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	ANALYSIS REPORT	
6	ROHANI GAMIADE A20379951	
	BORELLA CONTRACTOR OF THE PROPERTY OF THE PROP	
	Pseudocode	
-		
4	Functions Used: 1) readwritefile ()	
	2) greedy-SeparatingPoints ()	
	2) greedy-SeparatingPoints () 3) Checksplit H()	
-	47 checksplit V()	
131	Create: List vert	
1314	List Note	
	int xclj, yccj	
	int xclj, yccj	
eigh shari	function readwritefile()	
1	File folder = new 'File (" input")	
0 2		
3	for (1=0 to list Of Files-length) if (file. is File ())	
4	if (file. 15tile())	
5	Storing filemame= file.getName()	
	numlines = 0	
6	br = new By Hered Reader (new FileReader (** input/"+ filename)	
	line = br. read Line ();	
7 8	numlines : get number of points from first line of file	
STATE OF THE PARTY	from first line of file	
9	Create groay X(1) YE'LD of length numlines.	
10	Read X and Y coordinates line	
	by line into XC; YC. br. close.	
11	end it	
+		
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		The second
	A PANTA PLANTA PANTA PAN	
	Carrier and Children and Children of	
	Moutput file escation.	
	1/output file cheation. 12 outfilename = "greedysolution _"	_
	13 if i < 10	-
	if i < 10 outfilename = outfilename + "0" + (i+1)	
1	5 outfilename = outfilename + (i+1)	
	11 create file in output-greedy foldet File outfile = new File output-greedy", outfile name)	
16	File outfile = new file output goreay,	
	outfile name)	
	7 outfile : cdeate Meeo File ();	
1.8	DW: Bufferedkløiter Object to write into file	
	11 call algorithm to select lines)	
19	greedy-Separating Points (xc, yc, 0, xc-length-	1)
-1.3.74	Il write the number of lines and solution be)
	//file.	
	La de la companya della companya del	
20	bw-write (solution-size())	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The state of a suit was a suit wa	
21	for z= 0 to solution-size()	
1811A-A-	for z= 0 to solution-size!) bw.write (solution-get(z)+60(n').	
Sa Free	end for	
	a consider the second s	
22	bw.close	
	end for	
P	end method	

		Analysis
	1	Line 1 and 2 are initialization and takes
		O(1) time
	2	Line 3 has I initialization compatisons
		upto to number of files in folder say +
	3	upto to number of files in folder say "f" Lines 4 to 18 will run for f" times.
	4	Line 19 is the call to greedy. Separteting Points() which will itself take time.
		Points() which will itself take time
		The call to this method will be for
		the number of files in the folder lines 20 to 22 will we be executed if
	5	times.
-		The state of the s
		- 1- Provide to 100 P
		Method 2
	Lin	position 4 " of ") follow made inc.
		greedy_ Separating Points (int XL), int Y() int
		start, int end)
	1	length = X.length
	2	length = X.length boolean splitt = false, splitV = false
100000	3	diff = end - Start
bas	4	if diff 70
	5	vertical = 0, horizontal = 0
	6	firstvalue = x[start]
	7	lastvalue = x[end]
	8	splitmid = firstvalue + lastvalue
1	9	if (splitmid 7. 2 1=0)
1	10	vertical = splitmid/2
	tl	and if hotizontal = splitmid/2
		4 bas
	1	

	else
12	vertical = splitmod - 1/2 horizontal = splitmod - 1/2
- 13	horizontal = Spirenson
	end if
141	if (vest · is Empty!)) vest · add (vestical)
15	Solution · add (vertical)
16	
12/11/3	else vivi (x v vertical)
17	splitV = checksplitV (x, y, vestical) if (splitV == toue)
18	It (split -= Edge)
19	vest · add (vestical) solution · add (cov "+ vestical)
20	solution. add V + vertical)
	end if some some
0.1	end if
21	split H = checksplit H (x, y, horizontal) if (split H = = toue)
22	horz · add (horizontal)
23	solution = add (66 h "+ horizontal)
. 24	Dy this Lend if ward among the property
2	upstart = vertical -0.5
25	downend = vestical - 1.5
16	
0.7	axeedy Separating Points (X V Statt download)
27	greedy_SeparatingPoints (x, y, start, downerd) greedy_SeparatingPoints (x, y, upstart, end)
28	greet general (1, 1, 4, apstar, er)a)
	end if
	end the land the second the secon
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	2 bish
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-	Mattal 2	
	Method 3 boolean checkSplitH (not XILI, YILI, splitpoint)	
1	flagspit = 0	
2	for i= 0 to YI-length	
3	for i= 0 to Y1. length for j=i+1 to Y1. length	
4	1 (la as Alita a ()	
5	if (Y1[i]) splitpoint ll Y1[j] < splitpoint 11 (Y1[i]) < splitpoint ll Y1[j] >	
	il (AT [!] (Sblitboilt TT ATP)	
	splitpoint))	
6	x1 = X1[i]	
7	x2 = x1[j]	
8	yl= Y1[i]	
9	y2= Y1[j] splitvestfound = 0	
10	for k = 0 to vert-sizel)	
12	if solitvertfound = 0	
13	if splitvertfound = 0 vertifal = vert · get(k)	
14	I / v/ / tival ll . 1 7 /atticat	
15	end if	
	end if	
	end it	
	end for	
16	if splitues thound = 0	
17	if splitvertfound = 0 if horzois Empty() flagsplit=1 end if	
18	tlagsplit=1	
	end it	
19	flagcount=0 for l=0 to horz·size() if flagcount=0	
20	tor 1=0 to horz.size()	
24	11 lagcount-U	

4.7		
		the test of the second
~	horeval = hore get (1) of ((y17horzval & y2 < horz	
77	of ((417 horzval 28 y2 (horz	val)1/412 horzvall
23		y17 horeval)
2.4	flagcount=1	
-	end if	
	. 0	
	end for	
25	if flagcount = Ø 1	
26	end if end for if flagcount = Ø 1 flagsplit = 0 else	
_	else	
- 27	flagsplit = 0 else flagsplit = 1 end if end if end if	
	end if	
ļ	end if	
-		
	endif	
	end for	
0.8	end for	
28	if flagsplit = 0 return false	
29	else	
30	return toue.	
	end method	
	Charles at the control of the contro	- 11
	t-times to the same of the sam	
	20 (240)	
) - tendings & direction	
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	MINERALLY MEDICAL PROPERTY.	
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EVALUATION OF THE PARTY OF THE		100 mg

	Method 4
	Committee the part of the state
Ý	boolean checksplit (x1[], y1[], splitpoint)
	flagsplit = 0
2	n1 = splitpoint - 1.5
3	u2 = splitpoint - 0:C
4	for k = 0 to horz. size() if flagsplit=0
5	if flancolite 0
6	betweenline = horz get (k)
7	between line = horz.get (k) if (11[x1] > between line 11 y1[x2] <
4	betweenline) 11 (Y1[n] < betweenline Ll
	betweenline) 11 (Y1[n] < betweenline 12 Y1[x2] 7 betweenline))
8	flagsolit =1
4	else
e q	flagsplit= 0 end if
	end it
	end it
3 3 3 3 3 3	end for morning the same of th
01	if flagsplit = 1
11	re Futn false
-	else
12	return tolle
	end method.
232	Aller The April 10 to 11
	the transport of the state of t
+ + + + + + + + + + + + + + + + + + +	STATE OF THE STATE
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	P bodish -
	Analysis of the procedures
	To said to a little (10%) VIIII (20%)
	greedy_SeparationPoints ()
	- Injury the fact that
1	The greedy-separation Points () executes for
2	It also executes recursively for every
	Split.
3	Since the split is done from 0 to 9
2-1.30.10	Since the split is done from 0 to 9 it is called 1 times. i.e. noumber of
	and alle soints.
4	The function List add () has time complemity
4	0(1)
5	O(1) Also is Empty() has constant time
	at bas
	checksplit H()
1	The check colita() function is called for
	every hodizontal splitpoint to check whether
	it should be added to solution
2	line 1 takes m(1)
3	The two for loops are nested hence
	every line in this loop takes no
4	The two for loops are nested hence every line in this loop takes no Line II is a for loop will execute
	till size of the vertical list
	Hence say it size is n Everystatement
	in this loop will excent for no times.
5	line 16 to 20 runs no times.
6	Line 20 is for loop, hence statements
	Line 20 is for loop, hence statements 21 to 24 runs n³ times.

7 Line 25 to 27 dans not times.
8 Line 28 to 35 30 takes O(1) times
9 The list's get() takes O(1) time.
Hence complexity of this function is O(n) * checksplitV() This function cheeks whether vertical split line is to be added in the solution. 1 Line 1 to 3 takes O(1) 2 The for loop in line 4 has 1 initialization comparisons equal to number of points in hook solution say n.

3 Line inside for owns O(n) times (Line 5 tm 10)

4 Line 10 to 12 owns O(1) times: This function takes O(n) time. The overall complexity of the algorithm goes to nt. as separating points function i.e. greedy. Separating points () takes o(n) checksplith() takes o(n³).

Therefore total time is o(n4) If we also consider number of files say n then complexity vises to

*	Algorithm analysis using instance
*	Points 5
	Points 5 Input
	5
	1 1
	25
	3
	4 2
	5 4
	7 2 3 7 5
	V2.5
	The algorithm gives optimum solution Output
N.	Output
	A Committee of the comm
	3
	V 2.5
	h 2.5
	h 3.5
*	Algorithm fails for:
*	Algorithm fails for: The algorithm does not give optimum solution for 10 points:
n i seki	for 10 points out
at Table	It gives one point entra.
	Input
	for 10 points: It gives one split oint entra. Input 10
	1 10 13 (6) 3 (1) (1) (1)
1000	2 6
The State of	3 8
	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	5 3
	6 7
	7 2
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