

Vidyavardhini's College of Engineering and Technology

Department of Artificial Intelligence & Data Science

Dit will				
& Ges w 19 day		26		
Class:	TE-ALDS	Semester:	Y	
Course Code:	C6C501	Course Name:	CN	

Name of Student:	Dinya Davane
Roll No.:	13
Assignment No.:	3
Title of Assignment:	Apply Subnetting, Network Address Iranetation
Date of Submission:	25/8/25
Date of Correction:	

Evaluation

Max. Marks	Marks Obtained	
5	04	
3	A 0	
2	03	
2	02	
10	0.6	
	5 3 2	

		(2115)	Below Expectations (BE)
Performance Indicator	Exceed Expectations (EE)	Meet Expectations (ME)	Below Experience
Completeness	5	3-4	1-2
Demonstrated	3	2	l
Knowledge Legibility Legibility	2	1	0

Checked by

Name of Faculty

Signature :

Date

: 231

CN Assignment -3

		N Assignment 3	
			DATE:
1.1	11	0.100.0116 (65,536 addresse	A .
2	1	e 151 needs to distribute there	addresses to there
	9	he fruit and he comers as follows:	117 (88)
j)) [he first group has 64 austonie	18 ' each pands 250
	0	he first going has 64 austomie	a sum sum as s
ii)			
5 -1 -		the second group has 128 custom	, then reteat 1+8
		The third group has 128 audon	
		addresses Design the subblocks	and find on I have
1	1	rany addresses are still available	e alter there allowed
Ans			
		groups of customers as followers The first group has 64 custo addresses	
		The first group has 64 ando	more - each mede 250
		addrusses	
		i) The second group has 128 cust	omors, each needs (28
		addresses	
		(ii) The third group has 128 cus	tomers, each needs
		64 addresses	
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	3 10 1		Englished .
			tur's a second
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W. J	7. V	- 12 2kg 23 pm 3 c	
			200 (200 (21)) 11
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4 17 1	1 20		· Market State Control of the Contro

FOR EDUCATIONAL USE

		The state of the s	BATE
	1 1 1		automer OOI:
1		JSP	190.100.6.0124
4		190,100.00.00.100.100	Customer 604:
		190,100,00,00,70,70,70	190-100-63 .0124
		the state of the s	
4		1 2	audomer 001:
		Group 2	190.100.64.6125
50,4	To and from	190.100.64.0 to	190.100.127.128/25
	the e	190.100.127.255	Customer 00:
1	Internet		190.100.128.01 26
	- 1 1	Group 3	
r		759.255	190-100-159-192/26
	the state of		
		gvailable	
- 1		190.100.160.0 to	
		190.100.255-255	
A v	1, 1 / 1 4 4 4	140.1001.423	4 () () () ()
-		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	+ 112
?)	Group I:	geory has 64 rustomers,	each heeds 256
	The first	promp our agents each custon	mer requires
	addresser . 3	n this group, each custon. This means that 8(1	og 256) Joits
		IN I X I V V V V V V V V V V V V V V V V V	. •
	are releded	To define each host. The 8 = 24. The addresses are	: 1
	is then 32	196 100 0.0134	0.100.0.255/24
	1st Customer	1 0,100	6.160.1.255/24
	2" Customer	: 190-100 - 1.0/24 19	
	:	190 100 (20/24 1	90.100.63.255/24
	64 Custome	n 190.100.63.0/24 [
-	1.1.1 Ch V	256=16384	
	Joial : 64 /		

	ar. a.
ridy?	DATE:
J: - i	Group 2:
The a will	The second geroup has 128 austomers, each needs 128 addresses. In this group, each austomer needs 128 addresses. This means that 7 (log 128) bits are sould
	addresses, In this group each without las
	addresses. This means that I fil was a seeds 128
	to define each had II I I I I I I I I I I I I I I I I I
-	The address on:
	12 Customer 190
	2nd Customer: 190.100.64.0/25 190.100.64:127/25
0	
	128th austomer: 190,100,127,1281-6
	Jotal = 128 × 128 = 16384
- 1	
(11)	Group 3:
	The third group has 128 wat many
,	In this group, each customer and con needs 64 addresses
	mean that ((log 64) bite are notally
	The third group has 128 customers, each needs 64 addresses In this group, each customer needs 64 addresses. This mean that ((log 64) bits are needed to each hoa. The brefix length is then 32-6=26. The addresses are: 2rd Customer: 190.100.128.0126 2rd Customer: 190.100.128.64/26 190.100.128.63/126
	12 automer: 190.100.128.0/26 190.100
•	destance: 190.100.128-64/26 190.100.128.63/126
	2nd Cuctomer: 190.100.128.0/26 190.100.128.63/126
	128th Customer: 190.1001.159.192/26 190.100.159.255/26
	Istal = 128 x 64 = 8192
Į.	No d 250 to 1
	No of allocated addresses to the ISP -65,536
	No de wolfall address ley the ISP = 40,960
	No of granted addresses to the ISP = 65,536 No of allocated addresses by the ISP = 40,960 No of available addresses: 24576.

DATE

9.2	1					1 1	DATE:		
9.2	For the network shown in fig, show the computation at node A using the Dykstera's Algorithm								
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	There me					oco numl	ier		
1		(B)	1 .	, ,	-(0)		denote	costs	
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	* 4		V 9	* ,	1			—(F)	
~	1	(A)		- ((D)	ર .	,		
			ચ						
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	Step	Node	, v	В	C	D: ~	r E		
		Chosen						or .	
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	5	E	0	e J.	2_	2	3	6	
	6	F	O	1	2	2	3	6	
	1	1, 1	1 4	7 A		-A 77 1	2	6	
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