

```

1  package com.publiccept;
2
3  import org.w3c.dom.ls.LSOutput;
4
5  /**
6   * Main
7   *
8   * main(String[] args)
9   * isEvenNumber(int number)
10  */
11  public class Main {
12
13      public static void main(String[] args) {
14
15          /*
16           * while (condition == true) {
17           *     -> increment loopCounter++;
18           * }
19          */
20          int loopCounter = 0; // counter variable must be declared before the while statement
21
22          while (loopCounter < 5) {
23              System.out.println("Count value is: " + loopCounter);
24              loopCounter++; // increment count manually
25          }
26          System.out.println();
27
28          /*
29           * while (true) {
30           *     if(condition) -> break;
31           *     increment++;
32           * }
33          */
34          loopCounter = 0; // count variable must be declared before the while statement
35
36          while (true) { // endless loop
37              if(loopCounter >= 5) {
38                  /*
39                   * break out of while loop
40                   */
41                  break;
42              }
43              System.out.println("Count value is: " + loopCounter);
44              loopCounter++;
45          }
46          System.out.println("Skip values > 4");
47          System.out.println();
48
49          /*
50           * do { } while (condition);
51           * -> always executed at least once
52          */
53          loopCounter = 0;
54
55          do {
56              System.out.println("Count value was: " + loopCounter);
57              loopCounter++;
58          } while (loopCounter < 5);
59          System.out.println();
60
61          /*
62           * continue & break
63          */
64          int number = 0;
65
66          while (number < 15) {
67              number++;
68
69              if(number <= 5) {
70                  System.out.println("Skipping number " + number);
71                  /*
72                   * continue while loop...
73                   */
74                  continue;
75              }
76
77              System.out.println("Current number is " + number);
78
79              if(number >= 10) {
80                  System.out.println("Breaking at " + number);
81                  /*
82                   * break out of while loop!
83                   */
84                  break;
85              }
86          }
87          System.out.println();
88
89          /*
90           * Challenge
91           * List even numbers within a range
92           * > continue
93          */

```

```

98      // Modify the while code below
99      // Make it also record the total number of even numbers it has found
100     // and break once 5 are found
101     // and at the end, display the total number of even numbers found
102
103     number = 0;
104     loopCounter = 0;
105     int finishNumber = 20;
106     int maxCount = 5;
107
108     while (number <= finishNumber) {
109
110         number++;
111
112         if(!isEvenNumber(number)) {
113             /*
114              * continue while loop...
115              */
116             continue;      // Go back to the start of the loop without executing the code below!
117         }
118
119         System.out.println("Even number " + number);    // executed only if number is even!
120
121         loopCounter++;
122
123         // break while loop after maxCount number of even numbers were found!
124         if (loopCounter >= maxCount) {
125             break;
126         }
127     }
128
129     System.out.println("Total even numbers found: " + loopCounter);
130 }
131
132
133 /**
134  * isEvenNumber()
135  * @param number number to be tested as even
136  * @return even number (=true), odd number (=false)
137  */
138 // Create a method called isEvenNumber that takes a parameter of type int
139 // Its purpose is to determine if the argument passed to the method is
140 // an even number or not.
141 // return true if an even number, otherwise return false;
142 public static boolean isEvenNumber(int number) {
143
144     if(number % 2 == 0) {
145         return true;
146     } else {
147         return false;
148     }
149 }
150 }
151

```