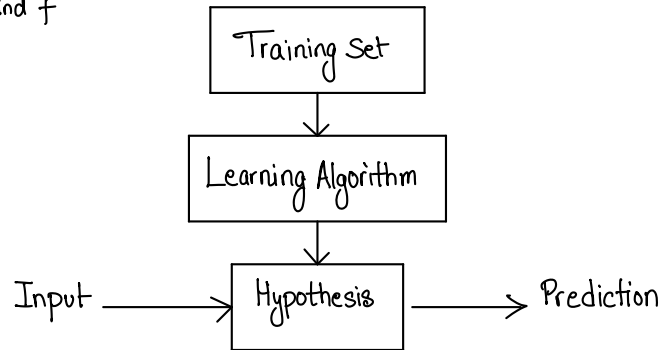


MACHINE LEARNING

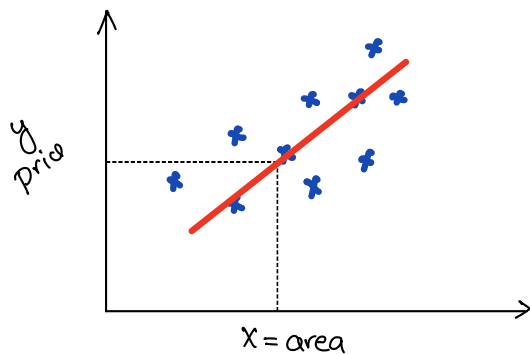
Machine Learning is field of study that gives computers the ability to learn without being explicitly programmed

Well-posed Learning Problem: A computer program is said to learn from experience E with respect to some task T and some performance measure P , if its performance on T , as measured by P improves with experience E

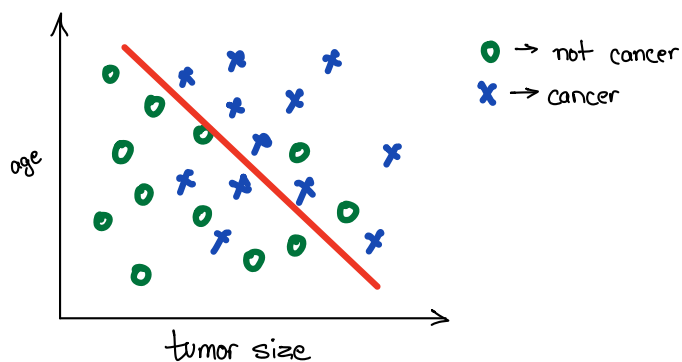
Supervised Learning Given a dataset (X, Y) with input X and labels Y , find the relationship mapping $X \rightarrow Y$
 $f(X) = Y$ find f



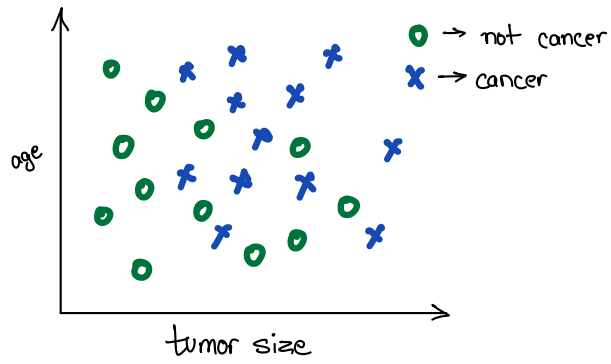
Regression: A supervised learning problem is a regression problem if the value Y to be predicted is continuous.



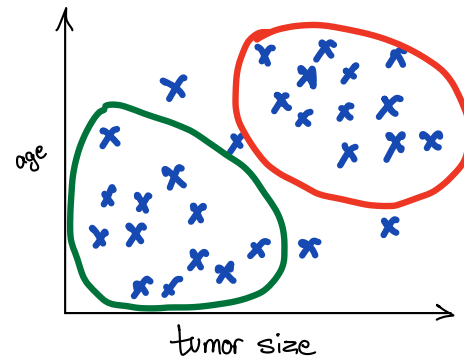
Classification: A supervised learning problem is a classification problem if the value Y to be predicted has discrete values



Unsupervised Learning: The goal of Unsupervised Learning is to find hidden patterns in unlabeled data



Supervised learning



unsupervised learning