```java
1  package Assign_4;
2
3  /** This class is an implementation of the Vertex
   class for this word-embedding program.
4   * Micah Rose-Mighty
5   * 6498935
6   * 2020-12-04
7   * Created using IntelliJ
8   */
9
10
11 import java.util.Objects;
12
13 public class Vertex implements Comparable<Vertex>{
14     String word;
15
16     Vertex(String word){
17         setWord(word);
18     }
19
20     public String getWord(){ //accessor method to get
   word
21         return word;
22     }
23
24     public void setWord(String word){ //mutator
   method to set a word
25         this.word = word;
26     }
27
28     @Override
29     public boolean equals(Object o){ //method that
   returns true if the word matches and false otherwise.
30         if (this == o) return true;
31         if (o == null || getClass() != o.getClass())
   return false;
32         Vertex vertex = (Vertex) o;
33         return Objects.equals(word, vertex.word);
34     }
35
36     @Override
37     public int hashCode(){ //method that returns the
   hashCode for the word
38         return Objects.hash(word);
```

```java
39        }
40
41        @Override
42        public String toString(){ //toString method to
    return a word at a vertex if needed.
43            return "Vertex{" + "word='" + word + '\'' +
    '}';
44        }
45
46        @Override
47        public int compareTo(Vertex o){ //method to
    compare words at different vertices
48            return this.getWord().compareTo(o.getWord());
49        }
50 }
51
```