```java
package club.westcs.OOPNotes;

import java.util.Random;

public class NorseGod {
    //Attributes
    private boolean alive;
    private Random rand;
    private String name;
    private Scanner scan;
    private Viking myViking;
    private int health;
    private boolean auto;

    //Constructor
    public NorseGod(boolean auto) {
        rand = new Random();
        scan = new Scanner(System.in);
        alive = true;
        setName();
        myViking = null;
        health = rand.nextInt(51) + 50;
        this.auto = auto;
    }

    //Methods
    /**
     * Is this god alive
     * @return boolean alive
     */
    public boolean isAlive() {
        return this.alive;
    }

    /**
     * Changes the value of the life boolean if the god is out of health.
     */
```

```
39      public void setAlive() {
40          if(this.alive && this.health <= 0) {
41              this.alive = false;
42              System.out.println(this.name + " has fallen!");
43          }
44      }
45
46      /**
47       * @return The String name for this god
48       */
49      public String getName() {
50          return this.name;
51      }
52
53      /**
54       * Assigns a name to the Norse god.
55       */
56      public void setName() {
57          System.out.println("What new deity has emerged from the mists?");
58          this.name = scan.nextLine();
59      }
60
61      /**
62       * @return The Viking this Norse god currently has.
63       */
64      public Viking getMyViking() {
65          return this.myViking;
66      }
67
68      /**
69       * If the viking does not exist or has died it will make a new viking.
70       */
```

```
71      public void setMyViking() {
72          if(this.myViking == null || this.myViking.isAlive() == false) {
73              String [] names = {"Hrothgar", "Beowulf", "Sven", "Erik", "Bjorn"};
74              this.myViking = new Viking(names[rand.nextInt(names.length)]);
75          }
76      }
77      /**
78       * The current numeric health of the norseGod object
79       * @return int health
80       */
81      public int getHealth() {
82          return this.health;
83      }
84
85      /**
86       * lose 1-5 health
87       */
88      public void setHealth() {
89          this.health -= rand.nextInt(5) + 1;
90      }
91
92      /**
93       * chooses what the Norse god will do
94       * @param the other god
95       */
96      public void choice(NorseGod other) {
97          String myChoice = "";  // blank string for the choice
98          if(this.auto) {
99              String [] choices = {"attack", "viking", "heal", "nothing"}; // array of possible choices
100             myChoice = choices[rand.nextInt(4)];  // randomly assign myChoice to one of the choices
101         }
102         else {
103             myChoice = choose();  // call a method so the user can choose
104         }
105         doChoice(myChoice, other); // do the choice the user has chosen
106     }
107
```

```java
    /**
     * Uses the choice from the choice method to call attack, heal, nothing, or viking
     * @param myChoice String the choice the god has made. if not recognized it autos to nothing
     * @param other  the target Norse God object
     */
    private void doChoice(String myChoice, NorseGod other) {
        if(myChoice.contains("viking")) {
            System.out.println(this.name + " has tried to call a new Viking!");
            if(rand.nextInt(3) == 0) {
                setMyViking();
            }
        }
        else if(myChoice.contains("heal")) {
            System.out.println(this.name + " has healed.");
            this.health += rand.nextInt(11) + 10;
            if(this.health > 100) {
                this.health = 100; // prevent the health from going over 100
            }
            System.out.println(this.name + " now has " + this.health + " health.");
        }
        else if (myChoice.contains("attack")) {
            attack(other);
        }
        else {
            System.out.println(this.name + " has chosen to do nothing...");
        }
        setHealth();
    }

    /**
     * the method to deal damage to another NorseGod object or that god's viking
     * @param other the target NorseGod object
     */
```

```
141    private void attack(NorseGod other) {
142        System.out.println(this.name + " has attacked " + other.getName() + ".");
143        if(rand.nextBoolean()) {
144            System.out.println("Hit");
145            if(other.getMyViking() == null || other.getMyViking().isAlive() == false) {
146                other.setHealth(rand.nextInt(20) + 20);
147                System.out.println(this.name + " has landed a hit directly to " + other.getName() + ".");
148            }
149            else {
150                for(int i = 0; i < 4; i++) {
151                    if(rand.nextBoolean()) {
152                        System.out.println(this.name + " has hit " + other.getName() + "'s viking.");
153                        other.getMyViking().loseAWeapon();
154                    }
155                }
156            }
157        }
158        else {
159            System.out.println("Miss");
160        }
161    }
162    /**
163     * takes away a specified amount of health
164     * @param i the amount this norsegod loses of health
165     */
166    private void setHealth(int i) {
167        this.health -= i;
168        setAlive();
169    }
170
171    /**
172     * Asks the user to choose an action
173     * @return the action in lowercase
174     */
175     private String choose() {
176         System.out.println("What should this god do? [attack, heal, new viking, nothing]");
177         return scan.nextLine().toLowerCase();
178     }
179
180
181
182 }//class
183
```