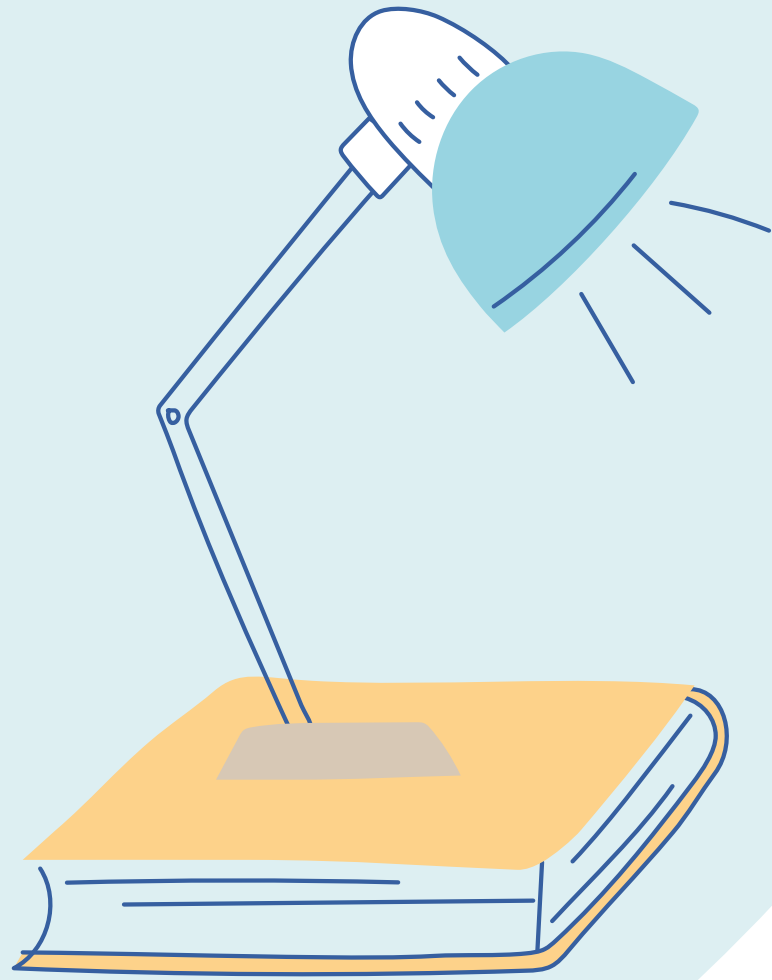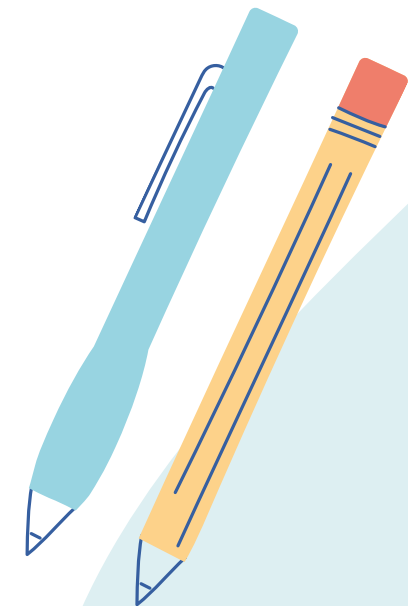# Summary
Report

By Bassant_Tamer

Overview

- Ridge And Lasso

- Regression Algorithm Logistic

- Regression Algorithm

Ridge Regression Algorithm

- **What it does:**

Predicts numbers (like prices) and keeps the model from going overboard.

Makes all feature effects smaller so it's not too wild.

- **How it works:**

Adds a penalty: λ times the sum of squared feature numbers.

Never deletes features, just shrinks them.

- **When to use:**

Good when all features might matter but need control.

Lasso Regression Algorithm

- **What it does:**

Predicts numbers and picks only the important features.

Can totally remove stuff that doesn't help.

- **How it works:**

Adds a penalty: λ times the sum of absolute feature numbers.

Some features get zeroed out.

- **When to use:**

Great when I only need a few key things from lots of data.

Logistic Regression Algorithm

- **What it does:**

Predicts yes/no answers (like "Will it rain?").
Gives a chance (probability) for each answer.

- **How it works:**

Uses a curve to turn numbers into 0-to-1 chances.
Picks "yes" or "no" based on if it's over 0.5.

- **When to use:**

Perfect for simple choices like pass or fail.
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