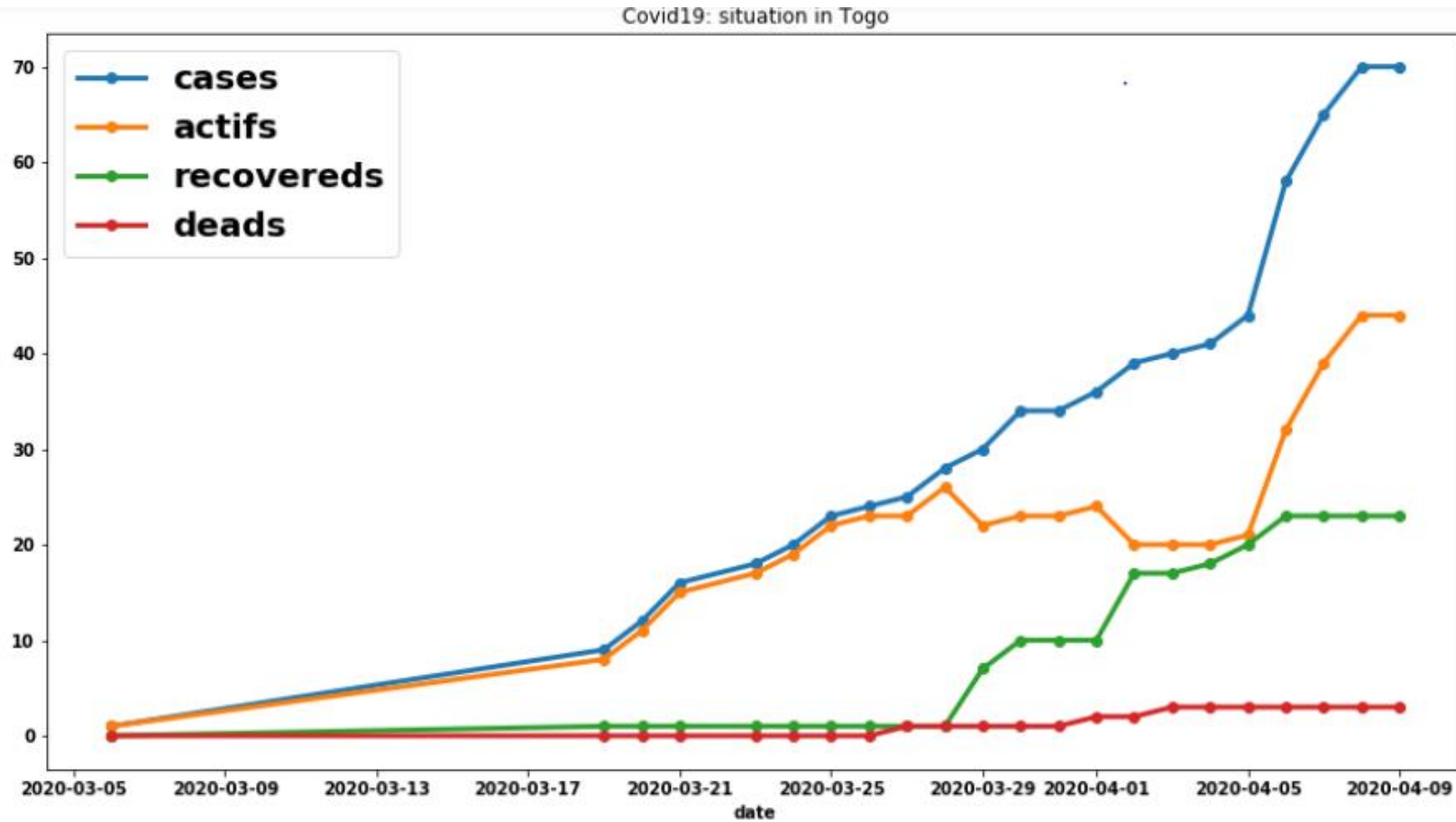


# Exercise

Covid 19 situation in Togo

# Graphical representation



## SIR Model ( population of Togo $N = 8 * 10^6$ )

$$\diamond \frac{dS(t)}{dt} = -bS(t)I(t), \quad S(0) = N = 8 * 10^6$$

$$\diamond \frac{dI(t)}{dt} = bS(t)I(t) - kI(t), \quad I(0) = 1$$

$$\diamond \frac{dR(t)}{dt} = kI(t), \quad R(0) = 0$$

Plot of  $S(t)/N$ ,  $I(t)/N$ ,  $R(t)/N$  on 60 days

