

the result on the countdown slot. This algorithm was developed independently. The second algorithm begins in code line 7 as setInterval, and its value is displayed in line 18 of the code as 1000 milliseconds. The value of the setInterval was also developed independently. Both algorithms are essential because in unison they allow the program to work, as without the first algorithm the code would not work as nothing would be displayed nor nothing would be subtracted so the function would eventually reach zero. While without the second algorithm result would always be one less then the value set for countdown and there be no command telling it to repeat the process in algorithm number one.

2D

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1 //line 2 of code makes the timer run when start button is pressed
2 onEvent(▼"start", ▼"click", function(){
3
4 //Line 4 of code sets the countdown slot to the value selcted by user from the dropdown section
4 var countdown = getText(▼"timer") ;
5 //The code below displays the algorithm where the input value will be subtracted one
6 //and be displayed, repeating this until the value equals 0
7 var i = setInterval( function() {
8 //Line 9 to 10 subtracts one from countdown and displays the value on the countdown slot
9   countdown = countdown - 1;
10  setText(▼"countdown", countdown);
11  if (countdown === 0) {
12    //Line 13 of code renews the value displayed in countdown slot in correlation to setInterval
13    clearInterval(i) ;
14    //Line 15 of code implements the function to make the countdown slot blink
15    blinkCountdown(); -
16    +
17    //Algorithm segment setInterval loops through the function every 1000 millisecond
18    , 1000) ;
19 //Line 20 of code displays the end result in the countdown slot
20 console.log("Interval timer ID: " + i);
21 }

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The blue rectangle in the image showcases a code segment which implements a mathematical function to the program which was developed independently. The code takes the value given to countdown by the user in the dropdown textbox or code getText from line 4 and subtracts one from it. After so, the code segment displays the result in the countdown slot on the screen. This code segment is part of a function which serves as an algorithm to repeat the code segment. Without the code segment the hole program would not run as there would be no segment giving it the means to subtract and reach zero, therefore the displayed value would always be the one input by the user.