

Ques:

7 Marks

Compute the BLEU score for the following example.[Hint :Use unigram,bigram,trigram and brevity penalty also]

Reference 1: the dog is on the grass

Reference 2: there is a dog on the grass

Candidate: the dog dog on the grass grass

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Ques:

[2+3=5 marks]

a) There are different types of questions in Modern systems. Which type is the following question:  
"How many variations of the COVID Vaccine are available?"

b) Find Domain, Intent and Define Slots for each of the following Sentences:

i) Find me a cheap South Indian restaurant in Delhi

ii). Book an Appointment on Sunday 10:00 AM for Hair spa

iii). What will be the weather tomorrow morning in New Delhi?

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Soln 3

Ref1: the dog is on the grass

Ref2: there is a dog on the grass

Candidate: the dog dog on the grass grass

Unigram

word	count	Ref1	Ref2	$R$ $\max(\text{Ref1}, \text{Ref2})$	$\min(\text{count}, R)$
the	2	2	1	2	2
dog	2	1	1	1	1
on	1	1	1	1	1
grass	2	1	1	1	1
Total	7				5 (total)

$$\text{Unigram} = 5/7$$

Bigram

Words	count	Ref1	Ref2	$R$ $\max(\text{Ref1}, \text{Ref2})$	$\min(\text{count}, R)$
the dog	1	1	0	1	1
dog dog	1	0	0	0	0
dog on	1	0	0	1	1
on the	1	1	1	1	1
the grass	1	1	1	1	1
grass grass	1	0	0	0	0
Total	6				4

$$\text{Bigram} = 4/6 = 2/3$$

APRIL

15

WEDNESDAY

DAY 100-249

Word	Trigram	Ref1	Ref2	len(R1, R2)	len(R1, R2)
the dog dog	1	0	0	0	0
dog dog dog	1	0	0	1	1
dog on the	1	0	0	1	1
on the grass	1	0	0	0	0
the grass	1	0	0	0	0
Total = 5					2

Trigram =  $2/5$ 

|C| = 7

16

THURSDAY

DAY 107-259

|Ref1| = 6

|Ref2| = 7

if students assume (Ref1) is the best answer then

$$B.P = \frac{R1 \times P}{1} = 1$$

$$\text{Bless sure} = B.P \times P = 1 \times \left( \frac{5}{7} \times \frac{2}{3} \times \frac{2}{5} \right)^{1/3}$$

2020

WEEK 16

APRIL

FRIDAY

DAY 109-258

17

Ans 4 a factoid question

b) find a cheap restaurant in Delhi

Domain : Restaurant  
 Intent : to look for restaurant-  
 food type : South Indian  
 place : Delhi  
 cost : cheap

Book an appointment on Sunday 10am for Hair spa.

SATURDAY

DAY 109-257

18

Domain : Salon  
 Intent : Book an appointment-

Service : Hair Spa  
 Day : Sunday  
 Time : 10am

What will be weather tomorrow morning in New Delhi

Domain : Weather forecasting  
 Intent : Show weather  
 Day : tomorrow  
 Place : Delhi  
 Time : Morning

MAY

2020