ITEC451 Activity 11 - Solution

 $S_{\text{t+1}} = .9S_{\text{t}} + .2C_{\text{t}}$ and $C_{\text{t+1}} = .1S_{\text{t}} + .8C_{\text{t}}.$ Using matrix notation we obtain

$$\begin{bmatrix} \mathbf{S}_{t+1} \\ \mathbf{C}_{t+1} \end{bmatrix} = \begin{bmatrix} .9 & .2 \\ .1 & .8 \end{bmatrix} \begin{bmatrix} \mathbf{S}_{t} \\ \mathbf{C}_{t} \end{bmatrix}$$