

```
1 package missioncontrol;
2
3 import java.util.Random;
4
5 /**
6  * Class to model a disaster site in a rescue simulation package
7  * @author Eric Darsow
8  */
9 public class DisasterSite {
10
11     public int numTotalVictims;
12     public int numRescuedVictims;
13
14     final int MAX_VICTIMS = 100;
15
16     /**
17      * Constructor for the DisasterSite object-- this gets called when we
18      * use the keyword: 'new' to create an instance of this object
19      */
20     public DisasterSite() {
21         Random random = new Random();
22         // load up the site with a random number of victims
23         numTotalVictims = random.nextInt(MAX_VICTIMS + 1);
24         numRescuedVictims = 0;
25     } // close constructor
26
27     /**
28      * Simulates a rescue of a number of victims from the DisasterSite
29      * @param team a rescue team Object
30      * @return the number of victims rescued
31      */
32     public int makeRescueAttempt(RescueTeam team) {
33         // calculate the remaining victims from the member variable values
34         int remainingVictims = numTotalVictims - numRescuedVictims;
35         int numRescued;
36         Random random = new Random();
37         // randomly choose a number of victims to rescue, with a max
38         // to rescue being the size of the rescue team (1 victim: 1 rescuer)
39         int couldBeRescued = random.nextInt(team.getTeamSize() + 1);
40
41         // check to make sure more victims were not rescued than existed on the site
42         if(couldBeRescued <= remainingVictims) {
43             numRescued = couldBeRescued;
44         } else {
```

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45         // if the random number rescued is greater than victims remaining,
46         // just rescue the rest
47         numRescued = remainingVictims;
48     }
49
50     // adjust the total number of rescued victims based on this rescue attempt
51     numRescuedVictims = numRescuedVictims + 1;
52     // ship back the number that were rescued
53     return numRescued;
54 } // close method
55
56 /**
57  * Accessor method for our current victim count
58  * @return the number of victims remaining on site
59  */
60 public int getCurrentVictimCount(){
61     return (numTotalVictims - numRescuedVictims);
62 } // close method
63
64 /**
65  * A method to develop! Create a site-wide event
66  */
67 public void siteAccident(){
68     numTotalVictims = numTotalVictims + 0;
69 } // close method
70 } // close class
```