		DATE!-I	
	Tutorial -5		
	7200		
- Maria	Name: Devansh Shah	100	
	Roll no: 1914078	10000	
	Batch : B2 001-00	= 202014-V.0 - 81°	
	0.15	· Jane	
01)	-Comparison of Huffin	non and Arithmetic coding.	
7	- 570- N - C - C - C - C - C - C - C - C - C	1026604	
	Arithmetic coding	Huffman coding	
000200	It is not a statiscal	The Is a statistical	
1	method 250.0	nethod	
6	It yield and optimum	It does not yield an	
	result. 2.0 x 34180.0	optimum result	
	Zrepos. 0 -	218 82.0	
	There is no one to	There is one to one	
	one correspondence btu	Correspondence between	
		source symbol and code	
	word and giver of	mordining bishood	
1	diany of lay all of all of	0, 0, 1	
	Does not produce prefix	Produces prefix code	
elny	redel balance boday	- today of a	
2	Decompression speed is	Decompression speed is	
	Slow	fast speed is	
	0.0.0.0.0	A 210 1 210-812 P2-0	
	Symbol: BACA low	value = low value + Diff * range from -	
3			
		value = highwalve + Diff * range ~	
	P(c) = 0.25	to symbol -	
	0 2·0 0-Cif	exerce = Mighvalue = 100 value	
	(Initially 1)		
The state of the s		, , , , ,	

n		,	-1-IDATE1-I	
		2- 6/00/1	1	
Input	low value	Migh value	Difference	
Symbo		Harl Handra	omo lescote	
		- 181020	110 1101	
B	= 0.0 + 1.0x0.5	$= 0.0 + 1.0 \times 0.75$ = 0.75	= 0-75	
1	= 0.5	7 2 1 . 1	1.23	
A	= p.5 +0.25 KO	= 0.5 + 0.25 × 0.5	2 D 1 22	
W works	: = 0 = 5	= 0-625	= 0-625 -0.5	
		0.0	1,71,01,125	
Inicett	= 0.5+0.125 x00	(x25,0+12.0=	= 0.625/ - 0.59311	
	= 0.59375		= 0.03125	
		20	.23	
(A + w	=0.39375 +	= 0.59375 +6	1= 0.015625	
4.	0-3125 x0	0.03125 x 0.5	1029	
	= 0.59375	= 0.609375		
	Thexe is use	In the second se		
	1500 LD - 59375			
ol bar	loames serve	the and tone	1 2000 S	
Decodi	Decoding formula : code - range from symbol Range to symbol - Range from symbol			
M/	(ode symbol symbol Difference			
Code	Output, F	Ronge from Ronge to	Dillamaia	
ر مرو	Symbol	Symbol Symbol	Difference	
= 0.59375,0000 Bye (1) Dishood 0-7500xg m 0(25				
4	Heof		W. CAN	
= 0-59375-	0.5=0.375 A	0-0 0.5	0-5	
0-25	M. The			
	alove of output		: lodge 12	
= p-375-D		0.75 67.0	0 = (40.25	
0-5.	sulprateir . melora	F. 1 5256	(8)	
leden of		25.0	= (3) ?	
04/15	0.75 = 0 A A mars	0-0	0.5	
0.	100p halt			
- 0 4-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0		



or what are the applications of arithmetic
coding. Expkin one application in detail.
And Arithmetic coding is used in a variety of
lossless and lossy compression applications.
Lossless and lossy compression applications. It is a past of many international standard
Some applications are:
Adaptive text compression
Lompressing blact/white images Non adaptive coding
Loding arbitrary distributed integers
Court along oustral buted thregers
Compressing black/white images using
arithmetic coding has been investigated by
langdon and Rissamen who achieved excellent
results using a mode that conditioned the
probability of fixely being black on a
tem plate pt pines substituting it is included
approximate method of anotheric coding that avoided multiplication by representing
that and ideal my biglion the bus second time
probabilities as integer fowers of 1/2
Moffmon coding cannot be directly used in
this application as it never compresses a two symbol alphabet.
Auro symbol alphabet.