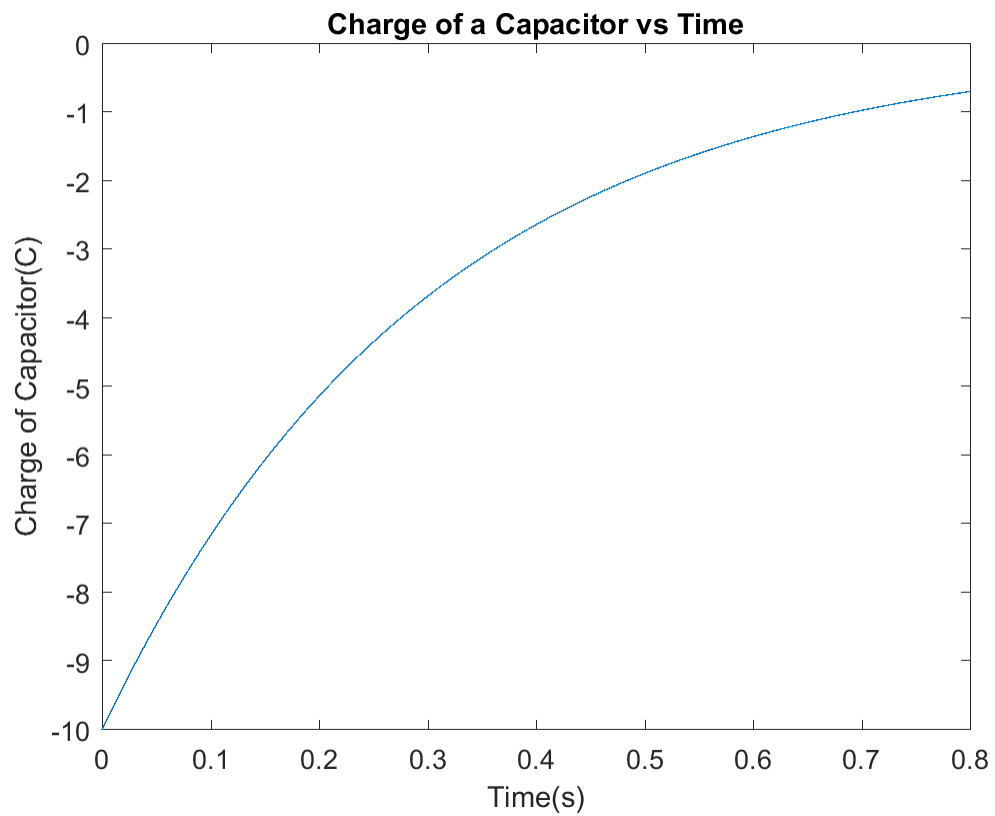```
x=linspace(0,0.8);
q0=10;
R=60;
L=9;
C=0.00005;
y=q0*exp(-R*x/(2*L)).*cos(sqrt((1/(L*C))-(R/(2*L))^2*x));
plot(x,y)
title 'Charge of a Capacitor vs Time'
xlabel 'Time(s)'
ylabel 'Charge of Capacitor(C)'
```



*Published with MATLAB® R2017a*