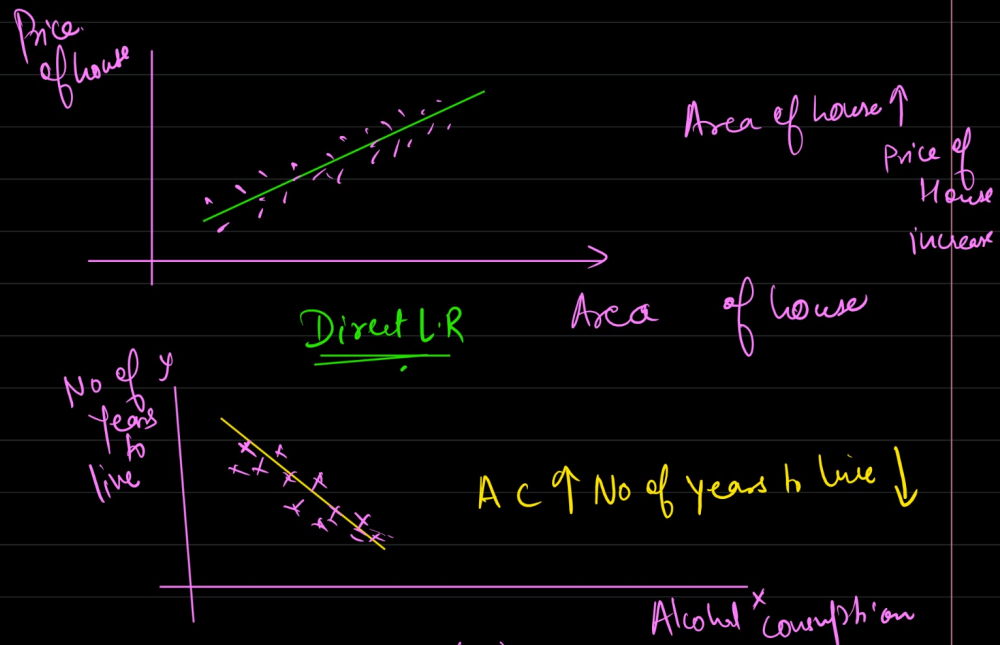


Assumptions of Linear Regression

① Linearity → X and Y should have linear relationship.



② Independence → The observations (rows) are independent of each other.

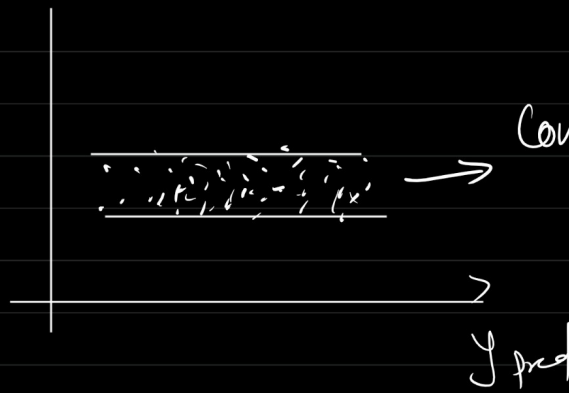
	Ht	Wt
1 →	5.2	80
1 →	5.3	82
-	-	-
-	-	-

# of holes studies	Marks obtained.	Y grade
→ 5	50	45
→ 4	80	75
→ -	-	-
→ -	-	-
→ -	-	-

→ Since the observations are independent, the errors should be independent

③ Homoscedasticity → Also known as Constant variance, this assumption means the variance of the errors are constant.

Error



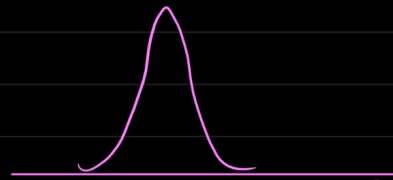
Constant variance,
Homoscedasticity,
No pattern.

Error



Non-constant variance
Heteroscedasticity
Pattern.

④ Normality of Errors → Errors should be normally distributed.



✓ ⑤ The features should not be related or should have ^{Error} least relation.

