	GREEDY ALGORITHMS Page
/ +	choice that seems best at the particular moment.
15 C U	choice that seems best at the particular moment.
\rightarrow	some option tection problems have no efficient sofateions
	but a greedy algorithm may provide a solution
	that is close to optional
	A greedy algorithm coorks of a problem having the
	following two properties: 1. Greedy choice Property: A alphally aptironal solution.
	1. Greedy choice property: A globally optimal solution
4	colcetion. In other cords, an optimal colution
	can be obteeined by making "greedy" choices.
	2. Optimal Substructure: optimal solutions confuen
C	preside sab solections. In other coords, solutions to
2	cepproblem of an optional solution are optional.
	<u>하는 사람들이 많은 사람들은 사람들이 되었다. 그런 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은</u>
7 1	tel late 11 agramming we make a choice at each
10	the subproblems.
11.	
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ares 79	st at the moment and then solves the subproblem for the charce is made.
> 77	LE CHAUCOUL DECALLANDING DESTION
bu	bproblem to larger subproblems
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and	o-down fashoron (making one gready chorice after
> Exc	complet of greedy technique.
()	Activity Selection Problem elen
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(3)	Hoffman Cede.

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		ft	he	Opa	4.80	na	C	hoc	ces	ce	1	e	greedy choice	
	19	of the optional choices is the greedy choice. 4. Show that all but one of the subproblems												
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A RECURSIVE Greedy Algorithm (s)

RECURSIVE-ACTIVITY-SELECTOR (8, 8, e', j)

1. on < e+1

2. ochile on < j and Son < f: Defind the first activity

3. do on < m+1

4. of on < j

4. of on < j

5. then return famy URECURSIVE-ACTIVITY-SELECTOR

(s, f, m, j)

6. else return of

Complexity: The running time of the Call

RECURSIVE-ACTIVITY-SELECTOR(S, f, 0, n+1) is O(n)

Over all receivacive calls, each activity is examined

exactly once.

	An iterative greedy algorithm:
\rightarrow	Recursive algerithm works for any subproblems sij
	too but the exercitive adjuranthrop consider only
One of	subproblems for which j=n+1 i.e. subproblems that
	consists of the last activities to finish.
7	procedure GREEDY - ACTIVITY- CELECTOR in an
7 ·	eterative version cothere cup assumed that the
PRICE	input activities are ordered by increasing finish
	time.
	GIREEDY-ACTIVITY-SELECTOR (S.f)
	1. n + length[3]
	$2: A \leftarrow \{a, j\}$
	$3 \cdot c \leftarrow 1$
	4. for m < 2 to n
	5. do if Sm >/ f:
	6. then A←AUfamit
	7. i + m
	8. return A.
>	Complex coty:
	GREENY-ACTIVITY OF STATE
(GREEDY-ACTIVITY-SELECTOR Schedules a set
The second secon	
	if finish time.