/*

Assignment No. : 1

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Title : Conflation Algorithm

Problem Statement : Implementation of Conflation Algorithm to generate document representative of a text file.

***/**

CODE :

```
import java.io.File;
import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.FileNotFoundException;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;
import java.util.Scanner;
public class Assignment1 {
	public static void main(String[] args) throws IOException
	{
	try
	{
	File fi=new File("Input.txt");
	Scanner sc1=new Scanner(new File("Input.txt"));
	int ch,i,ans;
	do
	{
	System.out.println("1. Display the file");
	System.out.println("2. Remove Stop Words");
	System.out.println("3.Suffix Stripping");
	System.out.println("4. Count Frequency");
	System.out.println("Enter your choice");
	Scanner sc=new Scanner(System.in);
	ch=sc.nextInt();
	switch(ch)
	{
	case 1:
	while(sc1.hasNext())
	{
	System.out.print(sc1.next()+" ");
	}
```

```
System.out.println(" ");
break;
case 2:
remove_punctutaion(fi);
//remove_stop_words(fi);
break;
case 3:
suffix_stripping();
break;
case 4:
frequency_count();
break;
}
}while(ch!=4);
}catch (FileNotFoundException e)
{
System.out.println(e);
}
}
private static void remove_punctutaion(File fi)
{
try {
Scanner sc_punctuation=new Scanner(fi);
BufferedWriter out = new BufferedWriter(
new FileWriter("without_punctuation_and_stopwords.txt"));
while(sc_punctuation.hasNext())
{
String str_p=sc_punctuation.next();
String str_r=str_p.replaceAll("[^a-zA-Z\\s]", "");
if (!str_r.toLowerCase().equals("the") &&
!str_r.toLowerCase().equals("is") && !str_r.toLowerCase().equals("and") &&
!str_r.toLowerCase().equals("of") && !str_r.toLowerCase().equals("are") &&
!str_r.toLowerCase().equals("for") && !str_r.toLowerCase().equals("in")) {
out.write(str_r+" ");
}
}
out.close();
System.out.println("File after punctuation and stopwords:");
File testfile = new File("without_punctuation_and_stopwords.txt");
 BufferedReader br= new BufferedReader(new FileReader(testfile));  String z;
 while ((z = br.readLine()) != null)
 System.out.println(z);
 br.close();
}
catch (IOException e) {
System.out.println("exception occurred" + e);
}
}
private static void suffix_stripping() throws FileNotFoundException,IOException {
Scanner sc1=new Scanner(new
```

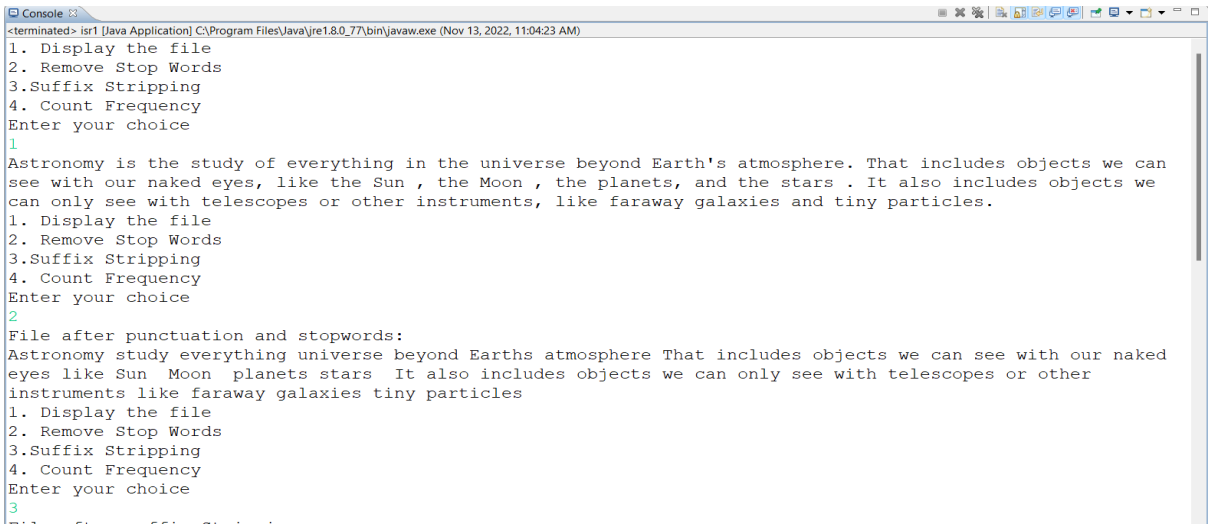
```
File("without_punctuation_and_stopwords.txt"));
BufferedWriter out = new BufferedWriter(
new FileWriter("suffix_stripping2.txt")); while (sc1.hasNext())
{
String str=sc1.next();
str=str+"/";
if(str.endsWith("ier/"))
{
str=str.replaceAll("ier/", "y");
}
else if (str.endsWith("ied/"))
{
str=str.replaceAll("ied/", "y");
}
else if (str.endsWith("iage/"))
{
str=str.replaceAll("iage/", "y"); }
else if (str.endsWith("iest/"))
{
str=str.replaceAll("iest/", "y");
}
else if (str.endsWith("ies/"))
{
str=str.replaceAll("ies/", "y");
}
else if (str.endsWith("iful/"))
{
str=str.replaceAll("iful/", "y");
}
else if (str.endsWith("ify/"))
{
str=str.replaceAll("ify/", "y");
}
else if (str.endsWith("iness/"))
{
str=str.replaceAll("iness/", "y"); }
else if (str.endsWith("ness/"))
{
str=str.replaceAll("ness/", "y"); }
else if (str.endsWith("ily/"))
{
str=str.replaceAll("ily/", "y");
}
else if (str.endsWith("yer/"))
{
str=str.replaceAll("yer/", "y");
}
else if (str.endsWith("ying/"))
{
str=str.replaceAll("ying/", "y"); }
```

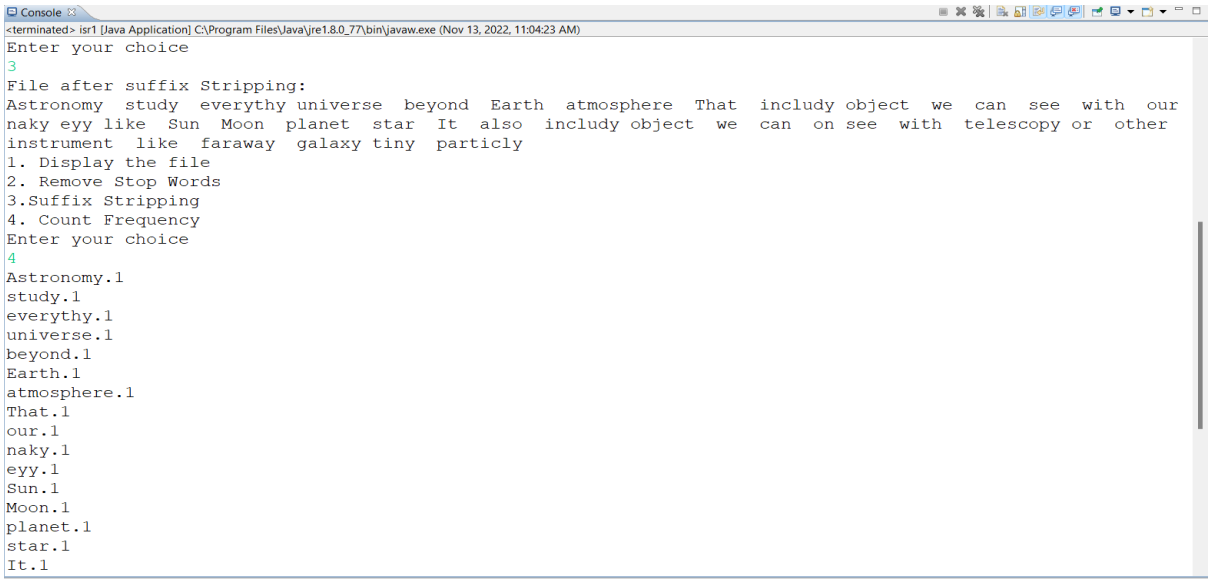
```
else if (str.endsWith("ys/")) {
str=str.replaceAll("ys/", "y"); }
else if (str.endsWith("yable/")) {
str=str.replaceAll("yable/", "y"); }
else if (str.endsWith("yful")) {
str=str.replaceAll("yful", "y"); }
else if (str.endsWith("al/")) {
str=str.replaceAll("al/", "y"); }
else if (str.endsWith("ly/")) {
if(str.endsWith("ely/"))
{
str=str.replaceAll("ely/", "e"); }
else
{
str=str.replaceAll("ly/", ""); }
}
else if (str.endsWith("ing/")) {
str=str.replaceAll("ing/", "y"); }
else if (str.endsWith("ed/")) {
str=str.replaceAll("ed/", "y"); }
else if (str.endsWith("es/")) {
str=str.replaceAll("es/", "y"); }
else if (str.endsWith("es/")) {
str=str.replaceAll("es/", "y"); }
else if (str.endsWith("s/")) {
str=str.replaceAll("s/", " "); }
else if (str.endsWith("is/"))
{
str=str.replaceAll("is", "y");
}
else if (str.endsWith("ment/"))
{
str=str.replaceAll("ment/", " ");
}
else if (str.endsWith("eing/"))
{
str=str.replaceAll("eing/", " ");
}
else if (str.endsWith("led/"))
{
str=str.replaceAll("led/", " ");
}
else if (str.endsWith("lex/"))
{
str=str.replaceAll("lex/", " ");
}
else if (str.endsWith("ling/"))
{
str=str.replaceAll("ling/", " ");
}
```

```
str=str.replace("/", " ");
out.write(str+" ");
}
out.close();
sc1.close();
System.out.println("File after suffix Stripping:");
File testfile = new File("suffix_stripping2.txt");
BufferedReader br= new BufferedReader(new FileReader(testfile)); String z;
while ((z = br.readLine()) != null)
System.out.println(z);
br.close();
}
private static void frequency_count() throws FileNotFoundException,IOException {
Scanner sc3=new Scanner(new File("suffix_stripping2.txt"));
int flag=0,i=0,l=0,ct=0,flag_w=0;
String w[]=new String[1000];
int cnt[]=new int[1000];
while(sc3.hasNext())
{
w[i]=sc3.next();
i++;
}
sc3.reset();
Scanner sc5=new Scanner(new File("suffix_stripping2.txt")); while (sc5.hasNext())
{
String str1=sc5.next();
for(int j=0;j<i;j++)
{
if(str1.equalsIgnoreCase(w[j]))
{
flag=1;
cnt[j]++;
}
}
if(flag==0)
{
w[i]=str1;
cnt[i]=1;
i++;
}
}
for(int j=0;j<i;j++)
{
for(int k=j+1;k<i;k++)
{
if(w[j].equalsIgnoreCase(w[k]))
{
flag_w=0;
break;
}
```

```
        else
        {
        flag_w=1;
        }
        }
        if(flag_w==1)
        {
        System.out.println(w[j]+"."+cnt[j]+" ");
        }
        }
        }
}
```

OUTPUT :






Console
<terminated> isr1 [Java Application] C:\Program Files\Java\jre1.8.0_77\bin\javaw.exe (Nov 13, 2022, 11:04:23 AM)
atmosphere.1
That.1
our.1
naky.1
eyy.1
Sun.1
Moon.1
planet.1
star.1
It.1
also.1
includy.2
object.2
we.2
can.2
on.1
see.2
with.2
telescopy.1
or.1
other.1
instrument.1
like.2
faraway.1
galaxy.1
tiny.1
particly.1