Introducing latent variable
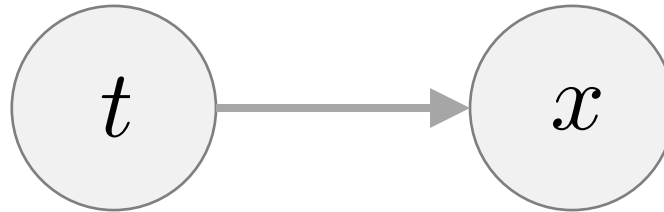
$$p(x \mid \theta) = \pi_1 \mathcal{N}(x|\mu_1, \Sigma_1) + \pi_2 \mathcal{N}(x|\mu_2, \Sigma_2)$$
$$+ \pi_3 \mathcal{N}(x|\mu_3, \Sigma_3)$$

$$p(t = c \mid \theta) = \pi_c$$