Laboratory practice No. 5: Divide to Conquer and Dynamic Programming

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3) Practice for final project defense presentation

3.1 We use an abyacence matrix to represent the graph, since we are taking it as if it were a complete graph. The algorithm work creating some types of subsets that are saved, by generating other subsets that have the purpose of not going through the entire graph, but to go using the information I have subsets to make the algorithm much faster.

3.2 The operation of the “n”, of the order of the algorithm would have to be done (O (50 ^ 2)).

3.3 3.4 is the same question.

3.4 We use a graph (matrix) to represent the world of the robot. The algorithm seeks to find the cost of the shortest path, this is done by creating subsets that are going to be compared programmatically going through the graph (matrix).

3.5 O(n^2)

3.6 n is the size of the matrix.
graf is the graf that we represent de world of the robot

4) Practice for midterms

4.1

4.1.1

		C	A	L	L	E
	0	1	2	3	4	5
C	1	0	1	2	3	4
A	2	1	0	1	2	3

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S	3	2	1	1	2	3
A	4	3	2	2	2	3

4.1.2

		M	A	D	R	E
	0	1	2	3	4	5
M	1	0	1	2	3	4
A	2	1	0	1	2	3
M	3	2	1	1	2	3
A	4	3	2	2	2	3

4.2

4.2.1 O(x.length*y.length)
4.2.2 return table[x.length()][y.length()];

4.3

4.3.1 a) O(n)
4.3.2 d) T(n) = c1:n + c2

4.4 c) O(n^2) y se optimiza con programación dinámica

4.5

4.5.1 c) T(n) = T(n/2)+C que es O(log n)
4.5.2 return (a[mitad]);
4.5.3 return bus (a, mitad + 1, de, z);

4.6

4.6.1 scm[i] = 1;
4.6.2 scm[i] = scm[j] + 1;
4.6.3 max = scm[i];
4.6.4 c) O(n^2)

4.7

4.7.1 d[i][j];
4.7.2 d[k][j];
4.7.3 d[i][k];
4.7.4 O(n^2)

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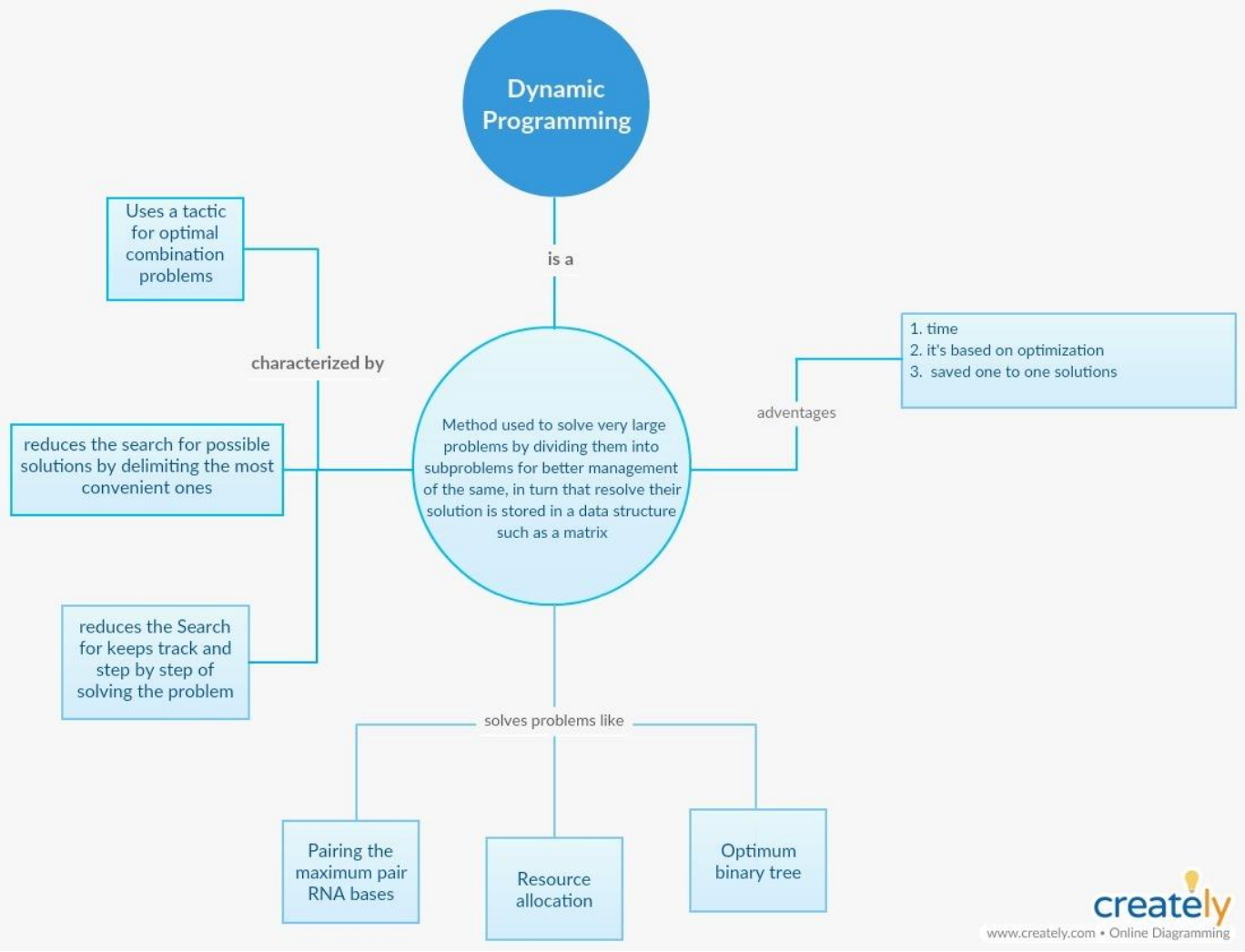
5) Recommended reading (optional)



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6) Team work and gradual progress (optional)

work hours/day	*11/04/2019*	*12/04/2019*	*14/04/2019*
1hr	*working valeria and santiago*		
3hr		*working valeria and santiago*	
2hr			*working valeria and santiago*

6.2 History of changes of the code

modifier / day	*11/04/2019*	*12/04/2019*	*14/04/2019*
Santiago	*4:42pm mofidication time*		*7:44pm modification time*
Valeria	*6:53pm modification time*	*3:15pm modification time 9:37pm modification time*	*1:56pm modification time 3:11pm modification time*

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6.3 History of changes of the report

modifier / day	***11/04/2019***	***12/04/2019***	***14/04/2019***
Santiago		***8:02pm modification time***	***11:12pm modification time 8:27pm modification time***
Valeria	***2:17pm modification time***	***7:01pm modification time***	***6:57pm modification time***

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