**Solution: Moving average**

(upbeat music) - [Instructor] Here's how I solved the challenge to implement a moving average. I'll need to access the randomly generated values from previous loop iterations. So, I'll create a shift register by right-clicking on the while loop and selecting Add Shift Register. And I'll go ahead and wire the current value into it. Now, I don't just need the previous value, I need the previous four values. I could right-click on the shift register and choose to Add Element and do that three times, or, as a shortcut, I can simply hold the Control key and then drag down on the shift register, and that allows me to add more elements. When you need to add a bunch of shift registers, that's usually a little bit quicker. Next, I'll press Control + Space to bring up the Quick Drop menu, search for Compound Arithmetic, and place that. I'll move the moving average over a little bit, and the compound arithmetic by default has two input terminals, but I'm going to need five here, so I'll click and drag that down. Now I can wire in all of my random values. The current value and the four from my shift registers. After summing those five values together, I'll need to divide them. So again, I'll press Control + Space to bring up the Quick Drop menu, search for the Division function, and I'll place that. I'll wire the output to the moving average. The top input was automatically connected to the output for my compound arithmetic 'cause I held it close to it. But I'll right-click, Create a Constant, and give it a value of five to divide the output from the compound arithmetic by five. And that's it. That will calculate the average of the last five randomly generated numbers. I'll run my solution. And the first few iterations will look a little bit low because the shift registers are initialized with zero by default. But by the fifth loop iteration, it'll be calculating the moving average of five random values.