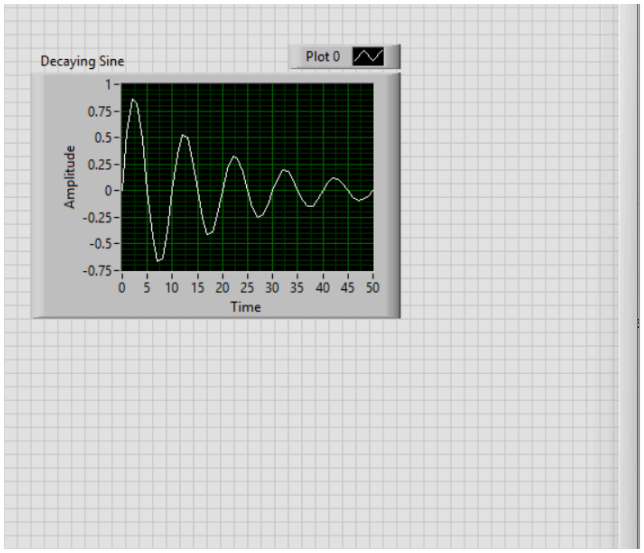
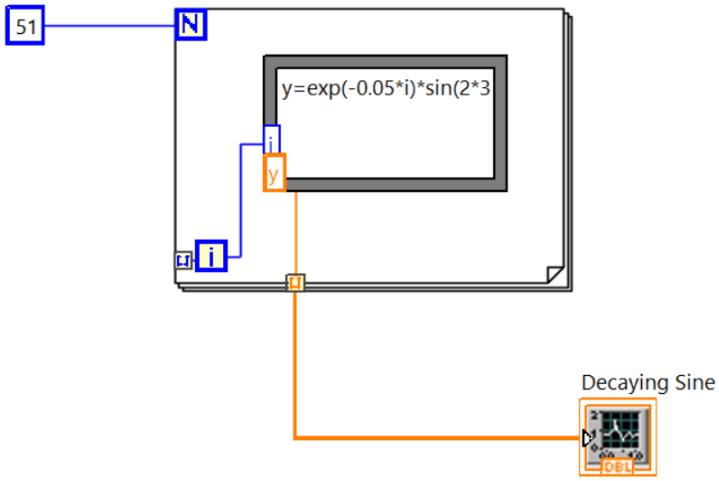
ECE 182 Lab #10 Noisy Exponential Sine Wave
Day of Submission: 11/14/2025
Name of student: Frank Tamburro

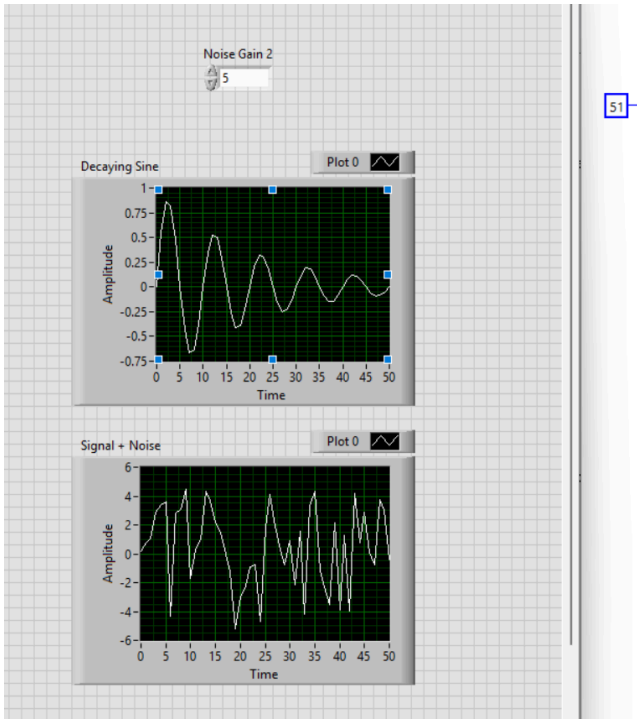
Results

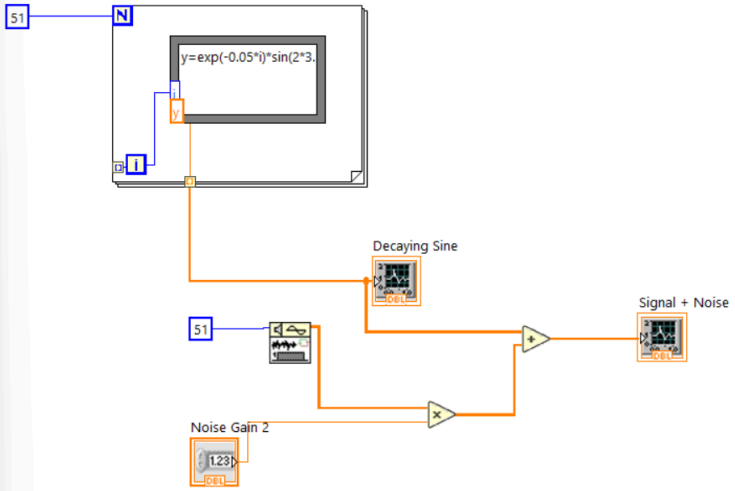
Part 1A: Exponentially Decaying Sine Wave



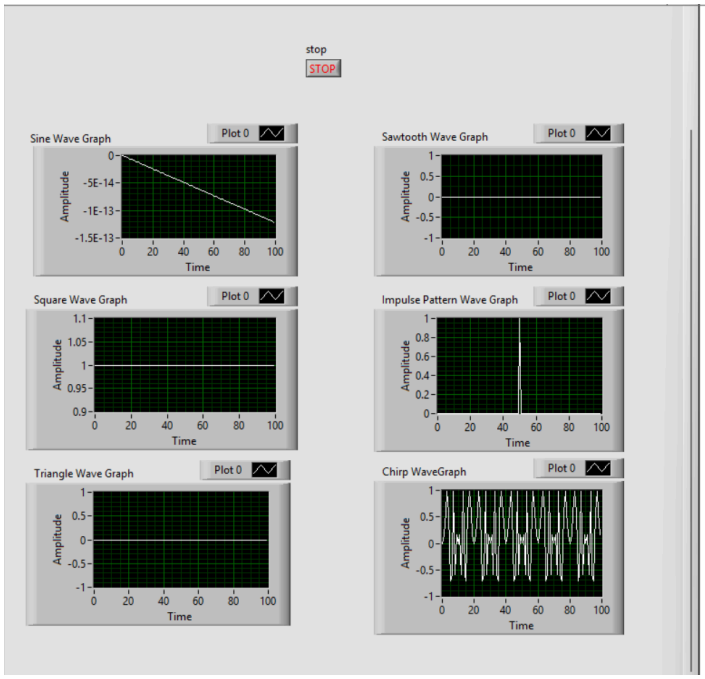


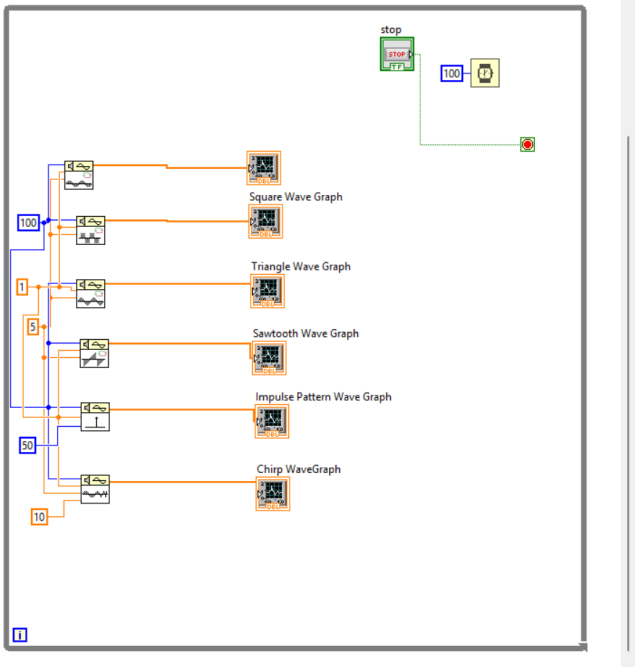
Part 1B and 1C:





Part 2:





Conclusion

In this lab, I gained hands-on experience generating, manipulating, and visualizing signals in LabVIEW. I first created a decaying sine wave using a For Loop and an expression node, then added controlled Gaussian noise to observe how random disturbances affect signal behavior. I also generated a variety of standard waveforms including square, triangle, sawtooth, impulse, and chirp waves. Through this process, I learned how LabVIEW handles array base signal generation, waveform visualization, and arithmetic operations on signals. Overall, the lab strengthened my understanding of digital signal generation and provided practical skills for building and analyzing waveforms within LabVIEW.