# ML Lab 04

## When Alpha is Too Small

* The algorithm takes very small steps toward the optimal θ.
* It requires a large number of iterations to reach convergence.
* If the number of iterations is not increased, the model might not reach the optimal solution.

## When Alpha is Too Large

* The algorithm may overshoot the minimum of J(θ) because steps are too large.
* The cost function may oscillate or even increase instead of decreasing.
* The algorithm might fail to converge and diverge instead.