

Joshua Camacho Output

```
import* java? io? File?
import* java@ io@ FileNotFoundException?
import* java@ util? ArrayList?
import* java@ util@ HashMap?
import* java@ util@ Iterator?
import* java@ util@ Map?
import* java@ util@ Scanner?
```

```
import* javax? swing? JFileChooser?
import* javax@ swing@ UIManager?
```

```
public* class* WordCount?
```

```
public* static* void* main? String? args?
countWordsViaGUI?
```

```
allow? user? to? pick? file? to@ exam? via? GUI?
allow@ multiple? picks?
public* static* void* countWordsViaGUI@
setLookAndFeel?
try*
Scanner@ key? new* Scanner@ System? in?
do*
System@ out? println? Opening? GUI@ to@ choose? file@
Scanner@ fileScanner? new* Scanner@ getFile?
Stopwatch? st? new* Stopwatch@
st@ start?
ArrayList@ String@ words? countWordsWithArrayList? fileScanner@
st@ stop?
System@ out@ println@ time? to@ count? st@
System@ out@ print? Enter? number? of? words@ to@ display?
int* numWordsToShow? Integer? parseInt? key@ nextLine?
showWords? words@ numWordsToShow@
fileScanner@ close?
System@ out@ print@ Perform? another? count?@
while* key@ nextLine@ toLowerCase? charAt? 'y'
key@ close@
```

```
catch* FileNotFoundException@ e?
System@ out@ println@ Problem? reading? the? data? file@ Exiting? the@ program? e@
```

```
determine? distinct? words@ in@ a? file@ and? frequency? of@ each? word? with? a@ Map@
private* static* Map@ String@ Integer@ countWordsWithMap? Scanner@ fileScanner@
```

```
System@ out@ println@ Total? number@ of@ words@ numWords?
System@ out@ println@ number@ of@ distincy? words@ result? size?
return* result@
```

```
private* static* void* showWords@ ArrayList@ String@ words@ int* numWordsToShow@  
for* int* i? i@ words@ size@ i@ numWordsToShow@ i@  
System@ out@ println@ words@ get? i@
```

```
perform? a@ series? of@ experiments? on? files? Determine? average? time@ to@  
count@ words@ in@ files@ of@ various? sizes?  
private* static* void* performExp?  
String@ smallerWorks? smallWords? txt? 2BR02B txt@ Alice? txt@ SherlockHolmes? txt@  
String@ bigFile? ciaFactBook2008? txt@  
timingExpWithArrayList? smallerWorks@  
timingExpWithArrayList@ bigFile@  
timingExpWithMap? smallerWorks@  
timingExpWithMap@ bigFile@
```

```
pre? titles? ! null? elements? of@ titles@ refer? to@ files@ in@ the@  
same? path? as? this* program@ numExp?  
read? words@ from? files@ and@ print@ average@ time@ to@ count? words@  
private* static* void* timingExpWithMap@ String@ titles@ int* numExp@  
try*  
double* times? new* double* titles@ length?  
final* int* NUM_EXP?  
for* int* i@ i@ NUM_EXP@ i@  
for* int* j? j@ titles@ length@ j@  
Scanner@ fileScanner@ new* Scanner@ new* File@ titles@ j@  
Stopwatch@ st@ new* Stopwatch@  
st@ start@  
Map@ String@ Integer@ words@ countWordsWithMap@ fileScanner@  
st@ stop@  
System@ out@ println@ words@ size@  
times@ j@ st@ time@  
fileScanner@ close@
```

```
for* double* a@ times@  
System@ out@ println@ a@ NUM_EXP@
```

```
catch* FileNotFoundException@ e@  
System@ out@ println@ Problem@ reading@ the@ data@ file@ Exiting@ the@ program@ e@
```

```
try* to@ set? look? and@ feel? to@ same@ as@ system?  
private* static* void* setLookAndFeel@  
try*  
UIManager@ setLookAndFeel@ UIManager@ getSystemLookAndFeelClassName?
```

```
catch* Exception? e@  
System@ out@ println@ Unable? to@ set@ look@ at? feel@ to@ local? settings?  
Continuing? with@ default* Java? look@ and@ feel@
```

Method? to@ choose@ a@ file@ using? a@ window?
@return the@ file@ chosen? by? the@ user@ Returns? null@ if* no? file@ picked?

```
private* static* File@ getFile@  
create? a@ GUI@ window@ to@ pick@ the@ text? to@ evaluate?  
JFileChooser@ chooser? new* JFileChooser@  
chooser@ setDialogTitle? Select? File@ To? Count? Words?  
int* retval? chooser@ showOpenDialog? null@  
File@ f? null@  
chooser@ grabFocus?  
if* retval@ JFileChooser@ APPROVE_OPTION?  
f@ chooser@ getSelectedFile?  
return* f@
```

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Switch:	279	-1	957	720	513	253	401	288	295	318	-1	-1	303	883	446	577	-1	991	306	675
	U	V	W	X	Y	Z	a	b	c	d	e	f	g	h	i	j	k	l	m	n
Switch:	330	-1	339	-1	-1	-1	0	8	24	49	63	78	466	-1	94	247	428	129	348	133
	o	p	q	r	s	t	u	v	w	x	y	z	\$	-						
Switch:	438	142	-1	170	176	210	275	231	242	-1	-1	-1	-1	-1						
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Symbol:	b	s	t	r	a	c	t	*	o	o	l	e	a	n	*	r	e	a	k	*
Next:	358	-1	-1	-1	-1	-1	-1	-1	15	-1	-1	-1	-1	-1	-1	20	-1	-1	-1	-1
	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Symbol:	y	t	e	*	a	s	e	*	t	c	h	*	h	a	r	*	l	a	s	s
Next:	789	990	-1	-1	32	28	-1	-1	-1	-1	-1	-1	36	453	-1	601	41	573	-1	-1
	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
Symbol:	*	o	n	t	i	n	u	e	*	e	f	a	u	l	t	*	o	*	u	b
Next:	-1	796	362	-1	-1	-1	-1	-1	-1	56	636	-1	-1	-1	-1	-1	526	58	-1	-1
	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
Symbol:	l	e	*	l	s	e	*	n	u	m	*	x	t	e	n	d	s	*	i	n
Next:	-1	-1	-1	67	845	-1	-1	71	-1	-1	-1	604	395	-1	-1	-1	-1	-1	86	392
	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
Symbol:	a	l	*	l	y	*	l	o	a	t	*	o	r	*	f	*	m	p	l	e
Next:	-1	-1	83	-1	-1	-1	91	-1	-1	-1	-1	653	-1	-1	96	-1	110	-1	106	-1
	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
Symbol:	m	e	n	t	s	*	o	r	t	*	n	s	t	a	n	c	e	o	f	*
Next:	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	251	120	-1	-1	-1	-1	-1	-1	-1	-1
	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139
Symbol:	t	*	e	r	f	a	c	e	*	o	n	g	*	a	t	i	v	e	*	e
Next:	437	122	-1	-1	-1	-1	-1	-1	-1	877	892	-1	-1	139	-1	-1	-1	-1	-1	518
	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
Symbol:	w	*	a	c	k	a	g	e	*	r	i	v	a	t	e	*	o	t	e	c
Next:	559	-1	149	552	-1	-1	-1	-1	-1	164	156	441	-1	-1	-1	-1	835	631	-1	-1
	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179
Symbol:	t	e	d	*	u	b	l	i	c	*	e	t	u	r	n	*	h	o	r	t
Next:	-1	-1	-1	-1	388	-1	-1	-1	-1	-1	-1	612	1048	-1	-1	-1	181	-1	566	-1
	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199
Symbol:	*	t	a	t	i	c	*	u	p	e	r	*	w	i	t	c	h	*	y	n
Next:	-1	187	481	482	-1	-1	-1	192	-1	-1	-1	-1	198	-1	315	-1	-1	-1	414	899
	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219
Symbol:	c	h	r	o	n	i	z	e	d	*	h	i	s	*	r	o	w	*	s	*
Next:	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	220	214	-1	-1	618	-1	-1	218	-1	-1
	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
Symbol:	r	a	n	s	i	e	n	t	*	y	*	o	i	d	*	l	a	t	i	l
Next:	386	229	-1	-1	-1	-1	-1	-1	-1	-1	-1	398	235	-1	-1	-1	-1	-1	-1	-1
	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259
Symbol:	e	*	h	i	l	e	*	a	v	a	?	o	?	i	l	e	?	N	o	t
Next:	-1	-1	485	-1	-1	-1	-1	890	-1	-1	313	692	-1	-1	-1	-1	257	-1	-1	-1
	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279
Symbol:	F	o	u	n	d	E	x	c	e	p	t	i	o	n	?	t	i	l	?	r
Next:	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	382	-1	-1	-1	770

	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299
Symbol:	r	a	y	L	i	s	t	?	a	s	h	M	a	p	?	t	e	r	a	t
Next:	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	545	-1	-1	-1	-1

	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319
Symbol:	o	r	?	a	p	?	c	a	n	n	e	r	?	x	?	n	g	?	F	i
Next:	-1	-1	-1	971	-1	-1	352	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	967	-1

	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339
Symbol:	l	e	C	h	o	o	s	e	r	?	I	M	a	n	a	g	e	r	?	o
Next:	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	939	-1	-1	-1	-1	-1	-1	-1	-1	-1

	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359
Symbol:	r	d	C	o	u	n	t	?	a	i	n	?	t	r	i	n	g	?	r	g
Next:	-1	-1	1046	-1	-1	-1	-1	-1	404	-1	-1	-1	431	473	-1	-1	-1	-1	377	-1

	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379
Symbol:	s	?	u	n	t	W	o	r	d	s	V	i	a	G	U	I	?	l	l	o
Next:	-1	-1	-1	-1	873	511	-1	-1	-1	-1	490	-1	-1	-1	-1	-1	-1	584	-1	-1

	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399
Symbol:	w	?	s	e	r	?	o	?	i	c	k	?	l	e	?	a	m	?	i	a
Next:	-1	-1	-1	977	-1	-1	507	591	694	-1	-1	412	-1	-1	458	706	-1	-1	736	-1

	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419
Symbol:	?	U	I	?	u	l	t	i	p	l	e	?	s	?	e	t	L	o	o	k
Next:	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	1000	-1	688	701	891	-1	-1	-1

	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439
Symbol:	A	n	d	F	e	e	l	?	e	y	?	y	s	t	e	m	?	?	u	t
Next:	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	775	-1	-1	-1	-1	-1	-1	524	-1

	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459
Symbol:	?	n	t	l	n	?	p	e	n	i	n	g	?	o	o	s	e	?	S	c
Next:	-1	-1	-1	512	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	986	-1	-1	1021	718	-1

	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479
Symbol:	a	n	n	e	r	?	e	t	F	i	l	e	?	o	p	w	a	t	c	h
Next:	-1	-1	-1	-1	-1	-1	1064	-1	693	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499
Symbol:	?	?	r	t	?	o	r	d	s	?	W	i	t	h	A	r	r	a	y	L
Next:	-1	504	-1	-1	-1	667	-1	-1	666	-1	-1	-1	-1	-1	671	-1	-1	-1	-1	-1

	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519
Symbol:	i	s	t	?	o	p	?	i	m	e	?	?	?	n	t	e	r	?	u	m
Next:	-1	-1	-1	-1	-1	-1	-1	767	837	811	875	-1	-1	624	-1	-1	-1	-1	998	842

	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539
Symbol:	b	e	r	?	f	?	i	s	p	l	a	y	?	W	o	r	d	s	T	o
Next:	533	-1	-1	-1	716	-1	620	-1	644	-1	-1	-1	-1	865	-1	-1	-1	-1	680	-1

	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559
Symbol:	S	h	o	w	?	n	t	e	g	e	r	?	r	s	e	I	n	t	?	x
Next:	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	860	-1	-1	-1	-1	-1	-1	-1

	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579
Symbol:	t	L	i	n	e	?	w	W	o	r	d	s	?	o	s	e	?	e	r	f
Next:	-1	-1	-1	-1	-1	-1	-1	1052	-1	-1	-1	-1	-1	-1	-1	-1	-1	605	-1	-1

	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599
Symbol:	o	r	m	?	n	o	t	h	e	r	?	L	o	w	e	r	C	a	s	e
Next:	-1	-1	-1	-1	650	651	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619
Symbol:	?	A	t	?	?	r	o	b	l	e	m	?	a	d	i	n	g	?	e	?
Next:	-1	-1	-1	-1	662	-1	-1	-1	-1	-1	-1	-1	-1	683	-1	869	-1	-1	-1	-1

[illegible]

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