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Semester -2:
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Course name = Mach. CSE

Signature = fruit

Date = may 22,2020

## NLP Assignment - 3

onsider the following toy example training data:-

<5> I am Sam<15>

(S) Som I am C/S>

25> Som I like <15>

<s> Som I do like <15>

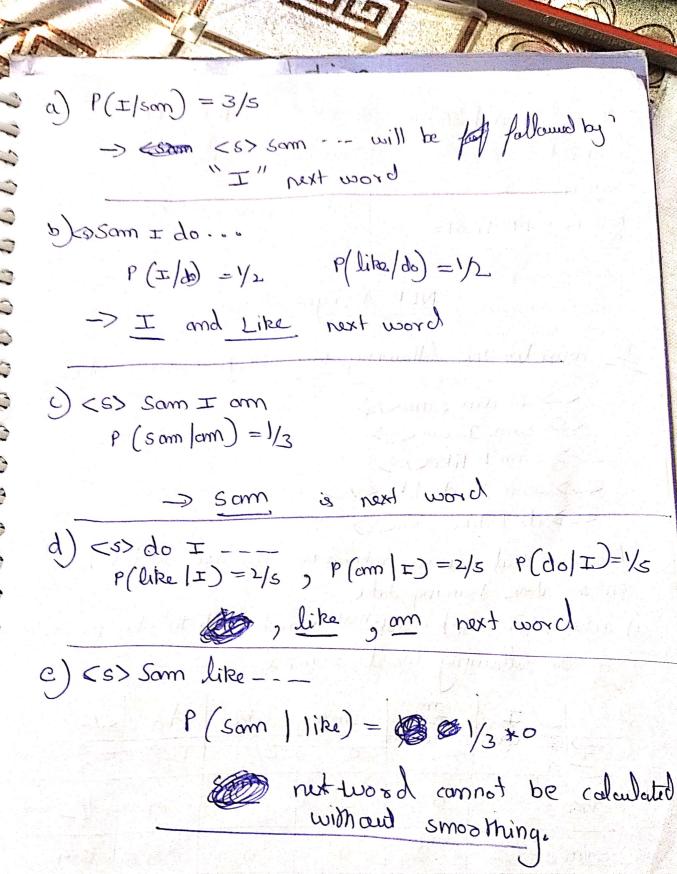
<5> do I like Som <15>

Assume mot me use a biagram language model based on one above training doda

1) who is me most probable next word predicted by the model for the following word section ?

	5	エ	om	Sam	like	0.2	<15>
(S) S		0	2/5	0.6	2/5	1/5	0
	0	0	0	6	-0-)	0	1/2
Sam	0	3/5	0	0	0	0	0.4
like	0	0	0	1/3	0	0	0.667
go	0	1/2	0	8	1/2	0	O
		1					

PU J J J J J J W W W



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$$P(do | < S >) * P(som | do) * P(I | som) * P(like | I)$$

$$= \frac{2}{10} * \frac{1}{7} * \frac{4}{16} * \frac{3}{8610}$$

$$= \frac{8809 \times 16^{3}}{10} = 0.34285 \times 10^{-2}$$

$$= P(som | <6)) * P(do | som) * P(I/do) * P(like | I)$$

$$= \frac{4}{10} * \frac{1}{10} * \frac{2}{7} * \frac{3}{10}$$

Boon seavence have eased probability