

# Sentiment Analysis.

1. Text Blob — +ve, -ve or neutral
2. Vader lexicon → Sentiment Intensity Analyse. → +ve  
+ve, -ve or Neutral      Compound score ⇒ -ve
3. Rule-based approach -

Positive.txt -

—  
 —  
 —  
 —  
 —  
 —  
 —

Negative.txt -

—  
 —  
 —  
 —  
 —  
 —  
 —

Reviews.txt · amazonhw.

String ⇒

→ lower -

→ Numeric.

→ stopwords.

In general the Reviews are +ve or -ve.

58      49 -

98      —

rev-String ←

P	N			P
N			N	P
	P			P
				P

500



Text  $\rightarrow$  Vectors.

- 1. Bag of Words  $\rightarrow D1: 1 \rightarrow 8$
- 2. Binary BoW  $\rightarrow D2: 1 \rightarrow 8$
- 3. TF-IDF  $\rightarrow \vdots$

4. Word2Vec  $\rightarrow$

$\rightarrow$  Every word converted into a vector

$\rightarrow P_1$

M 32 EVR 256 1 Cur

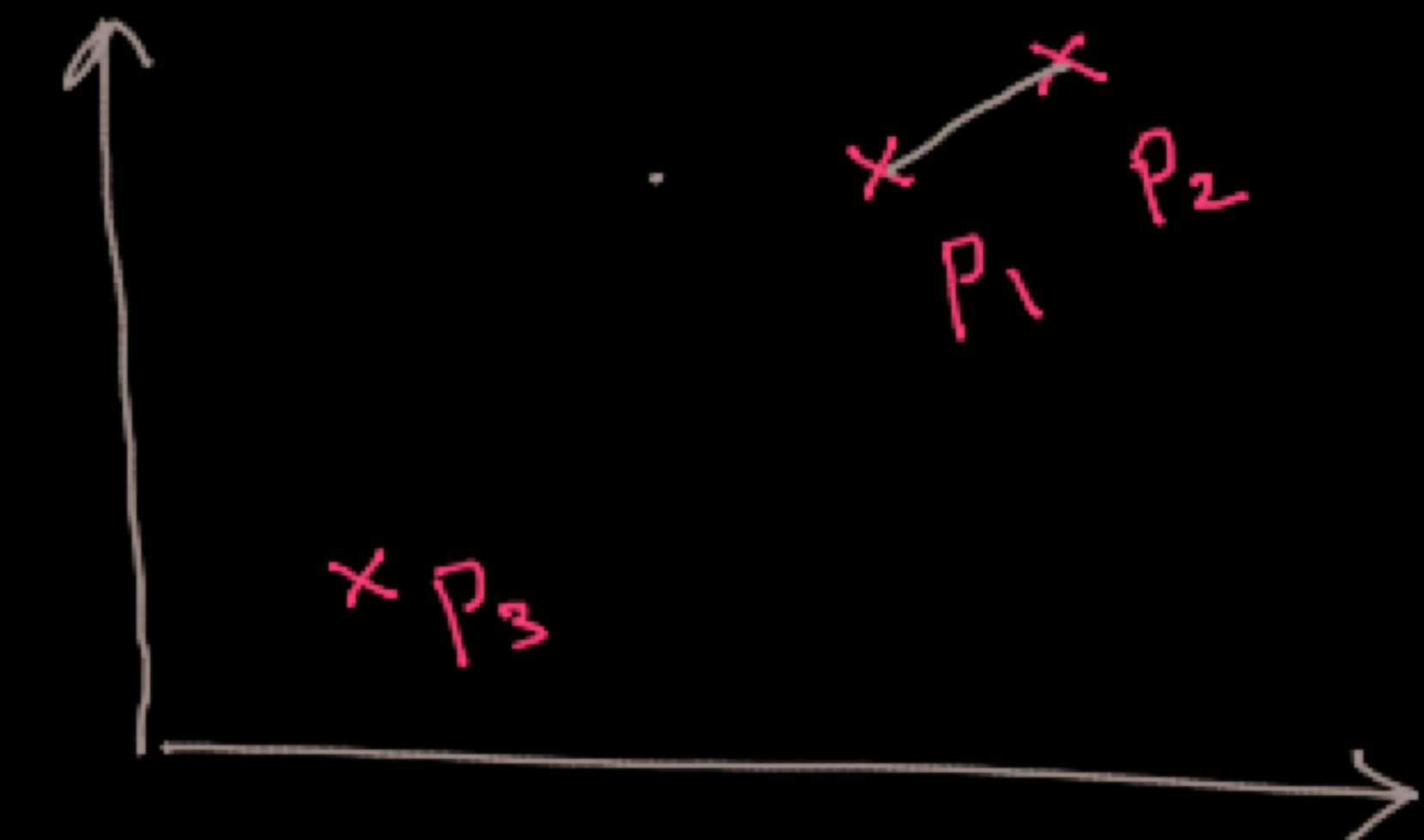
$\checkmark P_2$

M 28 Cur 45h 3 cm

$P_3$

M 65 MD MR No cm

t-SNE



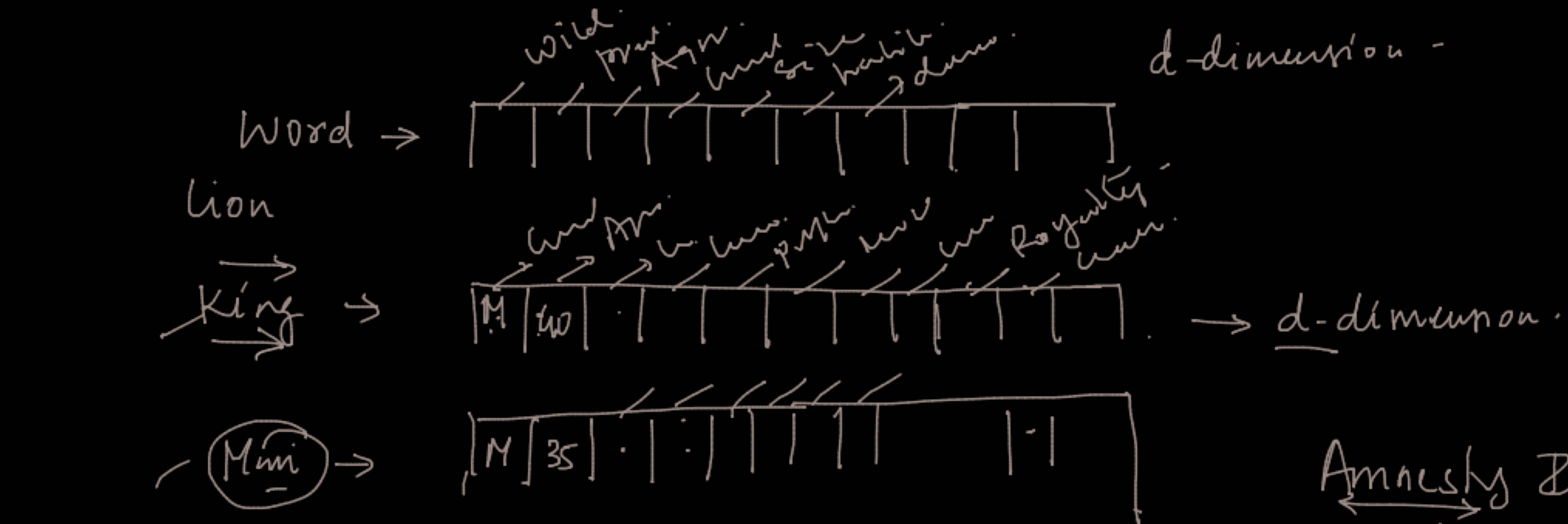
(100)

dimensionality

$\rightarrow P_1$

20.   
 [ ]





Amnesty Interaction

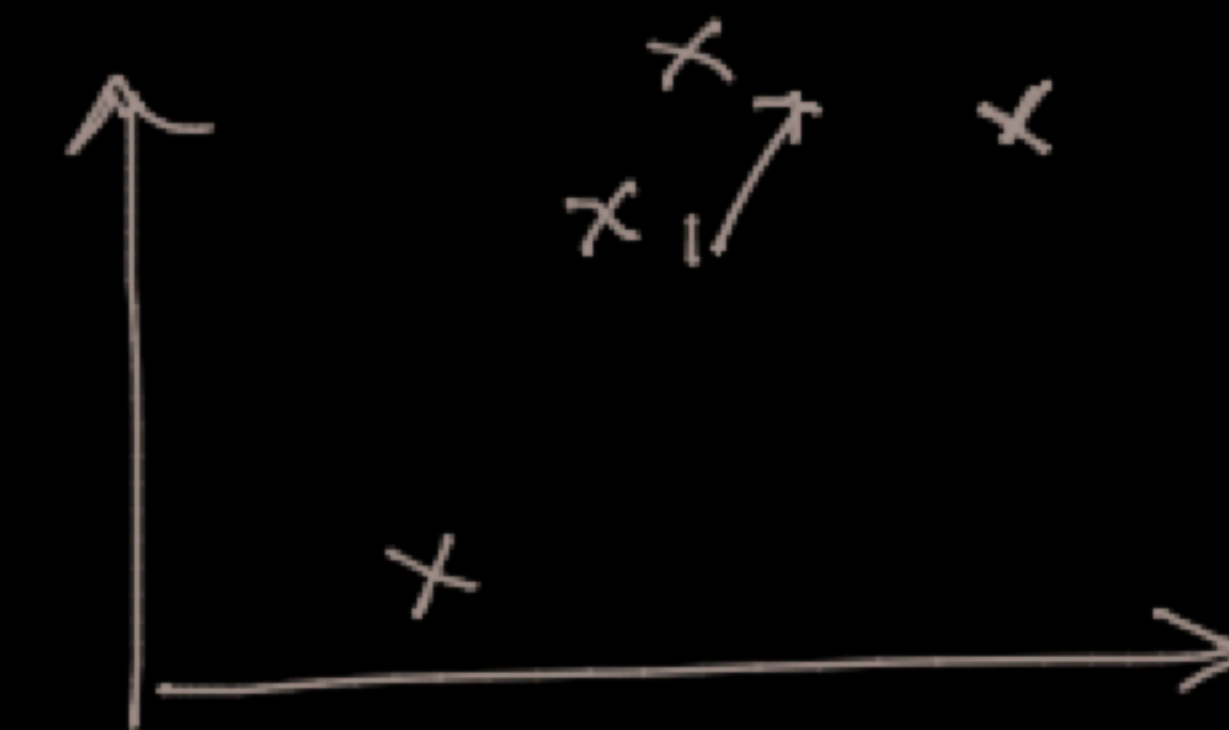
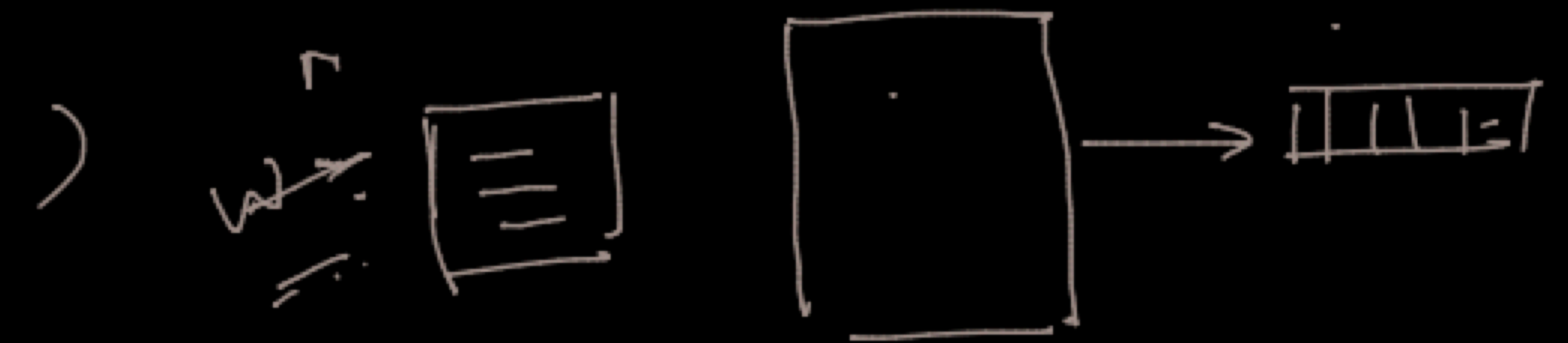
spacy  $\rightarrow$



$$\text{Lion} \rightarrow \begin{pmatrix} 0.4 & 0.2 & \vdots \end{pmatrix}$$

	$\downarrow$	$\downarrow$	$\downarrow$
$\downarrow$	0.9	0.2	0.8
$\downarrow$	0.3	0.8	0.7

→ King → Man ←  
Queen → Woman ←



$$\text{King} + \text{Man} = \text{Queen} + ?$$

? = King + nian = Queen-

$\Rightarrow$ 

0 <sup>1</sup>	0 <sup>2</sup>	0 <sup>3</sup>	...	...	...
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 $\rightarrow$

$\downarrow$

woman

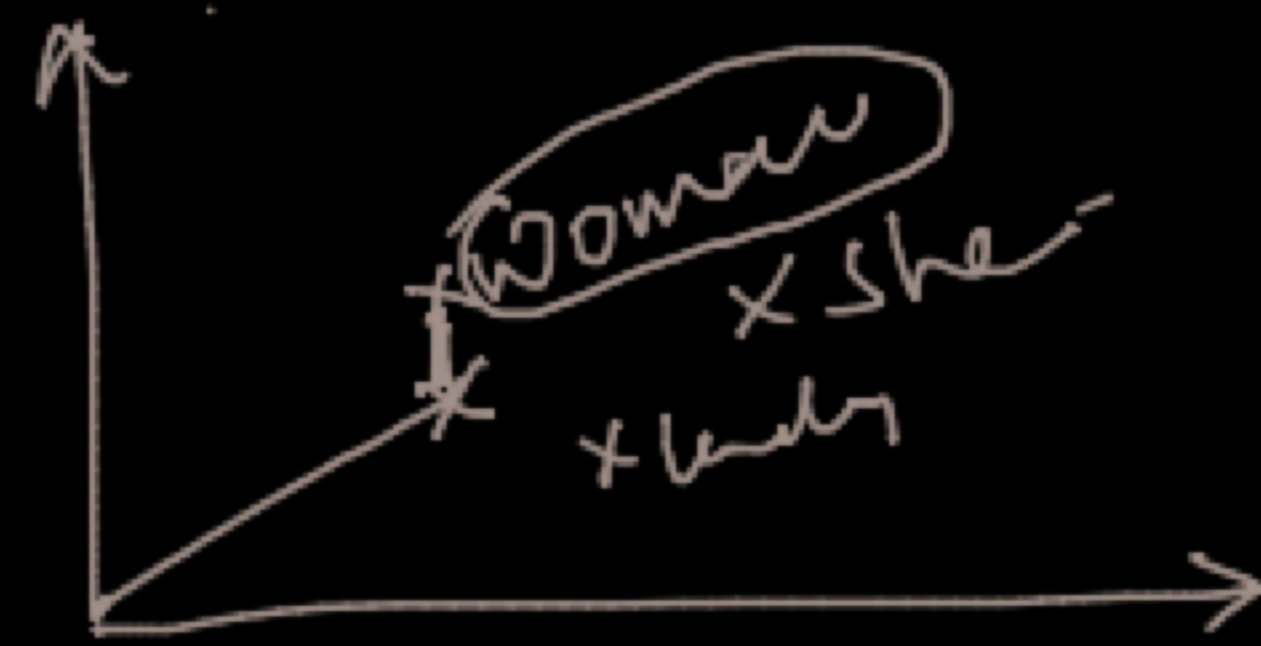
She her leader-

king  $\rightarrow$ 

1	5	6	4	3
---	---	---	---	---

1	5	6	4	3
---	---	---	---	---

king. ←



→ Semantic ↔ Meaning / context-  
Syntactic → grammar



		R	G	B
Embeddings	Green	.	.	.
	Blue			
	red			
	light Blue	.	.	.
	sky ph			

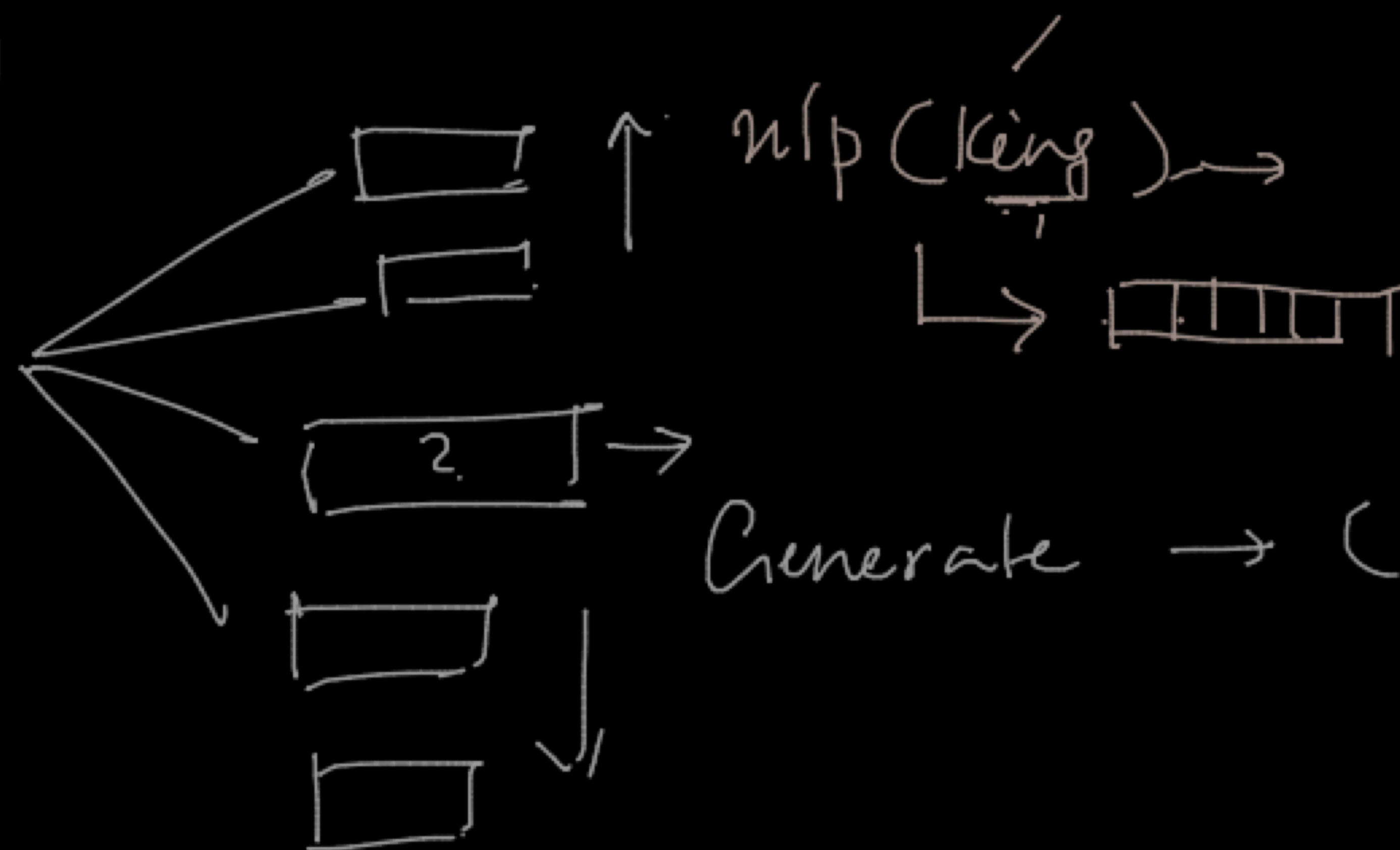


Bank Till

10.15

LSTM →

CBow



Generate → ( - - - - - )

Naive Bayes  $\rightarrow$

XG13M  $\rightarrow$

Forecasting  $\rightarrow$  Predicting into future