**Task 6**

Add to your framework a menu named Time Domain that includes the following features:

1. Smoothing: Compute moving average y(n) for signal x(n) let the user enter the number of points included in averaging. 1
2. Sharpening: Compute and display y (n) which represents

First Derivative of input signal

Y(n) = x(n)-x(n-1)

Second derivative of input signal

Y(n)= x(n+1)-2x(n)+x(n-1) 2

1. Delaying or advancing a signal by k steps. 1
2. Folding a signal. 1
3. Delaying or advancing a folded signal. 1
4. Remove the DC component in frequency domain. 1
5. The ability to convolve two signals. 3