

of babaston is 10 10 16 ASSIGNMENT-In in CO : 1 200 These are infinite number of states in the state space considering all positions (x, y). Although there is only one optimal path. there are an infinite number of paths to goal 6) The short distance between any two given points is always straight line. Therefore the shortest path from one polygon vester to any other in the scene must consist of straight line reguent joining some of the vertices of the polygons A good state space now would be all their pairs (x, y) where the pair in the vertex of an obstacles, the state space consists of all the vertices of the obstacles and allowers 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 1 - 2 - 4 - 8 - 9 - 5 - 10 - 11 + 3 - 6 - 12 - 13 - 1 - 15 105: 1+2+3 1-2-4+5+3-6-7 1-2-4-8-9-5-10+11 a) F(n) = { IF (n=1) THEN() FISE IF (even(a)) THEN F (FLOOR (n/2)) LEET ELF F (FLOOR (n/2) RIGHT)

3. Case 1: D2 is an elaboration of D1. D1 is extended by extending the te branch D2 is more general than D1. Case 2: D2 is an elaboration of D1. O1 is extended by extending the tre branch D2 is more specific than D1. This is not true as many tree extending the tre branch will make the original tree more specific. 7. A. Search State tool make and good orget thought A* Seasch is a form of DFS. f(n)= g(n)+ h(n) in all to grand and in A heuristic h(n) is admissable if for every node in h(n) chin where ho (n) is the tree cost to reach the goal state from 1 An admissable heuristic never overestimates the cost to reach the good. It is optimistic y h(n) is admissable. A* using tree reach is optimal. $E(s) = -5 \log 2 - 9 \log 2 9 = 0.94$ E (income = medium) = 1-2 log 2 + 4 log 4
5 b 6 126 = -[-0.528 -0.194] = 0.7233 E (income : high) = - 1 log 2 4 3 log 3 = -[-0.5-0.31m] = 0.81



	E (income = low) = D TELO = 188.0 = 18
	F (age) = 0
	(a (5, vicon) = 09, -0.54-0.39
	TYPES BUYS 2/COMPRIO - PRO = (mg/ 2/ 2)
	Employee 1 08.0 - 6182.0 - 120 - (2042.) N
	Student 4 3 tearliers att god movil
	E (type = Employee) . = thog 1 + 6 log 6
·	= [-0.401 - 0.1906] = 0.591
	doin smain
	E (type = Student) = 0.985
	THE CR BOYS
2	(Credital Ratingrand) 3 de mal mandamis
	Y N old wat onlying
	low 48.0° 0 5 of dist regarding
-	HIGH SOLD IN HOW trabak
	E (Cr = 10w) =0
	[(cr: high): - 5 log 5 + 4 log 4[-04911-0.519]
	ADM.
	= 0.991
	N N SON
	I (Age)=0
	I (more) = 4,0811 ~ 6,0.723 + 40,0 0.2317 +0.3098
	- 0.541
	2 (type)= 74 × 0.591 · 7/14 × 0.985 = 0.783
	I (Family income). O

,	
	1(cs) = 0 +9,0.991 = 0.637
	0. (100) 7
	(2 (S. Incomo) = 0.94 -0.54 = 0.39
	G (S, Type) = 0.94 -0.788=0.15 2108
	G (S, CR) = 0.94 - 0.637 = 0.30
	Income has the highest G & troball
	1 pald la plucome (marginal = gart) ?
	182.0 = [dapl. 0 - 102.0 - 1
	198.0 = [dapl.o-lar.o] =
	hume = high
	E (type : Student) & D. 985 & 6 1
	TYPE CR BUYS
	Employee Low No E(5mgh)=-1 log2 4-3 log3
	Employee Low No
	Employee High No 2 0 = 0.811
3	Student High Yes ELO:02 1 MAJOR
	CR Y N O- (sodens) 7
PR.0-111	
	High Lo,
	#P.O *
	Type 4 N
	Student 1 0 () ()]
8F08.0	l'Employee de la 300 de 180 de (unavi)
	1d20 = 41 Pl
	2 (ma): I, x 0.59 . 1/4 . 0.985 = 0.783
	O: (some dans) I



					W.		
		(INCOME)		lacome =	Medium 200		
	high	medium	Sud S		CROWN		
	1		Y		History		
	Type		L1		the horiz		
		Student	p-1	Student			
	1	1	LA	Student		N	
	No	Yes			Н	N	
			7		inkidaHA		
(- W	8 E(Smod	im) = 0.97	Tuge -2	E mon	(190A	fi Y U	
1			* 1				
	Type	YN	- SEN	(type) . 1 la	9.1-2	log 2 2	
	Employee	-12	MEDING 9 MI		Mich		
	Student		1	: -[-0.	528 - 6.38	P.O = [PP	91
Corida	1 4600)		(Ture)		(Type)		
1.00	- Aries	trob	Al I	(type) = 3 (0.917 = 0.5	502	
1			2	S			
OF A	G (Sme	dim, type)	= 04198				
	-/ \	(1	•			
	THE COL	4 601	WE(h	igh)= - 21	3 3	- لي بيا -	1.11
	High 25	2 1		[3	3, 3	3,3]	
	Low	0 2	I (ca	1= 3/5 × 1.11	: 0.16		
			G (s.	CR)= 097-	066=03	1 6	
SURPRIS DEL	(1) V milition	w= ornaval).11	mobile :	Sport Maria	(lagrange = 1)		
1 Instruction	mil 11	INCOME.	action wh	Type = emp		yper sh	trab
Huge V	high	Medium emp sh	يد المعا	1 /1/2	N Library	1.	N
U	Type		de	High 1	1 Hig	h 1	0
14	emp st	dest Ced	Dr not	whom a Dodg	J	V	ı
	10 ye			-	Loturna		
	,	Gar	inoni		,		
		W000	3600,				

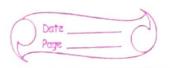
X					
	Income = 1 low mand	S 8 10	(suntal)		
) H	TYPE CR	BUYS	mailton	dish	
a.f.	Student	Ч		1	
f :	Student	N		(squit)	
}	Student 1 dH	У	trabook?	osyala nS	
<u> </u>	Student trabel	N	1	- l	
	1 H oppigned		W.	oli	
	Attaibutes	X constant			
	Age -12 Income 3	Type -2	family -13	12-CR-2-1 8	3042-2
r	-/-1			700	
	may the may have been made	OME -	10 1	- William	
A. J. N. Piller and J.	E High	Medium		Louised	
PV-70*	PPO 0 1 856 0-11 -			Andricke.	
	Employee Student Emplo	Chipe	***************************************	Credit	, 7
	1 3	spe Stuc	clent	Migh	Low
	No Yes				
		DP Chec	All ride	(Age)	No
a 1 2		Variation .		1 \	
	1 E E E E E E E E E E E E E E E E E E E	High	Low !	43 ≥4	
No.	112. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	Y3	No	YES TENT	10
Ы	1 Rank dd. 0 . pp a = (sn.	71 1	O		
υ)		(4 1 0	Λ (,		
Landreck :	(Income = High V Type =	Sucre	11 (Income = M	edium V [[type = employee
A y	V credit : high V tamil	4 mon	6 = 3P000)	In (Type	= student 4
	dia 1	LOWE - NOW	V Credit 10	alty - high	Vage 43
3	I credit Rating a law	than the	2000 XV	(0)	1.
9	omputer.	than the	person min	not by	the
		Tono: -	0	150	
		O Calif	eti Xun X til		



62	14 S- "WATER THINKS
b)	1 + (13.4.3.14.3.3) = 19657
c)	14.5.4.15.4.4 - 67200
d)	6 1 (s,0) 8 pm (01) A 20 dos 800 m)
	(~ = . You)
	soil brilloguil
	D1 10
	0 - 2 + 1 + C + S - 1
	(* * -CJ * *
	L.S. = g.V
	1= W
	BILL B B CA
	F 1- 1-
	7 - G+A - !
	1 = 9
	I se in le alle
	(Sharlw (SEA A) + 8 900 A
	\mathcal{E} \mathcal{A}
	1 03 AN
	60° Cg/2° Cg
	A SECTION AND A

ASSIGNMENT -2 1887 = (6.8 11 8 121/ 1) Au W, - + W, X + W, X = O 0000 - H. H & . H & . The line cuts at A(-1,0) and B(0,2) Slope = -2 Equation of line x2 2 -2x,+2 7-2 + 2x1 +x2-0 1 Wo = -2 W= 21 W2 =1 A B ANTB A . B11 1-A+B=0 1, -1, 1 for A-1, B=-1 Wo =-1, w, =1, W2 =-1 A XDR B = (A NTB) V (TANB)

A NOR B



43	Wo + W, X, + W, X2 > 0
	A
	$W_0 = 1$ $W_1 = 2$ $W_2 = 1$
	В
	Wo = 0 W, = 2 W2 = 1
	$(3(\langle x_1, x_2 \rangle) = 1 \Rightarrow 2x, \forall x_2 \neq 0$
	$A\left(\langle x_1, x_2 \rangle\right) = 1 \Rightarrow 1 + 2x_1 + x_2 > 0$
	y B=1, then A=1
	3 B is more generalised
	. 2
4.5	$O = \omega_0 + \omega_1 x_1 + \omega_2 x_1^2 + \ldots + \omega_n x_n + \omega_n x_n^2$
	Euros function
	E = E (+d - Od)2
,	
	Awi - ade
	dwi
	de & (td - Od) d (td - (wo+ w, w, x,2))
-	= 2 (td - Od) (- xix - x2x)