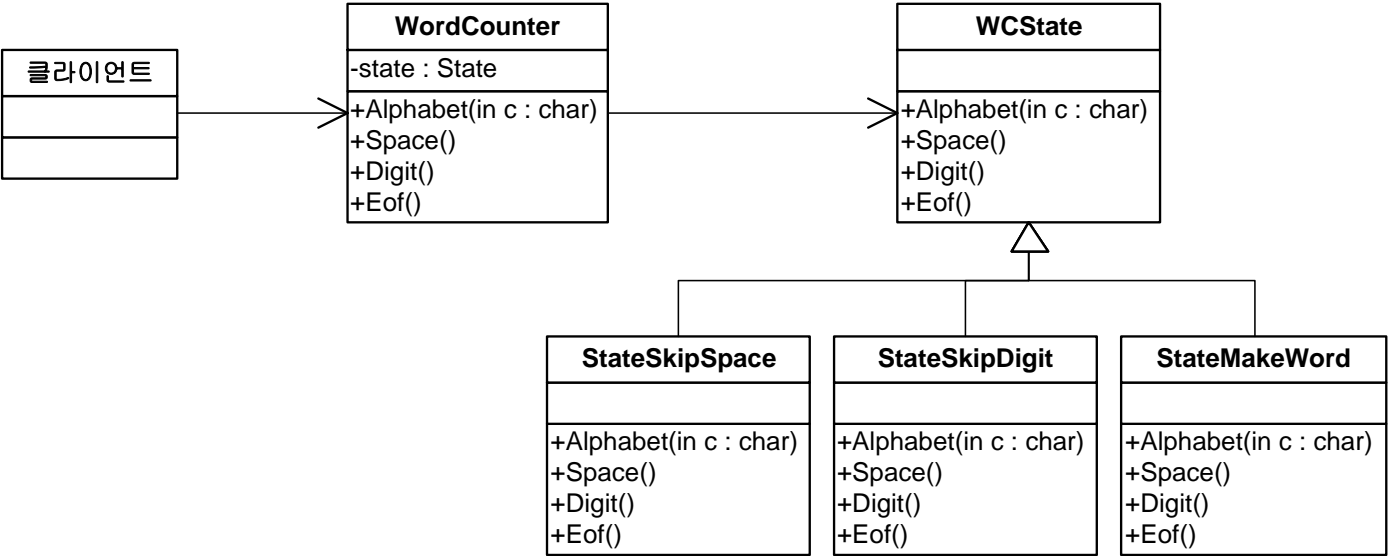
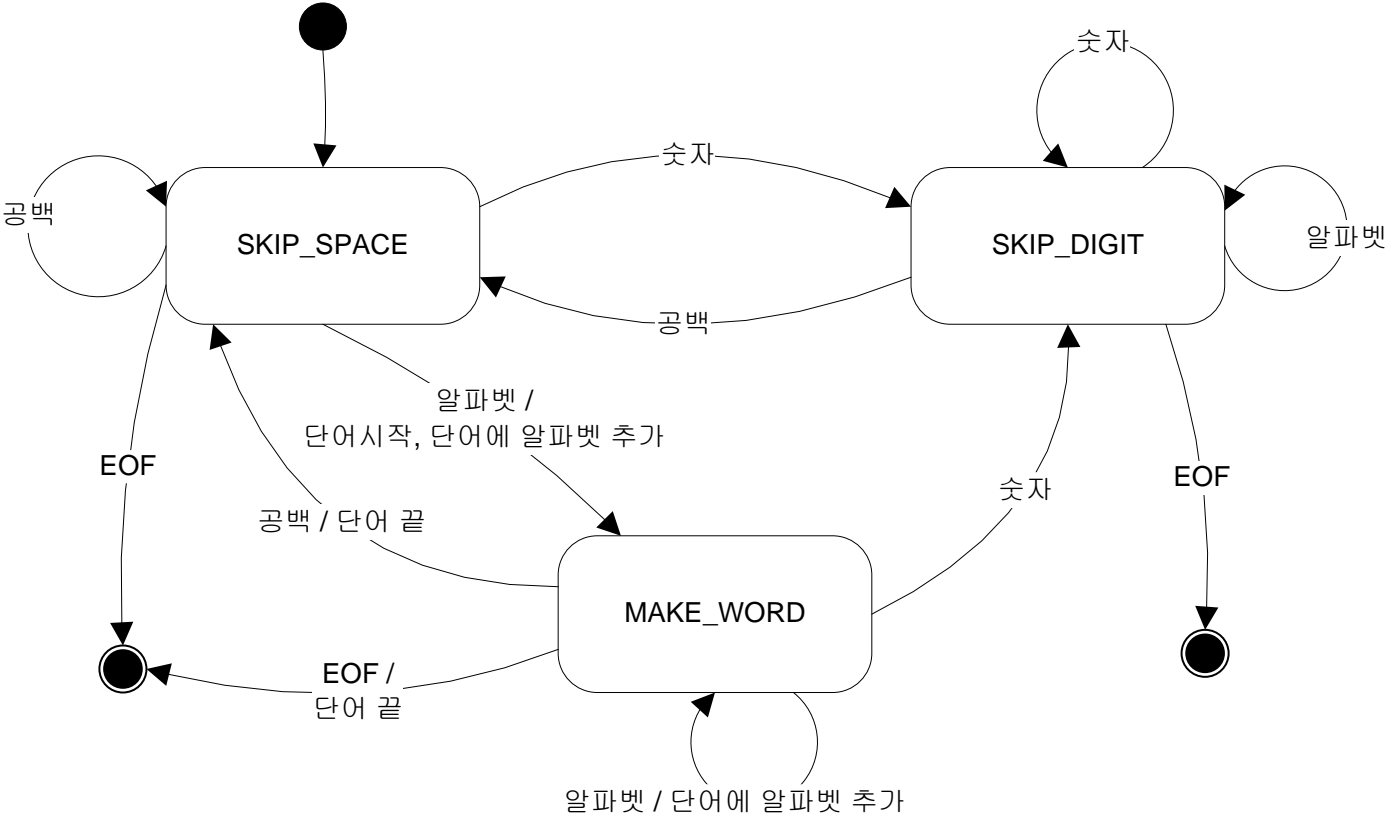


1) 개요



## 2) Example2.java

```
1 package state.e2;
2
3 import java.util.ArrayList;
4 import java.util.Iterator;
5 import java.util.Scanner;
6
7 class WordInfo {
8     public String word;
9     public int count;
10
11     public WordInfo(String word, int count) {
12         this.word = word;
13         this.count = count;
14     }
15 }
16
17 class Word {
18     StringBuilder sb = new StringBuilder();
19
20     public void AddChar(char ch) {
21         sb.append(ch);
22     }
23
24     public void Clear() {
25         sb = new StringBuilder();
26     }
27
28     @Override
29     public String toString() {
30         return sb.toString();
31     }
32 }
33
34 class WordList {
35     ArrayList<WordInfo> wordList = new ArrayList<WordInfo>();
36
37     public void Add(String word) {
38         for (WordInfo wordInfo : wordList)
39             if (word.equals(wordInfo.word)) {
40                 wordInfo.count++;
41                 return;
42             }
43         wordList.add(new WordInfo(word, 1));
44     }
45
46     public Iterator<WordInfo> getIterator() {
47         return wordList.iterator();
48     }
49 }
50
51 abstract class WCState {
52     WordCounter wc;
53
54     WCState(WordCounter wc) {
55         this.wc = wc;
56     }
57
58     abstract void Alphabet(char c);
59
60     abstract void Space();
61
62     abstract void Digit();
63
64     abstract void Eof();
65 }
66
67 class StateSkipSpace extends WCState {
68     StateSkipSpace(WordCounter wc) {
```

```

69         super(wc);
70     }
71
72     @Override
73     void Alphabet(char c) {
74         wc.currentWord.AddChar(c);
75         wc.SetState(wc.stMakeWord);
76     }
77
78     @Override
79     void Space() {
80     }
81
82     @Override
83     void Digit() {
84         wc.SetState(wc.stSkipDigit);
85     }
86
87     @Override
88     void Eof() {
89         wc.SetState(wc.stEnd);
90     }
91 }
92
93 class StateSkipDigit extends WCState {
94     StateSkipDigit(WordCounter wc) {
95         super(wc);
96     }
97
98     @Override
99     void Alphabet(char c) {
100     }
101
102     @Override
103     void Space() {
104         wc.SetState(wc.stSkipSpace);
105     }
106
107     @Override
108     void Digit() {
109     }
110
111     @Override
112     void Eof() {
113         wc.SetState(wc.stEnd);
114     }
115 }
116
117 class StateMakeWord extends WCState {
118     StateMakeWord(WordCounter wc) {
119         super(wc);
120     }
121
122     @Override
123     void Alphabet(char c) {
124         wc.currentWord.AddChar(c);
125     }
126
127     @Override
128     void Space() {
129         wc.wordList.Add(wc.currentWord.toString());
130         wc.currentWord.Clear();
131         wc.SetState(wc.stSkipSpace);
132     }
133
134     @Override
135     void Digit() {
136         wc.currentWord.Clear();
137         wc.SetState(wc.stSkipDigit);

```

```

138     }
139
140     @Override
141     void Eof() {
142         wc.wordList.Add(wc.currentWord.toString());
143         wc.SetState(wc.stEnd);
144     }
145 }
146
147 class StateEnd extends WCState {
148     StateEnd(WordCounter wc) {
149         super(wc);
150     }
151
152     @Override
153     void Alphabet(char c) {
154     }
155
156     @Override
157     void Space() {
158     }
159
160     @Override
161     void Digit() {
162     }
163
164     @Override
165     void Eof() {
166     }
167 }
168
169 class WordCounter {
170     WordList wordList = new WordList();
171     Word currentWord = new Word();
172
173     WCState state;
174     StateSkipSpace stSkipSpace = new StateSkipSpace(this);
175     StateSkipDigit stSkipDigit = new StateSkipDigit(this);
176     StateMakeWord stMakeWord = new StateMakeWord(this);
177     StateEnd stEnd = new StateEnd(this);
178
179     WordCounter() {
180         state = stSkipSpace;
181     }
182
183     void Alphabet(char c) {
184         state.Alphabet(c);
185     }
186
187     void Space() {
188         state.Space();
189     }
190
191     void Digit() {
192         state.Digit();
193     }
194
195     void Eof() {
196         state.Eof();
197     }
198
199     void SetState(WCState st) {
200         state = st;
201     }
202 }
203
204 /////
205
206 public class Example2 {

```

```

207
208     public static void main(String[] args) {
209         Scanner scanner = new Scanner(System.in);
210         System.out.print("입력문자열? ");
211         String s = scanner.nextLine();
212
213         WordCounter wc = new WordCounter();
214         for (int i = 0; i < s.length(); ++i) {
215             char c = s.charAt(i);
216             if (Character.isLowerCase(c) || Character.isUpperCase(c))
217                 wc.Alphabet(c);
218             else if (Character.isDigit(c))
219                 wc.Digit();
220             else
221                 wc.Space();
222         }
223         wc.Eof();
224
225         Iterator<WordInfo> it = wc.wordList.getIterator();
226         while (it.hasNext()) {
227             WordInfo w = it.next();
228             System.out.printf("%4d %s\n", w.count, w.word);
229         }
230     }
231 }

```

실행 사례

입력문자열? one two three four two three four three four four

```

1 one
2 two
3 three
4 four

```