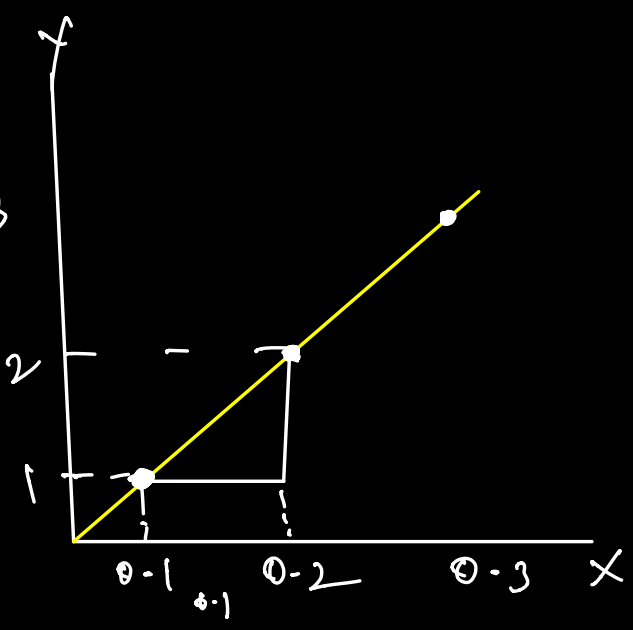
1. Lasso → Practical
2. Polynomial Regression
3. Deployement
4. Flask, HTML,
5. Model Serialization.
6. Cloud Deployement

X	Y
0.1	1
0.2	2
0.3	3



model = Linear Regression

Slope = 10 Intercept = 0

$mx + b$	$10(0.1) + 0 = 1$
$10x + 0$	$10(0.2) + 0 = 2$
	$10(0.3) + 0 = 3$

Cost function $= \boxed{\frac{\sum (y - \hat{y})^2}{n}}$

$= 1 - (10(0.1) + 0) + 2 - (10(0.2) + 0)) + 3 - (10(0.3) + 0))$

$= 0 + 0 + 0 \Rightarrow 0$

Cost function

$$\frac{\sum (y - \hat{y})^2}{n} + \lambda \sum [|m|]$$

$$(1 - (10(0.1) + 0))^2 + 10$$

$$0 + 10 = 10$$

$$1-\left(\underline{9}\,(0.1)+\underline{0}\right)^2+9$$

$$1-(0.9)^2+9$$

$$(1-0.81)+9=9.19$$

$$1-\left(\underline{0}\,(0.1)+0.1\right)^2+0.1$$

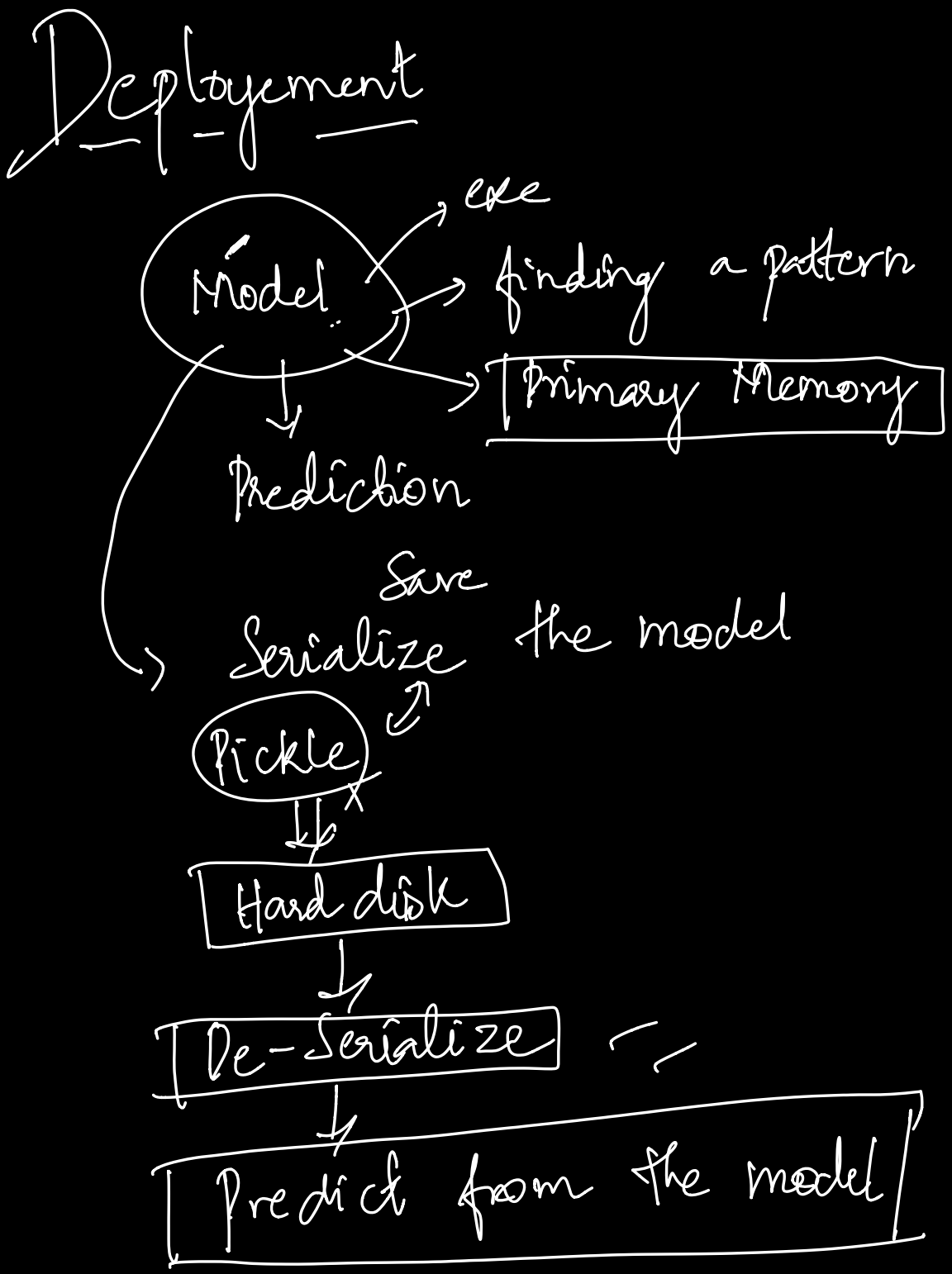
$$1-(0.1)^2+0.1$$

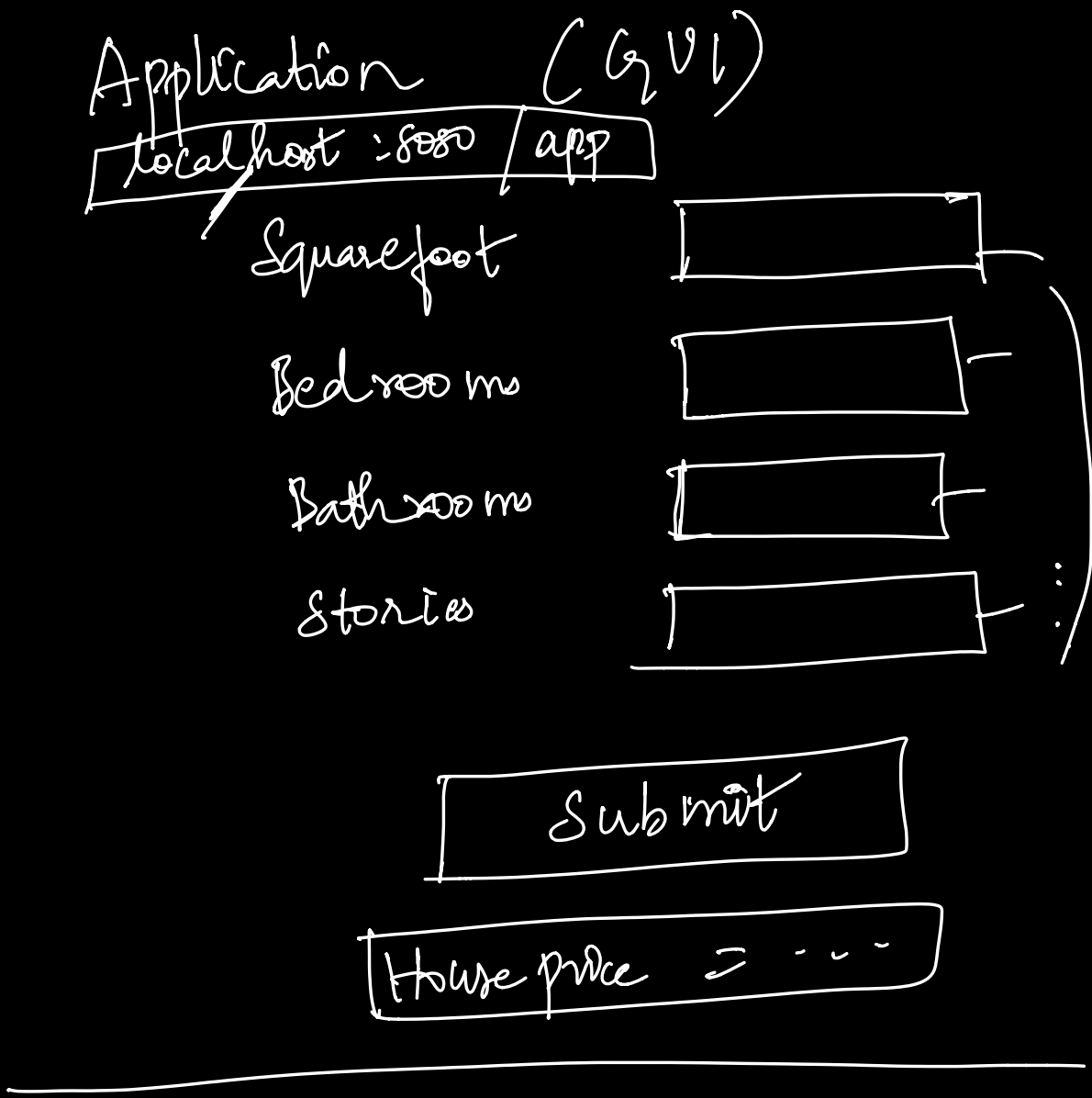
$$1-0.01+0.1$$

Summary:

1. Supervised , Unsupervised
2. Regression , Classification
3. Linear Regression
4. Equation, Linear Algebra, Gradient descent
5. Train-Val, Test split
6. Cross Validation
7. Error Metrics
8. Assumptions of Linear Reg
9. Overfitting & Underfitting
10. Variance , bias
11. Regularization
12. Lasso, Ridge, Elastic Net
13. Polynomial Regression
14. Hackathon Practice Sales

Deployement




Application (GUI)
localhost :8080 / app
Squarefoot
Bedrooms
Bathrooms
Stories
Submit
House price = ...

1995 → 2000 → E-commerce Website

1. Purchase a Domain
2. Site Preparation
3. Planning ← well advanced
4. Purchase ← capital
5. Setup
6. Security Implementation
7. Install
8. Migration
9. Maintanence - 24/7 train
10. Uninterupted Power supply
11. Uninterupted Internet supply

6M+

Amazon web Service (AWS)

IBM BlueMix

Cloud Computing

- AWS
- Microsoft Azure
- Google Cloud Compute (GCP)
- Alibaba
- Oracle
- Heroku