

AE2ADS

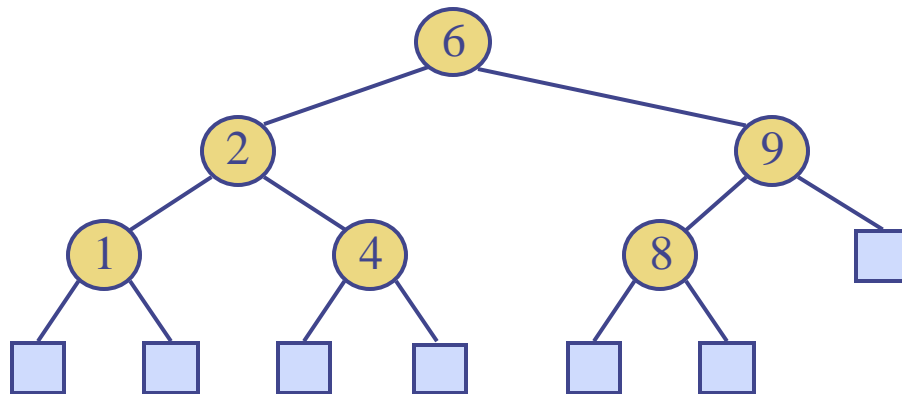
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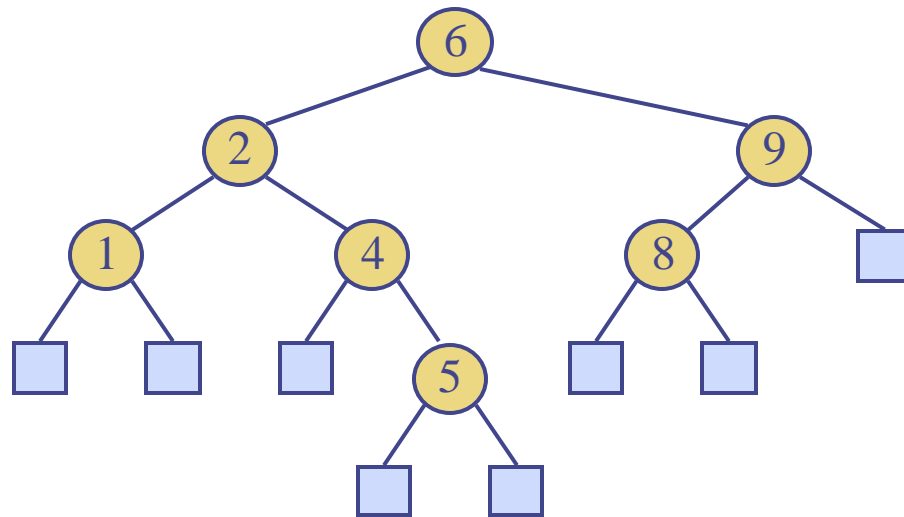
Exercise 1

What is a binary search tree? Explain and draw figures to show the process of inserting the key 5 into the following binary search tree.



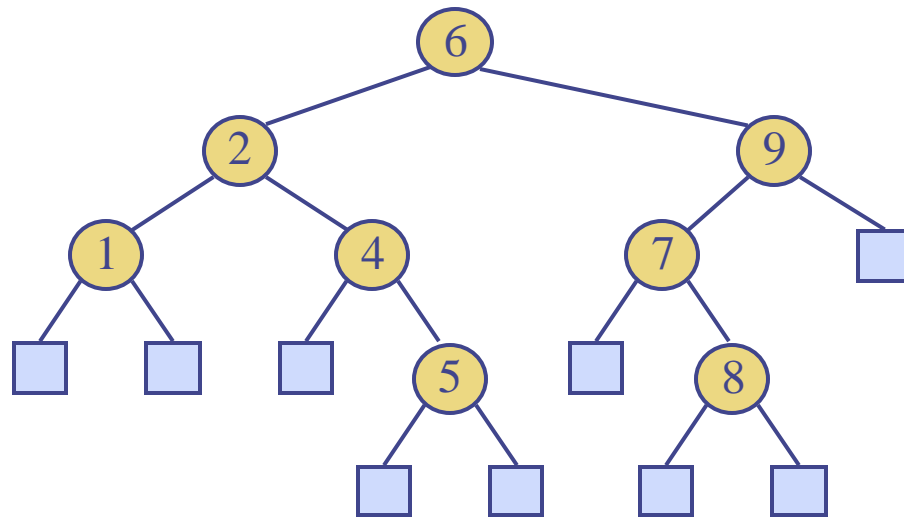
Exercise 2

Explain and draw figures to show the process of removing the key 2 from the following binary search tree.



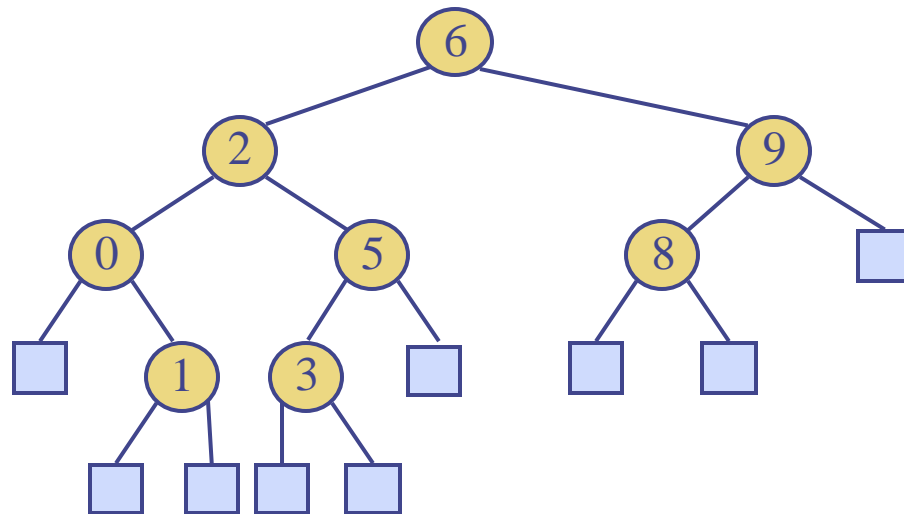
Exercise 3

Explain and draw figures to show the process of removing the key 6 from the following binary search tree.



Exercise 4

Explain and draw figures to show the process of removing the key 2 from the following binary search tree.



Exercise 5

Analyze the time complexity of inserting an entry into a binary search tree using the big-Oh notation. The time complexity of the main steps involved in the insertion process should be presented in the answer.