

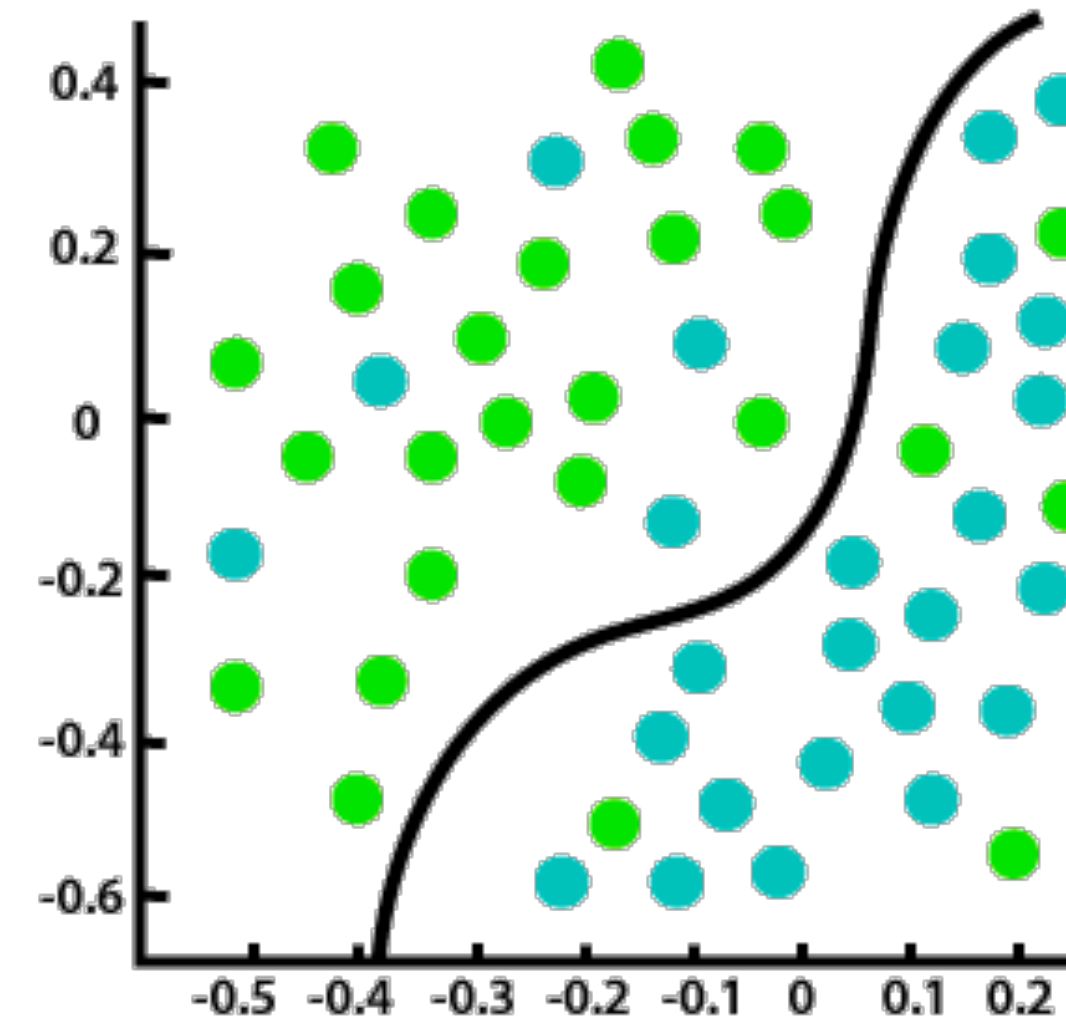
# ACENET-Supported ICG Bioinformatics Workshop

## Statistical Programming with R

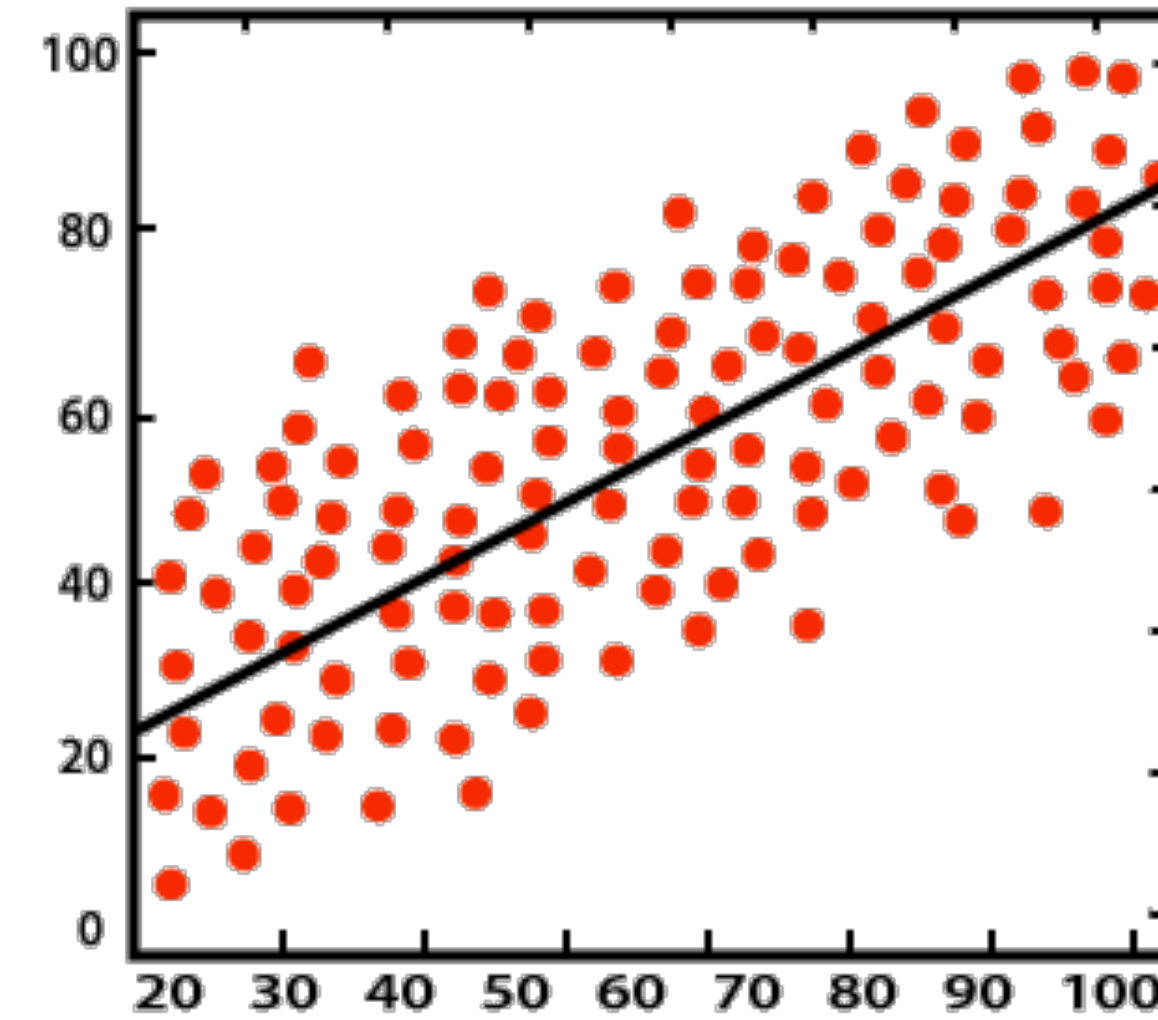
Gustavo Sganzerla Martinez, PhD  
24/05/2023



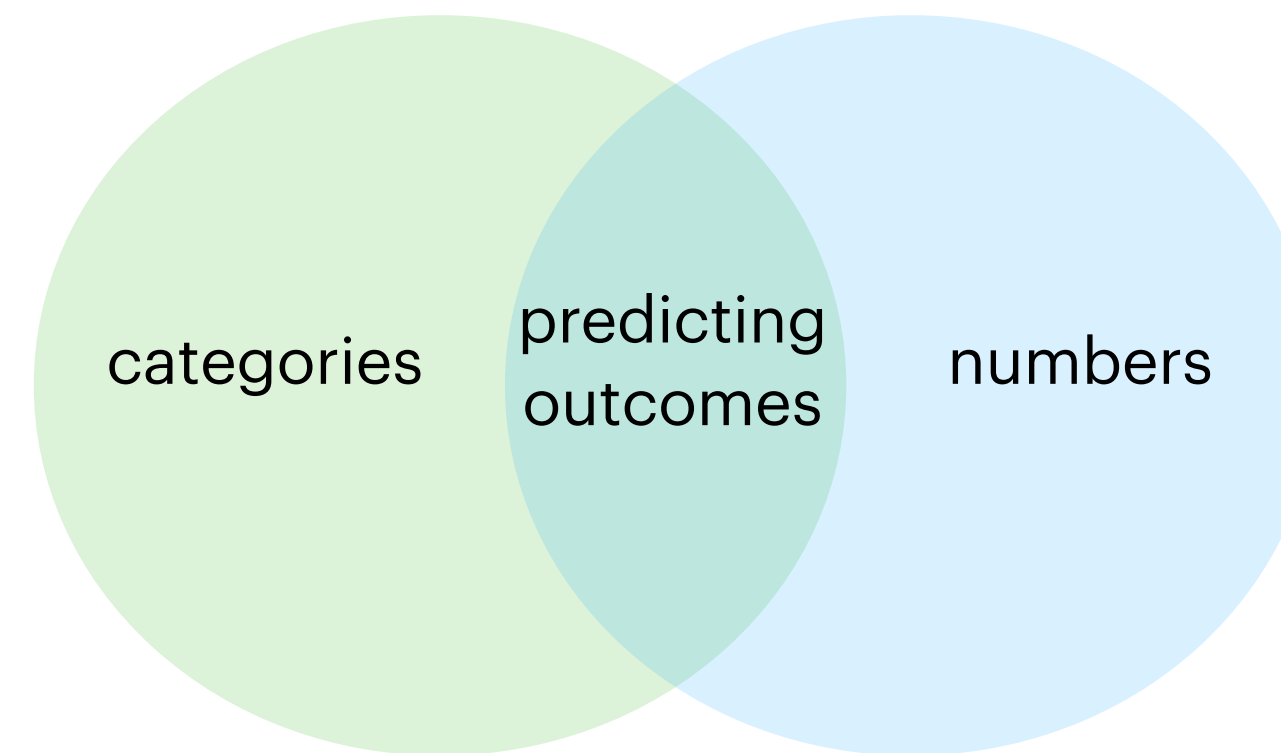
# ACENET-Supported ICG Bioinformatics Workshop

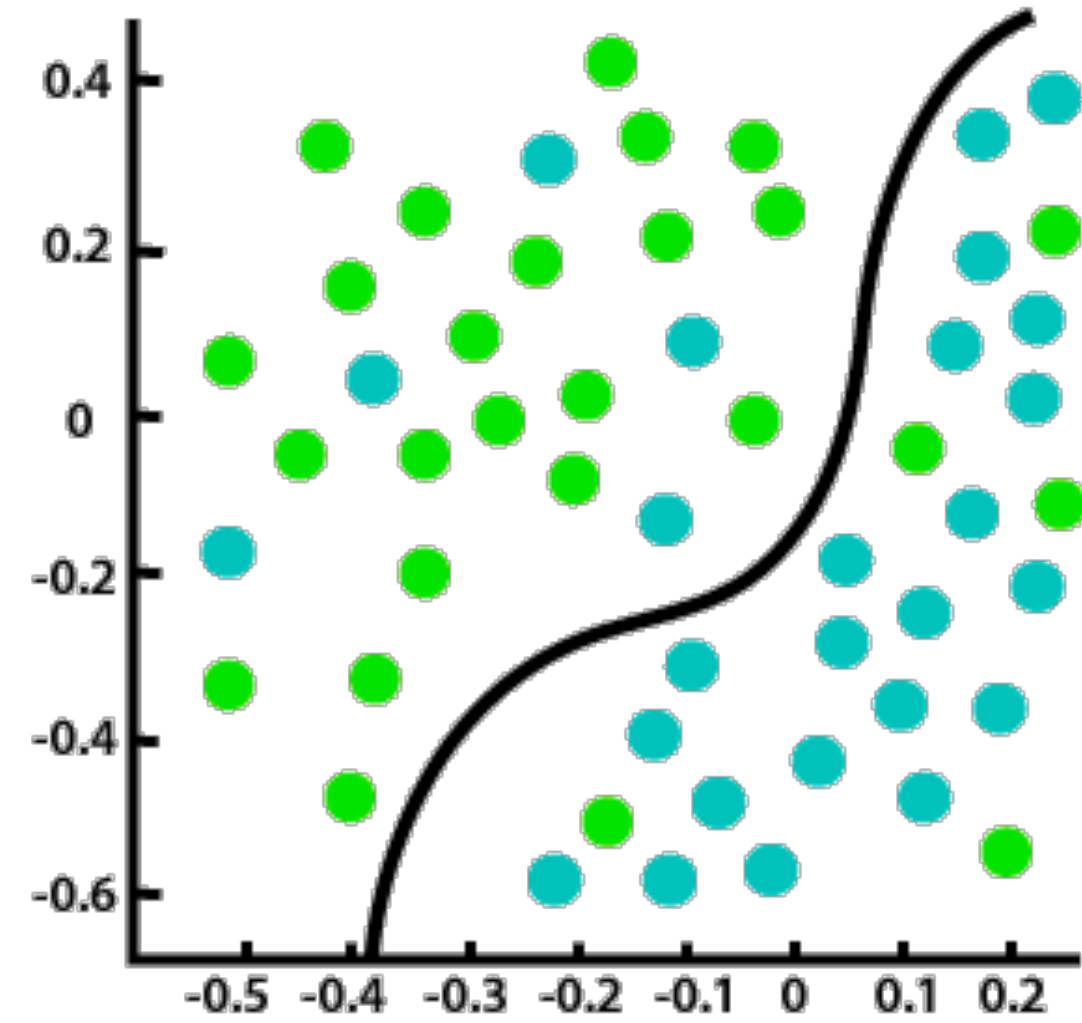


Classification

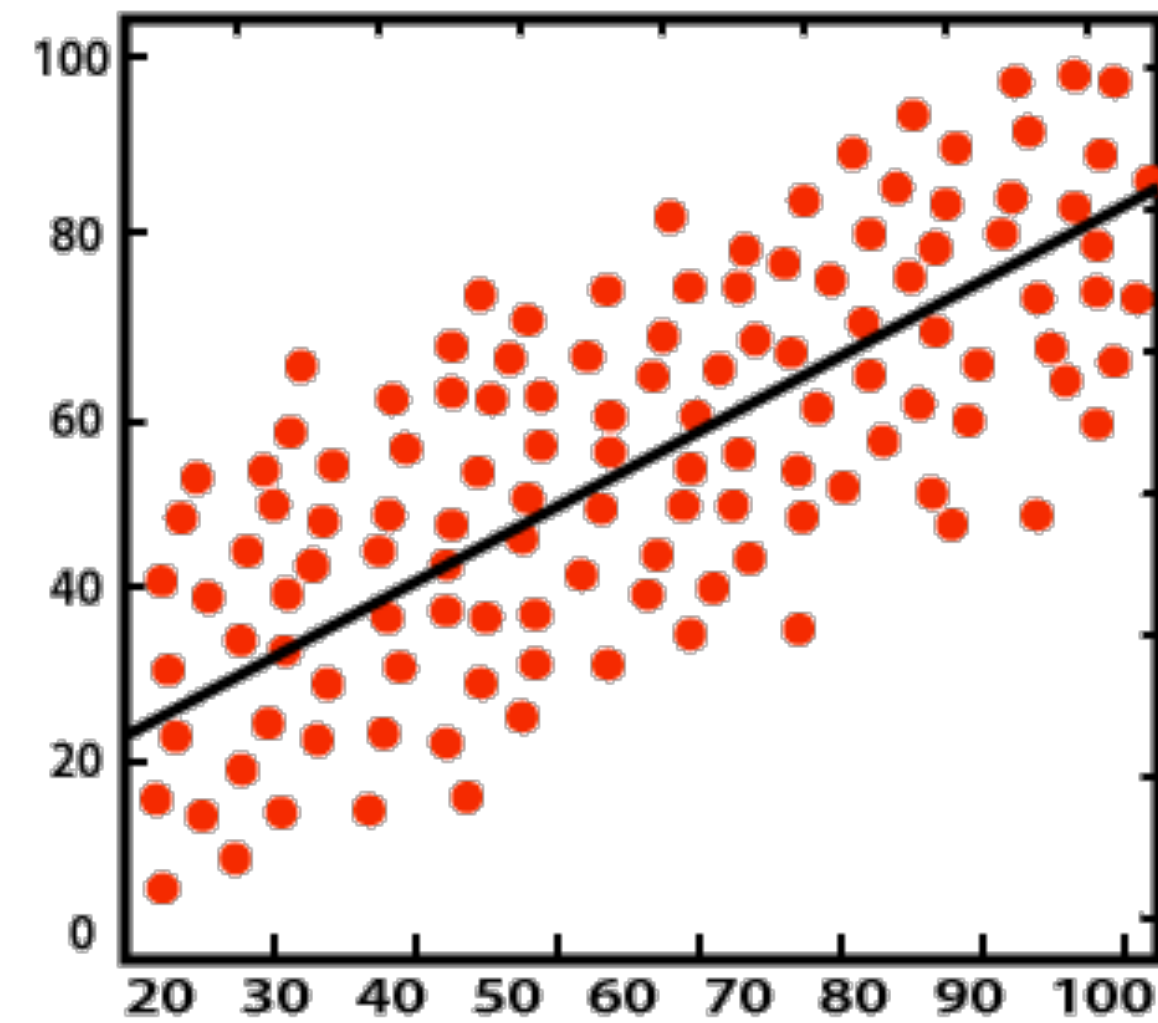


Regression



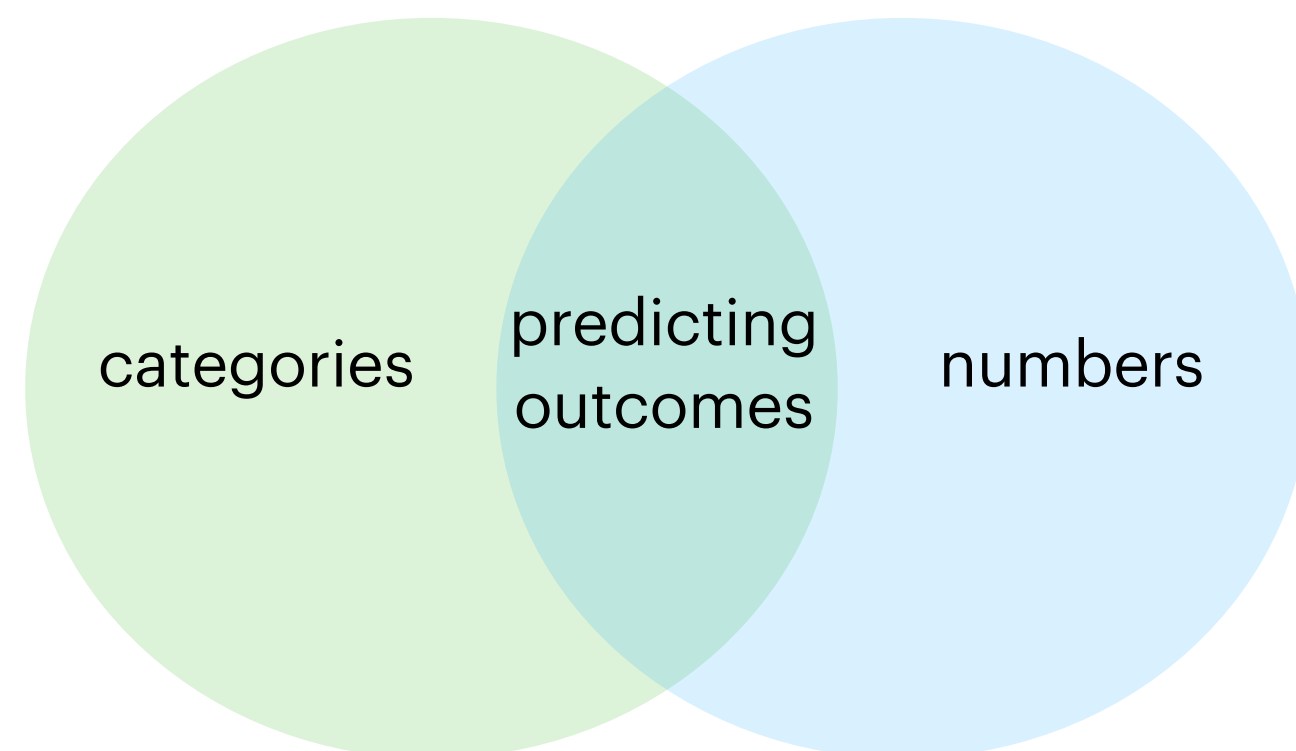


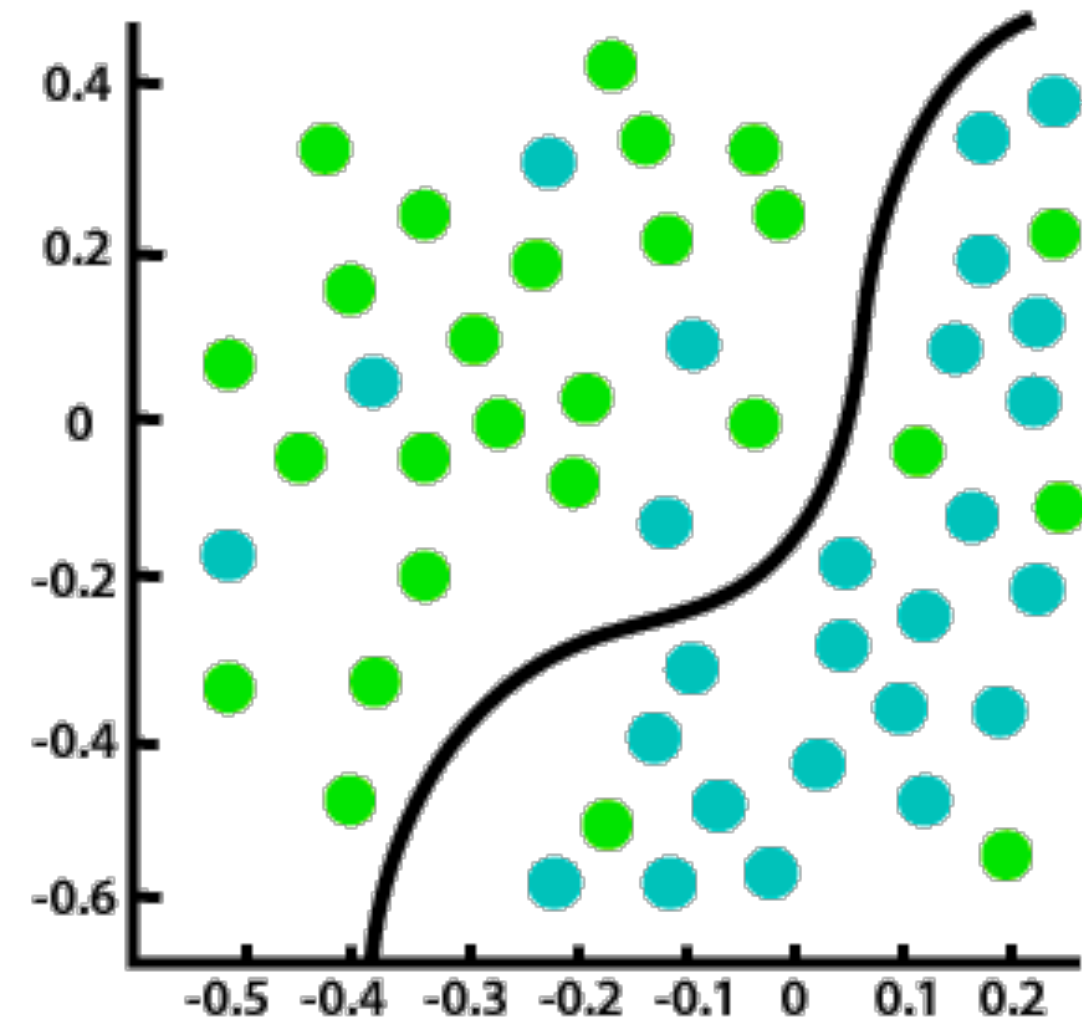
Classification



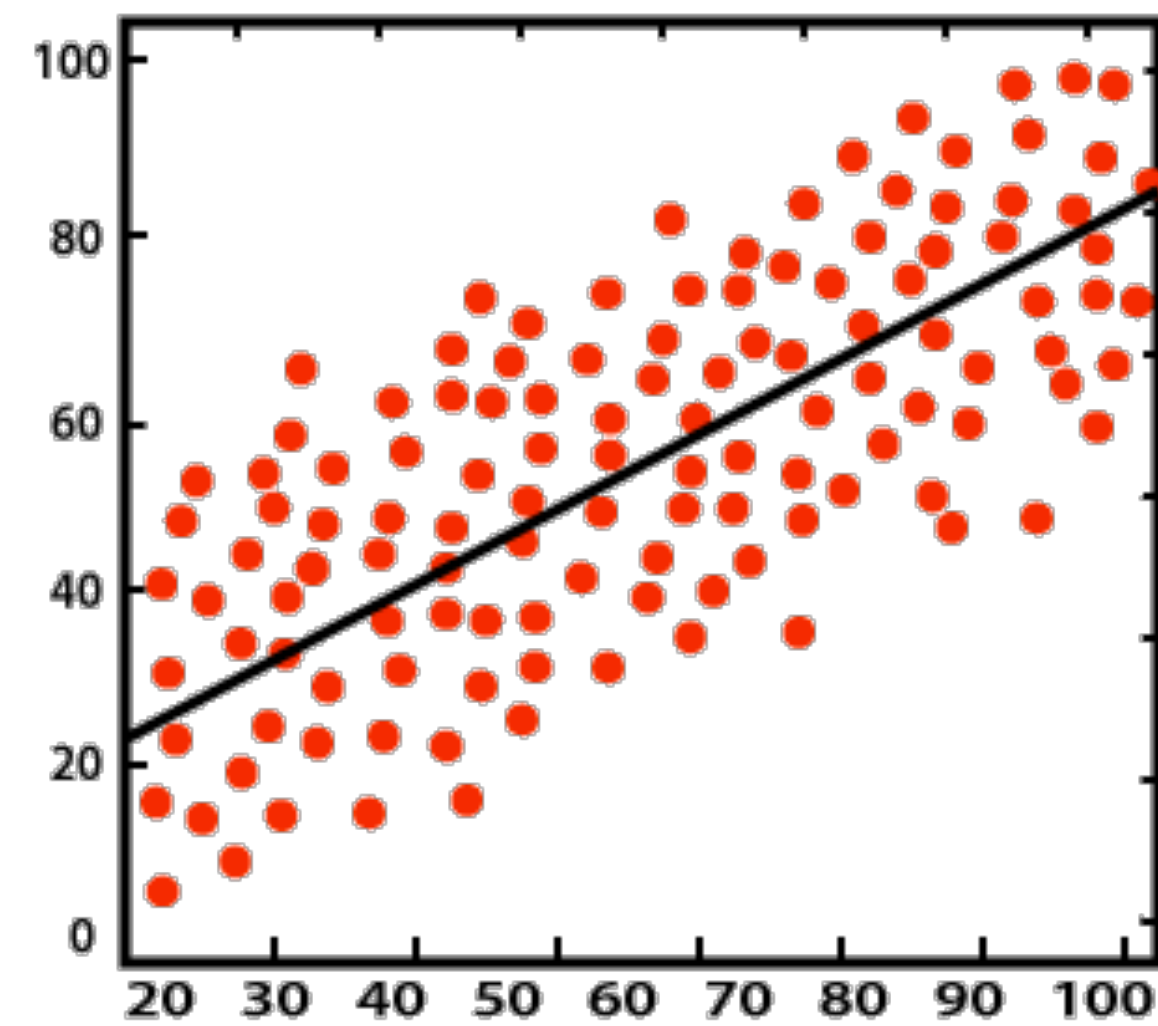
Regression

**1. Predict whether an email is a spam or not based on subject line, content, and sender information.**



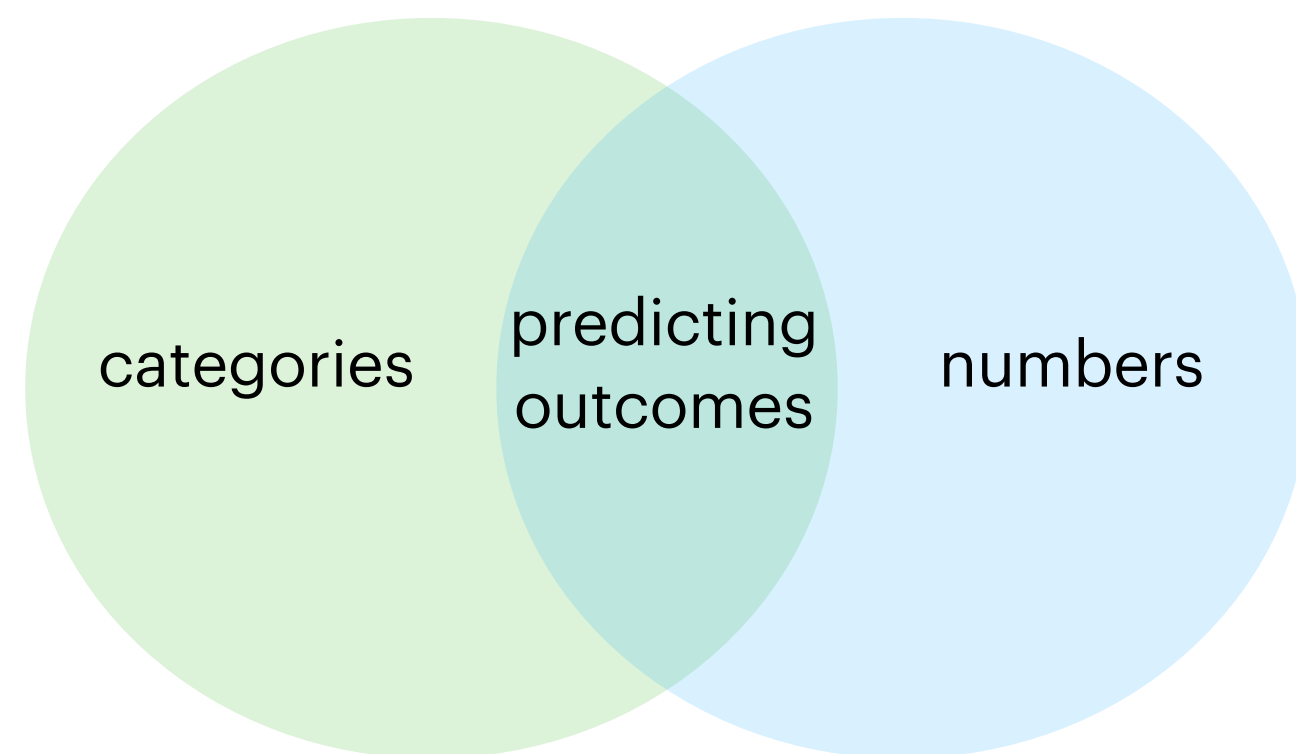


Classification



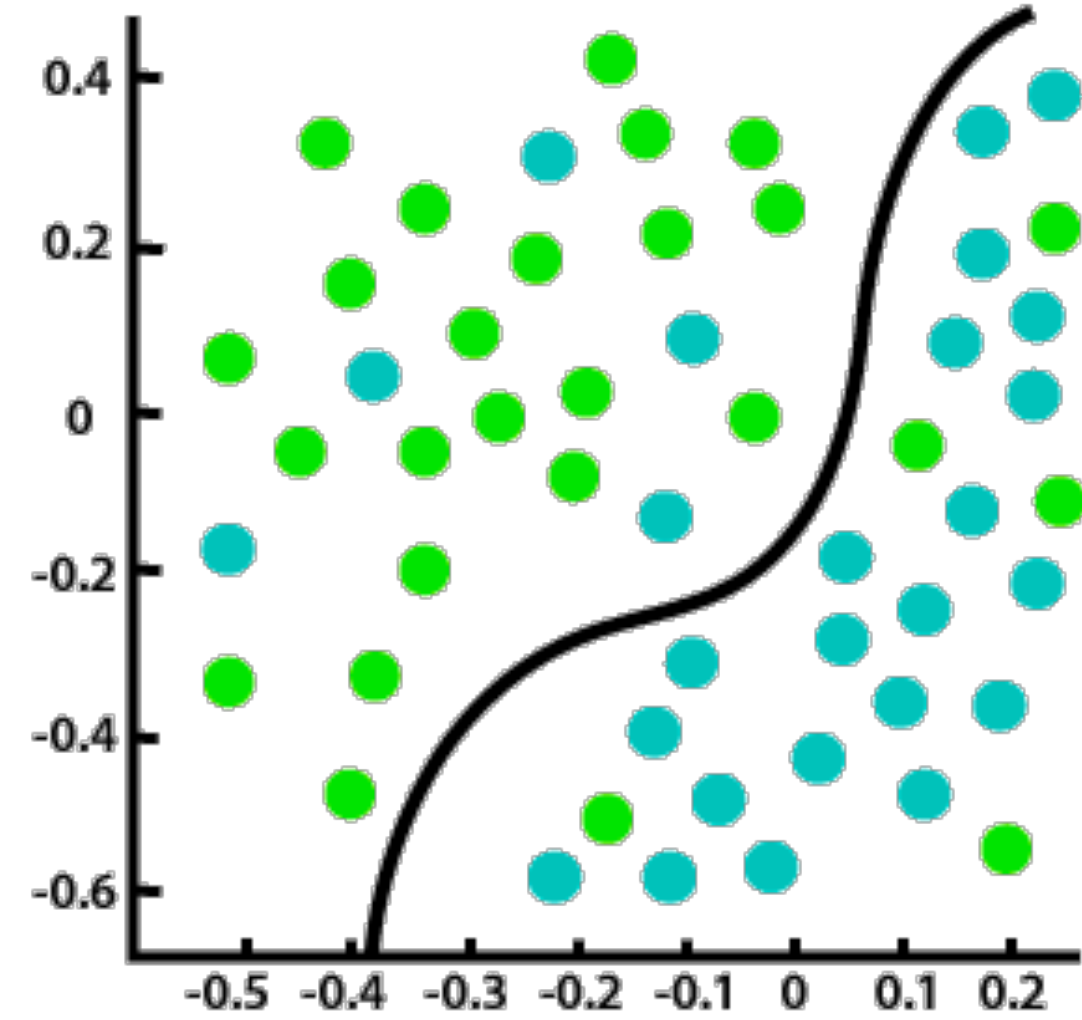
Regression

1. Predict whether an email is a spam or not based on subject line, content, and sender information.
- 2. Predict the height of a child based on the heights of their parents**

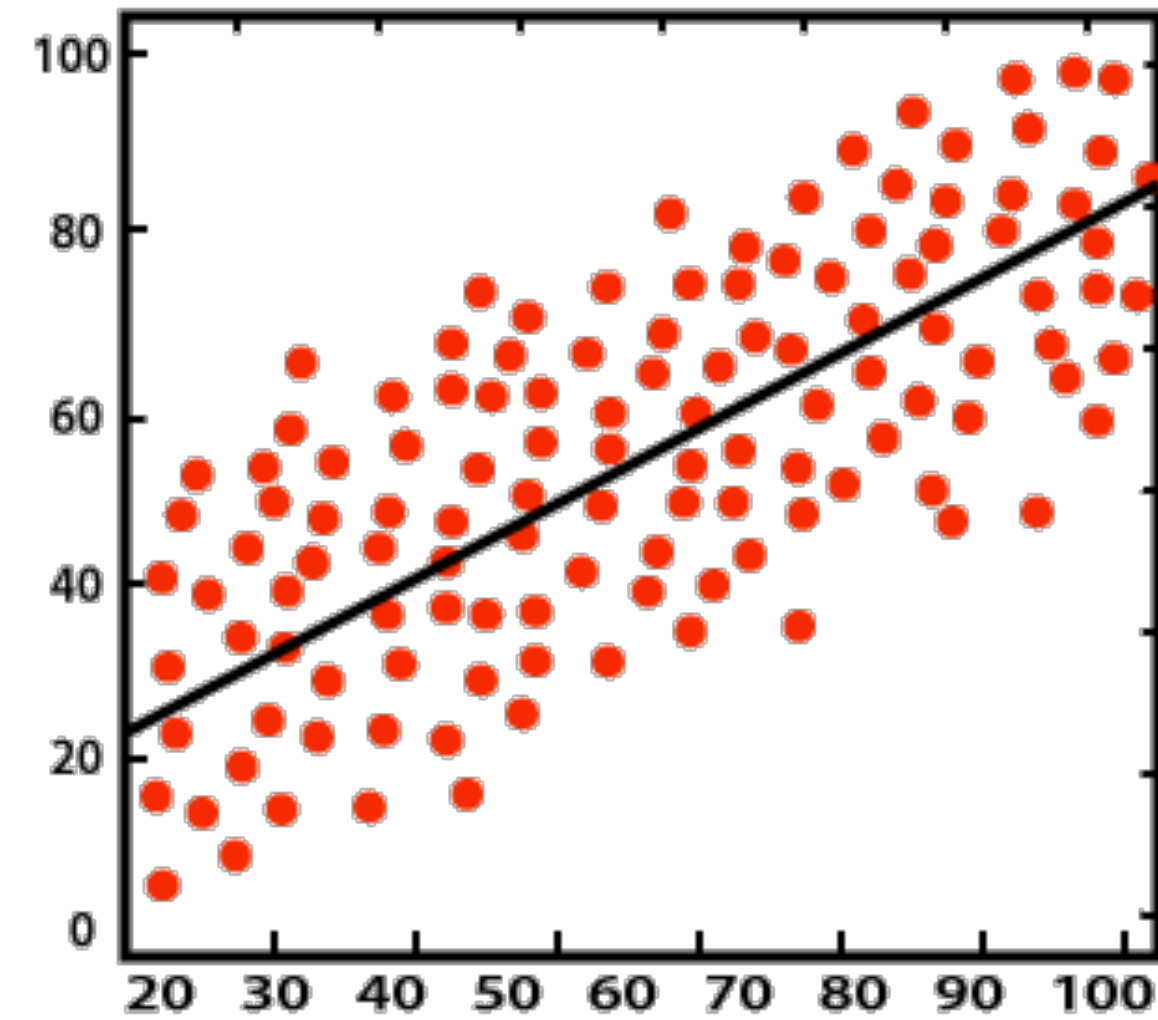




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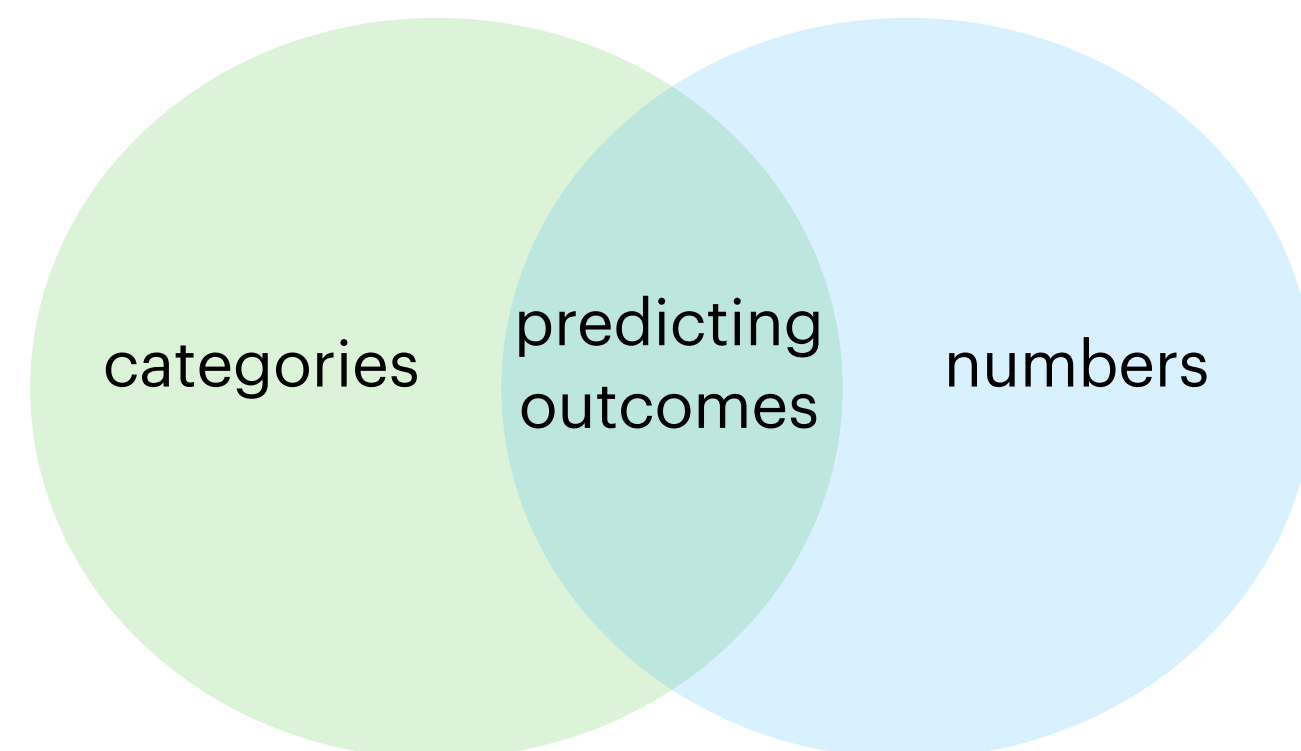


Classification



Regression

1. Predict whether an email is a spam or not based on subject line, content, and sender information.
2. Predict the height of a child based on the heights of their parents
- 3. Predict the salary on an employee based on educational level and years of experience.**



# Confusion Matrix

True Class

		True Class	
		Positive	Negative
Predicted Class	Positive	TP	FP
	Negative	FN	TN

# Confusion Matrix

True Class

Positive

Negative

Predicted Class

Positive

Negative

TP

FP

FN

TN

$$\text{Accuracy} = (TP+TN)/(TP+TN+FP+FN)$$

$$\text{Precision} = TP/(TP+FP)$$

$$\text{Sensitivity} = TP/(TP+FN)$$

$$\text{Specificity} = TN/(TN+FP)$$