Exercise 2

This is the cost function for L1 - regularisation. The extra penalty term is $\lambda ||\theta||_1$ for lasso regression.

$$\theta_{hat} \, = \, arg \, min_{\theta} 1/n \, * \, ||X\theta \, - \, y|| \, {\textstyle \frac{2}{2}} + \, \left. \lambda ||\theta||_{1} \right.$$