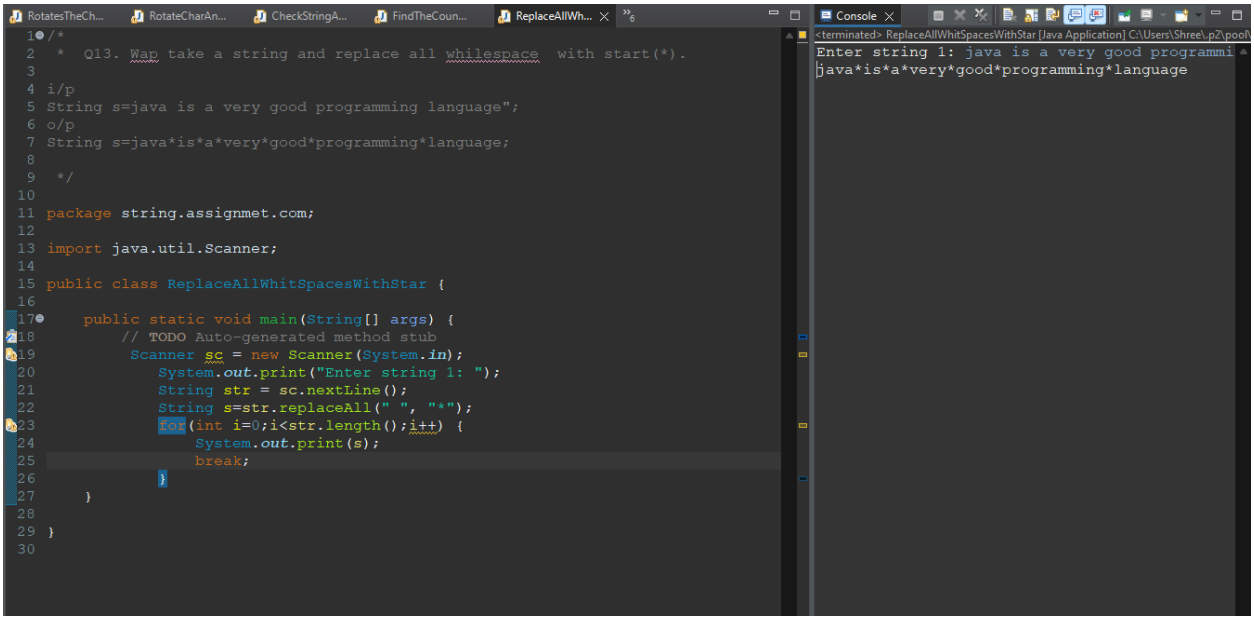
Q13. Wap take a string and replace all whilespace with start(*).

i/p

String s=java is a very good programming language";

o/p

String s=java*is*a*very*good*programming*language;



Q14. Write a Java program to compare two strings

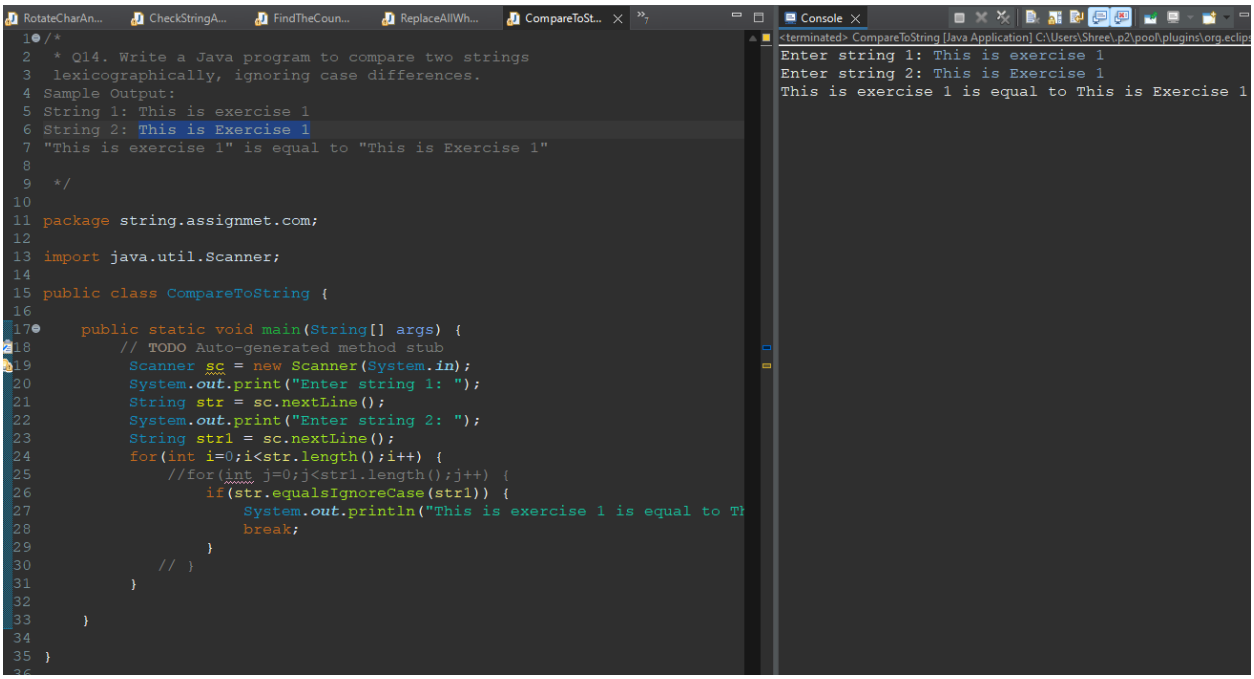
lexicographically, ignoring case differences.

Sample Output:

String 1: This is exercise 1

String 2: This is Exercise 1

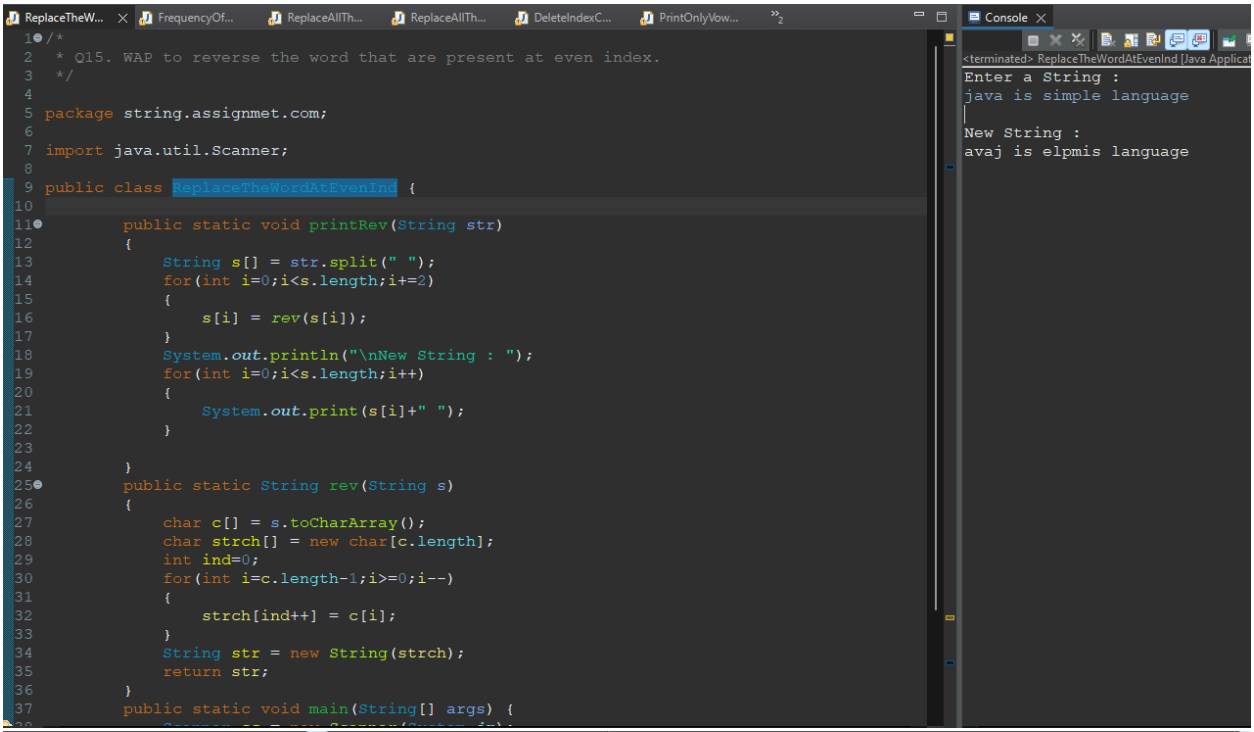
"This is exercise 1" is equal to "This is Exercise 1"



```
/*
 * Q14. Write a Java program to compare two strings
 lexicographically, ignoring case differences.
Sample Output:
String 1: This is exercise 1
String 2: This is Exercise 1
"This is exercise 1" is equal to "This is Exercise 1"

 */

package string.assignmet.com;

import java.util.Scanner;

public class CompareToString {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
         Scanner sc = new Scanner(System.in);
         System.out.print("Enter string 1: ");
         String str = sc.nextLine();
         System.out.print("Enter string 2: ");
         String str1 = sc.nextLine();
         for(int i=0;i<str.length();i++) {
             //for(int j=0;j<str1.length();j++) {
                 if(str.equalsIgnoreCase(str1)) {
                     System.out.println("This is exercise 1 is equal to Th
                     break;
                 }
            // }
         }

    }

}
```

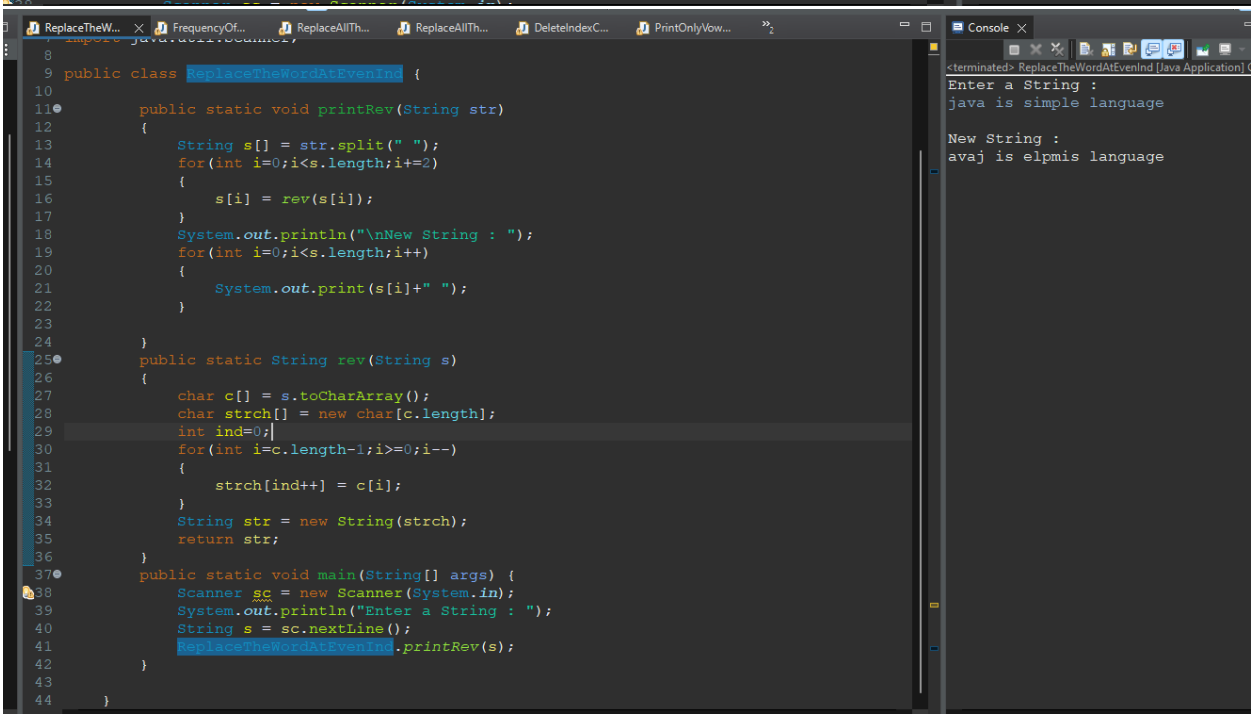
```
Enter string 1: This is exercise 1
Enter string 2: This is Exercise 1
This is exercise 1 is equal to This is Exercise 1
```

Q15. WAP to reverse the word that are present at even index.



```
/*
 * Q15. WAP to reverse the word that are present at even index.
 */

package string.assignmet.com;

import java.util.Scanner;

public class ReplaceTheWordAtEvenInd {

        public static void printRev(String str)
        {
            String s[] = str.split(" ");
            for(int i=0;i<s.length;i+=2)
            {
                s[i] = rev(s[i]);
            }
            System.out.println("\nNew String : ");
            for(int i=0;i<s.length;i++)
            {
                System.out.print(s[i]+" ");
            }

        }
        public static String rev(String s)
        {
            char c[] = s.toCharArray();
            char strch[] = new char[c.length];
            int ind=0;
            for(int i=c.length-1;i>=0;i--)
            {
                strch[ind++] = c[i];
            }
            String str = new String(strch);
            return str;
        }
        public static void main(String[] args) {
```

```
Enter a String :
java is simple language

New String :
avaj is elpmis language
```



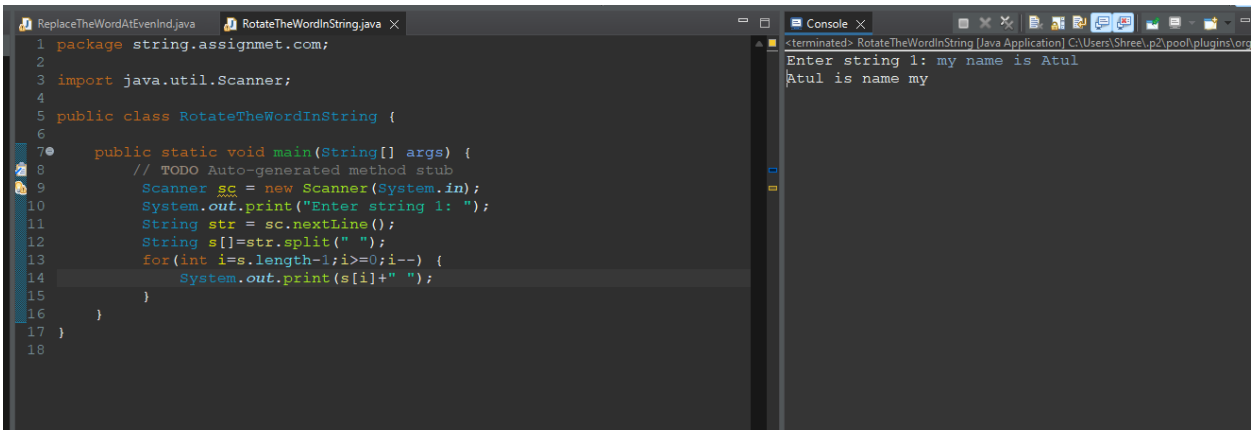
```
public class ReplaceTheWordAtEvenInd {

        public static void printRev(String str)
        {
            String s[] = str.split(" ");
            for(int i=0;i<s.length;i+=2)
            {
                s[i] = rev(s[i]);
            }
            System.out.println("\nNew String : ");
            for(int i=0;i<s.length;i++)
            {
                System.out.print(s[i]+" ");
            }

        }
        public static String rev(String s)
        {
            char c[] = s.toCharArray();
            char strch[] = new char[c.length];
            int ind=0;
            for(int i=c.length-1;i>=0;i--)
            {
                strch[ind++] = c[i];
            }
            String str = new String(strch);
            return str;
        }
        public static void main(String[] args) {
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter a String : ");
            String s = sc.nextLine();
            ReplaceTheWordAtEvenInd.printRev(s);
        }

    }
```

```
Enter a String :
java is simple language

New String :
avaj is elpmis language
```

Q16.write a program to rotate the word in string.

i/p : String s="my name is Atul";

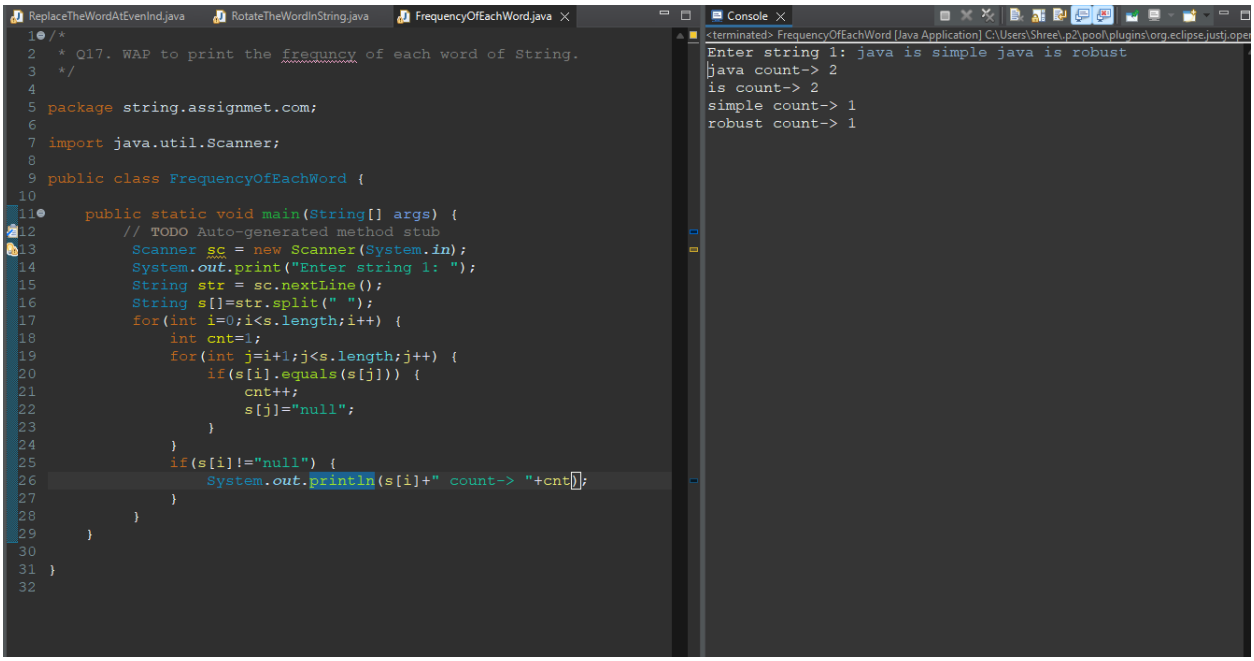
o/p : String s= Atul is name my";"



```
package string.assignmet.com;

import java.util.Scanner;

public class RotateTheWordInString {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
         Scanner sc = new Scanner(System.in);
         System.out.print("Enter string 1: ");
         String str = sc.nextLine();
         String s[]=str.split(" ");
         for(int i=s.length-1;i>=0;i--) {
             System.out.print(s[i]+" ");
         }
    }
}
```

```
Enter string 1: my name is Atul
Atul is name my
```

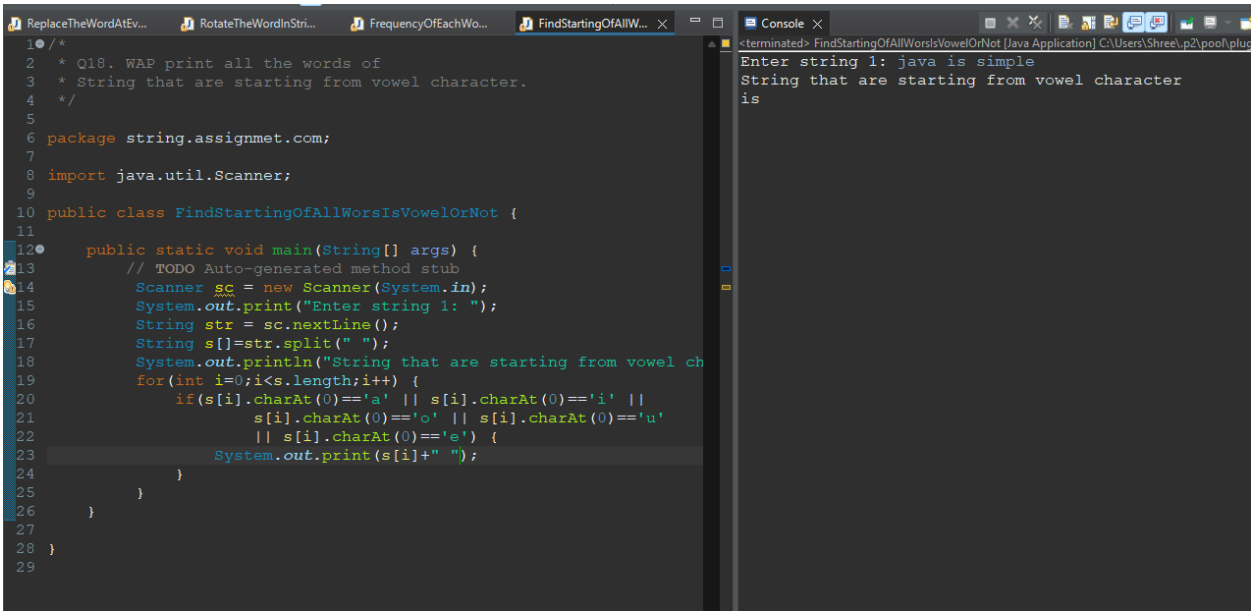
Q17. WAP to print the frequncy of each word of String.



```
/*
 * Q17. WAP to print the frequncy of each word of String.
 */

package string.assignmet.com;

import java.util.Scanner;

public class FrequencyOfEachWord {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
         Scanner sc = new Scanner(System.in);
         System.out.print("Enter string 1: ");
         String str = sc.nextLine();
         String s[]=str.split(" ");
         for(int i=0;i<s.length;i++) {
             int cnt=1;
             for(int j=i+1;j<s.length;j++) {
                 if(s[i].equals(s[j])) {
                     cnt++;
                     s[j]="null";
                 }
             }
             if(s[i]!="null") {
                 System.out.println(s[i]+" count-> "+cnt);
             }
         }
    }

}
```

```
Enter string 1: java is simple java is robust
java count-> 2
is count-> 2
simple count-> 1
robust count-> 1
```

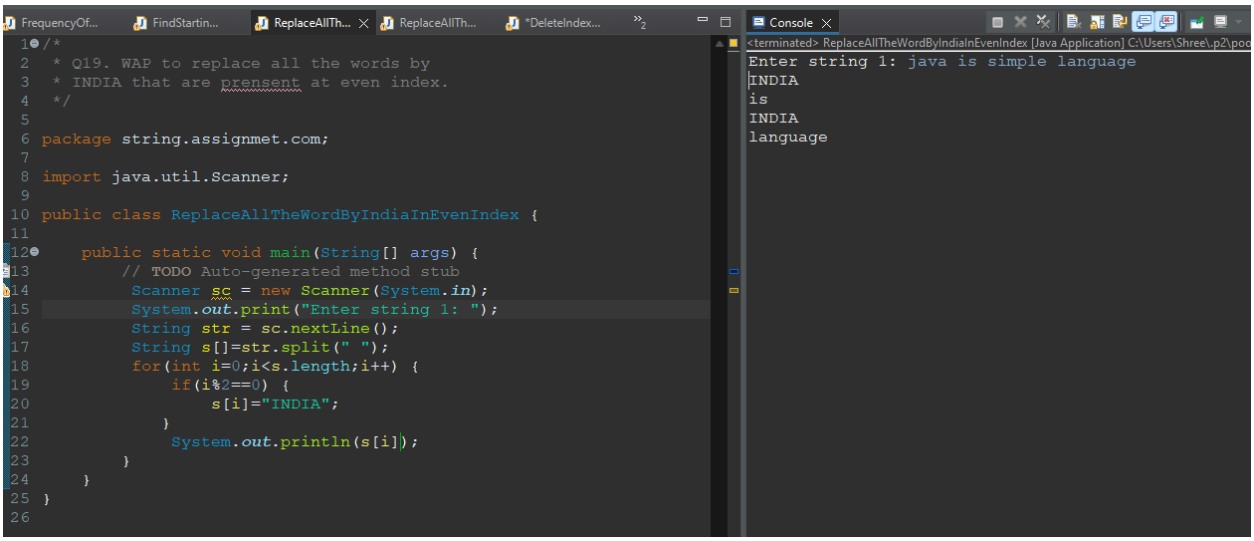
Q18. WAP print all the words of String that are starting from vowel character.



```java
/*
 * Q18. WAP print all the words of
 * String that are starting from vowel character.
 */

package string.assignmet.com;

import java.util.Scanner;

public class FindStartingOfAllWorsIsVowelOrNot {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter string 1: ");
        String str = sc.nextLine();
        String s[]=str.split(" ");
        System.out.println("String that are starting from vowel ch
        for(int i=0;i<s.length;i++) {
            if(s[i].charAt(0)=='a' || s[i].charAt(0)=='i' ||
                    s[i].charAt(0)=='o' || s[i].charAt(0)=='u'
                    || s[i].charAt(0)=='e') {
                System.out.print(s[i]+" ");
            }
        }
    }

}
```

```
<terminated> FindStartingOfAllWorsIsVowelOrNot [Java Application] C:\Users\Shree\.p2\pool\plug
Enter string 1: java is simple
String that are starting from vowel character
is
```

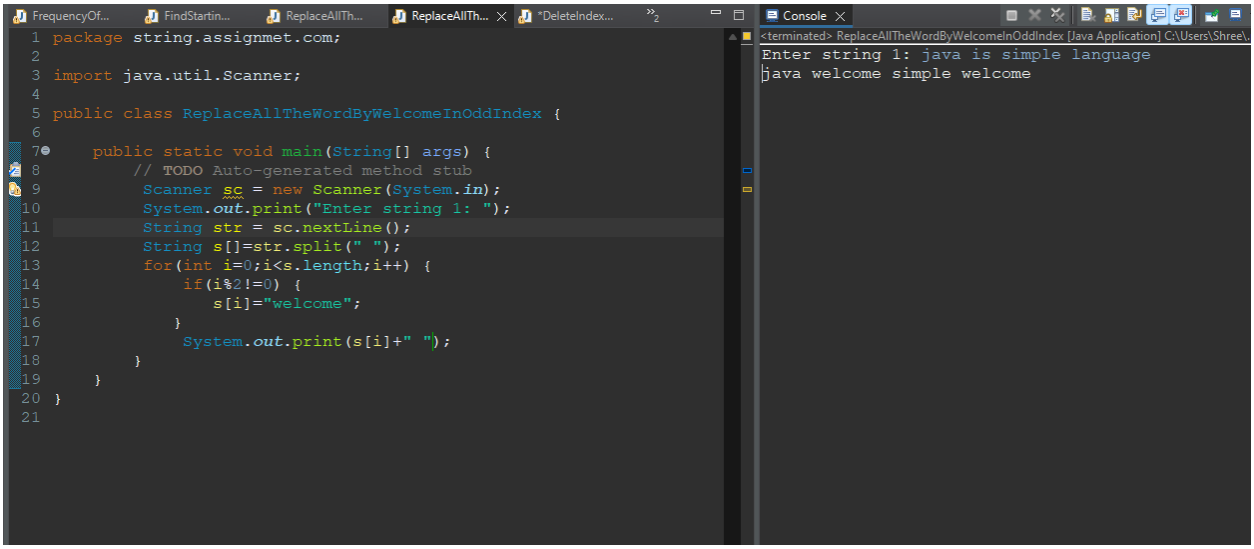
Q19. WAP to replace all the words by INDIA that are prensent at even index.



```java
/*
 * Q19. WAP to replace all the words by
 * INDIA that are prensent at even index.
 */

package string.assignmet.com;

import java.util.Scanner;

public class ReplaceAllTheWordByIndiaInEvenIndex {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter string 1: ");
        String str = sc.nextLine();
        String s[]=str.split(" ");
        for(int i=0;i<s.length;i++) {
            if(i%2==0) {
                s[i]="INDIA";
            }
            System.out.println(s[i]);
        }
    }
}
```

```
<terminated> ReplaceAllTheWordByIndiaInEvenIndex [Java Application] C:\Users\Shree\.p2\poo
Enter string 1: java is simple language
INDIA
is
INDIA
language
```

Q20. WAP to replace all the words by welcome that are presenta at odd position.

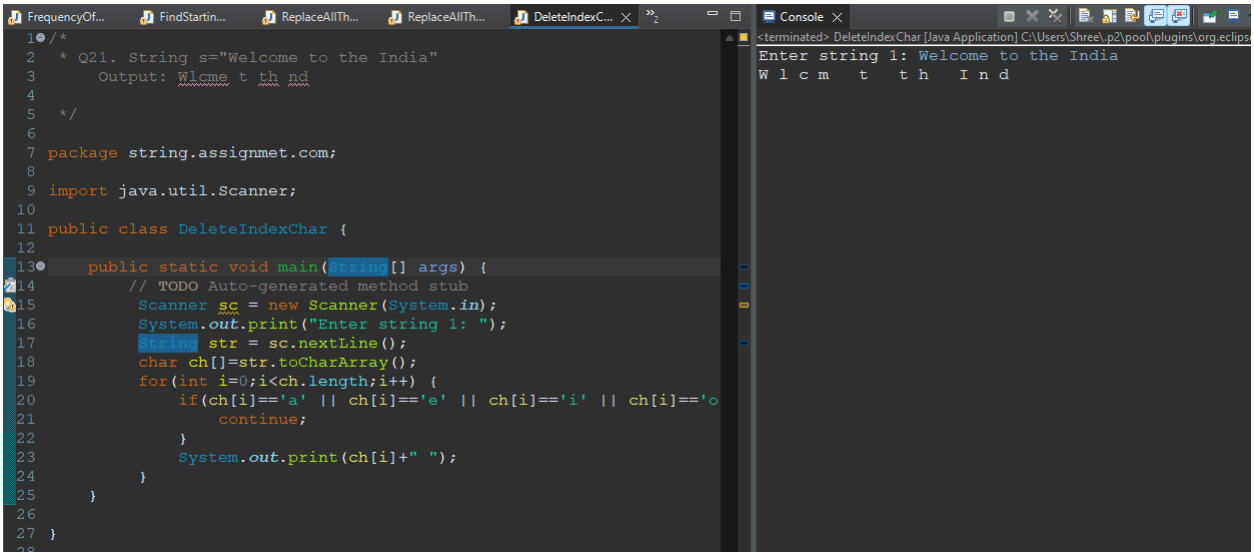


```
package string.assignmet.com;

import java.util.Scanner;

public class ReplaceAllTheWordByWelcomeInOddIndex {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
         Scanner sc = new Scanner(System.in);
         System.out.print("Enter string 1: ");
         String str = sc.nextLine();
         String s[]=str.split(" ");
         for(int i=0;i<s.length;i++) {
             if(i%2!=0) {
                s[i]="welcome";
            }
             System.out.print(s[i]+" ");
        }
    }
}
```

```
<terminated> ReplaceAllTheWordByWelcomeInOddIndex [Java Application] C:\Users\Shree\
Enter string 1: java is simple language
java welcome simple welcome
```

Q21. String s="Welcome to the India"

Output: Wlcme t th nd



```
/*
 * Q21. String s="Welcome to the India"
     Output: Wlcme t th nd

 */

package string.assignmet.com;

import java.util.Scanner;

public class DeleteIndexChar {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
         Scanner sc = new Scanner(System.in);
         System.out.print("Enter string 1: ");
         String str = sc.nextLine();
         char ch[]=str.toCharArray();
         for(int i=0;i<ch.length;i++) {
             if(ch[i]=='a' || ch[i]=='e' || ch[i]=='i' || ch[i]=='o
                 continue;
             }
             System.out.print(ch[i]+" ");
         }
    }

}
```

```
<terminated> DeleteIndexChar [Java Application] C:\Users\Shree\.p2\pool\plugins\org.eclips
Enter string 1: Welcome to the India
W l c m   t   t h   I n d
```

Q22. String s1="Hello India"

Output: EO IIA