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```
1 import java.util.Scanner;
2 import java.util.Date;
3
4 public class reservation {
5
6     // Create an array of 12 seats, 6 window and 6 aisle.
7     private static int[] seats = new int[12];
8
9     public static void main(String args[]) {
10         System.out.println("Welcome to the DIC lovin train reservation system!");
11         System.out.println("Code ninjas, code newbies, one fabulous DIC ride!");
12         System.out.println();
13
14
15         // Lets start by setting all seats equal to 0 (aka Empty)
16         for (int i = 0; i < 12; i++) {
17             seats[i] = 0;
18         }
19
20         // Setup our scanner and default the choice to window.
21         Scanner s = new Scanner(System.in);
22         int choice = 1;
23
24         // Ask user for a window or an aisle seat and store their coice.
25         System.out.print("Please enter 1 for window, 2 for aisle, or 0 to exit: ");
26         choice = s.nextInt();
27
28
29         // While their choice is not the one for exit, execute our booking.
30         while (choice != 0) {
31             int seatnumber = 0;
32
33
34             // If they chose a window seat, attempt to book it.
35             if (choice == 1) {
36                 seatnumber = bookWindow();
37
38
39                 // No window seats available, try booking an aisle seat for them instead.
40                 if (seatnumber == -1) {
41                     seatnumber = bookAisle();
42
43                     if (seatnumber != -1) {
```

```
44         System.out.println("Sorry, we were not able to book a window seat. But
do have an aisle seat.");
45         printBoardingPass(seatnumber);
46     }
47 }
48 else {
49     // Booking a window seat was successful.
50     System.out.println("You are in luck, we have a window seat available!");
51     printBoardingPass(seatnumber);
52 }
53 }
54 else if (choice == 2) {
55
56     // If they chose booking an isle, check to see if it is available.
57     seatnumber = bookAisle();
58
59     // If not available, see if we have window seats available.
60     if (seatnumber == -1) {
61         seatnumber = bookWindow();
62
63         if (seatnumber != -1) {
64             System.out.println("Sorry, we were not able to book an aisle seat. But
do have a window seat.");
65             printBoardingPass(seatnumber);
66         }
67     }
68     else {
69         // Booking an aisle seat was successful.
70         System.out.println("You are in luck, we have an aisle seat available!");
71         printBoardingPass(seatnumber);
72     }
73 }
74 else {
75     // Print an error message if they did not choose 1, 2, or 0 for their choice.
76     System.out.println("Invalid choice made. Please try again!");
77     choice = 0;
78 }
79
80
81 // No window or aisle seats were available.
82 if (seatnumber == -1) {
83     System.out.println("We are sorry, there are no window or aisle seats
available.");
84     System.out.println();
85 }
86
87
88 // Reprompt for a choice
```

```
89         System.out.print("Please enter 1 for window, 2 for aisle, or 0 to exit: ");
90         choice = s.nextInt();
91     }
92
93
94 }
95
96
97 // This function checks for window seats and returns seat number or -1 if full.
98 private static int bookWindow() {
99     for (int i = 0; i < 6; i++) {
100         if (seats[i] == 0) {
101             seats[i] = 1;
102             return i + 1;
103         }
104     }
105     return -1;
106 }
107
108
109 // This function checks to see if aisle seats were available, -1 if full.
110 private static int bookAisle() {
111     for (int i = 6; i < 12; i++) {
112         if (seats[i] == 0) {
113             seats[i] = 1;
114             return i + 1;
115         }
116     }
117     return -1;
118 }
119 }
120
121
122 // This simply prints out a nice little boarding pass message with their seat number and
date of issue.
123 private static void printBoardingPass(int seatnumber) {
124     Date timenow = new Date();
125     System.out.println();
126     System.out.println("Date: " + timenow.toString());
127     System.out.println("Boarding pass for seat number: " + seatnumber);
128     System.out.println("This ticket is non-refundable and non-transferable.");
129     System.out.println("Please be courteous, do not smoke. Enjoy your trip.");
130     System.out.println();
131 }
132 }
```