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Using the Binary Search Algorithm and trace table examples at the end of this document, complete the trace tables below for the Color Array. Upload this document to github and submit the link to your repository to the dropbox.

1st search: violet

First	Last	Middle	Comparison
0	10	5	violet>indigo
6	10	8	violet>red
8	10	9	violet=violet
			Return:true

2nd search: green

First	Last	Middle	Comparison
0	10	5	green<indigo
0	4	2	green>chartreuse
3	4	3	green>dark brown
4	4	4	green=green
			Return:true

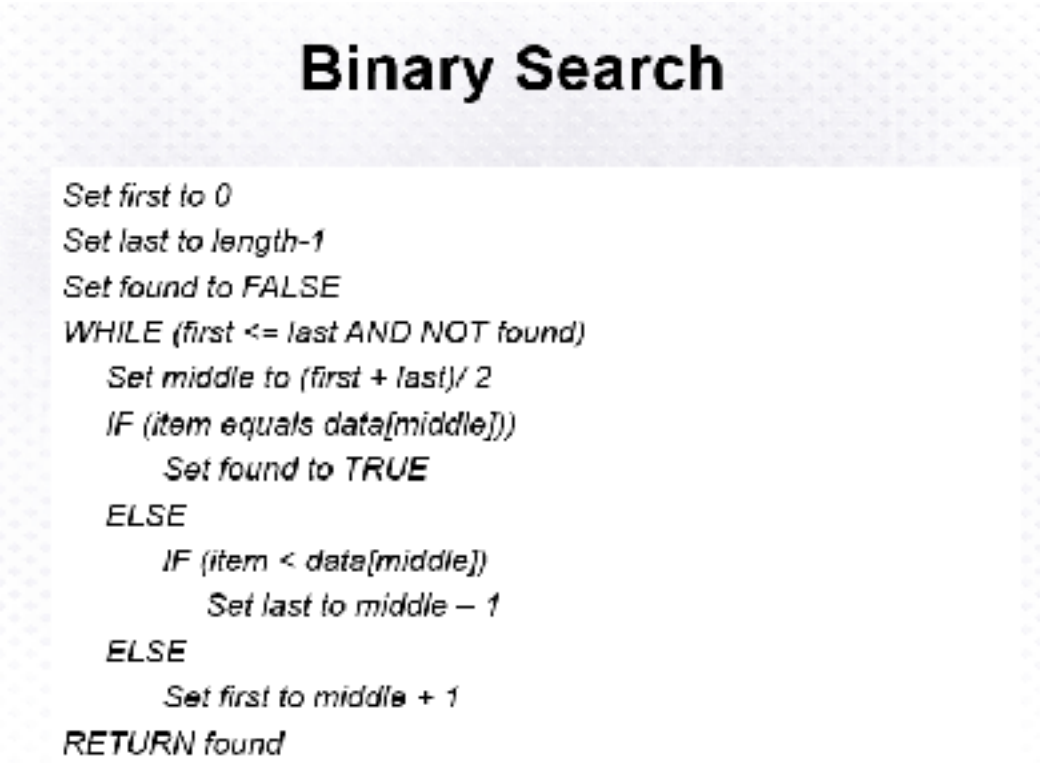
3rd search: yellow

First	Last	Middle	Comparison
0	10	5	yellow>indigo
6	10	8	yellow>red
9	10	9	yellow>violet
10	10	10	yellow=yellow
			Return:true

Color array:

aqua	[0]
brown	[1]

chartreuse	[2]
dark brown	[3]
green	[4]
indigo	[5]
lavender	[6]
magenta	[7]
red	[8]
violet	[9]
yellow	[10]



Above: Binary Search Algorithm

Binary Search

length	items	
11	ant	[0]
	cat	[1]
	chicken	[2]
	cow	[3]
	deer	[4]
	dog	[5]
	fish	[6]
	goat	[7]
	horse	[8]
	rat	[9]
	snake	[10]
	. . .	

FIGURE 7.9 Binary search example

Searching for cat

First	Last	Middle	Comparison	
0	10	5	cat < dog	
0	4	2	cat < chicken	
0	1	0	cat > ant	
1	1	1	cat = cat	Return: true

Searching for fish

First	Last	Middle	Comparison	
0	10	5	fish > dog	
6	10	8	fish < horse	
6	7	6	fish = fish	Return: true

Searching for zebra

First	Last	Middle	Comparison	
0	10	5	zebra > dog	
6	10	8	zebra > horse	
9	10	9	zebra > rat	
10	10	10	zebra > snake	
11	10		first > last	Return: false

FIGURE 7.10 Trace of the binary search