```java
 1  package decaf;
 2
 3  public class ScopeElement {
 4      private String name;
 5      private int type;
 6      private int line;
 7      private int[] ptypes = null;
 8      private int size = -1;
 9
10      // for a normal variable
11      public ScopeElement(String name, int type, int line) {
12          // TODO Auto-generated constructor stub
13          this.name = name;
14          this.type = type;
15          this.line = line;
16      }
17
18      // for an array variable
19      public ScopeElement(String name, int type, int line, int size) {
20          this.name = name;
21          this.type = type;
22          this.line = line;
23          this.size = size;
24          if (size <= 0)
25              System.err.println("Error line " + line
26                      + ": array \"" + name + "\" should have size > 0
    ");
27      }
28
29      // For a method declaration
30      public ScopeElement(String name, int type, int line, int[]
    ptypes) {
31          this.name = name;
32          this.type = type;
33          this.line = line;
34
35          if (ptypes == null || ptypes.length == 0) {
36              this.ptypes = null;
37          } else {
38              int n = ptypes.length;
39              this.ptypes = new int[n];
40              for (int i = 0; i < n; i++)
41                  this.ptypes[i] = ptypes[i];
42          }
43      }
44
45      public int getLine() {
```

```java
46            return line;
47        }
48
49        public int getType() {
50            return type;
51        }
52
53        public int[] getTypes() {
54            return ptypes;
55        }
56
57        public int getSize() {
58            return size;
59        }
60 }
61
62
63
```