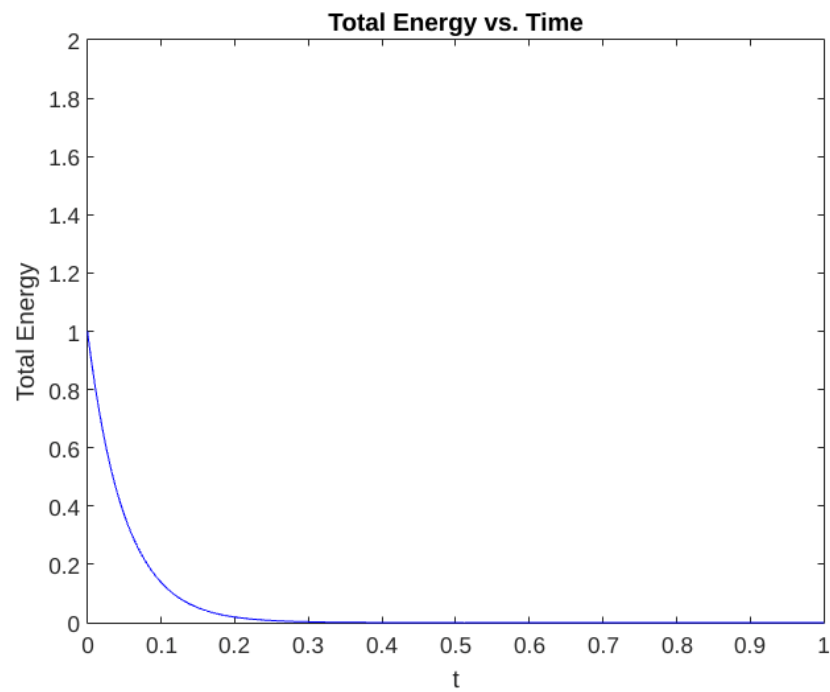
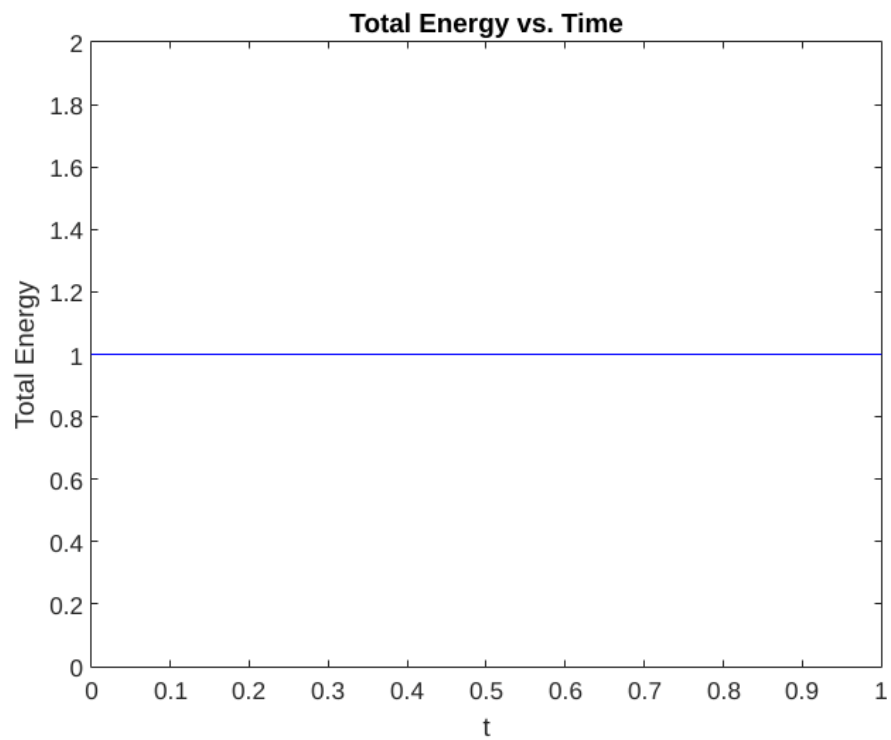


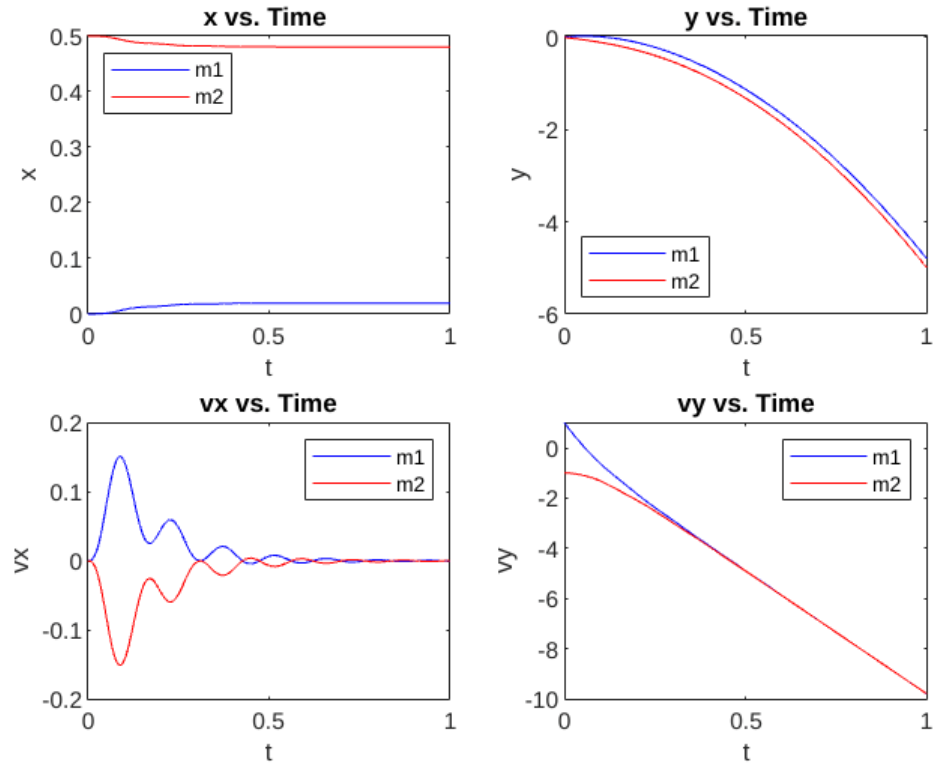
1. Plot of total energy vs time when damping is non zero:



2. Plot of total energy vs time when damping is zero:



3. Plot of x , y , v_x and v_y when damping is non zero



4. Plot of x , y , v_x and v_y when damping is zero

