h\_{\theta }(x) = \theta\_{0}x\_{0} + \theta\_{1}x\_{1} + \theta\_{2}x\_{2} +... +\theta\_{n}x\_{n}

J(\theta\_{0}, \theta\_{1} ... \theta\_{n}) = \frac{1}{2m}\sum\_{i=1}^{m}(h\_{\theta}(x^{(i)})-y^{(i)})^{2}

\frac{\partial }{\partial \theta\_{j}} J(\theta\_{0}, \theta\_{1} ... \theta\_{n}) = \frac{1}{m}\sum\_{i=1}^{m}(h\_{\theta}(x^{(i)})-y^{(i)})^{2}x\_{j}^{(i)}