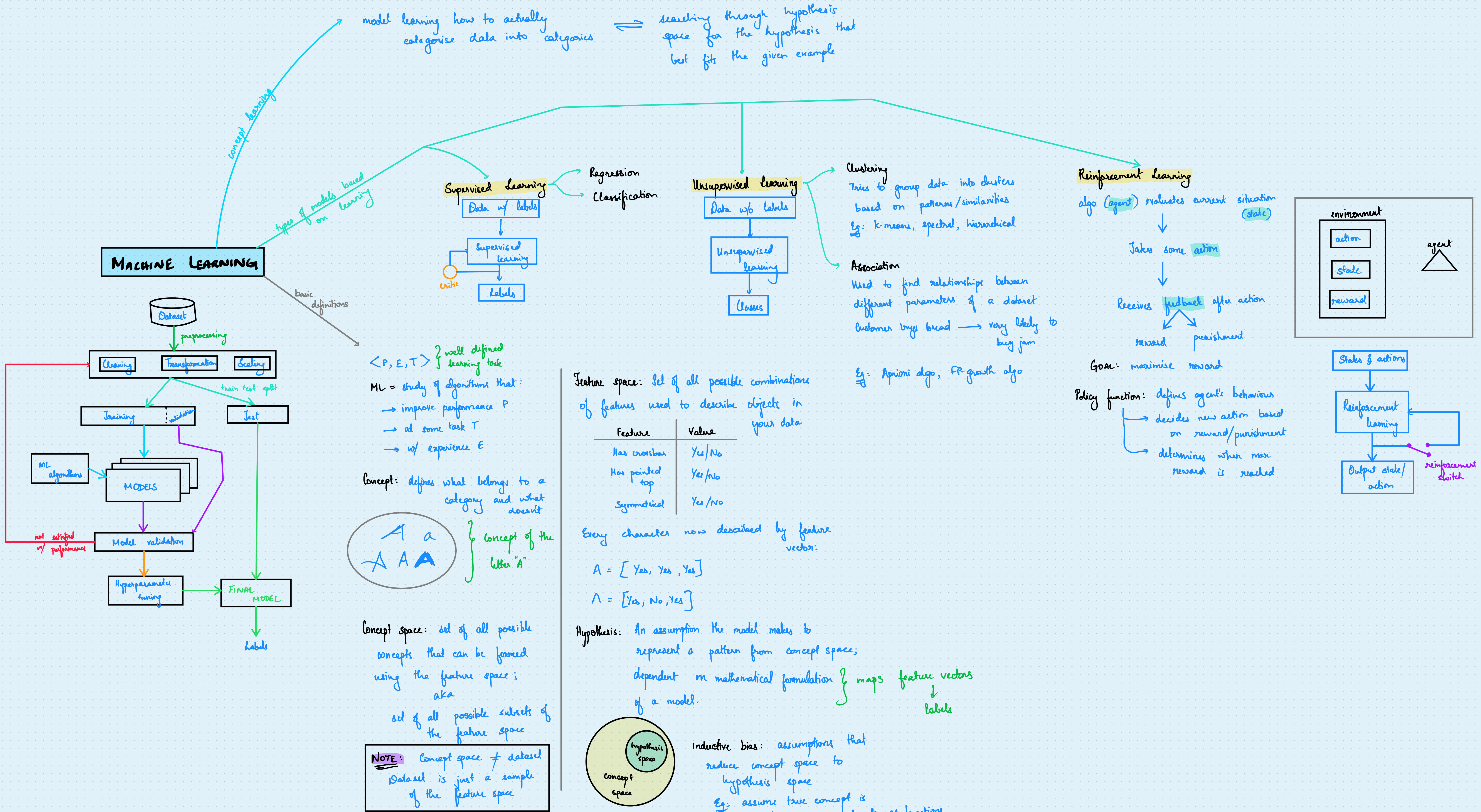


model learning how to actually categorise data into categories  $\Rightarrow$  searching through hypothesis space for the hypothesis that best fits the given example



$\{R, ?\}$  accept all

$\{\phi, R\}$  reject all

understanding the bias

no of actual values  $+ ? + \phi$

Term	What it is	Example (Character recognition)
Feature space	All possible combinations of features	All 8 combinations of [Has crossbar, Pointed top, Symmetrical]
Concept	A function that classifies items	Concept of "A" labels some feature vectors as "A", others not
Concept space	All possible concepts (labeling functions)	All 256 ways of labeling the 8 feature vectors
Dataset	A small subset of the feature space with labels from a concept	You may only see 4 of the 8 vectors in your training data